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2 then again during the decommissioning time  
3 period in the '90s. NIOSH expanded this class  
4 to include all workers who worked in a  
5 particular building at Chapman Valve where the  
6 radiological work was performed, and we kept  
7 the -- we took the time frame January 1st, 1948  
8 through December 31st, 1949. As you might  
9 imagine with sites that performed work this  
10 long ago, the specific dates are not  
11 necessarily evident. And so we expanded that  
12 time period to cover all possible operations at  
13 Chapman Valve. And then again we included the  
14 decommissioning and decontamination effort in  
15 the '90s.

16 There were several sources of information  
17 available to inform our evaluation. The site  
18 profile for Chapman Valve was issued on  
19 February 22nd, 2005. And I want to make it  
20 clear that while we used the site profile in  
21 our evaluation report, really what we relied  
22 upon was the documents that are summarized, the  
23 documents that we used to develop the site  
24 profile. As you've heard throughout this  
25 meeting, site profiles are living documents.

1           And that means that as we go through these  
2           processes of the site profile reviews and the  
3           SEC petition reviews, we revisit these profiles  
4           and change them as new information becomes  
5           available. But primarily we relied on the  
6           source documentation that we used to develop  
7           the site profile.

8           First and foremost, however, we relied on  
9           individual dosimetry records, both internal and  
10          external, for Chapman Valve employees. And  
11          I'll talk more about that as I progress through  
12          the presentation today. We also located  
13          several source documents in the site research  
14          database. And finally we used documentation  
15          provided by the petitioners themselves.

16          All right. I'd like to give you the status of  
17          the Chapman Valve claims. This speaks to the  
18          issue of feasibility, I believe, and these  
19          numbers are as of September 13th of this year,  
20          so just a few days ago. We -- we have approxi-  
21          - we have 124 cases that meet the class  
22          definition, and we have completed dose  
23          reconstructions for 92 of them, and that  
24          represents 75 percent of the claims that we  
25          have at Chapman Valve.

1 Now there were seven bases that formed the SEC  
2 petition. They are listed here. I'm going to  
3 go through each one of them individually, so I  
4 won't read through the whole list.

5 The first basis, the petition expressed a  
6 concern that there was an insufficient number  
7 of bioassay measurements, and also the concern  
8 was expressed that the bioassay measurements  
9 that we have did not capture the most exposed  
10 individuals at Chapman Valve.

11 Now you can see at the bottom of this slide our  
12 -- NIOSH -- our evaluation of this concern. We  
13 have 33 bioassay measurements among about 100  
14 workers. Now if you're used to thinking in  
15 terms of say a Fernald or a large DOE site like  
16 Rocky Flats, 33 is not a big number. But here  
17 we're talking about only approximately 100  
18 workers who campaign-- who operated with  
19 uranium over a seven-month period, so it's a  
20 much more limited operation. So we have 33  
21 bioassay measurements. In addition we have  
22 seven bioassay measurements which were  
23 associated with the fire, and I'll cover that  
24 in a little more detail as well.

25 So we know that from other sites, from other

1           populations, that bioassay results tend to  
2           follow a lognormal distribution. And certainly  
3           if you are looking at a lognormal distribution,  
4           a sample size of 33 out of 100 individuals  
5           represents a fairly sizeable sample, from a  
6           statistical standpoint.

7           Now the second concern involved the  
8           representativeness of the bioassay samples that  
9           we had available. And we're fortunate at  
10          Chapman Valve to have the job titles associated  
11          with the bioassay measurements that we have,  
12          and they include a range of job functions.  
13          Some of the functions that you would expect to  
14          have the highest exposures -- cinderless  
15          grinders, turret lathe operators -- and they  
16          also include some that you might expect to have  
17          lower exposures potentials -- inspectors,  
18          guards, job titles like that.

19          Now I want to point out that of the bioassay  
20          sample results that we have that are not  
21          associated with that one fire -- so I'm talking  
22          about the 33 bioassay samples now -- only one  
23          of those 33 was above the detection limit for  
24          the method that was employed at the time, that  
25          was fluorimetry, to look for uranium in urine -

1           - only one. That indicates that this was a  
2           fairly low exposure potential operation.  
3           Okay, the next concern that was expressed in  
4           the petition was that there is insufficient  
5           data to support a plausible upper bound. As  
6           you know, our rule requires that we either come  
7           up with an upper bound or a more precise  
8           estimate, and so this concern deals with  
9           NIOSH's ability or inability to bound doses at  
10          Chapman Valve. And the basis for this concern  
11          was that the petitioners felt that we had a  
12          lack of monitoring, process knowledge, and/or  
13          source term data.  
14          Now that would be a much more important issue  
15          if we were not relying directly on bioassay  
16          measurements. If we were relying on a source  
17          term calculation or on air monitoring, that  
18          would be a very important concern. But if you  
19          recall the hierarchy of data that we use in  
20          dose reconstruction, the best data that we can  
21          have is individual bioassay and dosimetry  
22          results, and we have that at Chapman Valve.  
23          Furthermore, we do have process knowledge. We  
24          know what material they were working with. We  
25          know they were working with natural uranium and

1           so that informs us on the processes that were  
2           going on at Chapman Valve. But I want to  
3           emphasize, that is trumped by the fact that we  
4           have individual bioassay and external  
5           monitoring available.

6           The next concern expressed in the petition  
7           dealt with the uranium fire that occurred in  
8           June of 1948, and the petition expressed the  
9           concern that we didn't have sufficient data  
10          regarding this incident. However, our  
11          evaluation concluded that we do in fact have  
12          sufficient data to deal with this -- what this  
13          recorded fire at Chapman Valve. We have a set  
14          of seven bioassay samples that were collected  
15          on June 11th of 1948, and they're clearly  
16          identified as individuals who were involved in  
17          responding to this fire. We do know that this  
18          event occurred in June -- in the beginning of  
19          June. Since we have bioassay samples on June  
20          11th, we can pinpoint it to a window of June 1  
21          to June 11th. That's a pretty -- that's a  
22          pretty narrow window. Certainly it would be  
23          helpful if we knew the exact day, but it's not  
24          necessary for us to know that. We can make  
25          claimant-favorable assumptions when we use

1           these bioassay results to model intakes that  
2           resulted from the fire. And I would like to  
3           point out that of those seven bioassay results,  
4           four of them were above the detection limit.  
5           And it's our -- it's our conclusion that the  
6           bioassay results that we have -- we can use  
7           that to adequately model the -- any intakes  
8           that resulted from that fire.

9           The next concern expressed in the petition  
10          dealt with enriched uranium. Now I told you  
11          that Chapman Valve worked with natural uranium  
12          to support the Brookhaven reactor. We have  
13          documentary evidence of that, so we know that  
14          they worked with natural uranium. The sole  
15          evidence for believing that they -- that there  
16          might have been enriched uranium present at  
17          Chapman Valve consists of one sample, one  
18          debris sample that was collected several  
19          decades after the conclusion of the work that  
20          Chapman performed for the Atomic Energy  
21          Commission.

22          Now we have heard from former workers at  
23          Chapman Valve that they also did radiological  
24          work for other entities, possibly the Navy. So  
25          it's not at all clear, number one, that there

1           was enriched uranium present at Chapman Valve.  
2           That's based on one single sample. But even if  
3           it was, it's not clear that that enriched  
4           uranium was present during the covered period  
5           for the covered -- the work that the Chapman --  
6           that Chapman Valve performed for the AEC. But  
7           the most important point here is that even if  
8           you throw all that aside and you assume that  
9           they did have enriched uranium at Chapman Valve  
10          during the covered period, that does not  
11          prevent us from doing dose reconstructions at  
12          sufficient accuracy. It would result in higher  
13          internal doses from -- from uptakes of this  
14          material, but that is a boundable number. That  
15          is a tractable number. We can put a number on  
16          that. So at the end of the day, even if you  
17          contend that there was enriched uranium at  
18          Chapman Valve during the covered period, we can  
19          deal with that.

20          The next peti-- the next concern expressed in  
21          the petition dealt with some specific processes  
22          that were indicated that could have or might  
23          have occurred at Chapman Valve. And the  
24          contention here is that the TBD does not  
25          account for potential exposures that might have



1           been -- that might have resulted from the  
2           operation of a cracking furnace or a chip  
3           burner, and also the same argument for  
4           potential rolling at Chapman Valve.  
5           Our evaluation of this point, and I'll repeat  
6           this point a number of times throughout the  
7           presentation, is that we have bioassay results.  
8           So no matter what processes led to the intake  
9           of that material, whether it was a cracking  
10          furnace, a chip burner, normal machining of  
11          uranium at Chapman Valve, this is reflected in  
12          the bioassay results that we have. So  
13          certainly it's important from a historical  
14          standpoint for us to put this material -- to  
15          explain this -- the operations that occurred at  
16          Chapman Valve. But at the end of the day, the  
17          important point is that we have bioassay  
18          results. And to the extent that there were  
19          exposures resulting from a chip burner, that's  
20          reflected in the bioassay results.  
21          It is also not clear to us that there -- over --  
22          - that any rolling operations ever occurred at  
23          Chapman Valve. There is an anecdotal mention  
24          of a rolling operation. But again, the same  
25          argument applies. We have bioassay results.

1           If there were rolling operations and they did  
2           result in an uptake, we see that in the  
3           bioassay results.

4           The petition also expressed the concern that  
5           there was only one day of air sampling, uranium  
6           air sampling, for Chapman Valve. And that is  
7           true. However, again, the hierarchy of data  
8           indicates that we have bioassay results and we  
9           have external dosimetry results, and that  
10          trumps air data.

11          Now we did make use of this one day of air  
12          sampling data. We looked at a document that  
13          was prepared by the Health and Safety  
14          Laboratory, HASL, that looked at the industrial  
15          hygiene of uranium handling at several  
16          different sites. They didn't explicitly  
17          consider Chapman Valve, but they looked at  
18          sites -- larger sites like Y-12 and also sites  
19          like Simonds Saw and Steel and Bethlehem Steel.  
20          We just wanted to get an order of magnitude  
21          feel for whether the results that we were  
22          seeing at Chapman Valve compared with those  
23          other sites, and we found that they do compare.  
24          They're in line with what you would expect to  
25          see for this type of an operation.

1 But I want to stress that we did not rely on  
2 this air sampling data for dose reconstruction.  
3 We relied on the personal dosimetry results  
4 that we have available.

5 The petition also expressed the concern that  
6 our TBD had an inadequate treatment of -- I'll  
7 describe it as routine uranium fires, although  
8 there are no routine uranium fires. But the  
9 fire that occurred in the beginning of June was  
10 an unusual event. It was a larger fire. As  
11 you know, uranium is a pyrophoric material, and  
12 so it's not uncommon to see small fires as it's  
13 being machined. That is certainly a  
14 significant consideration. But again, we have  
15 bioassay results. Any intakes that would have  
16 resulted from these -- from any smaller fires  
17 that might have occurred would be reflected in  
18 the bioassay results.

19 Okay. In terms of our evaluation report, as  
20 you can see on this slide, it was issued on  
21 August 31st of this year. And this should be a  
22 familiar slide to the members of the Board.  
23 This is the two-pronged test that is applied in  
24 determining our recommendation for whether or  
25 not we can feasibly reconstruct doses.

1           The first prong of that test asks whether or  
2           not it is feasible for NIOSH to estimate the  
3           level of radiation doses that members of the  
4           class received with sufficient accuracy.  If,  
5           and only if, the answer to that first prong is  
6           "no," then we move on to the second prong of  
7           the test, and that considers health  
8           endangerment for the members of the class.  
9           We concluded the answer to the first prong of  
10          that test, can we feasibly reconstruct dose, we  
11          concluded that we can.  We have sufficient data  
12          available to do that.  Therefore we did not  
13          move to the -- it was not necessary for us to  
14          consider the second prong of the test.  And  
15          here's a summary of our recommendation from the  
16          evaluation report.  You see the class  
17          summarized as workers who worked at Chapman  
18          Valve from the fir-- January 1st, 1948 until  
19          the end of 1949, and also again in the early  
20          '90s from the remediation period.  We concluded  
21          that we can feasibly reconstruct dose, so we  
22          did not move to the second prong of that test.  
23          Okay.  That is the end of the presentation.  
24          I'd be happy to entertain questions.  
25          **DR. ZIEMER:**  I think we'll go ahead before our

1 discussion and hear from the petitioners, and  
2 so let's open the phone lines for Mary Realle  
3 to present on behalf of the petitioners.

4 Mary, are you still on the line?

5 **PETITIONER PRESENTATION**

6 **MS. REALLE:** I'm still on the line and you're  
7 very, very faint. I can hardly hear you.

8 **DR. ZIEMER:** Go ahead, Mary.

9 **MS. REALLE:** Is it my turn?

10 **DR. ZIEMER:** Yes.

11 **UNIDENTIFIED:** Just go ahead, Mary.

12 **MS. REALLE:** Okay. This is Mary Ann Realle,  
13 and I'm here with Darlene Ryan, who is our  
14 second petitioner, and also Aaron Wilson, who  
15 is the Executive Director for Western Mass.  
16 Coalition for the Occupational Safety and  
17 Health. I have a little -- I want to thank the  
18 Advisory Board and NIOSH for allowing to speak  
19 today on behalf of Chapman Valve Families for  
20 Justice with respect to the SEC evaluation  
21 report.

22 My father was a grinder operator in Building 23  
23 at Chapman Valve, which is the building in  
24 which the AEC-owned uranium was machined by  
25 Chapman Valve. My father had cancer and was

1 unmonitored for radiation exposure.

2 At the outset let me also thank Senator  
3 Kennedy, Senator Kerry and Congressman Neal and  
4 their respective staffs for their steadfast  
5 support in working through this process.

6 Without them, claimants would have had no --  
7 nowhere in government to turn for assistance in  
8 what is a complex, daunting and bureaucrat --  
9 bureaucratic process.

10 With respect to the timeliness of the SEC  
11 process, I want to note that NIOSH failed to  
12 issue an SEC evaluation report by the May 9th,  
13 2000 -- 2006 deadline, which is the 180 days  
14 from the date the petition qualified, as set  
15 forth in the NIOSH interim final regulation.  
16 Instead, NIOSH took nearly ten months to  
17 provide SEC evaluation report which delayed  
18 disadvantaged us as claimants since we lack the  
19 sources and resources to travel to Nevada for  
20 their meeting today, whereas we could have  
21 attended the Washington, D.C. meeting held back  
22 in June, 2006 had there been a timely issuance  
23 of a report.

24 Further, we would have welcomed the assistance  
25 from NIOSH with this process. We have limited

1 data to work with beyond the provided by the  
2 DOE under the Freedom of Information Act. We  
3 have limited technical resources to address the  
4 health physics issue and would welcome some  
5 neutral technical assistance.

6 Finally, I assume that the SEC council  
7 appointed by NIOSH must be very busy because we  
8 have no information on the status of our  
9 petition, had no assistance in preparing for  
10 today, and had to pry the SEC report out of  
11 NIOSH in late August, even though it report we  
12 have this document in hand for several weeks.  
13 We are grateful that Mr. Sundin provided us  
14 with a phone number so that we could at least  
15 call in to this meeting. Mr. Sundin, thank you  
16 for that accommodation.

17 Chapman Valve families met with NIOSH on  
18 February, 2005 to provide detailed comments on  
19 the draft site profile. These included (1)  
20 failure to account for enriched uranium which  
21 was found at Oak Ridge National Lab --  
22 Laboratory; (2) the failure to account for  
23 uranium chip incinerator which is a source of  
24 uranium smoke; and (3) the lack of  
25 representative bioassay data upon which to

1           build a coworker model for internal dose; and  
2           (4) the lack of knowledge on assigning the data  
3           -- the date, I'm sorry, of the uranium fire  
4           which occurred in May or June, 1948. NIOSH  
5           issued the site profile the next day, February  
6           15th, and never accounted for any of our  
7           comments. And it's been suggested that the  
8           reason for overlooking my technical information  
9           is that the Oak Ridge Associate University  
10          (sic) had to meet certain milestones to earn  
11          its award fee for the period ending in mid-  
12          March, 2005. You would think that NIOSH would  
13          have reduced their award fee for failing to  
14          account for claimant input instead.  
15          We note, however, that the Department of Labor  
16          has remanded Chapman Valve dose reconstruction  
17          cases back to NIOSH because NIOSH failed to  
18          account for the same data in their dose  
19          reconstructions. Apparently DOL did not find  
20          our concerns as meritless as NIOSH and ORAU.  
21          Only five of 106 claims filed at Chapman Valve  
22          and submitted to NIOSH for dose reconstruction  
23          have internal bioassay dose data, according to  
24          the SEC report. This means that the other 101  
25          claims must rely on the coworker model and the



1 site profile for exposure estimates. In  
2 theory, this approach could be made to work.  
3 However, the NIOSH coworker model is based on  
4 unrepresentative data. The data is  
5 unrepresentative because it's based on cohort  
6 sampling. Only a few workers, 32 in all, had a  
7 routine bioassay sample. Seven others were  
8 monitored on June 11th, 1948 after a uranium  
9 fire. NIOSH concedes on page 33 of the SEC  
10 report that the exact selection criteria is  
11 unknown, but then it makes a fabulous leap of  
12 faith and concludes that the sampling  
13 (unintelligible) of the most exposed workers,  
14 which report states samples were typically  
15 collected from workers who were thought to have  
16 the greatest likelihood of exposure.  
17 Members of the Board, I have been advised by  
18 Senator Kennedy's office, which has reviewed  
19 this exposure data, that the most exposed  
20 workers as determined by the results from our  
21 weekly film badge readings were not monitored.  
22 I have not seen (unintelligible) data, but I  
23 imagine that you as Board members have the  
24 right to see such (unintelligible) protected  
25 information can see this data. It needs to be

1 looked at by more than NIOSH staff or its  
2 contractor. NIOSH does say the basis for how  
3 it jumped to a conclusion that most exposed  
4 workers were monitored. If (unintelligible due  
5 to interference on telephone line) was  
6 monitored, there is no protocol that I can  
7 find.

8 Frankly, it appears as if NIOSH  
9 (unintelligible) and ignored the data  
10 (unintelligible) and further presented by  
11 petitioners demonstrating that cohort sampling  
12 was used at this site. Cohort sampling was  
13 common during the early years of the AEC.  
14 During the deliberations on the Iowa Ordnance  
15 Plant SEC NIOSH was first to admit that cohort  
16 sampling was used and it was not representative  
17 of the most exposed workers. Some of the NIOSH  
18 staff who reviewed the Chapman Valve SEC  
19 evaluation report were also involved in the  
20 Iowa SEC evaluation report. The fact  
21 (unintelligible) NIOSH staff seems to be  
22 repeating (unintelligible) particular error.  
23 Worker exposure from the uranium -- uranium --  
24 uranium incinerator at Chapman Valve is glossed  
25 over and NIOSH asserts that the exposures from

1 the incinerator would be reflected in coworker  
2 data. It is unknown what (unintelligible) the  
3 incinerator operated, and routine bioassay  
4 samples were taken on only three occasions.  
5 Uranium incinerators tend to be batched  
6 operations and the days of operations are not  
7 available. NIOSH was unable to match the date  
8 of the incinerator operations with the workers  
9 employed on those days and whether any of those  
10 around the incinerator had bioassay samples.  
11 Thus NIOSH's SEC evaluation report contains  
12 uninformed speculation when it asserts that  
13 workers would have received bioassay samples on  
14 the day that they were exposed to the  
15 incinerator operations. NIOSH clearly lacks  
16 enough information to bound the  
17 (unintelligible). NIOSH asserts that it  
18 compared the incinerator data from the  
19 (unintelligible) Pennsylvania with the data at  
20 Chapman Valve. I did not know if the Numec  
21 data was higher or lower than what was released  
22 (unintelligible) Chapman Valve. I would  
23 respectfully request that the Board review  
24 (unintelligible) and assumptions  
25 (unintelligible) cracking furnace at Chapman

1 Valve which deposited large amounts of uranium  
2 out of stack through the roof (unintelligible)  
3 furnace were not accounted for in the site  
4 profile. We do not know how often the cracking  
5 furnace operates. We do know it is separate  
6 from the incinerator. NIOSH asserts that the  
7 heat treaters would have been working around  
8 the cracking furnace without providing any data  
9 that this is the job title applied to those  
10 working in this area. We respectfully request  
11 that the Board (unintelligible) two sources of  
12 airborne uranium with all other sources, such  
13 as lathe operations, grinding, uranium fires,  
14 et cetera.

15 There is no (unintelligible) of the  
16 (unintelligible) of 2.68 percent  
17 (unintelligible) enriched uranium that was  
18 found by Oak Ridge. NIOSH asserts in its site  
19 profile that only natural uranium was used at  
20 Chapman Valve. NIOSH says that the presence of  
21 the enriched uranium will not affect the  
22 ability to (unintelligible) maximum plausible  
23 dose, although they concede that the enriched  
24 uranium will increase the dose, compared with  
25 natural uranium. NIOSH staff has contended in

1 public forums that there was no enriched  
2 uranium at this site, only natural uranium, and  
3 that the results from the Oak Ridge survey of  
4 Chapman Valve that found enriched uranium was  
5 anomalous. NIOSH has -- NIOSH made no effort  
6 in this SEC evaluation report to resolve that  
7 question. NIOSH cannot say it doesn't believe  
8 enriched uranium was present where there is  
9 hard data to establish this fact. And it  
10 cannot say it doesn't matter to the SEC  
11 evaluation report and there -- and then not  
12 accounted for in dose reconstruction. We think  
13 that NIOSH cannot have it both ways. NIOSH has  
14 failed to provide proof of process that it can  
15 reconstruct dose using enriched uranium because  
16 it has not revised its site profile to show  
17 which worker would receive a dose from enriched  
18 uranium. Absent such proof of process, doses  
19 are being underestimated. This assertion that  
20 maximum dose can be estimated has not been  
21 demonstrated.

22 In conclusion, we ask that the Board -- to  
23 review the raw data to understand the basis of  
24 our contentions. We would be grateful if you  
25 would -- if you could assign the auditor

1 contractor, Sanford Cohen & Associates, with  
2 the task of reviewing SEC evaluation report.  
3 Further, it would make sense to withhold  
4 judgment until presents its revised site  
5 profile, which it told Congress it would be  
6 going -- it will be issuing in the future.  
7 On behalf of the many families here in the  
8 (unintelligible) area of western Massachusetts,  
9 thank you for listening to my statement. And  
10 now at this time, Mr. Chairman, with the  
11 Board's permission, please allow me to  
12 designate Richard Miller of the Government  
13 Accountability Project to assist in the  
14 presentation from the petitioners if there is  
15 something I have left out. I hope he's in the  
16 audience today. Thank you very much.

17 **DR. ZIEMER:** Yes, indeed, Richard Miller is  
18 here today. And Richard -- I'm looking --  
19 there you are. Do you have anything to add at  
20 this point on -- as -- for -- on behalf of the  
21 petitioners?

22 **MR. MILLER:** Dr. -- hello. Dr. Ziemer, if it  
23 would be possible, I think there are other  
24 people on from Congress that are probably on  
25 the telephone, and maybe it'd be better to have

1           them go first.

2           **DR. ZIEMER:** Okay. We -- we do have a  
3           statement from Senators Kennedy, Kerry and  
4           Neal. I believe that's going to be read into  
5           the record. Jason will come to the mike a read  
6           that on their behalf.

7           **MR. BROEHM:** Hi, Jason Broehm from the CDC  
8           Washington office. And actually before I read  
9           this statement, Richard is correct that Portia  
10          Wu from Senator Edward Kennedy's office is on  
11          the phone, and William Powers from  
12          Representative Richard Neal's office is on the  
13          phone. And Mirah Horowitz from Senator John  
14          Kerry's office I understand was planning to be  
15          on the phone but had -- had something come up  
16          at the last minute and is unable to join us, so  
17          they would like -- Portia and William would  
18          like to make a few remarks before I start the  
19          letter.

20          **DR. ZIEMER:** Yes, certainly. Do -- do either  
21          of you wish to make remarks before the  
22          Senators' or the Congressman's letter is read  
23          into the record?

24          **MS. WU:** Hello, this is Portia Wu with Senator  
25          Kennedy's health committee's staff. First of

1 all, I want to express our appreciation to the  
2 Board and also to NIOSH. We -- with Senator  
3 Kennedy being the ranking member on the health  
4 committee, we work very frequently with Dr.  
5 Howard and with NIOSH, and we appreciate all  
6 the good work they do on many -- many issues  
7 that we cooperate with them on.

8 In addition, Senator Kennedy was one of the  
9 original members who worked on EEOICPA and on  
10 working to get compensation for sick Energy  
11 workers, and it's very important. Though I  
12 recognize the Chapman Valve site may not be as  
13 large as many of the other sites, or as famous,  
14 that they -- those workers and their health is  
15 no less important to us than at any other site.  
16 And it's obviously particularly important  
17 because they're from Massachusetts.

18 There are a number of concerns that we have  
19 elaborated in greater detail in our letter, and  
20 I thank Jason for reading the letter. It is  
21 somewhat lengthy, and because the connection on  
22 this phone isn't the best, I'd prefer that it  
23 read in the room where -- where the members are  
24 present -- members of the Board are present so  
25 they can hear it clearly. I do want to stress



1 a couple points and most -- most importantly  
2 that we think there are some concerns we have  
3 with the report, particularly the  
4 representativeness of the data, and we  
5 elaborate on those points more fully in the  
6 letter. Specifically, the last few bioassay  
7 samples that were taken, although we recognize  
8 that data is important, really were not  
9 representative of the highest exposed workers  
10 and there were only a handful of workers in the  
11 last two samples.

12 And because of all the questions about the data  
13 and the lack of information about many of the  
14 processes that workers may have been exposed  
15 to, the concerns about the representativeness,  
16 enriched uranium and many other process issues,  
17 we also would request the Board look at this  
18 more closely. In reviewing the raw data that  
19 we got very recently, we felt like there were a  
20 lot of questions that are -- should be raised  
21 and ask that the Board look at that  
22 information.

23 Bill?

24 **MR. POWERS:** Yes, Bill Powers here. I'm  
25 counsel to Congressman Neal. I'd echo Portia's

1           sentiments. I think the letter will speak for  
2           itself obviously. Obviously it's going to be  
3           (unintelligible) significant issues here that I  
4           think are raised. I do want to thank the Board  
5           for obviously taking the time to -- to look at  
6           this. I additionally would -- would like to  
7           commend Ms. Realle and Mr. Ryan for an eloquent  
8           resuscitation (sic) of -- of really where --  
9           where we think this should be going at this  
10          point and commend them for really hanging in  
11          here and presenting the -- the data they did  
12          today. And I would ask the Board to really  
13          take a look -- issues workers I think here  
14          today are raising.

15         **DR. ZIEMER:** Okay. Thank you both very much  
16         for those comments, and we will now proceed  
17         with the reading of the letter from Kennedy,  
18         Kerry and Neal. Jason?

19         **MR. BROEHM:** Okay. Well, I think you should  
20         all have copies of the letter sitting in front  
21         of you, but to get this into the record, it  
22         reads:

23                 (Reading) Dear Dr. Ziemer: We write to express  
24                 our support for the Special Exposure Cohort  
25                 Petition, file number 012-05-3653, filed by

1 former employees at Chapman Valve Manufacturing  
2 Company in Springfield, Massachusetts and their  
3 survivors. Outlined below are issues that we  
4 ask the Board to consider. A number of the  
5 issues involve highly technical matters and we  
6 respectfully suggest that the Board consider  
7 engaging its technical support contractor to  
8 assist in its review.

9 Congress passed the Energy Employees  
10 Occupational Illness Compensation Program Act,  
11 EEOICPA, in 2000 to ensure that nuclear energy  
12 workers would be compensated for illnesses  
13 caused by exposure to radiation and other toxic  
14 substances. These unsung heroes of the Cold  
15 War helped to build our nation's arsenal. In  
16 many cases their work was performed in top-  
17 secret conditions, and the extremely dangerous  
18 nature of their jobs was concealed from them.  
19 For the most part, exposure monitoring was  
20 inadequate. It is often very difficult, if not  
21 impossible, to establish the level of radiation  
22 exposure for each worker. EEOICPA addressed  
23 this problem by allowing workers and their  
24 survivors to petition to become members of the  
25 Special Exposure Cohort when it is not feasible

1 to estimate radiation doses with sufficient  
2 accuracy.

3 Chapman Valve machined uranium for the Atomic  
4 Energy Commission, AEC, in 1948 and 1949.  
5 Their employees were exposed to radioactive  
6 materials in the course of this AEC-related  
7 work. Cleanup activities took place from 1991  
8 to 1994 under the Department of Energy's  
9 Formerly Utilized Sites Remedial Action  
10 Program.

11 The SEC petition for these Chapman Valve  
12 workers was submitted on August 15th, 2005;  
13 qualified on November 9th, 2005; and the SEC  
14 evaluation was due, under the terms of NIOSH's  
15 Interim Final Rule, on May 9th, 2006. We  
16 received the NIOSH SEC evaluation report on  
17 August 31st, 2006, more than three months after  
18 the 180-day deadline established under EEOICPA.  
19 The evaluation report concludes that it is  
20 feasible to complete dose reconstructions with  
21 the data that has been recovered for this site.  
22 We have serious questions about the basis for  
23 this conclusion.  
24 NIOSH is relying upon the February 22nd, 2005  
25 site profile, ORAU-TKBS-0033, for the Chapman

1 Valve site as the basis for concluding that it  
2 is feasible to reconstruct the dose for these  
3 workers. That site profile was issued only one  
4 day after a public meeting with former workers  
5 in February, 2005. At that meeting NIOSH  
6 received numerous pieces of evidence and  
7 testimony regarding the activities at the  
8 plant. Since the site profile was issued the  
9 next day, it could not have incorporated the  
10 evidence from that meeting.

11 We have been advised by NIOSH that the agency  
12 intends to revise the site profile. We applaud  
13 that -- this decision. In light of this  
14 planned revision, however, we find it curious  
15 that the evaluation report would be issued  
16 based in substantial part on analyses from the  
17 existing site profile. While NIOSH states  
18 these -- states these changes to the site  
19 profile will not make a difference in the SEC  
20 evaluation report, we have difficulty  
21 understanding how this could be the case. At a  
22 minimum, the petitioners should be allowed to  
23 see the revised site profile and to review it  
24 in conjunction with the evaluation report to  
25 make appropriate comment.

1 We are also deeply concerned about the  
2 conclusions reached by the evaluation report.  
3 Under EEOICPA, NIOSH has the burden of  
4 demonstrating that the data is representative  
5 of the highest exposed individuals at a work  
6 site, and the Board has adopted evaluation  
7 criteria regarding these workers.  
8 And quoting number 4, consideration of data and  
9 data subsets, NIOSH must demonstrate that there  
10 are sufficient data, e.g., is the sample size  
11 adequate, and that the data are representative  
12 of the highest exposed individuals within the  
13 class. This may involve looking at subsets of  
14 larger exposure data sets. Often these subsets  
15 are less comprehensive for a given time period,  
16 usually earlier years. NIOSH should assess how  
17 robust these data or data sets are for the  
18 purposes of dose reconstruction. In answering  
19 this question NIOSH should consider whether  
20 they can determine the representativeness of  
21 the data. Some questions which should be  
22 considered in evaluating representativeness  
23 include (1) are the data from the site in  
24 question, from a surrogate site, or both; (2)  
25 if from surrogate site, have these data been

1           appropriately evaluated and have the  
2           uncertainties due to extrapolation from another  
3           site been accounted for; (3) do they represent  
4           the highest exposed individuals; (4) do they  
5           represent the entire exposed cohort; (5) do  
6           they represent all workers ever on the site;  
7           (6) are the data from cohort type sampling; and  
8           (7) can the data be interpreted in a way to  
9           ensure that the maximum plausible dose can be  
10          determined.

11          That's end quote.

12          While NIOSH states that it, quote, did identify  
13          employees at the facility during this time  
14          period for which complete dose reconstruction  
15          would be feasible, unquote -- that's from the  
16          evaluation report, page 37 -- we have serious  
17          concerns about this conclusion with respect to  
18          all members of the class. Indeed, the  
19          Department of Labor has recently remanded a  
20          number of cases to NIOSH for additional study  
21          based on inadequacy of the data.

22          We are particularly concerned that data relied  
23          upon for the evaluation report is not  
24          representative of the maximally -- maxi--  
25          maximally exposed individuals in the class.

1           This concern arises from our review of the raw  
2           data that we recently received from NIOSH  
3           regarding workers' exposure at Chapman Valve.  
4           A few key -- a free -- excuse me, a few key  
5           issues arose from our review.  
6           First, records indicate that routine monitoring  
7           for uranium intake took place on only three  
8           occasions, July, September and October of 1948,  
9           and involved only 33 samples covering 32  
10          workers. Chapman Valve used cohort sampling,  
11          covering a range of job classifications, rather  
12          than sampling only the most exposed workers.  
13          NIOSH concedes in its SEC evaluation report  
14          that the, quote, exact selection criteria is  
15          unknown, unquote. Samples were taken from only  
16          six and five workers in September and October,  
17          respectively, and none of the workers monitored  
18          in October were production workers who faced  
19          the greatest risk. Instead, bioassays were  
20          concentrated in non-production workers such as  
21          the associate director for research, foremen,  
22          personnel managers, chief electricians,  
23          engineers, inspectors and others who would have  
24          had far less opportunity for internal radiation  
25          exposure at this facility. Such samples



1 clearly would not reflect the highest exposures  
2 at the plant.

3 Second, Chapman Valve also did not take  
4 bioassay samples from the individuals with the  
5 four highest film badge readings, which reflect  
6 high levels of external exposure. These  
7 readings were 650, 555, 500 and 500 mr per  
8 week. The routine bioassay samples did not  
9 include these maximally exposed individuals.

10 In addition, there was only one incident  
11 monitored, a fire presumed to be in early June,  
12 1948. Samples were taken from seven workers on  
13 June 11th, 1948, five of whom had elevated  
14 urine -- elevated uranium in urine readings.  
15 Only two workers involved with fire and its  
16 cleanup were re-sampled, both guards. Their  
17 bioassay readings were the same or higher a  
18 month later. NIOSH assumes the fire occurred  
19 on June 10, but the date of the fire remains  
20 unknown, despite extensive efforts by the  
21 Chapman Valve families to ascertain the date  
22 through archival research. We believe this  
23 uncertainty should be reflected in the  
24 estimation -- estimations of the monitored  
25 workers so there is no possibility of an

1           underestimate of the uranium intake of these  
2           workers. In addition, uranium machining  
3           facilities are known to have frequent fires,  
4           yet workers were only sampled after one  
5           particular incident. NIOSH therefore simply  
6           does not have data that reflects other  
7           potential exposures.

8           Finally, NIOSH has failed to explain how it  
9           accounted for the work history of those  
10          individuals with bioassay samples, nor has it  
11          adequately indicated how it assessed the  
12          duration of time between when the workers were  
13          exposed and when the bioassay samples were  
14          taken. In light of these shortcomings, we fail  
15          to see how NIOSH can conclude that it has  
16          representative data from which it can develop a  
17          plausible upper bound dose estimate.

18          In addition to these specific concerns  
19          regarding the analysis of worker monitoring  
20          data relied upon in the evaluation report, we  
21          also have reservations about NIOSH's treatment  
22          of other factors contributing to workers'  
23          exposure.

24          For example, Oak Ridge National Labs documented  
25          the presence of 2.16 percent enriched uranium

1 at the Chapman Valve site. However, this is  
2 not explained in the site profile or the SEC  
3 evaluation report. As part of a radiological  
4 survey tied to the environmental cleanup  
5 program in the 1990s, the Labs performed an  
6 isotopic analysis on two uranium samples. One  
7 of the two samples was positive for enriched  
8 uranium. Despite this evidence, the NIOSH site  
9 profile assumes only natural -- natural uranium  
10 was processed. NIOSH has failed to explain how  
11 it will account for enriched uranium in dose  
12 reconstructions, given the lack of data on the  
13 amount of material and on the processes used to  
14 handle it. Nor has it shown how it will avoid  
15 underestimating workers' potential exposures to  
16 enriched uranium.

17 Also, the cracking furnace and uranium chip  
18 incinerator operations, which may have been  
19 intermittent and had high exposure potential,  
20 appear not to be adequately addressed in the  
21 report. They were also overlooked in the site  
22 profile. Furthermore, although the stipulated  
23 time period for operations was not long,  
24 documents indicate potential for widespread  
25 exposures, such as through contamination

1 spreading from the production area into the  
2 lunchrooms. After the Chapman Valve site had  
3 ceased production and the scrap and waste had  
4 been shipped away, the site had to be washed  
5 down several times. Even with this washing,  
6 residual contamination remained embedded in the  
7 building.

8 For the above reasons, we have serious  
9 questions about NIOSH's conclusion that the  
10 handful of production worker bioassays is  
11 representative and from this that it is able to  
12 develop a plausible upper bound dose estimate.  
13 In light of these concerns, we respectfully  
14 urge the Board to carefully review this SEC  
15 evaluation report and the raw data relied upon  
16 by NIOSH. Again, in reviewing the technical  
17 issues we urge the Board to assign a review of  
18 the evaluation report by audit contractors, as  
19 it did in the SEC petitions at Iowa Ordnance  
20 Plant, Mallinckrodt Chemical, Rocky Flats, and  
21 Oak Ridge Y-12.

22 Sincerely, Edward M. Kennedy, John F. Kerry,  
23 and Richard E. Neal.

24 **DR. ZIEMER:** Thank you very much for reading  
25 that into the record for us. Now I'll give Mr.

1 Miller an opportunity, if he has additional  
2 comments on behalf of the petitioners, to add  
3 to the information. And then we will open the  
4 floor for Board discussion.

5 **MR. MILLER:** Thank you, Dr. Ziemer. This is  
6 Richard Miller from the Government  
7 Accountability Project. I won't restate any of  
8 the arguments that have been made here. I just  
9 wanted to supplement several technical points,  
10 the first of which is dealing with the enriched  
11 uranium. What the origins of that enriched  
12 uranium are are unknown. What we do know is  
13 that the dose reconstructions that have been  
14 done to date do not account for enriched  
15 uranium, and so NIOSH can't really have it, as  
16 the petitioners said, both ways.  
17 I think Brant Ulsh in his presentation  
18 suggested that perhaps this enriched uranium  
19 didn't arise out of this project, that it arose  
20 out of another project. And that is a  
21 possibility. The -- the contracting  
22 information at this site is -- is pretty  
23 sketchy, although there's some shipment and  
24 receipt data of -- of the uranium coming in and  
25 leaving, as well as the scrap material. If the

1           -- the enriched uranium couldn't possibly, as  
2           the SEC evaluation report suggests on page 35,  
3           to have been, quote, attributable to background  
4           levels. I'm not aware of any enriched uranium  
5           occurring in nature.

6           The second is is that if this did arise,  
7           perhaps say from a Naval reactors program, and  
8           I'm not suggesting that it did 'cause I don't  
9           know, it's very important to note that the 2004  
10          amendments to the Defense Authorization Act  
11          define what a radiation dose is. And in those  
12          amendments it makes clear that although Navy  
13          reactor programs do not count with respect to  
14          the dose at Department of Energy facilities,  
15          they do count at Atomic Weapons Employer  
16          facilities. And so one cannot simply bypass  
17          conveniently that provision of law in  
18          accounting for dose. And just to underscore  
19          this knowledge that NIOSH already has, they are  
20          accounting for some of that dose on sites such  
21          as the Erwin, Tennessee facility where you have  
22          a co-production operation involving Naval  
23          reactor operations. So I just would bring that  
24          to your attention, that that's not to be  
25          something that can be explained away.

1           The other is is that when you're dealing with a  
2           small number of data points, your -- your --  
3           your curve -- if you're going to do a coworker  
4           model and you're going to look at the upper  
5           95th percentile, you better have a pretty  
6           representative data set because the -- the laws  
7           of num-- small numbers also cut against you.  
8           And in this particular instance, what I've been  
9           advised -- and again, I have not seen the raw  
10          data and -- and I -- and I would repeat what  
11          Senator Kennedy's staff urged, which is let's  
12          get somebody who can look at the raw data to  
13          look at it. Senator Kennedy's staff advised  
14          that there is a job classification not even  
15          mentioned in either the site profile or the SEC  
16          evaluation report that represented the highest  
17          exposed individuals from film badging, and that  
18          job category was a brusher. Now I don't know  
19          exactly what a brusher did, but one could  
20          imagine you were running a wire brush over  
21          uranium, you're generating an awful lot of  
22          particulate material. And if that's what they  
23          were doing, and if as Senator Kennedy's staff  
24          has indicated, the most exposed individuals  
25          with respect to film badge were not the people

1           who were bioassayed, how can you develop a --  
2           any confidence that your upper 95th percentile  
3           is in the realm of plausibility? It's just  
4           simply not. And so we would respectfully  
5           request that if you are going to develop a  
6           model and you're going to use the most exposed  
7           individuals, you better be sure you got them  
8           for the bioassay and that they match up. Now  
9           if they do match up, there's been nothing  
10          demonstrated in the site profile or in the SEC  
11          evaluation report which indicates that the most  
12          exposed individuals as measured by weekly film  
13          badge in any way, shape or form were  
14          bioassayed.

15          In addition, I wanted to just talk a little bit  
16          about the date of the fire, not that it's a  
17          huge issue, but as a footnote. The -- the fire  
18          -- the bioassays for the fire occurred on the  
19          11th of June of 1948. The date of the fire is  
20          unknown. I don't know what the date is and I  
21          know that the petitioners went through some  
22          exhaustive efforts to try to find this out  
23          because the levels of dose for some of the  
24          individuals who would have fought the fire or  
25          did the cleanup work afterwards were



1 significantly elevated. They got a good --  
2 they got a good intake of uranium. And so what  
3 they did was they had gone through the  
4 newspaper archives. They interviewed the on-  
5 site firefighter workforce. They sought to go  
6 to the Springfield Library to look at the  
7 annual reports for Chapman Valve Company, which  
8 is a very prominent employer in the area. And  
9 nobody could possibly find any date, any  
10 document that the fire existed other than these  
11 AEC bioassay samples that had been sent I think  
12 to Rochester. But we did ask NIOSH to run a  
13 little intake calculation, and the difference  
14 in dose -- which anybody who I guess looks at  
15 an excretion curve for say a moderately soluble  
16 intake of uranium -- that just merely being off  
17 by a week involves a 50 percent change in the  
18 amount of uranium intake for the individual.  
19 So I think that it's important that if one's  
20 going to use the data, you ought to assign some  
21 conservatism to the date that you assume the  
22 fire took place, rather than just simply say  
23 well, it's in a range.  
24 Oh, and then the last point is this, that with  
25 respect to the -- the -- the basic contention

1           that is made here, which is is that no matter  
2           what happened at the facility, bioassay would  
3           have captured it. One has to look at when the  
4           dates of the bioassay occurred. So leaving  
5           aside the issue that the most exposed  
6           individuals weren't sampled, the other question  
7           is if events were there would the general  
8           bioassay program capture it. And given the  
9           fact that you only had a few production workers  
10          in total that were sampled, of the 17 samples  
11          that show detectable levels out of the 33 that  
12          were taken from the routine program, the -- the  
13          question is if you had an event, like an  
14          operation of the incinerator, which puts out  
15          profuse amounts of smoke, and you -- that took  
16          place before the person was bioassayed, you'd  
17          capture it. But if it took place after the  
18          bioa-- af-- if that -- if that -- if that  
19          operation of that batch incinerator took place  
20          afterwards, it wouldn't capture it. So the  
21          question is, if you know the date, you can  
22          correlate it, then you can make that statement.  
23          But it seems to me that there's an awful --  
24          there's an awful lot being taken on faith here  
25          with respect to the assumptions that the

1 bioassay automatically would have acted as an  
2 umbrella and captured all of the relevant  
3 events.

4 Those are my remarks. Thank you, Dr. Ziemer  
5 and thank you, Board members.

6 **BOARD DISCUSSION**

7 **DR. ZIEMER:** Thank you, Richard. We're now  
8 going to open the floor for Board discussion  
9 and questions. I'm going to lead it off. I  
10 want to ask a couple questions and Brant, if  
11 you would approach the mike, could you clarify  
12 for us the -- the 30 -- how many samples, was  
13 it 33 -- 33 samples. It wasn't quite clear to  
14 me how many individuals did -- was that 33  
15 individuals or 32 individuals, or -- it was not  
16 quite clear.

17 **DR. ULSH:** Dr. Ziemer, that was 33 individual  
18 bioassay samples. I would have to go back and  
19 count -- I'll -- I'll go with the number that I  
20 think was expressed in the letter from the  
21 Congressional people that it was 32.

22 **DR. ZIEMER:** Thirty-two, okay.

23 **DR. ULSH:** I'm going by what they said. I'd  
24 have to actually look at the -- compare the  
25 (unintelligible).

1           **DR. ZIEMER:** In the case of those that were  
2 identified with the fire, we have then the -- a  
3 single sample typically, is that the case?

4           **DR. ULSH:** We have --

5           **DR. ZIEMER:** When you say eight bioassay,  
6 you're talking about one -- a one point -- or -  
7 -

8           **DR. ULSH:** Seven bioassay collected on one day.

9           **DR. ZIEMER:** On one day.

10          **DR. ULSH:** Seven individuals sampled on one  
11 day.

12          **DR. ZIEMER:** Would NIOSH not do what they do in  
13 other cases where the intake date is unknown  
14 and assume a worst-case scenario for the intake  
15 date? That is the earliest possible date that  
16 the fire could have occurred based on some  
17 knowledge. You're not assuming necessarily  
18 that the fire took place the day before or two  
19 days -- you -- do you have an outside bracket  
20 date on the earliest possible date the fire  
21 could have occurred, based on either records or  
22 whatever?

23          **DR. ULSH:** Yes, we do. We know that it  
24 occurred in the month of June. We know that  
25 the post bioassay samples were collected on

1           June 11th. Therefore we know that we have an  
2           11-day window when that fire occurred, and the  
3           method that you've described is exactly what we  
4           (unintelligible) --

5           **DR. ZIEMER:** Right, so you would assume June  
6           1st as -- or whatever date gave you the highest  
7           dose --

8           **DR. ULSH:** Yes, we would.

9           **DR. ZIEMER:** -- to get the bioassay value on  
10          the date of this sampling.

11          **DR. ULSH:** That is correct, and Mr. Miller  
12          mentioned that -- depending on the solubility  
13          of the material that's involved, in this case  
14          it's uranium metal so it's a -- it's an  
15          insoluble form of uranium, not a -- not a  
16          fairly soluble form, but it's an insoluble  
17          form. And -- but even going with the 50  
18          percent difference that Richard mentioned,  
19          that's still a boundable number. I mean it's a  
20          significant number in terms of dose  
21          reconstruction, but it's not an unknowable  
22          number.

23          **DR. ZIEMER:** That was basically my next  
24          question. You could assume it all to be, what  
25          is it, 2.3 percent enriched or whatever the

1 value was, and get an upper bound on that.

2 **DR. ULSH:** Yes, we could.

3 **DR. ZIEMER:** Okay, thank you. Other questions  
4 here? Dr. Melius.

5 **DR. MELIUS:** Yeah. I actually read this report  
6 before I got also some of this background  
7 information and I wasn't very satisfied with  
8 the report nor with NIOSH's presentation here.  
9 If you go back to our SEC review guideli--  
10 evaluation guidelines, we've really asked them  
11 to make an informative presentation on what  
12 they can do. If they believe that they can do  
13 -- they have adequate information for dose  
14 reconstruction, show us, basically. And I  
15 think process-wise we've tended to do more of  
16 that, looking at some of the pedigree of the  
17 data sets and so forth and part of our  
18 workgroup sessions and so forth. But I don't  
19 think they've -- they've still adequately  
20 demonstrated that. They may be able to. I'm  
21 not sure what to conclude on this particular  
22 SEC petition, but I don't think that they've  
23 made an adequate case and demonstrate us to --  
24 how are they going to do the dose  
25 reconstruction. Can they do it, how did they

1 do it, how are they going to handle the  
2 different subgroups and -- and so forth. And  
3 if you go back in time, this particular site  
4 profile I think, as has been mentioned here,  
5 was released the day after a public comment  
6 period, the first chance that the people  
7 involved with the site had a chance to interact  
8 with NIOSH. Essentially the site profile was  
9 done. A revised site profile has not been  
10 completed, to my knowledge. It may be  
11 underway, but -- but so there's a lot of  
12 unknowns here and I actually think the best way  
13 is -- to go forward at this point for us would  
14 be to have SC&A do some evaluation of the site  
15 profile and at least try to clarify some of the  
16 issues and so that we can demonstrate that they  
17 -- how to handle a number of these technical  
18 issues. They may be able to be handled. It  
19 may be possible to do dose reconstruction here,  
20 but I would like to see more demonstration of  
21 that before reaching a conclusion on this  
22 particular petition.

23 **DR. ZIEMER:** Thank you. Other comments? Brad.

24 **MR. CLAWSON:** I -- I just had a question. I'm  
25 just looking up there at a little bit of the

1 information, and basically we've got two years  
2 we're working with there. How many people were  
3 working at Chapman Valve?

4 **DR. ULSH:** Brad, I can tell you that there were  
5 about 100 people directly involved with the  
6 uranium work for the AEC. I'm going to -- Mark  
7 -- Mark Rolfes is our point person on Chapman  
8 Valve. Mark, do you have an idea of the total  
9 employment at Chapman Valve?

10 **MR. ROLFES:** I really don't have a feel for the  
11 number of total workers at the site. Like  
12 Brant said, I'd like to reiterate that we  
13 looked at a list of the number of people that  
14 were entering into the restricted area at  
15 Chapman Valve.

16 **DR. WADE:** Mark, you should come --

17 **DR. ZIEMER:** He said he could hear okay. Did  
18 you hear okay --

19 **THE COURT REPORTER:** I got him, yeah.

20 **DR. WADE:** Well, we want to make sure the  
21 people on the phone can hear okay.

22 **DR. ZIEMER:** Okay.

23 **DR. WADE:** Could you repeat your answer, Mark?

24 **MR. ROLFES:** Yes. We do have a list of the  
25 people that actually entered into the AEC-



1 controlled area at Chapman Valve. I don't have  
2 a good feel for the number of total people that  
3 worked at the Chapman Valve facility outside of  
4 Building 23 and outside of the restricted area.  
5 Thank you.

6 **UNIDENTIFIED:** Mr. Chairman?

7 **DR. ZIEMER:** I'll ask another question. It's  
8 somewhat generic, but it pertains to this -- at  
9 least philosophically to one of the issues  
10 here. Is it not true that the highest exposed  
11 individual at a site is not necessarily the one  
12 or ones with the highest external dose?

13 **DR. ULSH:** Yes, Dr. Ziemer, you've -- you've  
14 identified a tacit assumption in that argument  
15 that the person who received the highest  
16 external dose also received the highest  
17 internal dose. That is an assumption. I would  
18 point out to you that -- I think it was  
19 mentioned that the job category of the person  
20 who received the highest external dose was a  
21 brusher, I believe it was mentioned. We do  
22 have bioassay results for a brusher -- maybe  
23 more than one, I'd have to look -- but I don't  
24 know if it's the same individual. But we do  
25 have bioassay results for that job category.

1           **DR. ZIEMER:** But the obverse of my question is  
2           it -- is it -- it certainly is possible that  
3           the highest exposed individual on a site would  
4           be someone with no external exposure.

5           **DR. ULSH:** You're absolutely right. I -- I  
6           would be speculating (unintelligible) --

7           **DR. ZIEMER:** (Unintelligible) not necessarily  
8           here, just --

9           **DR. ULSH:** Yes, the person that -- people who -  
10          -

11          **DR. ZIEMER:** I just want to make sure that we  
12          don't assume that the highest external exposure  
13          is automatically the highest exposed person on  
14          a site.

15          **DR. ULSH:** That is true. As you know, Dr.  
16          Ziemer, the people with the highest internal  
17          exposure potential would be the people who were  
18          closest to the parts of the operation that were  
19          generating airborne dust or smoke at -- at  
20          Chapman Valve. The people that you would  
21          expect to have the highest external dose would  
22          be the people who spent the greatest total  
23          amount of time in close proximity to the  
24          radioactive material, so that is certainly  
25          (unintelligible) --

1           **DR. ZIEMER:** In this case it could very well  
2 coincide, but not necessarily.

3           **DR. ULSH:** Yes, absolutely.

4           **MR. MILLER:** I just want to comment that that's  
5 not mutually exclusive and -- and that if, to  
6 the extent that the individuals who were  
7 brushers, who were basically people that are in  
8 high proximity to both the physical material  
9 and to airborne particulate -- I mean it would  
10 seem logical that you would want to bioassay  
11 those people. My understanding subsequent to  
12 what Senator Kennedy's letter said is that  
13 they've had further time to review this and --  
14 and I want to just illuminate at least what  
15 I've heard from them, and they can further  
16 correct or contradict me, as appropriate. My  
17 understanding is is that from having reviewed  
18 the data that they have -- I don't know if  
19 that's the entire data set that NIOSH has in  
20 its possession or not, and again, I can't see  
21 it so it's -- it's a little -- I'm -- I'm sort  
22 of shadow-boxing here a little bit. My  
23 understanding is that they looked at the -- the  
24 full range of the weekly film badges that were  
25 issued and that they took the midpoint of the

1 film badge readings and the highest was around  
2 600 or so millirem per week or millirads per  
3 week. So they started I think around 250 or so  
4 millirads and they looked to see if anybody who  
5 had more than 250 MR was bioassayed. They  
6 could identify nobody based on the data that  
7 they had in hand. So if nobody over even 250,  
8 at 50 percent of that, the midpoint, so that  
9 you're not just dealing with some outlier that  
10 statistically might have fallen out of the  
11 whatever, the brusher didn't show up on the day  
12 of the bioassays or whatever, then you have a  
13 situation here where it almost looks like this  
14 is really what it looks like, cohort sampling.  
15 And you -- you know, what we've learned, if  
16 anything, is that if you have cohort sampling,  
17 you're going to have a hard time developing a  
18 representative sample here. And -- and I think  
19 the burden really is on NIOSH to show what  
20 Brant speculated there is demonstrated in the  
21 data.

22 **DR. ZIEMER:** Thank you. Let's see, Dr. Lockey.

23 **DR. LOCKEY:** You had mentioned that the total  
24 work duration was seven months. Is that right?

25 **DR. ULSH:** Yes.

1           **DR. LOCKEY:** At this facility? Do you -- can  
2 you compare this data to similar processes and  
3 break it down into number samples obtained per  
4 worker per time? How does it compare if you do  
5 that?

6           **DR. ULSH:** Off the top of my head, I couldn't  
7 do that in terms of -- if you looked at other  
8 facilities that conducted similar types of  
9 operations, Bethlehem Steel, Simonds Saw comes  
10 to mind. I don't know exactly what the  
11 correlation would be between the scale of the  
12 operation and the amount -- the number of  
13 bioassay samples that were taken in those  
14 operations. I don't have those at -- at my  
15 fingertips.

16           **UNIDENTIFIED:** Mr. Chairman?

17           **DR. ZIEMER:** Brad, did you have another  
18 question?

19           **MR. CLAWSON:** Yeah, I just -- to go on from  
20 where I was going, you say that this has been  
21 in the seven-month period -- that the bioassays  
22 were -- and we've got a two-year period op--  
23 I'm not understanding that. I'm --

24           **DR. ULSH:** Again I might call on Mark, but we  
25 have indication that the actual machining

1 operations occurred from May to November in  
2 1948. Now the radioactive material, the  
3 uranium, could have been on-site as early as  
4 January of 1948, but that doesn't mean that's  
5 when they started actually machining that  
6 material. There's also some indication -- and  
7 again, the rec-- the record here is a little  
8 unclear as to when the last shipment of uranium  
9 scrap was sent from the site. It -- there's  
10 some indication that it was all gone by the end  
11 of 1948. The weight of the evidence suggests  
12 that. However there's also, I believe -- and  
13 I'm going to ask Mark to correct me if I'm  
14 wrong -- the possibility that it remained on-  
15 site for a few months into 1949. And to  
16 account for that possibility, Brad, we have  
17 extended the covered -- the period for this  
18 class to be all of those two calendar years.

19 **MR. CLAWSON:** Do we have any time when this --  
20 the furnace was supposedly running? Was it  
21 just during the -- the melting processes or --  
22 or -- or what?

23 **DR. ULSH:** Well, let me tell you what we do  
24 know. The purpose of a chip incinerator or a  
25 cracking furnace is to treat uranium chips, to

1 oxidize them so they are less pyrophoric and  
2 they don't present as much of a hazard when  
3 you're shipping that material. So it would be  
4 logical to assume -- and this, I would readily  
5 admit, is an assumption -- that that type of  
6 process occurred near the end of the -- the  
7 machining period. But that -- I've got to  
8 admit to you, Brad, that is an assumption.

9 **MR. CLAWSON:** Okay. Another one that just kind  
10 of interests me, we've got a time period then  
11 and then we've got basically about 40 years  
12 later, and this was the D&D process?

13 **DR. ULSH:** Yes.

14 **MR. CLAWSON:** What was going on in this  
15 facility the rest of the time?

16 **DR. ULSH:** Mark Rolfes, please approach the  
17 microphone. Chapman Valve did continue with  
18 their -- their other operations, but I think  
19 Mark can maybe...

20 **MR. ROLFES:** Chapman Valve was a valve  
21 facility. They produced valves of several  
22 different types for several different  
23 organizations. One of their major products  
24 were fire hydrants and valves for the fire  
25 hydrants themselves.

1           **MR. CLAWSON:** So 40 years later we deconned it?

2           **DR. ZIEMER:** I think his question basically is  
3 did they continue to use that part of the  
4 facility for other work which it was in a  
5 contaminated state. I assume that's your  
6 question, Brad.

7           **MR. CLAWSON:** Yeah, I just -- I just find --  
8 I'm just trying to understand it. Did they  
9 close this facility off and then 40 years later  
10 or something clo--

11          **DR. ULSH:** Yeah, let me give you a little bit  
12 of information, Brad. At the conclusion of the  
13 AEC work, they did make some efforts at  
14 decontamination. They washed down the  
15 facility. In -- in preparation for this work  
16 they constructed walls inside this building to  
17 wall off this area from the rest of the  
18 building. And at the conclusion of that work,  
19 those -- there was some dismantlement that went  
20 on and they did attempt to wash down the  
21 surfaces. They had to make several attempts at  
22 that. I think what we're talking about here in  
23 terms of the D&D effort that occurred in the  
24 '90s occurred under the FUSRAP program. Now  
25 Mark, am I correct in that?



1           **MR. ROLFES:** (Unintelligible)

2           **DR. ULSH:** Okay.

3           **DR. ZIEMER:** Yes, Richard.

4           **MR. MILLER:** Mr. Chairman, I think Aaron Wilson  
5           from western Mass. (unintelligible) -- he just  
6           sort of buzzed me and asked if he could be  
7           heard 'cause I think he's quite familiar with  
8           the history of Chapman Valve. Aaron, are you  
9           there?

10          **MR. WILSON:** Yes, I am.

11          **DR. ZIEMER:** Okay, proceed.

12          **MR. WILSON:** Mr. Chairman, I've interviewed  
13          dozens of family members and former workers,  
14          and I just wanted to make a quick comment about  
15          the total number of employees. I have a  
16          payroll register sitting here on my desk from  
17          1948 and '49 from Chapman Valve. There were --  
18          it was one of the largest employers in -- in  
19          the area with more than 1,000 employees. And  
20          in fact when you look at the chip burner -- the  
21          smokestack for that going up the side of the  
22          building was venting a lot of this material  
23          into the air throughout the whole facility.  
24          And I'm not sure that a sample of 33 workers is  
25          really representative of the number of people

1           who were exposed as they were walking back and  
2           forth underneath the smokestack.

3           One other point was it was asked about what  
4           other type of radioactive materials might have  
5           been used at Chapman Valve. I've -- like I  
6           said, I've talked to many former workers.  
7           Other than the uranium that they processed in  
8           Building 23, the only other material that's  
9           ever been mentioned was radium pills which were  
10          used in an X-ray process to look at the valves  
11          that were being sent to the United States Navy.  
12          And incidentally, the enriched uranium sample  
13          that was taken, it's my understanding that that  
14          sample was taken from the ground which was  
15          directly underneath where the smokestack from  
16          the chip burner exited Building 23.

17          **DR. ZIEMER:** Okay. Thank you. Yes, Mike --  
18          oh, Mark.

19          **MR. GRIFFON:** Good to meet you. I had a  
20          question, Brant, or maybe a clarification. In  
21          your presentation I think you mentioned that  
22          urinalysis is at the top of the hierarchy for  
23          approaches in terms of calculating internal  
24          dose. I don't dispute that, but I think your  
25          assertion was that you have urinalysis records

1 to do dose reconstruction for these claimants.  
2 You're really using coworker models.

3 **DR. ULSH:** You're absolutely correct, Mark.

4 **MR. GRIFFON:** How many of these 124 have  
5 individual urinalysis records, or do -- you  
6 probably don't know that off-hand. I don't  
7 know --

8 **DR. ZIEMER:** Thirty-two.

9 **MR. GRIFFON:** No, of the claimants, I'm saying.

10 **DR. ULSH:** So you're asking of the 33 non-fire  
11 urinalysis results, how many people does that  
12 represent is what you're asking?

13 **MR. GRIFFON:** How many claimant -- how many  
14 claimants have individual (unintelligible) --

15 **DR. ULSH:** Oh, how many --

16 **MR. GRIFFON:** -- data.

17 **DR. ULSH:** -- claimants.

18 **MR. GRIFFON:** And you may not know that or --

19 **DR. ULSH:** I think you're right. I think  
20 you're right, I don't know that off the top of  
21 my head.

22 **MR. GRIFFON:** Yeah, I'm guessing -- my point  
23 is, I'm guessing at this point you -- you've  
24 relied on a coworker model to assign internal  
25 doses for any -- any dose reconstructions that

1           have been done for those -- for the -- out of  
2           the 124.

3           **DR. ULSH:** Certainly what we would do, Mark, is  
4           if we have actual individual bioassay results  
5           that relate to a claimant, we would use that.  
6           But for individuals for whom we do not have  
7           individual bioassay results, we would rely on  
8           coworker data in this case.

9           **MR. GRIFFON:** I guess the other thing that --  
10          that I just wanted to pursue a little bit, in  
11          the letter that was read to us, one out of two  
12          samples were done for isotopic analysis of the  
13          uranium and one came up as -- as slight-- as  
14          slightly enriched. I guess the other thing --  
15          I don't -- I don't dispute that you could  
16          modify the site profile -- modify your  
17          methodology slightly and recalculate doses  
18          based on enriched uranium. I guess what it  
19          raises in my mind is were there other processes  
20          that we're missing at this -- at this facility  
21          that -- that involved other materials coming  
22          in, enriched uranium use, et cetera. That -- I  
23          guess that would be the bigger concern I would  
24          have is, you know, are we missing some  
25          production that went on over -- over a time

1 period there. And I know you probably --  
2 you've looked and you haven't found, but it  
3 raises a question in my mind, I guess.

4 **DR. ULSH:** Of course, let me state from the  
5 outset, we can't prove a negative, as you know.  
6 However, and you're correct, Mark, that we have  
7 seen no indication of other operations that  
8 occurred during that time frame. However, you  
9 are echoing some of the concerns that were  
10 expressed in the SEC petition. Those concerns  
11 dealt with accounting for the cracking furnace  
12 and for other smaller fires. So your concern  
13 echoes some of the concerns expressed by the  
14 petitioner.

15 **MR. GRIFFON:** One -- one final before Richard  
16 gets up. On your air sampling slide you  
17 mentioned that there was some air sampling  
18 data, did -- did NIOSH make any attempt to look  
19 at that in terms of -- of assessing whether you  
20 were in the same ball park as your conclusions  
21 for your urinalysis data? In other words, did  
22 it -- did it -- was it consistent with -- I  
23 know you're not going to get the same kind of  
24 intake numbers exactly, but were the air  
25 sampling levels consistent with what you found

1 in your urinalysis samples?

2 **DR. ULSH:** I believe the answer to that is yes,  
3 Mark. I know that we looked at the air  
4 sampling results and compared those with  
5 numbers that the Health and Safety Laboratory  
6 produced for other facilities. Now these are  
7 air samples compared to air samples from other  
8 facilities. In terms of your question, though,  
9 you're asking if we estimated an intake based  
10 on the air sampling data at Chapman Valve and  
11 compared that with the urinalysis data that we  
12 have there. I don't know the answer to that.  
13 Mark, are you -- I -- has he dis-- oh, there  
14 you are. Did you do something like that, Mark,  
15 or --

16 **MR. ROLFES:** What was the question again?

17 **DR. ULSH:** The question --

18 **DR. WADE:** You'll have to come to the  
19 microphone. You might as well stay here.

20 **MR. GRIFFON:** It sounds like it wouldn't have  
21 been -- well, go ahead, I'll let him answer it.

22 **DR. ULSH:** The question that Mark asked -- that  
23 Mark Griffon asked, Mark, was did we compare  
24 the intakes that we would have estimated from  
25 the air sampling, the one day of air sampling



1 know this is data as of May 1st, 2006, but it  
2 says here that of 106 cases who met the  
3 proposed class definition criteria, which means  
4 that -- that's 106 there, that's -- 106 is more  
5 than the Building 23 100 that we heard earlier,  
6 but whatever it is, five of those had internal  
7 dose data. So everybody else, I would assume -  
8 - and correct me if I'm wrong -- either relied  
9 on OTIB-4 or relied on your site profile. I  
10 assume you're using OTIB-4 in part for this  
11 facility. Is that correct?

12 **DR. ULSH:** I can't answer that with certainty.  
13 I could check on that. I don't know what  
14 methodologies were applied for the -- for the  
15 92 dose reconstructions that we have completed.  
16 I don't have a handle on what methodologies  
17 were employed for that.

18 **MR. MILLER:** The point is is that of -- of five  
19 even out of 91 shows that you're largely  
20 relying either on a coworker model of some sort  
21 here.

22 **BOARD DECISION**

23 **DR. ZIEMER:** Board members, I don't know if you  
24 have -- oh, Jim, you have an additional  
25 question?



1           **DR. MELIUS:** I don't have an additional  
2 question, I was going to make a motion, but if  
3 you have --

4           **DR. ZIEMER:** Okay. Well, before you make your  
5 motion, I was going -- simply going to instruct  
6 you that you have probably three possibilities  
7 for action. One is to support the petition,  
8 one is to deny it, the other is to seek some  
9 additional clarification of some technical  
10 information, perhaps with or without the help  
11 of the contractor. So Plan C has some subparts  
12 as well. Perhaps Dr. Melius has a -- a  
13 recommendation that we can react to.

14           **DR. MELIUS:** Yeah, I would make a motion that  
15 we defer action on this petition -- SEC  
16 petition and that we ask SC&A to do further  
17 evaluation and then -- I'm not sure whether  
18 their action should -- that evaluation should  
19 be under sort of the site profile task or under  
20 their SC&A (sic) task. I think it's really a -  
21 - maybe a mixture of both, to some extent, but  
22 that they then come back to us with a report  
23 and we make -- take the steps from there.

24           **MR. ELLIOTT:** The revised site profile will be  
25 out in a matter of days --

1           **DR. MELIUS:** Okay, that was --

2           **MR. ELLIOTT:** -- next week, I (unintelligible).

3           **DR. MELIUS:** -- one of my --

4           **MR. ELLIOTT:** It should have been here this  
5 week, but we didn't make it.

6           **DR. ZIEMER:** In any event, let me interpret  
7 your motion. I believe that in the context of  
8 what we're doing, we would ask them to do this  
9 as a site profile task --

10          **DR. MELIUS:** Yeah.

11          **DR. ZIEMER:** -- so I'm going to interpret your  
12 motion in that manner, if there's no objection,  
13 and ask if there's a second.

14          **MR. CLAWSON:** Second here.

15          **DR. ZIEMER:** And second. And now the motion is  
16 open for discussion. Do you have a question?

17          **MR. MILLER:** Just a question. You know, if --  
18 if the site profile review criteria were the  
19 same as the SEC evaluation criteria that the  
20 Board had adopted, it would be I think of no  
21 consequence. But the criteria are so specific  
22 in your guidance that the Board promulgated  
23 back I think in January or March -- I guess you  
24 approved it in March -- I would respectfully  
25 ask that -- that that criteria be the -- the

1 criteria against which the SEC evaluation  
2 report be looked at and that both be considered  
3 as part of an aggregate of the whole. How you  
4 want to deal with the contracting matter is  
5 immaterial to me, but I -- I think people would  
6 like to see this SEC evaluation report  
7 evaluated under that litmus test.

8 **DR. ZIEMER:** The Chair's suggestion that it be  
9 done as an SEC task I think automatically  
10 brings those criteria into play.

11 **MR. MILLER:** Okay, but I thought Dr. Melius's  
12 proposal --

13 **DR. WADE:** You said site profile.

14 **MR. MILLER:** -- was site profile.

15 **DR. MELIUS:** Oh, did I?

16 **DR. WADE:** You meant -- you misspoke, that's  
17 all.

18 **DR. ZIEMER:** Okay. I didn't even hear what I  
19 said 'cause I knew what I meant.

20 **DR. WADE:** He meant SEC.

21 **DR. ZIEMER:** I -- I had intended to say SEC.

22 **MR. MILLER:** Oh, I apologize.

23 **DR. ZIEMER:** That's a senior moment. That's my  
24 story and I'm sticking to it.

25 **MR. MILLER:** Thank you, Dr. Ziemer.

1           **DR. ZIEMER:** I sometimes hate to admit it, but  
2 we may have actually been on the same  
3 wavelength there, Richard.

4           **DR. WADE:** This is a good thing. This is a  
5 good thing.

6           **DR. ZIEMER:** So discussion on the motion. The  
7 motion, if approved, would delay action in  
8 terms of a recommendation from the Board. And  
9 I think this has no impact any longer on the  
10 time clock because the Board's action is not  
11 under a time clock, I believe, so we're not  
12 compelled, I don't believe, Lew, to complete  
13 this in a certain period of time, but we do  
14 want to move ahead expeditiously so that if the  
15 motion is approved it would include tasking the  
16 contractor to do an evaluation on our behalf.  
17 Okay, Wanda Munn.

18           **MS. MUNN:** Only one observation relative to an  
19 earlier statement with respect to having NIOSH  
20 show us that they can in fact do a dose  
21 reconstruction of one sort or another. This is  
22 the identical question that has arisen in  
23 working groups on more than one occasion. We  
24 have consistently asked that that rock be  
25 brought back to us, and the agency has

1 consistently brought the rock that we asked  
2 back to us. If we are going to ask our  
3 contractor to review this SEC petition, I hope  
4 that it is not inherent in that request that we  
5 again ask the agency to continue to prove that  
6 they can do what they have said they have done  
7 and have shown us repeatedly that they can do  
8 in other circumstances. I recognize Chapman  
9 Valve was not at issue when these prior  
10 requests were made. However, there's no  
11 question that the process involved requires the  
12 same type of information and the same type of  
13 assumptions, so far as can be determined by  
14 what we know now.

15 **DR. ZIEMER:** Okay, thank you. Dr. Melius.

16 **DR. MELIUS:** I'm not sure whether I'm agreeing  
17 or disagreeing with Wanda, but my -- I think  
18 what I said to start with was I did not think  
19 that NIOSH had made that demonstration to us.  
20 And I was disappointed by both the report and  
21 more importantly by the presentation today that  
22 we didn't get a more thorough demonstration of  
23 what they believe they can do, but I didn't  
24 think adequately showed us that they can do it.  
25 Instead we heard what was wrong with the

1 petitioners' questions and then a simple  
2 statement that we can do it and -- we can do  
3 dose reconstruction. And I think what we've  
4 asked for -- it was -- like I said before, was  
5 demonstrate it to us, and it wasn't  
6 demonstrated today, I thought, adequately. And  
7 so I think we're trying to reach the same end  
8 and I think the question is whether -- sort of  
9 where's the -- the right format and process for  
10 doing that and it may be a question of timing.  
11 This might have been started -- done before our  
12 guidelines were out and things like that so I'm  
13 not --

14 **MS. MUNN:** We have done it --

15 **DR. MELIUS:** -- necessarily faulting --

16 **MS. MUNN:** We have done it in working groups  
17 before and -- and they've always demonstrated  
18 that they did --

19 **DR. MELIUS:** And I think we've got a good  
20 process for the working groups, but it hasn't -  
21 - for various reasons, it didn't work here.

22 **DR. ZIEMER:** Okay, Mark.

23 **MR. GRIFFON:** I just -- I just do have to  
24 respond to that 'cause I think I do disagree  
25 with that. You know, we have asked for that

1 and I think that the workgroups have really  
2 provided a good vehicle in that sense because  
3 they -- they've -- the process has worked. In  
4 the case of Cyclotron workers it was presented  
5 to us that they could reconstruct doses at Y-  
6 12. At the end of the day, they realized the  
7 data they thought was there and was available,  
8 when they tried to demonstrate to us that they  
9 could do it, they could not do it. So I think  
10 there are -- were certain subsets, at least,  
11 that when they dug deeper they realized -- so I  
12 think that's why we go down that route a little  
13 bit. I think -- my sense for Chapman Valve is  
14 that it's a very short time period, it's a --  
15 you know, I -- I can't imagine as lengthy a  
16 process, but I think we need to at least  
17 investigate a few of these questions of -- of  
18 the -- of this data and -- and the -- and the  
19 approach they're going to use to reconstruct  
20 (unintelligible).

21 **DR. ZIEMER:** Thank you. Board members, if the  
22 motion passes, then I'd just give you a heads  
23 up that we will need to add a workgroup for  
24 this particular site to work with our  
25 contractor and with NIOSH to address whatever

1 issues emerge.

2 Mr. Presley.

3 **MR. PRESLEY:** I'd like to hear from John Mauro.  
4 What's -- if we do pass this, what's the time  
5 frame that you all can jump on this and get  
6 this done? I mean I hate to see this drug out  
7 over the next year or so.

8 **DR. MAURO:** Absolutely not. The wheels are  
9 turning as I was listening and I think the  
10 folks did a very nice job in identifying all  
11 the issues. The questions that Brad has raised  
12 and everyone else are exactly the ones that I  
13 was thinking about. I've already reviewed the  
14 case where I looked at all the data, and as I  
15 reviewed it, all the questions came to mind,  
16 that is okay, given the -- it's called an  
17 exposure matrix as opposed to a TBD, site  
18 profile, it's a relatively small document. And  
19 as I was doing the case, I said okay, we're  
20 taking the information here on face value --  
21 you know, I have -- I had (unintelligible)  
22 questions that came up and -- and I wrote my  
23 critique. What I'm getting at is this is an  
24 easy one. Okay? Assuming that we can get  
25 access to all the measurements, how they were



1 done, when they were done, questions like  
2 relative to when the fires may have been, big -  
3 - good one, and the results, whether they were  
4 fluorometric or they were gross alpha or  
5 isotopic -- I mean this is a -- an easy -- I  
6 hate to say --

7 **DR. ZIEMER:** But you're prepared to move ahead  
8 --

9 **DR. MAURO:** We could start -- I'm sorry --

10 **DR. ZIEMER:** -- without delay.

11 **DR. MAURO:** I'm sorry. The answer is, we could  
12 start immediately and we're talking having a  
13 draft report -- and I wanted to stick my neck  
14 out -- oh, at the most, two months from now.

15 **DR. ZIEMER:** Thank you, John. Any other  
16 comments, Board members? Anyone wish to speak  
17 for or against the motion?

18 (No responses)

19 I want to make sure Mike is still on the line.  
20 Mike, are you still with us?

21 **DR. WADE:** We're not hearing. Go ahead.  
22 We'll get Mike's phone.

23 **DR. ZIEMER:** Board members, are you ready to  
24 vote on the motion?

25 In effect, and without quoting it, the motion

1 is to delay action on the petition and to -- to  
2 task our contractor to assist us in the -- in  
3 assessing the issues related to this petition  
4 as they've been discussed.

5 All in favor say aye.

6 (Affirmative responses)

7 Those opposed, no.

8 (No responses)

9 Any abstentions?

10 (Indicating)

11 Okay, the record will show Dr. Roessler and Ms.  
12 Munn have abstained. But the ayes have it and  
13 the motion carries.

14 **DR. WADE:** And the Chair's vote.

15 **DR. ZIEMER:** And the Chair -- the Chair would  
16 vote "aye".

17 **MR. CLAWSON:** We don't have any conflict of  
18 interests?

19 **MR. PRESLEY:** With Chapman Valve? I don't much  
20 think so.

21 **MR. CLAWSON:** Just thought I'd check. I didn't  
22 -- I never know.

23 **MS. MUNN:** I don't think on the Board.

24 **DR. ZIEMER:** Okay, thank you very much.

25 **DR. WADE:** Do we want to deal with the work--

1 the working group issue while it's fresh in our  
2 mind?

3 **DR. ZIEMER:** Since our next agenda item is  
4 Board work time -- well, maybe we should see if  
5 any of the petitioners have any additional  
6 comments for us. I don't know if Mary Realle  
7 or --

8 **MS. REALLE:** I'm here.

9 **DR. ZIEMER:** -- or Johnny Ryan are still on the  
10 line.

11 **MS. REALLE:** Mary Ann and Darlene are here.

12 **DR. ZIEMER:** Any additional comments? Any  
13 additional comments from the petitioners?

14 **MS. REALLE:** Do I have any additional comments?

15 **DR. ZIEMER:** Yes. Yes.

16 **MS. WU:** This is Portia with Senator Kennedy's  
17 staff.

18 **MS. REALLE:** Hi, Portia.

19 **MS. WU:** Hi. I just wanted to say thank you to  
20 the Board for their thorough consideration. We  
21 look forward to working with them and with  
22 NIOSH as we go forward.

23 **DR. ZIEMER:** Very good. And I assume that as  
24 we proceed with the workgroup and working with  
25 SC&A and NIOSH that we will keep the

1 petitioners informed of workgroup meetings and  
2 keep them apprised of any issues that arise.

3 **DR. WADE:** Right, we'll follow our normal mode,  
4 which is the workgroup meetings will be open to  
5 the public. We'll invite the petitioners and  
6 will have the ability to fully participate in  
7 the meetings.

8 **BOARD WORKING TIME**

9 **DR. ZIEMER:** Now we need to have a workgroup of  
10 hopefully four individuals who will be willing  
11 and able to work on this particular issue, the  
12 Chapman Valve site. Do you have  
13 (unintelligible) list?

14 **DR. WADE:** I can get it.

15 **DR. ZIEMER:** The Chair is always willing to  
16 take volunteers for workgroups if there are  
17 individuals that -- that wish to work.

18 **DR. ROESSLER:** May I make a recommendation?

19 **DR. ZIEMER:** You certainly may.

20 **DR. ROESSLER:** This is very much a  
21 bioassay/internal dosimetry situation, and we  
22 have one of the best experts in the country on  
23 that, so I would hope that John Poston would  
24 volunteer for this workgroup.

25 **DR. ZIEMER:** Well, John Poston -- John Poston

1 has volunteered to chair the workgroup.

2 **UNIDENTIFIED:** Thank you.

3 **MR. CLAWSON:** Way to put that.

4 **DR. ZIEMER:** Mark has volunteered to  
5 participate. We'd like to get at least two  
6 others. I -- I need --

7 **UNIDENTIFIED:** Dr. Ziemer?

8 **DR. ZIEMER:** -- need some balance here.

9 **UNIDENTIFIED:** I would --

10 **DR. ZIEMER:** Brad -- okay, one other person.

11 **MR. GIBSON:** I'll volunteer, Dr. Ziemer.

12 **MR. GRIFFON:** I think that Gen should  
13 (unintelligible).

14 **DR. ZIEMER:** Gen Roessler, thank you. Oh, hang  
15 on, Mike may be volunteering.

16 **MR. GIBSON:** Yeah.

17 **DR. ZIEMER:** Mike, are you on the line?

18 (No responses)

19 Mike, are you on the line?

20 **MR. GIBSON:** Yes, I was trying to volunteer.

21 **DR. ZIEMER:** Okay. Let's -- let's add Mike as  
22 an alternate and specify that the alternates  
23 can certainly participate in the meeting, so  
24 basically have a five-person workgroup on this.  
25 Don't want to overload people, but always like

1 to take care -- or take advantage of volunteer  
2 workers.

3 Okay, did you get that?

4 **DR. WADE:** Yes, I can repeat. As I understand  
5 it, the workgroup that will focus on Chapman  
6 Valve SEC petition will be chaired by Dr.  
7 Poston and include Mark, Brad and Gen Roessler,  
8 with Mike listed as an alternate but able to  
9 participate.

10 **DR. ZIEMER:** Well, we don't even have to call  
11 it an alternate. Let's just make it a five-  
12 person -- just make sure that we have enough  
13 people. Okay, that'll be fine.

14 Okay --

15 **DR. WADE:** I'd like to, one more thing --

16 **DR. ZIEMER:** One more thing before we break.

17 **DR. WADE:** And that is to try and return to the  
18 subcommittee activity relative to individual DR  
19 cases six -- excuse me, 21 to 60. I -- I hope  
20 now that everyone has in their possession the  
21 draft of the letter to the Secretary and the  
22 attachments. And I don't know, Mark, if you  
23 want to walk us through this. I think we're  
24 poised to --

25 **DR. ZIEMER:** I think we distributed a -- a

1 clean copy of the draft came around earlier.

2 **MR. GRIFFON:** Stu's table, same as the...

3 (Pause)

4 **DR. ZIEMER:** Okay, we have a copy of the  
5 letter. Stu's table is with the -- in the old  
6 -- under your old tab, so pull that out. Then  
7 you have Attachment -- well, actually  
8 Attachment -- or Attachment 1 is the table that  
9 was in your old tab. Attachment 2 is the SC&A  
10 summary, and there's two parts to that. It's  
11 the summary of 18 case reviews and a summary of  
12 22 case reviews. The second 20 is really 18  
13 and the third 20 is really 22. And then the --  
14 the final thing is the -- well, Attachment 3 is  
15 the methodology for categorizing and ranking  
16 the cases. And then the matrix is Attachment  
17 4.

18 Does anybody find that they're missing  
19 something?

20 (Pause)

21 I'm -- I'm going to entertain -- actually this  
22 comes as a motion from the subcommittee to  
23 accept this package to send to the Secretary.  
24 I would like to add a caveat. I'm going to  
25 task Mark with this. We found in the first

1 package that the numbers in the SC&A tables did  
2 not match the numbers in the narrative paper;  
3 that is, in the letter itself. I'm going to  
4 ask Mark to double-check and make sure the  
5 numbers in the narrative match the numbers on  
6 the table, so this is basically the equivalent  
7 of a grammatical check 'cause if they're not  
8 matching up it's basically equivalent to a  
9 typo. But -- and by -- by the -- by the  
10 numbers, I'm looking at the bottom line, for  
11 example, on the -- the 18 reviewed cases where  
12 I have 113 -- let's see now, wait a minute, is  
13 it 113 deficiencies, of which 103 were low.  
14 And then on the second set there were 64  
15 deficiencies, of which 50 were low. And it's  
16 the total of those that we want to make sure  
17 the narrative matches that. That'll only take  
18 him a few minutes, and I guess, Mark, if they -  
19 - if anything differs, just report to us, but -  
20 -

21 **MR. GRIFFON:** The one thing, in the first  
22 letter I -- I should point out first of all  
23 that my letter was the correct numbers. SC&A  
24 had the revi-- and why this happened is SC&A  
25 reports comes out -- comes out first and then



1 we go through our -- our resolution process.  
2 And what happened was a couple of the findings  
3 were -- were changed so the rankings  
4 (unintelligible) --

5 **DR. ZIEMER:** (Unintelligible) --

6 **MR. GRIFFON:** Right.

7 **DR. ZIEMER:** They were subdivided into pieces,  
8 so one finding became two and so on.

9 **MR. GRIFFON:** So one thing I'm looking at here  
10 in these -- in these SC&A executive summaries  
11 is that there are several items that say --  
12 that say "under review", and I'm not sure, some  
13 of those may have -- since this report was  
14 issued we may have -- have decided on those one  
15 way or the other, so I'll check those numbers,  
16 but essentially they're -- they're pretty  
17 close.

18 **DR. ZIEMER:** So Board members, are we ready to  
19 take action on this recommendation to accept  
20 this package as a report to the Secretary,  
21 subject to minor editorial changes?

22 Okay, all in favor say aye.

23 (Affirmative responses)

24 Any opposed, no.

25 (No responses)

1 Abstentions?

2 (No responses)

3 And Mike Gibson, I don't know if you have all  
4 the stuff you need there. Is Mike still on the  
5 line?

6 **MR. GIBSON:** Yes, I'm still here.

7 **DR. ZIEMER:** Is Mike on the line yet?

8 **MR. GIBSON:** Yes. Based on what I've heard, I  
9 vote "aye".

10 **DR. ZIEMER:** Okay. Thank you, Mike. Thank  
11 you. Motion carries, thank you very much.  
12 Board members, I want to alert you to another  
13 thing. You have in the back of your booklet  
14 three sets of minutes that we will need to take  
15 action on tomorrow. So what that means is that  
16 you're just going to have to stay out of the  
17 casinos tonight, out of the shows, and read  
18 minutes. But I did want to alert you to that,  
19 that we have three sets of minutes that we'll  
20 want to act on during Board working -- working  
21 time tomorrow.

22 The other reminder is that we are going to  
23 reconvene this evening at 7:30 for the public  
24 comment period. And with that, we will recess  
25 for dinner.

1           **DR. WADE:** Okay. Well done.

2           (Whereupon, a recess was taken from 4:50 p.m.  
3           to 7:30 p.m.)

4           **PUBLIC COMMENT**

5           **DR. ZIEMER:** I'll call the session to order.

6           This is the public comment session of the  
7           Advisory Board on Radiation and Worker Health.  
8           My name is Paul Ziemer. I'm the Chairman of  
9           the Advisory Board, and I want to take just a  
10          couple of minutes here at the beginning to tell  
11          you a little bit about what this Board does and  
12          what they do not do, because often we find that  
13          at these meetings people don't always realize  
14          what the role of this group is. Much as they  
15          would like to think so, they are not all-  
16          powerful. They actually have somewhat limited  
17          roles in the program, and I want to sort of  
18          define for you what those are.

19          Let me tell you first of all that the group  
20          here -- and the full Board is not here tonight.  
21          Actually one of our members is not here this  
22          week due to illness. Another may not be here  
23          tonight. He just learned that his father had a  
24          heart attack and I don't know if he's having to  
25          leave or not, but Mark may come in in a little

1 bit.

2 But in any event, this group is a group of  
3 independent individuals. They're not working  
4 for NIOSH. They don't work for Department of  
5 Labor and for the most part -- I say for the  
6 most part -- not for the Department of Energy,  
7 but rather are appointed by the President of  
8 the United States to serve as an independent  
9 Advisory Board for NIOSH's part of the  
10 compensation program. And specifically they  
11 have a responsibility to advise the Secretary  
12 of Health and Human Services on certain issues  
13 dealing with the compensation program.  
14 Those issues are the following. They are to  
15 advise the Secretary on the quality of the dose  
16 reconstructions that are done. And this is  
17 done by sort of audit procedure. This Board  
18 does not do dose reconstructions. They are not  
19 a review board for folks who have not been  
20 successful in a compensation case. Rather they  
21 are an overseeing group that tries to audit the  
22 quality of dose reconstructions. And part of  
23 that audit process is learning from folks such  
24 as yourself what your issues are. We -- we  
25 don't get into the individual cases as a Board,

1 but we do, from the -- the various incidents  
2 and various experiences that people have, learn  
3 something about how -- how things are working,  
4 or from other people perhaps not working, as  
5 the case may be. But that is one of our  
6 functions, auditing the quality of the dose  
7 reconstructions.

8 A second responsibility this Board has is to  
9 advise the Secretary of Health and Human  
10 Services on the petitions for Special Exposure  
11 Cohort. And of course here in Nevada you do  
12 have a petition that is in process. And on  
13 those petitions we have the responsibility to  
14 review the petitions and to review the -- the  
15 advice given by NIOSH and make a separate  
16 determination or a separate recommendation to  
17 the Secretary of Health and Human Services as  
18 to whether or not such a petition should be  
19 granted. So those are two main things that  
20 this body does.

21 We also get involved in advising the Secretary  
22 on anything related to that, such as the  
23 quality of the site profiles that are developed  
24 in connection both with dose reconstruction and  
25 with the Special Exposure Cohorts.

1           Again, we don't -- we don't deal with  
2           individual cases. We're not a review board or  
3           act in that capacity.

4           We do appreciate the public comments that we  
5           get that give us insight as to how the system  
6           is working. Perhaps where there are issues  
7           that you have, in some cases, in a generic way,  
8           we can help solve those. Or if you have a  
9           particular problem, we're often able to point  
10          you to the right people to help you. And I  
11          might tell you that there are a number of NIOSH  
12          staff people here, many here in the room  
13          tonight that will be able to help in individual  
14          cases if there's -- if there is something that  
15          you have a concern about or need to talk to one  
16          of them, we'll -- we'll try to link you up with  
17          the right person.

18          Let me tell you a little more about the  
19          individuals here. I'm not -- their names are  
20          on the table. But we have a mix of folks, and  
21          this is specified in the law that has  
22          established the compensation program. This  
23          Board is, under law, required to be made up of  
24          some physicians -- occupational health  
25          physicians, mainly; some health physicists or

1 technical people, mainly health physicists or  
2 nuclear engineers; individuals representing the  
3 worker community or the labor community, and so  
4 that is the kind of mix of folks we have here.  
5 Some of these are retired, such as me. I'm a  
6 retired professor of health physics from Purdue  
7 University. Let me point out here we have Dr.  
8 Poston, who is a Texas A&M professor; should be  
9 retired, but hasn't. He's in health physics.  
10 Dr. Gen Roessler, retired, health physics,  
11 University of Florida. Wanda Munn has a  
12 nuclear engineering background. Bob Presley  
13 over here, who has spent most of his career at  
14 Oak Ridge in the weapons program and spent much  
15 of his time here in Nevada at the Test Site  
16 installing and putting together weapons -- and  
17 I can't tell you what he did or I'd have to be  
18 shot afterwards. Dr. Lockey is a public health  
19 physician. Who did I miss here? Brad Clawson  
20 is an operator -- let's see, give me the right  
21 title, Brad.

22 **MR. CLAWSON:** I'm a senior (unintelligible).

23 **DR. ZIEMER:** Senior operator, Idaho National  
24 Laboratory. I mentioned Dr. Lockey. Dr. Wade  
25 is what's called the Designated Federal

1 Official. A board such as this is required to  
2 have a fed sit there and be our -- our -- what  
3 do you do for us? He makes sure we follow the  
4 federal regulations that we act under. He's --  
5 he's great, and helps keep us on track in terms  
6 of our agendas and so on.

7 The other fella, who some people think has a  
8 breathing problem and is on oxygen, is actually  
9 our court reporter. And I should tell you Ray  
10 Green, for several years, has been credentialed  
11 as the top court reporter in this country, so  
12 we're glad to have Ray with us.

13 Okay, so that's the group here and Dr. Melius  
14 may be able to join us in a little bit. He  
15 also is an occupational health physician and is  
16 not able to be here right at the moment but  
17 hopefully will be able to come in later.

18 So that's the group. We -- and I have to be  
19 careful 'cause I get to talking too much.

20 We're going to go right down the list as I have  
21 it, and people have indicated what their times  
22 were. I'm not real nasty. Monitor your own  
23 time and try to stick with it. We're going to  
24 start with John Funk, and John did address the  
25 Board yesterday and he's back. John -- and any



1 of you are welcome to use either this mike or  
2 the podium, but this is probably better.

3 **MR. GIBSON:** Dr. Ziemer, just for the record,  
4 I'm on the line. This is Mike.

5 **MR. FUNK:** Dr. Wade, other Board members, I'd  
6 like to expound a little bit on my testimony  
7 from yesterday.

8 **DR. WADE:** Hold on for a second. We have --

9 **MR. FUNK:** (Unintelligible)

10 **DR. WADE:** Okay. Thank you. Mike Gibson, you  
11 might say is on the line, a Board member, and  
12 say who he is.

13 **DR. ZIEMER:** Oh, okay, thank you. I neglected  
14 to mention that Mike Gibson, the Board member  
15 who I mentioned was not here due to illness, is  
16 with us by telephone. Mike is basically a --  
17 background in representing the unions and  
18 currently is a private consultant, but that's  
19 his background. So Mike, I hope you're on the  
20 line and able to hear okay. So -- okay, we'll  
21 proceed.

22 **MR. FUNK:** Is it all right to go ahead? Can  
23 you hear me?

24 **MR. PRESLEY:** No, turn that...

25 **MR. FUNK:** Can you hear me now?

1           **MR. PRESLEY:** No, I don't think that mike's --

2           **MR. FUNK:** I'd like to expound on some of the  
3 things I talked about yesterday that we didn't  
4 get a chance to cover, and one of the main  
5 issues is the practice of reuse at the Nevada  
6 Test Site. It has never been mentioned  
7 (unintelligible) I can't find it anywhere, but  
8 we used all the equipment on that site, all the  
9 test trailers, the office stations which were  
10 buildings that were designed to  
11 (unintelligible) the coaxial cables and moni--  
12 send signals (unintelligible) equipment. These  
13 were large, 100,000-pound buildings -- excuse  
14 me -- yeah, 100,000-pound buildings. They had  
15 ten shock mounts on them and they just -- the  
16 shock mounts we built would withstand ten Gs of  
17 force.

18           The reason I mention this, 'cause all too often  
19 if you say you worked in area three carpenter  
20 shop, you get tagged as a shop carpenter. It  
21 goes back to NIOSH and the way they look at it,  
22 you never left the shop so how could you  
23 possibly be exposed? Well, the shop area was  
24 merely a staging area. The iron workers had a  
25 shed; that was their staging area. The











1 office -- or sitting in the audience with Sandy  
2 Medina\* and two DOE executives, and the DOE  
3 executives said that the tunnels  
4 (unintelligible) T, P and N had filled up with  
5 water, all the records had gotten damaged and  
6 they'd been taken to the landfill and that they  
7 were attempting to reconstruct them records.  
8 Now DOE's (unintelligible) right now so them  
9 records were of no significance. I don't agree  
10 with that. Those tunnel logs, those materials  
11 safety data sheets in there, there was air  
12 sample reports, there was a lot of things --  
13 there was individual log books. I think them  
14 log books could be -- have some bearing on the  
15 -- what went wrong in them tunnels for your  
16 dose reconstruction, and I would say -- I'd  
17 leave it up to somebody else to decide how  
18 significant them records are rather than taking  
19 somebody's word. There were records buried.  
20 They've admitted it. So I'd like to see that  
21 looked into if you wouldn't mind.  
22 That's about it, I -- thank you.

23 **DR. ZIEMER:** Thank you very much. The tunnel  
24 that you mentioned, is that -- have a specific  
25 designation --



1           **MR. FUNK:** Excuse me?

2           **DR. ZIEMER:** The tunnel that you mentioned,  
3 does that have a specific designation, a number  
4 or --

5           **MR. FUNK:** I left my hearing aid in the car.  
6 Ask me again.

7           **DR. ZIEMER:** The tunnel that you mentioned,  
8 does it have a specific number or designation -  
9 -

10          **MR. FUNK:** Yes, there's three of them, P, T and  
11 N.

12          **DR. ZIEMER:** Okay, thank you.

13          **MR. FUNK:** They said tunnels, plural. They all  
14 filled up with water, the blast doors were open  
15 on all of them. All the records were damaged  
16 (unintelligible).

17          **DR. ZIEMER:** Thank you.

18          **MR. FUNK:** There's probably a couple more out  
19 there but I can't remember now.

20          **DR. ZIEMER:** Next we'll hear from --

21          **MR. FUNK:** P, T and N.

22          **DR. ZIEMER:** Okay -- Jan, and I am having a  
23 little trouble with -- it looks like G-a-u-n-c-  
24 - last name --

25          **MS. GAUNCE:** Gaunce, Gaunce.

1           **DR. ZIEMER:** Okay, Jan, thank you.

2           **MS. GAUNCE:** Okay. Can you hear me? Okay. My  
3 name's Jan Gaunce. I'm addressing this panel  
4 for two reasons. One, I want to ask about the  
5 22 kinds of cancer that is part of the Special  
6 Exposure Cohort group. Since this is about  
7 radiation, why doesn't the cancers -- why isn't  
8 it all radiogenic cancers? So that's my first  
9 question.

10           And then the second one is the 250-day  
11 residency requirement for the NTS Special  
12 Exposure Cohort group. My husband was in his  
13 early 20s when he went to work for ACF  
14 Industries in Albuquerque, New Mexico. He  
15 worked for -- he was a contractor for LANL and  
16 they did work for NTS. He worked on the Rover  
17 project as an engineer and he came to NTS for  
18 the test sites -- for -- when they did the test  
19 shots. He did the post mortem on them. And  
20 when the work got critical, he was told to take  
21 his dosimeter badge off, leave it outside while  
22 he went inside to do the work. That's just  
23 some background stuff, not anything I'm asking  
24 you to address.

25           NTS is a different kind of site than most, and

1 the health endangerment was different. Most  
2 people who worked at NTS came to the test site  
3 for the shots, then left after a few days.  
4 Only a small core of necessary employees lived  
5 at Nevada and worked full time there. The job  
6 the employee did at the site determined the  
7 amount of radiation they received, not how many  
8 days the employee lived there.

9 If you're standing next to a terrorist one  
10 second before he pulls the cord, that's the  
11 wrong second to be there. And I feel the same  
12 way about the residency requirement.

13 You on the panel can treat NTS special cohort  
14 group differently if you choose to, and waive  
15 the 250-day requirement. Presence is  
16 sufficient for criticality.

17 **DR. ZIEMER:** Thank you, Jan, for those  
18 comments. And in terms of your initial  
19 question, we could probably give you -- maybe --  
20 - maybe one of the NIOSH people would give you  
21 the answer to that. For example, on the 22  
22 kinds of cancer which is specified in the law  
23 and so in essence we are bound to that --

24 **MS. GAUNCE:** Can you help change it? What  
25 (unintelligible).

1           **DR. ZIEMER:** The 22 types of cancer which are -  
2           - basis of -- they -- they are -- that's in the  
3           legal framework in which we operate, can this  
4           Board change that? No. There -- there are --  
5           there are certain things that could be changed  
6           legislatively.

7           The 250-day issue is one which this Board is  
8           actually looking at in terms of how one  
9           interprets that. For example, how do you  
10          treat someone who may have been assigned to the  
11          Test Site and was say living in Mercury 24/7 or  
12          something like that, so they may have had more  
13          than eight hours a day of exposure, can you do  
14          a weighted average. For example, is that  
15          equivalent to 80 days of -- of continuous  
16          exposure and this Board is actually looking at  
17          those issues and perhaps will have a  
18          recommendation. We recognize some of the  
19          problems, even with a -- starting with the 250-  
20          day, which looks to many to be somewhat  
21          arbitrary.

22          But that -- the current law that we operate on,  
23          which follows some other laws which set that  
24          precedence, are the starting points. There  
25          would appear to many to be a sort of

1           arbitrariness to it, but that's what we're  
2           operating under from the legal framework at the  
3           moment. But we understand the point and have  
4           struggled with that to some extent ourselves,  
5           so -- but maybe -- maybe after the meeting one  
6           of the NIOSH people can also give you  
7           additional details on both of those issues if  
8           you wish.

9           Let's proceed with Dianne -- it looks like  
10          Rudnicki -- Rudnicki? Dianne, you might have  
11          to lower that mike a little bit there.

12         **MS. RUDNICKI:** Can you hear me?

13         **MS. MUNN:** Yes.

14         **MS. RUDNICKI:** My name is Dianne Hanna Rudnicki  
15          and I'm here tonight to talk to you about my  
16          husband of 49 years, Gordon Hanna. He started  
17          working at the test site in April, 1962 and  
18          continued his work there through 1968. To go  
19          back to the 1962 period, I realize that my  
20          being here tonight is because he did not work  
21          250 eight-hour days in 1962. What I'd like you  
22          to consider is that in that period he remained  
23          at the Test Site 24 hours a day. He didn't  
24          commute, as they had a great deal of overtime  
25          and we lived in Henderson, which is quite a

1           ways. I would also bring to your attention  
2           that the employment records from that period  
3           are incomplete because I was told they are  
4           missing. Because of the tests they are still  
5           conducting at -- they were still conducting at  
6           the Nevada Test Site through 1962, he  
7           sacrificed many hours away from his children  
8           and our home. He was very proud of the work he  
9           was doing for his country, but was very closed-  
10          mouthed about it. That is why I don't know a  
11          great deal of what he did out there, very  
12          little. He did participate in the Sedan  
13          Crater, and I knew that because he brought home  
14          a certificate that he had been involved.  
15          He began to question the safety of his workers  
16          when -- of the workers when his coworker and  
17          friend, Keith Prescott, was carried off the job  
18          and diagnosed with bone cancer. My husband  
19          remarked that he wondered why they wore  
20          exposure badges because nobody really bothered  
21          to read them or check them. I realize now that  
22          he was concerned because he worked in the  
23          tunnels at ground zero, building up the  
24          bulkheads both before and after the bombs were  
25          detonated. Another indication that things

1 weren't quite right is that many of our friends  
2 that worked with him -- Alvin Shoemaker, Lester  
3 Richards, Keith Prescott and Ronald Bowden --  
4 all died of cancers.

5 I'm here tonight to provide you with  
6 information that my -- I feel that my husband's  
7 death was directly related to his employment at  
8 the Nevada Test Site. I can only relate to you  
9 the deterioration of his body that began in  
10 1996.

11 In August of '96 he was diagnosed with squamous  
12 cell carcinoma of the right ear. August 29th,  
13 '96 he was diagnosed with basal cell carcinoma  
14 of the right temple. March, 1997 he was  
15 diagnosed with carcinoma of the parotid gland.  
16 September 26th, 1997 he was diagnosed with  
17 myelofibrosis with myelotoid (sic) metaplasia.  
18 And January 29th he was diagnosed with squamous  
19 cell carcinoma of the left lung.

20 I have been advised that the criteria for the  
21 participation in the Special Cohort Status is  
22 that the employee has at least one cancer. My  
23 husband had all five of these and they are all  
24 on the compensable list. Clearly I'm not a  
25 scientist or a doctor, but I know that what he

1           was exposed to was not limited to 250 days in  
2           1962, and that our family and his suffering was  
3           immeasurable. Perhaps due to the devastating  
4           effect of the traumas his body sustained during  
5           the periods of this, he suffered from a femur  
6           bypass, an aorta replacement, colonostomy, an  
7           aneurysm which was ruled inoperatable (sic)  
8           because he had a blood disease. With all of  
9           this in mind, we were unprepared for what  
10          happened in 1990 -- 1996.  
11          The myelofibrosis diagnosis was probably the  
12          most devastating time in our lives, as that  
13          brought with it the prognosis that he had two  
14          years to live. We were also told that the --  
15          by his doctors that the only probable link to  
16          the cause of this disease was exposure to  
17          radiation. Myelofibrosis, for some of the  
18          folks here, is an insidious form of blood  
19          disease and loss of bone marrow function which  
20          causes the liver and the spleen to attempt to  
21          replace production of blood function. In turn  
22          it causes an extremely painful enlargement of  
23          the spleens -- spleen. Patients are kept alive  
24          eventually with transfusions, but that's a  
25          short period and death occurs. He fought with



1 everything he had and lived another two and a  
2 half years until he died. And when he was died  
3 -- and when he died -- at the end of January,  
4 he was diagnosed with lung cancer, which had  
5 metabolized into his bone -- bones, and his  
6 oncologist/hematologist said he had two weeks.  
7 At that time he was being kept alive by blood  
8 transfusions, undergoing radiation therapy for  
9 enlarged spleen, and would be dead by the rapid  
10 advance of the myelofibrosis within a month.  
11 On February 11th, 1999 at 10:00 p.m. he took  
12 his last breath and Gordy was finally set free  
13 from the horrible pain and agony he suffered.  
14 In the year 2000 I began the process of filing  
15 a claim for survivor benefits under the EEOICPA  
16 Act of 2000. In January 2002 my claim was --  
17 what I led to believe was verified employment.  
18 However, DOE was unable to provide the correct  
19 work days and they admitted that part of the  
20 records were un-- just were missing. But we  
21 also had verification for the five compensable  
22 cancers was for-- and this was all forwarded to  
23 NIOSH for dose reconstruction. It is now  
24 September 20th, 2006, four -- four years and  
25 eight months later and the dose reconstruction

1 activity reports I've received throughout the  
2 years have not indicated any prog-- progress  
3 whatsoever. My most recent call to NIOSH,  
4 which was about a month ago, revealed that they  
5 had halted all work on his dose reconstruction  
6 due to the possibility of my claim being  
7 approved -- might be approved for Special  
8 Cohort status.

9 Tonight I have finally had the opportunity to  
10 present his story to a board that understands  
11 and has the power to maybe help us do a --  
12 right a terrible wrong that was committed 44  
13 years ago. For my family and the others who  
14 have lived with this for years, I pray that  
15 you, as an Advisory Board, will have the  
16 courage to do the right thing and recommend  
17 that these brave Americans receive the  
18 recognition that they deserve. Thank you.

19 **DR. ZIEMER:** And thank you, Dianne, for sharing  
20 with us what I know is a very difficult task to  
21 do.

22 Robert Kromrei -- Kromrei? Yes, Robert.

23 **MR. KROMREI:** I worked for the building  
24 department out there at the Test Site from '60  
25 through to -- well, excuse me, '76, I guess

1 (unintelligible) crane (unintelligible). When  
2 I worked in the building department I was re-  
3 entry on the -- on the explosions, and a lot of  
4 times I was sent out -- I was what they called  
5 burnout, had too much radiation, be out three  
6 or four hours, sent back in, burnout again.  
7 Dosimeters were removed, replaced, and all this  
8 stuff went on all the time when I was working  
9 out there and a lot of my friends are dead and  
10 that's why I'm here right now in this chair,  
11 but that's basically the way that thing was  
12 operated out there. And I -- I've -- working  
13 one night (unintelligible) and something went  
14 wrong and we pulled out, it was -- the hole was  
15 so hot it melted the steel pipe right off, and  
16 then we had to go out and back off and leave it  
17 go for a month, but things like this went on  
18 continually, day and night, and people --  
19 sometimes we had to run for about a half-mile  
20 up the road to get away from radiation and  
21 everything else, but -- and above-ground  
22 explosions, I spent two days in there one time  
23 'cause I couldn't get out because of them  
24 explosion above ground. And I just wanted to  
25 let you see that all the -- we get from --

1 well, for the records and everything else is  
2 not exactly right. It's not -- it can't be  
3 right. And I know that I've -- I've had to --  
4 well, I can't complain myself 'cause you guys  
5 take pretty good care of me but -- so far,  
6 anyway, but anyway, other people I know of that  
7 -- there are a lot of them that are suffering,  
8 just like I am, and they're getting no help at  
9 all, so -- and I know a lot -- it's got to be a  
10 lot of this at the Test Site and so that's  
11 about all I got to say is that there -- on this  
12 reconstruction, it's -- it's way off from our -  
13 - my opinion because I can tell you hundreds of  
14 times that this went on through -- you know,  
15 through them years, and there's a lot of other  
16 guys will back that up, too. Thank you very  
17 much.

18 **DR. ZIEMER:** Robert, would you -- could you  
19 clarify one point that you made. If I heard it  
20 correctly, you indicated that -- what you  
21 described as burnout, which I assume meant that  
22 you reached --

23 **MR. KROMREI:** I reached maximum radiation --

24 **DR. ZIEMER:** -- your (unintelligible) for that  
25 job --

1           **MR. KROMREI:** -- yeah.

2           **DR. ZIEMER:** -- and you were pulled out, and  
3 then were put back in what, the same day?

4           **MR. KROMREI:** Same -- four hours later.

5           **DR. ZIEMER:** With a different film badge or --

6           **MR. KROMREI:** Yeah, I -- they took my dos--  
7 they took everything away from us and sent us  
8 back in. I don't know -- we don't know what --  
9 our film badges, we never did hear nothing  
10 about them. We don't know what happened to  
11 them.

12          **DR. ZIEMER:** I see.

13          **MR. KROMREI:** Dosimeter we could look at  
14 ourselves, but I've seen mine peaked out  
15 hundreds of times and they -- they'd take it in  
16 to rad safe, that's what the radiation -- they  
17 just give you another one and tell you to, you  
18 know, carry on. They'd check you over, you  
19 know, actually, but that don't mean nothing,  
20 either, but --

21          **DR. ZIEMER:** Okay, thank you.

22          **MR. KROMREI:** -- that's -- yeah, that's what it  
23 is, is just -- burnout means that you're burned  
24 out, you know, pretty --

25          **DR. ZIEMER:** Right.

1           **MR. KROMREI:** I don't know the year, the day or  
2           what it was. I'm -- I thought it was for the  
3           whole year is what I thought it was.

4           **DR. ZIEMER:** Well -- yeah, that -- that  
5           obviously is a question I think many of us have  
6           experienced that they're -- typically on many  
7           jobs were daily and weekly limits, so -- yeah,  
8           uh-huh.

9           **MR. KROMREI:** Thank you.

10          **DR. ZIEMER:** Thank you. Okay, let's go next to  
11          Patricia Niemeier.

12          **MS. NIEMEIER:** I have a copy here for you guys.  
13          I (unintelligible) make enough, but --

14          **DR. ZIEMER:** No, that's fine --

15          **MS. NIEMEIER:** -- (unintelligible) two of  
16          these.

17          **DR. ZIEMER:** -- we just need one, that's fine.

18          **MS. NIEMEIER:** Okay, great. Hello, my name is  
19          Patricia Niemeier, daughter of Richard Favela.  
20          I am a survivor and witnessed my father's  
21          death. I now have the burden of proving his  
22          exposure to toxic radiation due to working at  
23          Nevada Test Site, and in turn died due to his  
24          exposure. Let me state in advance that  
25          lymphoma of the stomach and esophagus was

1           considered rare at the time of his death. Now  
2           it is my job to explain what happened to my  
3           father.

4           Richard Favela was employed at the Nevada Test  
5           Site with start dates of 3-16-1960 through 9-  
6           31-1969 (sic). There were several start and  
7           end dates.

8           There are indications of an unreported incident  
9           that may have occurred that kept my father from  
10          working. My mother, Josette Favela, married my  
11          father in 1962. She was from France and knew  
12          very little English. She recalled moments when  
13          I was too little to remember what was going on  
14          with my father while he worked at the Nevada  
15          Test Site.

16          She does recall his job being extremely  
17          secretive and remembers a time that he had  
18          circular red spots on the middle of his back  
19          and vomiting during his time of employment at  
20          Nevada Test Site. Many times my father would  
21          not speak of his vomiting, rashes or pain to my  
22          mother. He had also taken off time from work  
23          due to stomach pain. I witnessed depression  
24          and hopelessness.

25          We are talking about a man who served in two

1           branches of the armed services to our great  
2           country. He did not give in to pain easily.  
3           In April 1964 he was hospitalized for stomach  
4           pain. Years later my father died well before  
5           he should have at age 62 in 1998 of cancer that  
6           was listed fourth on the radiation-caused  
7           cancers. According to NIOSH site profile audit  
8           findings, ingestion -- ingestion of large  
9           particles due to oro-nasal breathing may  
10          increase GI tract doses to workers who re-  
11          entered weapons and reactor testing areas  
12          shortly after tests. Radiation badges doses  
13          unreliable due to misuse. The Nuclear Rocket  
14          Development Station where Richard Favela, my  
15          father, worked had no method of addressing hot  
16          particle doses.

17          The NTS contaminated my father, Richard Favela,  
18          and it is known even by the DOE that the level  
19          of monitoring was inconsistent, irregular and  
20          overall untrustworthy. This is why I, Patricia  
21          Niemeier, have to stand up for my father who  
22          was exposed to radiation that eventually killed  
23          him.

24          Prior to my involvement with the EEOICP since  
25          July of 2001 under that program, I received a



1           deficiency letter in October of 2000 under the  
2           Radiation Exposure Program. Since then I've  
3           received two denial letters under the EEOICP.  
4           The latest for consideration dated May 6th,  
5           2006 which I have not heard back from the  
6           program. Upon hearing about the July 2006  
7           special cohort of 250 days or more of  
8           employment was great, however Richard Favela  
9           falls short of approximately 20 days.  
10          Let it be known that I received a letter in  
11          2004 addressing Mr. Carlson denying him of his  
12          skin cancer. My father's Social Security  
13          number was on that letter. I called for an  
14          explanation and I was told someone would get  
15          back to me, and that never happened. That said  
16          to me right away that the ability to make  
17          decisions and a cohesive knowledge of what is  
18          going on throughout the department is poor at  
19          best. A mistake as simple as a cover letter to  
20          the wrong person sends a signal of incompetence  
21          in the department and researchers.  
22          In February 2004 NIOSH requested medical  
23          records. Margo Hornback reviewed these records  
24          and said the diagnosis was B-cell lymphoma.  
25          Medical records indicate D-cell. She stated

1           that the typo mistake was from the doctor.  
2           This typo is on three pages, over and over on  
3           my father's medical records. We cannot accept  
4           this.

5           My father had a painful death along with  
6           treatment for two years. The doctors had  
7           removed his stomach. He became weak and as  
8           thin as a rail. With the chemo and radiation  
9           he needed, he did not have the financial  
10          resources to fight. The cancer eventually  
11          metastasized to his spine. He could not move  
12          his legs. The hospital told me they were not  
13          care-oriented but cure-oriented. They moved  
14          him to a dirty, old convalescent home where he  
15          died alone and scared, and I will never, ever  
16          forget his death and his pain.

17          He is not here to stand up for himself. I am  
18          his survivor, along with my sister Claudia,  
19          representing him today. Richard Favela was an  
20          American hero, a son, a brother and a father,  
21          but never a grandfather to our children.

22          Thank you.

23          **DR. ZIEMER:** Thank you, Patricia, for sharing  
24          that.

25          Next we'll hear from Lori Hunton.

1           **DR. WADE:** Lori wants to have someone come with  
2 her, I think.

3           **DR. ZIEMER:** Lori, did you ask for someone else  
4 to participate with you or...

5           **DR. WADE:** No.

6           **DR. ZIEMER:** No? Okay. I got a mis-message  
7 then, okay. Proceed.

8           **MS. HUNTON:** Thank you for allowing me to speak  
9 to you once again. My name is Lori Hunton. I  
10 had the privilege of testifying before the  
11 Board in June 2006 in Washington, D.C. on the  
12 behalf of myself and my other workers and  
13 survivors who worked at the Nevada Test Site.  
14 As you remember, my father, Oral Triplett\*, was  
15 employed at the Nevada Test Site from January  
16 30th, 1962 through September 30th, 1970. My  
17 father was diagnosed with lung cancer in August  
18 of 1975 and passed away on November 20th, 1975.  
19 I was only 16 years old. My father left behind  
20 four children, a widow and a grandchild.  
21 During the time my dad was ill I remember  
22 coming home from school, opening the front door  
23 and there was dad, lying in a hospital bed in  
24 the front room. He could hardly see, he could  
25 hardly move. He had lost so much weight from

1 the chemo and radiation it was terrible.  
2 Imagine being 16 years old and seeing your dad  
3 suffering like that. It was devastating.  
4 As you remember from my testimony in D.C., one  
5 night when I was very young my dad came home  
6 from work with little red welts on the side of  
7 his face. I remember saying Daddy has cheerios  
8 on the side of his face. These marks were  
9 caused by radiation exposure at the Nevada Test  
10 Site. I believe it can only take one time to  
11 receive a deadly exposure from radiation, only  
12 seconds. It doesn't take 250 days to be  
13 exposed to radiation. Remember those little  
14 red cheerios. I ask you to please add those  
15 with less than 250 days to the pre-1963 SEC.  
16 Acute exposures deserve compensation, as well.  
17 I would also like to take and add on March 15th  
18 I went to the Resource Center located at 1050  
19 East Flamingo for my hearing. I gave them  
20 copies of my dad's work records that show that  
21 he worked at the Nevada Test Site from January  
22 30th, 1962 through September 30th, 1970. They  
23 have dose readings of my dad until 1975. He  
24 passed away in 1975. The NIOSH readings are  
25 incorrect. If someone does not work there, how

1           can you give them dose readings? And if they  
2           give you a higher reading when they do the dose  
3           reconstruction, this is still not an accurate  
4           reading. I was told that NIOSH was getting  
5           paid millions of dollars for the dose  
6           reconstruction program. With all of the  
7           hundreds of inaccurate readings, they should  
8           have paid the workers and survivors years ago.  
9           It has been six months and we still haven't  
10          received any information on the hearing from  
11          March 15, 2006. Over a year ago I called to  
12          check on the status of our case. I called the  
13          Department of Labor at the Seattle office and  
14          spoke with an employee there. He said that he  
15          needed additional information, a copy of my  
16          mother's marriage certificate showing her name  
17          had changed -- she remarried -- so my  
18          stepfather faxed him a copy. The next day I  
19          called and I asked him if he'd received the  
20          fax. He said yes, he did, but he was  
21          recommending denial. I asked him why. He said  
22          that the dose reading levels were too low. I  
23          said after all these years, it takes one phone  
24          call to be denied? We have been seeking  
25          compensation for 29 years. He asked if I had

1 children. I said yes, I have three. He told  
2 me that my children could carry on the claim.  
3 How many more years and generations is it going  
4 to take before the Nevada Test Site workers and  
5 their families are compensated?

6 Thank you again for the opportunity to  
7 represent the Nevada Test Site workers and my  
8 family. Thank you.

9 **DR. WADE:** If we have Kathleen Rozner.

10 **DR. ZIEMER:** Is -- is Katherine Rozner --

11 **DR. WADE:** Katherine.

12 **DR. ZIEMER:** Oh, okay, Katherine is --

13 **DR. WADE:** Kathleen.

14 **DR. ZIEMER:** -- in the office of Senator Reid  
15 and I think has some remarks pertaining to this  
16 case.

17 **MS. ROZNER:** Actually someone we're working  
18 with would like me to read the following.

19 **DR. ZIEMER:** Yes.

20 **MS. ROZNER:** The following is testimony from  
21 Gene Campbell, who is a driller at the Test  
22 Site. He worked there in 1959 and then again  
23 from 1962 to 1991.

24 (Reading) I worked from '62 through '64 in  
25 tunnels and shafts as a rotary drill operator,

1 (unintelligible) classification. After a  
2 nuclear detonation in G tunnel, I moved a core  
3 rig inside the tunnel near ground zero and  
4 drilled through the sandstone formation towards  
5 ground zero. The humidity and the temperature  
6 was extreme. I believe we were approximately  
7 100 feet from ground zero. I worked three or  
8 four eight-hour shifts at that location. I've  
9 no knowledge of what the radiation exposure  
10 was. I (unintelligible) in Area 12 from '62  
11 from several months off and on, again, through  
12 '64.

13 From 1963 through 19-- okay, I'm sorry. From  
14 July of 1963 through September of '63 I drilled  
15 at the Test Site near Carlsbad, New Mexico. We  
16 went down a shaft to 800-foot level  
17 approximately and in a room on that level set  
18 up a drill rig. A nuclear device had been  
19 detonated earlier. I drilled a horizontal hole  
20 into ground zero and then opened, enlarged, the  
21 hole. The cuttings and drilling fluid, water,  
22 was circulated back into a water trough. The  
23 object was to collect as much cuttings from  
24 ground zero as possible. I wore rad-safe  
25 protective clothing. However, there was no

1           containment equipment during the drilling  
2           operations. I have no knowledge of the  
3           radiation exposure that day.

4           While post-shot drilling on the Boyles angle  
5           rig from 1963 to 1965, containment was non-  
6           existent on the drill hole, casing or drill  
7           pipe. It wasn't unusual while sidewall  
8           sampling for steam, rocks and debris from  
9           ground zero where we were taking samples coming  
10          back up through the drill pipe and shooting in  
11          the air 20 to 30 feet. We drilled many holes  
12          without containment.

13          From 1965 until I retired the containment  
14          equipment became very sophisticated and was  
15          much more efficient than in the earlier days.  
16          Post-shot, after detonating a nuclear device, a  
17          rig was moved on location and a hole was  
18          drilled into ground zero. With the drilling  
19          assembly in this area, a plug was pulled out of  
20          the assembly and a sidewall sampler was lowered  
21          inside of the drill pipe and out the side of  
22          the wall of the drill hole. A tube on the  
23          bottom of the sampler collected a sample from  
24          the drill hole and was relieved -- excuse me --  
25          retrieved to the surface on a wire line. These



1 samples were taken from the bottom of the  
2 cavity as neat as possible and therefore at  
3 times highly radioactive.

4 The drilling operation, collecting samples and  
5 handling the drilling assemblies and drill pipe  
6 had a potential for workers to be exposed to  
7 radiation. I was involved in most of post-shot  
8 drilling for LASL and some LANL post-shot holes  
9 until my retirement in 1991. At times there  
10 were accidental releases during these  
11 operations.

12 Note: I would like to point out during 1965 to  
13 '67 approximately, a drilling fluid for post-  
14 shot holes was called visbestos. The name  
15 resulted from the mixture of ben-- bentonite,  
16 asbestos and water. This -- I'm sorry, I can't  
17 read the word -- drilling fluid was used on  
18 post-shot holes to combat the very high  
19 temperature encountered while drilling into  
20 ground zero. At times this was mixed on  
21 location with a portable mud (unintelligible).  
22 The asbestos was in dry, 50-number sacks and  
23 dumped by hand into hoppers, mixed with  
24 benzonite and water and pumped down in the hole  
25 as drilling fluid. I believe some drilling

1 personnel were exposed to asbestos.

2 I was drilling in G tunnel on the day of the  
3 detonation of the Sedan experiment. Before the  
4 shot everyone was cleared from underground and  
5 brought to the surface where we waited for the  
6 shot. We were at the portal of G tunnel on the  
7 side of the mountain where we had a clear view  
8 of ground zero. When the shot went off I had  
9 no idea what to expect, and was very surprised  
10 by the extremely loud boom, followed by a huge  
11 plume of debris, dirt, dust, rocks, et cetera  
12 several hundred feet into the air. We were  
13 concerned the wind was blowing over our  
14 direction. I don't recall if we were evacuated  
15 or not.

16 After the dust settled, construction moved to  
17 the Sedan crater and laid steel mats, the type  
18 used during World War II on air fields, down  
19 the side of the crater from the top of the  
20 crater to the bottom. We then lowered the  
21 Boyles drilling rig and the steel ramp and  
22 drilled the angle hole in the side of the  
23 crater. When the wind blew it was like a dust  
24 bowl at the drill site, and small rocks would  
25 roll down the side of the crater and hit the

1           sub-base of the drill. It wasn't a very good  
2           environment to work in.

3           I would like to relate an incident which  
4           happened on a drillback on a post-shot in the  
5           early '60s. I was a driller at the time. My  
6           crew and I, plus a rad-safe employee, were  
7           exposed to radiation while working in the  
8           cellar, which he describes as a part of a  
9           containment during post-shot drilling. As a  
10          result there was an investigation to determine  
11          why we were exposed to radiation. It was  
12          concluded that the monitoring device used by  
13          rad-safe was not working because the employee  
14          using the device was also exposed. As a result  
15          of the exposure, my crew and I were subjected  
16          to a series of screening tests for several  
17          weeks in Mercury, Nevada. Sometime after the  
18          tests, my crew and I -- I believe five of us --  
19          were sent to a location near Nellis Air Force  
20          Base. This was on a Saturday morning. There  
21          was a railroad car or two on a spur off the  
22          main railroad and each of us, one at a time,  
23          went inside for some kind of tests. I don't  
24          know what it was all about, and never knew the  
25          results. I relate this to emphasize the thing

1           that we went on -- excuse me. I relate this to  
2           emphasize that we went on -- what went on that  
3           no one seems to know about. I have mentioned  
4           this episode to many people, and have yet to  
5           find one person who knows anything about the  
6           railroad cars near Nellis Air Force Base.  
7           Gene Campbell.

8           **DR. ZIEMER:** Thank you. Just to clarify for  
9           me, the -- the claimant's name was Gina  
10          Campbell?

11          **MS. ROZNER:** Oh, Gene, I --

12          **DR. ZIEMER:** Gene Campbell. Thank you. Then  
13          we have Shirley Breeden -- Breeden.

14          **MS. BREEDEN:** Good evening, ladies and  
15          gentlemen. My name is Shirley Breeden and on  
16          April 4th, 2004 I lost my father, Willis J.  
17          Abbott, to cancer. My father was employed by  
18          the Nevada Test Site from September 11th, 1961  
19          through January 15th, 1964. He was a mechanic  
20          foreman on the drilling rigs and would travel  
21          to different areas before and after the shots  
22          were fired.

23          When I was in the second grade I remember my  
24          brother and I asking my father why he got  
25          undressed in the garage when he came home from

1 work. He said that he did not want his clothes  
2 in the house. Since that was not a good enough  
3 answer for us, he then told us not to touch his  
4 boots or his clothes, as if we did we would  
5 glow in the dark. What did that mean and who  
6 really knew? Only my dad.

7 My mother told me that when she asked my father  
8 about his job or his work day, he said he was  
9 not allowed to talk about it. Again, what did  
10 that mean and who really knew? Only my dad.

11 Yes, our family life continued and for many  
12 years to come I never thought about Daddy's  
13 boots, the ones that would glow in the dark.  
14 I will never forget the tone of my father's  
15 voice on that dreadful day in September 2001  
16 when he called and asked me to fly to Boise,  
17 Idaho so that I may accompany him to a doctor  
18 appointment. It was then that I knew something  
19 was definitely wrong. Dr. Forsythe came into  
20 the room, told my father that her suspicions  
21 were correct. My father had terminal cancer.  
22 She showed us an X-ray of where the cancer was  
23 present in my father's body, and said the  
24 cancer had metastasized. He lit up like a  
25 Christmas tree. It was then that I remembered

1 my father telling us about his boots.  
2 My father -- my family and I were in disbelief,  
3 and I was sick to my stomach. After that day  
4 our life changed dramatically. My father's  
5 health deteriorated. My father, so stout, so  
6 strong and so courageous, became dependent upon  
7 his loved ones. What a very humiliating  
8 experience for all of us. My dad, the strong,  
9 stout, muscular gentleman slowly withered away  
10 to nothing right before our very eyes. Our  
11 family was heartbroken.  
12 In February of 2002 my father called and asked  
13 if I would help him with a project. Of course,  
14 I said. He wanted to submit his application  
15 for compensation due to radiation exposure  
16 while working at the Nevada Test Site. My  
17 father said to me, Honey, I believe my cancer  
18 was caused from radiation exposure. A couple  
19 of months before my dad -- my father died, he  
20 asked me to please see this process through.  
21 So in his honor I will follow through with my  
22 father's request. After all, I am my father's  
23 daughter, strong and courageous.  
24 Thank you for your time and consideration.  
25 **DR. ZIEMER:** Thank you. Next we'll hear from

1 Cynthia Wilkes. Cynthia Wilkes.

2 **DR. WADE:** Not here.

3 **DR. ZIEMER:** Perhaps she's stepped out. Dee  
4 Creighton? Dee.

5 **MS. CRAFTON:** Is this good?

6 **DR. ZIEMER:** Yes.

7 **MS. CRAFTON:** Good evening. My name is Dee  
8 Crafton.

9 **DR. ZIEMER:** Dee Crafton.

10 **MS. CRAFTON:** My husband was Douglas Crafton.  
11 Some of you in attendance and I knew him as  
12 Tex. He died from a glioblastoma multiforme  
13 brain tumor in 1998. My husband worked at the  
14 beginning stages of the early Nevada Test Site  
15 starting in the '50s. This work progress  
16 continued into the '90s, so that would be from  
17 the time he was in his 20s up to his 60s. He  
18 casually told us several times he got to see  
19 the atomic bomb go off. He felt privileged.  
20 Now of course, in hindsight, we all know he  
21 shouldn't have been allowed to be near this.  
22 Through the years he was employed by several  
23 unionized truck companies. Most of these  
24 companies are no longer in operation -- Bailey-  
25 Apex, (unintelligible), just to name a few.

1           The last company he worked for was Jakes\* here  
2           in Las Vegas. There are many friends my  
3           husband regularly worked with who also visited  
4           and worked at the Test Site who also died of  
5           various types of cancers, all relatively --  
6           relatively young ages. It is also easy to  
7           determine just through memory, they had less  
8           exposure than my husband.

9           During his initial visits, these unionized  
10          companies would be subcontracted out to Bechtel  
11          of Nevada for heavy hauling machinery moving.  
12          Because he was such an expert in his abilities  
13          to move equipment -- heavy equipment that  
14          weighed many tons, he was requested for most of  
15          the jobs on the Test Site. Because he was also  
16          a heavy equipment operator, he worked many  
17          hours at the Test Site. In those days a crane  
18          was not hauled in one piece. It took several  
19          days to haul in the boom, counter-weights,  
20          tractor, runners. Then he worked several days  
21          putting it together to make it functional.  
22          During all this time he would be at ground zero  
23          of the Test Site. There were not any qualified  
24          employees at the Test Site that knew how to do  
25          this type of work, so he was responsible for



1 everything working properly before he could  
2 leave the Site. This at least indicates  
3 several days, if not weeks, per visit.  
4 He also is the man that hauled in the boring  
5 machine, also called the (unintelligible).  
6 This machine made the tunnel. This job took 34  
7 loads, again spending days at the site. I  
8 wanted to come tonight to prove that it's not  
9 an accurate determination to say my husband was  
10 only exposed 13 days in his life. The system  
11 that made this assumption does not have  
12 memories or experiences that can make an honest  
13 and accurate assessment. The people that would  
14 be key witnesses and could have provided  
15 additional support to these statements have all  
16 passed. I'm being told first he did not have  
17 51 percent cancer in the brain. How much do  
18 you need to die? He's dead. How can you tell  
19 me he wore the badge 13 times? He worked 40  
20 years at the Site, off and on -- like I said,  
21 starting in the '50s. Someone wasn't counting.  
22 Thank you.

23 **DR. ZIEMER:** Thank you, Dee. Then we'll hear  
24 from Jane Ann Williams-Lenz.

25 **MS. WILLIAMS-LENZ:** First of all, I'd like to

1 put a face on some of these people.

2 **DR. ZIEMER:** Sure.

3 **MS. WILLIAMS-LENZ:** This is my husband, Rod  
4 Williams.

5 **DR. ZIEMER:** You want us to pass these -- yes?

6 **MS. WILLIAMS-LENZ:** Yes. This is my husband,  
7 this is my husband, this is my husband and I,  
8 that's my husband, that's my husband, that's my  
9 husband and that's what he left.

10 **DR. ZIEMER:** We'll pass these around.

11 **MS. WILLIAMS-LENZ:** Please do. First of all,  
12 my name is Jane Ann Williams-Lenz. My husband  
13 was an electrician. We came out here -- he  
14 worked here from '58 most of the time till '77  
15 when he died. He was healthy, robust, rodeoed,  
16 died of cancer. Was exposed at the Test Site  
17 many, many times in all those years. I've been  
18 at this for 29 years. I have been to  
19 Washington, D.C. three times. I didn't know  
20 there was a meeting yesterday. Half the time I  
21 don't hear about a meeting. I don't know what,  
22 but if you do advise Mr. Bush, I wish you would  
23 advise him that some of us are tired of  
24 waiting. The only president in 29 years that  
25 even answered a letter was Bill Clinton. He's

1 the only one that's helped us. Bush and his  
2 father don't care about us. They don't care  
3 about anybody. So you advise him for me that  
4 his oil is not the only thing in this world  
5 that's important. And Cheney and Halliburton  
6 and their rebuilding, that's not the only  
7 thing. There are people in this room that  
8 should be important.

9 My husband served in World War II. My son --  
10 my third son, I have four -- just came back  
11 from raghead country. Let me tell you, we've  
12 always been a patriotic bunch. My husband  
13 worked at the Test Site and he asked them and  
14 several of them said will this stuff hurt us,  
15 and they said oh, no -- scientists, oh, no,  
16 might make you sterile. Well, when you've got  
17 four kids, that's not a big thing. It made him  
18 dead. Dead.

19 I went to Washington and I spoke with Dr.  
20 Morgan. Do any of you know who Dr. Morgan is?  
21 He's the man that developed the film badge.  
22 He's the man that developed it. He told me,  
23 Jane Ann, it was no good. It didn't work. I  
24 said then why did you develop it? He said I  
25 worked for the government. You knew what your

1           -- they told me to develop a film badge; I  
2 developed one. They didn't tell him it had to  
3 work.

4           Now when the men were out there, I don't know  
5 if any of you are from here, but if you were  
6 outside today did you see the wind blow? Blows  
7 pretty good here. Well, out at that Test Site  
8 the wind really blows. Now that film badge  
9 hung around their neck on a little lanyard  
10 (sic), and it would flip up in their face and  
11 this and that. Now if you're an electrician  
12 and you're handling anything from 110 to a  
13 streak of lightning, you might want that thing  
14 to get out of your face. So most of the men  
15 would put it in their jacket, stick it in their  
16 shirt. So of course it didn't work to begin  
17 with, so it certainly didn't work then.

18           I went to Washington with a man that they  
19 called the atomic cowboy. Out at the Test Site  
20 they have a big ranch. My husband, as you can  
21 tell from that picture, could keep a secret.  
22 He didn't tell me the things about what went on  
23 at that Test Site, but believe me, in 21 years  
24 I have found out a hell of a lot. They would  
25 go from my house to work every day, drive up,

1 park in this one area -- he worked all over the  
2 Test Site, some places that didn't even exist.  
3 He would get out of his car. He would go up to  
4 CP, up there -- whatever they called CP. They  
5 would go in and they would put on these outfits  
6 of clothing, little things on their shoes and  
7 things on their heads and gloves and all this  
8 stuff, and then they would go down to where  
9 they had -- he worked in drilling most of -- a  
10 lot of the time. They'd go to where the shot  
11 was. They would do their work there, wiring  
12 and putting all the things in there, whatever  
13 they did. Then they would get on the bus and  
14 go back to CP and they'd come home.  
15 The day of the shot they would get in the car  
16 at my house, drive to the Test Site, park the  
17 car, go to CP in the bus, put on their little  
18 outfit, get on the bus, go to the shot. Now  
19 they've already had this detonation. When they  
20 detonated one of those things the sand would  
21 turn green and turn to glass. They would take  
22 heavy equipment, break up the glass, go to the  
23 hole, pull all this stuff out, work in this  
24 radiated (sic) area all day long taking all  
25 that stuff out of that hole, giving it to the

1 scientists. Now remember they've got their  
2 little suits on to protect them. Then they  
3 would get on the bus. Then they would go to  
4 CP. If they detected -- with the detectors, if  
5 they detected radiation, then they'd shower  
6 them and they'd -- sometimes -- my husband  
7 stayed there one time three days and nights.  
8 That's not on the report, by the way. They  
9 would put their clothes back on, get in the car  
10 and come home.

11 Do you see anything that would -- shower or  
12 whatever, leave those little suits there at the  
13 CP, get on the bus and come back to the car.  
14 Does anybody on this panel see anything wrong  
15 with that?

16 **UNIDENTIFIED:** (Unintelligible)

17 **MS. WILLIAMS-LENZ:** You don't see anything  
18 wrong with that?

19 **UNIDENTIFIED:** (Unintelligible)

20 **DR. ZIEMER:** Proceed. This would be normal  
21 practice to shots --

22 **MS. WILLIAMS-LENZ:** That's normal practice.  
23 Well, why the hell didn't they wash out the  
24 bus?

25 They were contaminated when they got on the bus

1 at point A, they went to point B,  
2 decontaminated, got on the bus and went to  
3 their car. They were decontaminated, but they  
4 never washed out the bus.

5 Now when they had a shot right there, they  
6 would put a yellow and black rope around it,  
7 I've been told by many, hang signs on it and  
8 say this area is contaminated, keep out. But  
9 if Washington, D.C. said we want another shot  
10 in the same hole, they took down the rope and  
11 they went in and made the shot and came out and  
12 put the rope back up. Does that make sense?

13 That doesn't make sense to me.

14 I have talked to people -- Stuart Udall called  
15 me in 1978. Does anybody know who Stuart Udall  
16 is? Stuart Udall called me and told me, he  
17 said Jane Ann, he said your husband died of  
18 cancer, and I said yes. And he said well, do  
19 you know other people that did, and I said  
20 well, you know, he's -- he's died and I -- I  
21 don't see people a lot, a lot of electricians  
22 or plumbers or fitters or their wives or  
23 whatever. But then I would see somebody and  
24 I'd say hi, how are you, and they'd say oh, so-  
25 and-so died, John died or Dave died or -- and

1 I'd say why, what happened? He had cancer.  
2 You know, I got to writing that down, and my  
3 God, everybody that worked out there was dying  
4 of cancer. So I said well, you know, Mr.  
5 Udall, he died of cancer and a lot of other  
6 people did, so Larry Johns and Stuart Udall  
7 decided that they would help myself -- I was  
8 probably the first that filed -- and several  
9 others to sue the government because they  
10 worked for REECO and they were a government  
11 contractor.  
12 Well, then the government passed a law that we  
13 couldn't sue. That was not real nice of them,  
14 was it? You know, I have empathy for anybody  
15 that has a problem. Some things don't make  
16 much sense to me, and I don't think that  
17 anybody in this room would disagree with me  
18 'cause a lot of them has been fighting this  
19 thing for a long time. I organized the Nevada  
20 Test Site people at one time. We had meetings,  
21 we organized -- a lot of people died off and we  
22 finally disbanded.  
23 But there were terrorists that flew a plane  
24 into the World Trade Center. We're all aware  
25 of that. Right? The people that worked in



1           those buildings that died left families, and  
2           I'm sorry for that. But not a one of those  
3           people that died in those buildings kept you or  
4           me from speaking Russian in the Cold War, did  
5           they? I don't think so. But all of our people  
6           that died from cancer, a horrible death, worked  
7           to keep you and you and you and you and me and  
8           all of these people from speaking Russian and  
9           we won the Cold War. My husband fought, and a  
10          lot of those other guys, in World War II to  
11          keep us from speaking Japanese. They were  
12          patriotic. But these people that died  
13          instantly have gotten paid instantly. Our dear  
14          old Bush paid them off like a slot machine.  
15          I've been working at this for 29 years. They  
16          got millions of dollars. I had never had a  
17          job. I had four young sons. I had to go to  
18          work. I brought my kids up. I never had  
19          welfare. I've never asked anybody for  
20          anything. And they tell me that my husband was  
21          worth \$150,000 -- well, he didn't work at the  
22          World Trade Center. He kept us from speaking  
23          Russian. That don't make any sense, either.  
24          I've been at it for 29 years. I was in  
25          Washington, D.C. one time. I was sitting with

1 Orrin Hatch -- do we all know Orrin Hatch? --  
2 and Ted Kennedy. And he said well, you know,  
3 Jane, it was the downwinders that got the most  
4 radiation. I said really? The downwinders?  
5 It was in like April, cherry blossoms were  
6 beautiful. I'd never been there before. They  
7 were all in bloom, the water was running in the  
8 sprinklers out on this little veranda we're  
9 sitting by the -- on the Senate Building and  
10 there's water running, the little sprinkler  
11 hoses, and I said to Mr. Hatch, you really  
12 believe that the downwinders got the most of  
13 the radiation? He said yeah, I do. I said  
14 well, guess what. Mr. Kennedy, you stand over  
15 here and Mr. Hatch, you come over here and I'm  
16 going to pick up one of these water hoses and  
17 I'm going to wet you down good 'cause the  
18 wind's blowing toward Mr. Kennedy, you see, and  
19 we'll see who gets the wettest. He said well,  
20 I don't think that's a good idea. I said well,  
21 sounds like a winner to me if you think the  
22 downwinders got the most of it.  
23 You see, the Nevada Test Site has been -- I've  
24 lived in the same house in this town for 47  
25 years. Can you imagine that? And don't even

1           gamble. Well, my husband went to the Test Site  
2           every day, did his work, came home, said  
3           nothing. You couldn't have got him drunk  
4           enough or crazy enough to tell me what was  
5           going on out there. He wouldn't tell you  
6           anything about Mar-- about the Masonic Lodge or  
7           the Shrine or the Nevada Test Site. That was  
8           him. That was the end of the hunt. He was not  
9           going to say a word. But boy, I'll tell you  
10          one thing. I've found out stuff in 29 years  
11          you wouldn't believe.

12          I did know that you could see the mushroom  
13          clouds when they had the above-ground tests.  
14          Right down on Fremont Street was J.C.Penney's.  
15          They built a little town out there. They took  
16          (unintelligible) J.C.Penney's and a lot of  
17          different people took refrigerators and clothes  
18          and they put mannequins in those little houses  
19          and all that stuff. Well, would you believe  
20          they blew that place up? J.C.Penney's took  
21          them right down across from the El Cortez  
22          Hotel, put those blue jeans in the window, big  
23          old sign said all this stuff went through an  
24          atomic bomb blast. We're going to call these  
25          Tough Skins or whatever they called those blue

1 jeans. How radiated (sic) do you think  
2 Freemont Street is?  
3 They had -- I told you about the atomic cowboy.  
4 He told me one time, he said you know, they had  
5 these cows, had two of them at one time, and  
6 they had plexiglass window in their side --  
7 'cause a cow has two stomachs -- and they would  
8 feed them radiated feed and then they would  
9 open this one plexiglass window, reach in  
10 there, get the feed, test it to see how these  
11 cattle could digest this radiated stuff, then  
12 they'd dump it back in. Then it'd go in the  
13 second stomach and they'd do that test again.  
14 Well, guess what? They used to bring one of  
15 these cows into town and take it to the  
16 elementary schools and show the kids the cows  
17 that had two windows in their side.  
18 Pretty smart. Won't hurt you. Might make you  
19 sterile. Scientists were really smart.  
20 He told me one time he walked outside and he  
21 had fed a steer, it was a Hereford steer. If  
22 you're not familiar with cattle, they're kind  
23 of dark brown, red, and had a little white on  
24 them. He said in 30 minutes after the  
25 scientists dropped off the food, picked out the

1           steer, told him to feed the steer. The steer  
2           turned totally blonde, and before the next hour  
3           struck, all of its hair fell out. I guess it  
4           kind of looked like a Mexican hairless steer.  
5           I don't know about that.

6           We have been very patient. I went to a meeting  
7           at the Texas. I don't know how many were there  
8           at the one -- first meeting at the Texas, and  
9           they had -- because we have -- you have to  
10          understand, I was with the Department of  
11          Justice. Then I was with the Department of  
12          Labor. And then I was with the Department of  
13          Justice again. And then they decided that  
14          they'd better give it back to the Department of  
15          Labor. Then we had a meeting with the  
16          Department of Justice and the Department of  
17          Labor, and they said at the Texas Casino  
18          meeting room we are going to do this together.  
19          We will pay you \$75,000 and they will pay you  
20          \$75,000. We said okay and I guess everybody in  
21          this room probably filled out all those papers.  
22          My God Almighty, we filled out papers like you  
23          wouldn't believe. They said that this was  
24          going to happen very soon -- very, very soon,  
25          wait a minute. Well, it hasn't happened yet.

1           And then they said, when I filed with both  
2           people, the Department of Justice sent me a  
3           letter, you qualified; if you'll sign this  
4           paper we will send you a check for \$75,000.  
5           But then they dissolved their partnership and I  
6           didn't accept the money because I told them  
7           first of all that I felt that that wasn't  
8           really what I should get. And since they  
9           dissolved their partnership, if you accept the  
10          money from the Justice Department -- which some  
11          people did; that was another trick -- then the  
12          Labor Department doesn't pay the other \$75,000.  
13          You've got to file again.  
14          So they called me several times. I bet you  
15          they called me ten times and I finally told  
16          them keep that \$75,000 and cram it where the  
17          sun don't shine. I will get all of it or I  
18          will get none of it. There are people that  
19          will get nothing, and that's what the  
20          government is waiting for. I heard that woman  
21          say that she was carrying on for her father.  
22          Well, her father didn't die before she was 18  
23          years old so she's going to get nothing. Mrs.  
24          (unintelligible) in Henderson, she passed away  
25          about a year and a half ago. None of her

1 people will get one dime. He's as dead as any  
2 of the others, but guess what, the government  
3 saved \$150,000 on that one. They've saved  
4 \$150,000 on a list of people that everybody has  
5 died in the family but was able to collect  
6 because they're not going to pay unless the kid  
7 was under 18 or in college.

8 I have four sons. My two oldest sons have  
9 cardiomyopathy. They have a leak, enlarged  
10 heart. My 49-year-old son is an electrician,  
11 been retired two and a half or three years. He  
12 was working at the Test Site when he had his  
13 heart attack. My other son's a  
14 (unintelligible) finisher, worked in  
15 construction, cardiomyopathy. Of course he --  
16 he's still trying to get his Social Security  
17 disability and his doctor keeps writing to them  
18 and telling them I'm sorry, but he can never go  
19 back to work, he would drop dead. He's got a  
20 ICD or whatever you call it, I -- defibrillator  
21 in his chest.

22 You know, I firmly believe that that was  
23 because they were raised in Las Vegas, Nevada  
24 and their dad worked at the Test Site and  
25 brought that stuff home. I firmly believe that

1 the radiation that blows from that Test Site --  
2 when that sand picks up and blows -- if you  
3 didn't notice it, it was blowing yesterday and  
4 today -- my pool's got that much sand in it  
5 (indicating). All that radiation is still  
6 there. The half-life of it is 150,000 years.  
7 Now we some of us must know this. It don't  
8 just go away and it didn't just go away.  
9 My husband's dosimetric report for 1965 says he  
10 had zero -- or close. He was out there setting  
11 in a pickup truck when they detonated the shot.  
12 It covered up the truck with sand. They took  
13 them in. All the guys went into CP or  
14 whatever. They showered them, they waved those  
15 wands over them, they showered them and they  
16 waved those wands over them. They called me --  
17 and there were three or four women that did not  
18 drive that their husbands were involved in the  
19 same shot, the same event, the same radiation.  
20 We had to take clothes out there. They burned  
21 their shoes, their boots, their Carhartt  
22 overalls, their blue jeans, their -- every  
23 stitch they had on, and I took clothes for  
24 about four other guys 'cause their wives didn't  
25 drive, there was no way for them to get them



1 out there unless I took them and I had to go  
2 anyway. And I know that was 1965 because my  
3 youngest son was born in 1965 and he was two  
4 weeks old, so I know when that was. And after  
5 all, Dr. Morgan said it didn't work.  
6 Now they told us at the Texas, you don't have  
7 to have the dosimetric thing. We know that's  
8 faulty. We know it didn't monitor any of these  
9 guys. We know that nobody knows -- or is going  
10 to tell -- how much radiation these people were  
11 exposed to. Now all of a sudden, again -- then  
12 we went back to the Labor Department. Labor  
13 Department told us the same thing at the Texas,  
14 you just have to qualify with having the kind  
15 of cancer that was on this list. My husband  
16 had adenal\* carcinoma, cancer of the colon.  
17 That's what he died of. That's what was on the  
18 list. But now all of a sudden, after the Labor  
19 Department took it back and we're still  
20 supposed to get this \$150,000 that I'll never  
21 see, now we're going through this dosimetric  
22 report again.  
23 Why are we doing that when our government,  
24 which you can't believe a damned thing they say  
25 anyway, but why do they tell us no dosimetric

1 report 'cause it's no good, Dr. Morgan says  
2 that the badge didn't monitor them, that the  
3 dosometer (sic) didn't monitor them, and you  
4 can all go back to Washington and check that  
5 out if -- I imagine Dr. Morgan's dead, but  
6 somebody there must have known and he must have  
7 told them. He told me and I was a total  
8 stranger. So somebody ought to check on that.  
9 Do any of you know who he is?

10 **DR. ZIEMER:** Most of us do, K. Z. Morgan?

11 **MS. WILLIAMS-LENZ:** Then somebody --

12 **DR. ZIEMER:** Yeah.

13 **MS. WILLIAMS-LENZ:** -- should talk to somebody  
14 that he knew.

15 **DR. ZIEMER:** Let me tell you that your Chair  
16 studied under Dr. Morgan, and I know that Dr.  
17 Morgan is an expert -- he's deceased. I don't  
18 know what Dr. Morgan told you, but it does not  
19 jive with anything that he taught me. But we  
20 can talk about that off-line.

21 **MS. WILLIAMS-LENZ:** Well, that's what he told  
22 me.

23 **DR. ZIEMER:** I studied under Dr. Morgan.

24 **MS. WILLIAMS-LENZ:** Well, I didn't study under  
25 him but he sure told me that the film badge was



1           putting away the oil that -- the new oil in the  
2           warehouse. He had to hand-load all these  
3           things. And the drums that had been used, he  
4           had to hand-wash them and detoxify them so they  
5           could go back to the -- the city. Now these  
6           were hot, the majority of them were hot. And  
7           as he would put those up next to his body to  
8           move them around -- because they were bulky and  
9           they were hard to move -- he was getting  
10          radiation all the time. He was a very strong  
11          man, and he lasted for about seven years before  
12          he got cancer.

13          He was 35 years old and he came to me one day  
14          and he had a great big lump on his neck and he  
15          said what do you think this is? I said I don't  
16          know, but we're going to find out right away.  
17          He went to a doctor here and the doctor wanted  
18          to operate and I said no. I said let's call  
19          our friend who's been to Loma Linda and see if  
20          we can get in there, and so we went to Loma  
21          Linda and they decided that -- at first they  
22          said it was Hodgkin's, then they said no, it  
23          wasn't, that it was lymphoma. And so a lot of  
24          the time we got it in our head it was Hodgkin's  
25          'cause we didn't know what kind of lymphoma it

1 was and we didn't know how to explain it to the  
2 doctors.

3 We went through to White\* Memorial. He was  
4 given 50 treatments of radiation, high level  
5 radiation. He couldn't take the last three.  
6 He was supposed to be given 50. He was  
7 hospitalized for a month in a comatose  
8 condition because he'd been over-radiated. Now  
9 you notice that those records show no radiation  
10 showing up, even in 1969. He was so sick  
11 through his treatments that it -- the -- his  
12 face was completely black. It was not brown,  
13 it was not tanned, it was black. He lost all  
14 his hair. He had to crawl to the bathroom. He  
15 had to slither like a snake. There were times  
16 when I was in bed with him -- we were in  
17 California and we had to travel there for those  
18 treatments -- that I thought he was dead and I  
19 would get panicky because he had no heat in his  
20 body at all and he was dead still.

21 On the last treatments, he started to pass out  
22 all the time. He was a six foot one man and he  
23 was very large for me to try to handle, and so  
24 the doctor said it -- well, we're going to put  
25 him in the hospital and watch him. They gave

1           him one more shot and he went into this  
2           comatose condition. Now he was there till late  
3           September and then he had to stay in town.  
4           He started it in May with this cancer and went  
5           through late September, a young married couple  
6           that had two small children. The children had  
7           to be uprooted from their school and taken to  
8           Los Angeles to finish their first few years of  
9           school. Then they were taken -- I had to send  
10          them back to Las Vegas to be with my mother.  
11          My son was taken from the second grade and  
12          skipped the third grade without my knowledge,  
13          and it was very traumatic for him because of  
14          what his father was going through. I tried to  
15          get them to put him back, but they wouldn't.  
16          Then he ran away when he was seven years old  
17          and didn't come home till about 9:00 o'clock at  
18          night. I was not in town. My mother was  
19          taking care of him and she was frantic.  
20          These were things that just -- besides the  
21          illness, we went through many, many trials. In  
22          1971 he was diagnosed with lymphytic (sic)  
23          leukemia, which was a very rare thing and so  
24          they called the doctor in from the City of Hope  
25          and they conferred with this doctor in Los

1 Angeles and they worked it out that he should -  
2 - needed a blood transfusion. His twin --  
3 identical twin brother -- came to town to give  
4 him this transfusion. We wanted to be just  
5 person to person, but they wouldn't do it, so  
6 they took the transfusion from him and they  
7 took the transfusion from our friends who were  
8 LDS people who did not drink, smoke or drink  
9 coffee. However, ten years later, Jim was  
10 diagnosed with hepatitis C and HTLV-1, which is  
11 akin to AIDS, but it was not AIDS. It was a  
12 disease that deteriorated all of his muscular  
13 being, and he had -- was just like a skeleton.  
14 His whole body was like a skeleton. When he  
15 walked, he walked like this because he was --  
16 he'd fall over if he didn't (indicating). He  
17 couldn't lift his hands or his arms. He had to  
18 walk with two canes, not just one. Then it got  
19 so bad that he had to quit work and they took  
20 him at the doctor and they ran another test and  
21 he had bladder cancer. So this is the third  
22 cancer that they had diagnosed him with. He  
23 beat the cancer, but because he had hepatitis C  
24 he couldn't get a liver. They looked at all  
25 this cancer and they said no, he'd never make

1           it through the operation. No, he'd never be  
2           able to take the medication.  
3           Now his identical twin is very healthy and  
4           still living. None of his family have had  
5           cancer. I think this is just a good example of  
6           what has happened at the Test Site, that these  
7           men were told that everything was okay, they  
8           were safe; you couldn't be any safer than being  
9           there. You might as well be working downtown  
10          at one of the casinos because it was just as  
11          safe as a casino, if not safer. These were  
12          things Jim told me that he repeated from what  
13          was being told him.  
14          He tried to bid out to a downtown job where he  
15          wouldn't have any radiation, because of the  
16          amount of radiation that he'd had, and they  
17          turned him down -- four or five times. And  
18          every time they turned him down, they promoted  
19          him to keep him there. Well, the bosses that  
20          he took their places both died of cancer. The  
21          man that used to do -- take the -- the pictures  
22          all over the test site -- and there were only  
23          three people that were allowed to do that, and  
24          Jim was made one of them, he died of cancer.  
25          So isn't it -- just stand to reason that Jim



1 would die of cancer, too?

2 One time he came home in overalls and he came  
3 home quite late that night and I was quite  
4 worried, and he said they pulled me off the bus  
5 and made me go take a shower and take all my  
6 clothes off 'cause they said I had been  
7 exposed. And he left his clothes all there and  
8 they decontaminated and they gave them to him  
9 later in the week. But that's not recorded.  
10 There's nothing in there about it.

11 It just seems a shame that the people that were  
12 paid to take care of these young men and these  
13 fine citizens of our community didn't do it.  
14 Thank you.

15 **DR. ZIEMER:** Thank you very much, Margaret.  
16 Let's see, do we have Diane Milko? Is Diane  
17 here?

18 (Pause)

19 **MS. SBROCCHI:** Hello. I'm Diane Milko  
20 Sbrocchi, and these are my two sisters, Janet  
21 Milko Arnkinet\* and Janet -- or June Milko  
22 Licorrino\*. I'm just going to read the letter  
23 that Lori Hunton read to you in Congress. It's  
24 a short letter. And then I want to do a little  
25 bit of ad lib about -- on my father's case.

1 My father was Michael Edward Milko. He worked  
2 at the Test Site from October 1961 to February  
3 1962 as a weather station monitor. He worked  
4 in other capacities at the Test Site and NIOSH  
5 tells me that they are aware that he met the  
6 qualifications of the 250 days, but I don't  
7 know what other jobs he did there. He was  
8 removed from the Test Site weather monitoring  
9 when he complained that he felt it was unsafe.  
10 He often told us that his badge did not detect  
11 any radiation when he was at ground zero and  
12 one of the blasts went off. As a person that  
13 grew up here, living here when the blasts  
14 occurred, I can tell you that the people that  
15 lived in Las Vegas -- I remember being a child  
16 and sitting on the toilet and the water  
17 splashing up on me when these bombs were  
18 detonated. It was so powerful, it was like an  
19 earthquake. So you know, everybody in Las  
20 Vegas was affected, not just the people that  
21 worked at the Test Site.  
22 He often told us how his badge did not detect  
23 any radiation, yet the cows in the field were  
24 dropping dead around him. He quit the Test  
25 Site because he believed that he was in danger

1           and that the government was not doing enough to  
2           protect the workers. Unfortunately, his fears  
3           became reality when he was diagnosed with  
4           cancer of the stomach wall in 1972. My doctor  
5           died at the -- or father died at the age of 43,  
6           and his doctor said that his stomach cancer was  
7           the worst he had ever seen. He left behind  
8           eight children to grieve.

9           His case fits all the criteria -- length of  
10          employment -- excuse me -- type of cancer, and  
11          as you note by the Cohen report, there is no  
12          such thing as accurate dose reconstruction.

13          It's impossible to contain the radiation that  
14          came in that cloud. All of us were affected  
15          that lived -- I believe, as that lady stated,  
16          my family -- I was unable to have children. I  
17          don't know if that's one of the reasons. My  
18          sisters and my brothers have had mental and  
19          physical problems, as well. My father would  
20          come home and remove his coveralls outside and  
21          go and take another shower, and he did not let  
22          us touch him.

23          We still have no resolution, and it is  
24          unconceivable (sic) to us that the government  
25          has let the workers and survivors of the Test

1 Site fight like this for all these years for  
2 compensation. The \$150,000 to eight children  
3 is not a lot of money. And it's not the money.  
4 We want the government to recognize what they  
5 did to our family, and our fathers and our  
6 brothers and all those people that were loved  
7 and have been lost.

8 The dose reconstructions and time limits on  
9 exposure are a ridiculous attempt to keep from  
10 paying the claimants. One day, or even one  
11 hour, of exposure may cause cancer. Scientists  
12 can't predict how genes will mutate in  
13 individuals exposed to radiation. Please take  
14 care of the workers, the survivors of the  
15 workers, and those who did their duty to  
16 protect us during the Cold War. Please honor  
17 the memory of our father. That is all we have  
18 left.

19 And I want to add to this, we appreciate your  
20 time, but we are just so frustrated with the  
21 process of being shuttled back and forth from  
22 committee to committee. We've written letters,  
23 we've given speeches, we -- you know, again,  
24 all our information is, like everybody else's,  
25 secondhand. Our father is dead. We have no

1           one to go to. Our mother wasn't told,  
2           everything was so secretive. We have limited  
3           experience. We can't reconstruct what happened  
4           out there, and nobody ever will be able to.  
5           But I want to say that Hollywood understands  
6           what happened out there. If any of you have  
7           watched the movie that was out, a B horror  
8           movie -- I happened to rent it a week ago --  
9           "The Hills Have Eyes" -- everyone in here  
10          should watch that movie. Hollywood knows what  
11          happened at the Test Site. It's a movie about  
12          Test Site workers building little homes with  
13          these little mannequins that were dummies and  
14          they were exposed to radiation and they thought  
15          well, the mannequins are fine so it must be  
16          fine for live people. That really makes sense.  
17          In this movie they show all these people down  
18          in the mines with their pictures that died from  
19          radiation, and all their children and offspring  
20          that mutated. Now again, it's a B movie, it's  
21          a Hollywood movie, but they have more sense  
22          than Washington does. I mean it is a fact that  
23          these people have died from cancer. It's too  
24          many to dis-- to ignore. It really is.  
25          And I appreciate you doing something about it,

1 and we have waited way too long. And we're all  
2 just, you know, so frustrated, every one of us.  
3 Thank you for letting us speak.

4 **DR. ZIEMER:** Thank you. Janice Ramirez -- is  
5 Janice with us?

6 (No responses)

7 Addie McLemore? McLemore?

8 **UNIDENTIFIED:** (Unintelligible)

9 **DR. ZIEMER:** She had to leave?

10 **UNIDENTIFIED:** (Unintelligible)

11 **DR. ZIEMER:** She had to leave, or do we know?

12 **DR. WADE:** It's okay, move on, William Morton.

13 **DR. ZIEMER:** William Morton?

14 (Pause)

15 **MR. MORTON:** Good evening. I am the son of the  
16 late William S. Morton, former Nevada Test Site  
17 worker. My name is William G. Morton. My  
18 father worked at the Test Site from the dates  
19 7/62 off and on, as the Department of Labor  
20 showed, through 10 of '68. In 1962 I was a  
21 year old. I relied on what my mother and  
22 father told me about those times. I was old  
23 enough to understand myself. I remember my  
24 father telling me about an accident that  
25 surrounded a test site, and he assisted in the

1 rescuing of several employees that were trapped  
2 in some kind of cave-in. I remember my mother  
3 and father talking about the breathing problems  
4 he had shortly after the accident.  
5 Around the time when I was eight -- eight years  
6 old -- my father started getting sick. He  
7 could not do normal things a father and son  
8 would do because of the illness. It was around  
9 this time that my father had to medically  
10 retire from work and he never was able to work  
11 another job again due to health issues.  
12 From that point forward my mother was the sole  
13 provider. She and I took care of my father as  
14 his health proceeded to get worse over the  
15 years. I did not have a normal childhood at  
16 (sic) most of the time I was helping take care  
17 of my father. There was even a point where I  
18 did not get to see my father for over a year,  
19 as he had an operation for throat cancer in  
20 California and had to remain there. The  
21 operation took over 13 hours. He had to have a  
22 permanent trach tube, then received radiation  
23 and cobalt treatment. Due to the financial  
24 burden of traveling, I only got to see my  
25 father once during that time period. During

1           the visit I was informed that my father had  
2           terminal throat cancer. I was distraught and  
3           decided to take a walk in a city where I did  
4           not know my way around. I was robbed at  
5           gunpoint. The only thing of value that the  
6           robbers got was the graduation watch my parents  
7           had given me. Now I'd just been informed I was  
8           going to lose my father, and then I lost the  
9           only material thing that he had given me.  
10          Approximately two years later he developed lung  
11          cancer, underwent chemotherapy. The lung  
12          cancer was diagnosed too late. It was in a  
13          stage where surgery could not be done. My  
14          father went to the hospital as he was having  
15          difficulty breathing. My father's doctor  
16          recommended to my mother and me he go to a  
17          hospice. On November 11th, 1989 my father was  
18          prepped by the hospital to be moved to the  
19          hospice. When the staff from the hospice  
20          arrived to transfer him, they found him dead.  
21          At the death of my father I felt angry and  
22          helpless because there was nothing I could do  
23          to help or save him. I feel that the Test Site  
24          robbed me of my precious years with my father,  
25          not only growing up, but into my adulthood.



1 Special events such as my wedding day still had  
2 a little shadow of sadness that he could not be  
3 there with me. It only took one exposure to  
4 radiation to develop cancer. I believe my  
5 father breathed in the radioactive dirt at the  
6 Test Site throughout the times he spent there,  
7 putting in motion throat cancer and the lung  
8 cancer.

9 I think setting a minimum of 250 days is  
10 inappropriate. I think that anyone who worked  
11 at the Test Site for one day or 1,000 days  
12 during that time period had contracted cancer  
13 should be compensated. My father and other  
14 employees and survivors that are here today  
15 that worked at the Test Site are Cold War  
16 veterans. If it wasn't for them, who knows.  
17 The government owes the survivors of the  
18 workers compensation. It is such a small crest  
19 in the big picture. How do you put a price on  
20 life? You can't. And the government cannot  
21 bring our loved ones back. Therefore, to pay  
22 the settlements would be a step in the right  
23 direction for putting our loved ones at risk  
24 without proper precaution, but ultimately took  
25 them away from us and current other survivors.

1           And just something I didn't write down, I was  
2           brought up that when you do something wrong,  
3           you stand up like a man and you take the  
4           punishment. The government made a mistake.  
5           They should stand up, compensate these fine  
6           people and any of the employees that are still  
7           living -- do the right thing, stand up for your  
8           mistake. Thank you.

9           **DR. ZIEMER:** Thank you. Let's see, Alma  
10          Mosley? Is Alma here?

11          **MS. MOSLEY:** My name is Alma Lee Mosley. I  
12          want to tell you nice people how I feel. I  
13          lost my husband in 1978, September 25th. It  
14          was a long journey. I was in my early 20s, and  
15          look at me now. I'm in a wheelchair. This is  
16          my baby boy (indicating). He was only 19 years  
17          old when his father died. He had to go -- he  
18          went to UNLV. He had to cut college short  
19          because he had to help me make a living. It  
20          wasn't easy.

21          Over the years I have kept this Test Site thing  
22          in front of me. I did it for my children. I  
23          have three sons, no girls, so it hasn't been  
24          easy. But I did not stand back and hold my  
25          hands. I went through interviews, countries,

1           on the TV. I kept it before the public. Mr.  
2           Udall was one of our Test Site lawyers. I did  
3           not know he had passed. The Foley Building --  
4           the old Foley Building downtown -- was where we  
5           had our first trial. There was a young man  
6           that came to me. I guess I was a celebrity, I  
7           don't know. All I know is I kept it before the  
8           public. And so Mr. Udall and Mr. Harrison,  
9           Test Site lawyers, they came to me on the steps  
10          of the old Foley Building. There were many  
11          people there. I didn't want the excitement, I  
12          just wanted recognition, and I kept it before  
13          the public and they would send people to  
14          interview me -- Australia, Japan. I remember a  
15          young man came over to me and he said Ms.  
16          Mosley, can I shake your hand? My father died  
17          such -- such a sad event. So I'm asking all of  
18          you nice people that we need recognition 'cause  
19          I say in my early 20s and I will be 80 years  
20          old in December the 28th. I really enjoyed  
21          keeping this before the public, and I will  
22          still do it because there's too many people  
23          that have lost recognition. I came from an  
24          educational family. My mother was a  
25          schoolteacher. Not that I'm so dumb, but I

1           just like the public, and these nice people  
2           that have talked, they mean it from their  
3           heart. I mean it from my heart. And I will  
4           continue to ask for recognition for my baby  
5           boy. He was only 19. And I want to thank you  
6           all for listening. We need recognition, and I  
7           thank you so much because there's so much I  
8           could say. I would be on TV right here in Las  
9           Vegas, and there are many things -- and this is  
10          my younger son. He might want to say  
11          something, too.

12          **UNIDENTIFIED:** I really don't have any comments  
13          at this time. I'll just let my mother do the  
14          talking today.

15          **DR. ZIEMER:** Thank you. Sometimes that's a  
16          wise son. Thank you very much.  
17          Dave Sbrocchi, I don't know if I pronounced  
18          that correctly --

19          **MS. SBROCCHI:** That -- that was me already, I -  
20          - Diane Sbrocchi.

21          **DR. ZIEMER:** Oh, Diane, okay, I -- okay, it  
22          looks like Dave here. I thought maybe you had  
23          a brother or something. Okay, thank you very  
24          much.

25          I believe that completes our participation

1           tonight. I thank you all for being patient.  
2           We have had a good variety of input. We  
3           appreciate all of you bringing these issues  
4           before us. As I told you at the beginning, we  
5           can't necessarily solve all the problems, but  
6           we will do what we can to address those issues  
7           that are within our sphere of influence. The  
8           Board is -- is quite sympathetic to the  
9           concerns and, again, we will do our best to --  
10          to address the issues here as they pertain to  
11          this particular site.

12          Thank you again. This Board does meet again  
13          tomorrow. You're all welcome to be here for  
14          that session, as well.

15          **MS. WILLIAMS-LENZ:** How many meetings have you  
16          had and how long have you been here? Why are  
17          we not always aware of this?

18          **DR. ZIEMER:** This is our second meeting in --  
19          in Las Vegas. We met yesterday here, as well,  
20          and today and we'll meet again tomorrow.

21          **MS. WILLIAMS-LENZ:** And why were -- I was  
22          called and told last week that you would be  
23          here today, but nobody said anything about any  
24          other meetings.

25          **DR. ZIEMER:** Well, I -- I don't know. I know

1           that the public announcements that were made by  
2           NIOSH indicated all three days, and you're  
3           certainly welcome to be with us tomorrow, as  
4           well.

5           **MS. WILLIAMS-LENZ:** Did you have it on the  
6           local news?

7           **DR. ZIEMER:** I -- I don't know who was  
8           contacted.

9           **MS. WILLIAMS-LENZ:** I watch the news and I  
10          didn't see anything.

11          **DR. ZIEMER:** That I don't know. We could find  
12          out for you. Thanks for being here.

13          (Whereupon, the meeting was adjourned at 9:30  
14          p.m.)

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**CERTIFICATE OF COURT REPORTER****STATE OF GEORGIA****COUNTY OF FULTON**

I, Steven Ray Green, Certified Merit Court Reporter, do hereby certify that I reported the above and foregoing on the day of Sept. 20, 2006; and it is a true and accurate transcript of the testimony captioned herein.

I further certify that I am neither kin nor counsel to any of the parties herein, nor have any interest in the cause named herein.

WITNESS my hand and official seal this the 18th day of November, 2006.

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**STEVEN RAY GREEN, CCR****CERTIFIED MERIT COURT REPORTER****CERTIFICATE NUMBER: A-2102**