1 UNITED STATES DEPARTMENT OF ENERGY
2 OFFICE OF DEFENSE PROGRAMS
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5 In re:
6 DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT
FOR THE NATIONAL IGNITION FACILITY
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8 PUBLIC MEETING
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Proceedings before: HOLMES BROWN, Facilitator
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Wednesday, December 8, 1999
15
3:00 p.m. session
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19 Taken by LETICIA A. RALLS,
a Certified Shorthand Reporter,
20 in and for the State of California
CSR No. 10070
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1 PROCEEDINGS
2 BE IT REMEMBERED, on Wednesday, the 8th
3 day of December 1999, commencing at the hour of
4 3:07 p.m. of said day, at the LAWRENCE LIVERMORE
5 NATIONAL LABORATORY, SOUTH CAFETERIA, East Avenue,
6 Livermore, California, before me, LETICIA A. RALLS,
7 a Certified Shorthand Reporter in the State of
8 California, said proceedings were had.
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10 APPEARANCES
11 HOLMES BROWN, of AFTON & ASSOCIATES,
12 appeared as the Facilitator
13 RICHARD SCOTT, of the DEPARTMENT OF
14 ENERGY, Document Manager for the NIF SEIS, ES&H
15 Program Manager for NIF, Oakland Operations Office,
16 appeared as the presenter and as a panel member.
17 DAVID H. CRANDALL, of the DEPARTMENT OF
18 ENERGY, Director, Office of Defense Science, Office
19 of Defense Programs, appeared as a panel member.
20 STEVE FERGUSON, of the DEPARTMENT OF ENERGY,
21 Attorney, Office of General Counsel, appeared as a
22 panel member.
23 SCOTT SAMUELSON, of the DEPARTMENT OF
24 ENERGY, NIF DOE Field Manager, Oakland Operations
25 Office, appeared as a panel member.

1 P R O C E E D I N G S
2 MR. BROWN: If you'll take your seats, we'll
3 get started on this afternoon's session.
4 Thanks very much. Good afternoon. Welcome
5 to the second of three hearings on the Draft
6 Supplemental Environmental Impact Statement on the
7 National Ignition Facility.
8 My name is Holmes Brown. I'll be the
9 facilitator for the meeting this afternoon. I'm
10 not an employee of the Department of Energy, and I
11 am not an advocate of any particular position or
12 person. My role is to assure that the meeting runs
13 on schedule and to make sure that everybody has an
14 opportunity to speak.
15 The agenda for this afternoon's meeting is
16 as follows: We will begin with a presentation by
17 DOE staff summarizing the content of the
18 Supplemental EIS. Next, a panel of four DOE staff
19 will be available to respond to the questions. And
20 after that, we will begin the formal comment
21 period.
22 The entire meeting will be transcribed by
23 our court reporter, Leti Ralls, who is over in that
24 corner.
25 Let me remind you that the question and

1 answer period is to clarify points relating to the
2 presentation and to the SEIS. Comments should be
3 offered during the formal comment period.
4 If there are no questions on the agenda or
5 procedures, we'll turn to the presentation.
6 I'd like to introduce Richard Scott, the
7 Document Manager for NIF with DOE's Oakland
8 Operations Office.
9 Richard, thanks.
10 MR. SCOTT: Thank you.
11 I'm Richard Scott. I'm the DOE Document
12 Manager. I'm a chemical engineer, and I have a PE
13 in the State of California.
14 The purpose of the meeting is to go through
15 the Supplemental EIS for the Environmental Impact
16 Statement to the Stockpile Stewardship and
17 Management Programmatic EIS, and the EIS number is
18 as you've seen.
19 This Supplemental EIS -- the Programmatic
20 Supplemental EIS resulted -- lawsuit resulted in a
21 Joint Stipulation and Order whereby DOE agreed to
22 evaluate the "...reasonable foreseeable significant
23 adverse environmental impacts of continuing to
24 construct and operate the NIF... with respect to
25 contamination in the area by hazardous, toxic,

1 and/or radioactive materials."
2 The purpose of this meeting is to discuss
3 the analytical work and the analysis of the
4 Supplemental EIS and to take comments on it
5 regarding its reasonable, foreseeable
6 environmental -- these impacts.
7 This was a narrowly-scoped Supplemental EIS,
8 and it was based on the supplemental agreement.
9 To go over the agenda again and any
10 administrative matters, the DOE presentation is
11 now. There will be an opportunity for elected
12 officials or their representatives to comment.
13 There is a sign-up sheet, plus we have a number of
14 public commentors who called in and already signed
15 up.
16 The transcripts will be made of the meeting,
17 and the Draft Supplemental EIS is on this web site
18 as attached.
19 Just to, you know, reiterate: Anyone
20 that -- the process for the Supplemental EIS, the
21 NEPA process, is that we're expecting comments back
22 by the 20th of December, plus any comments from the
23 court reporters or any oral comments or any
24 comments you give us now. Any comments received
25 will be considered in the final Supplemental EIS.

If you have late comments after the December 20th, we will consider them to the extent practicable, and that's really the standard DOE process.

After all comments are received, a comment response document will be developed, and the SEIS will be published. The record -- the final SEIS comments will be considered in the final SEIS, and a Record of Decision will be published in the Federal Register. Our process is scheduled to be complete in the spring.

To go back to the background of the Supplemental EIS, the Programmatic EIS addressed the environmental consequences of siting, construction, and operations of NIF at Livermore. And the ROD was published on December 26th, 1996, to construct and operate the NIF at Livermore, and the groundbreaking took place in May of 1997.

This is the photo of the existing conventional facility. It's about 82 percent complete.

During the excavations for the facility, we came across capacitors, PCB-containing capacitors and PCB-contaminated soil. The capacitor and soil cleanup were conducted with oversight of the

Federal, State, and remedial -- Federal and State Remedial Project Managers following the procedures set forth in CERCLA. The RPMs included the EPA, the State of California Department of Toxic Substances Control, and the San Francisco Bay Regional Water Control Board.

At the end of that, we had a lawsuit with the Programmatic -- over the Programmatic SEIS, and we went forward with a Joint Stipulation and Order agreement which required characterization of various areas in and around the NIF site.

The characterization was done to determine if the areas contained hazardous, toxic, and/or radioactive buried objects. And during characterization, progress was reported to the court through quarterly reports. And those reports are available in the reading rooms here and at Oakland.

Following characterization, a Draft Supplemental EIS was prepared, and that's this document.

The areas agreed to in the Joint Stipulation and Order were the helipad area, the East Traffic Circle Area, the Northern Boundary Area, the Building 571 Area, the East Gate Drive Area,

Building 490, and the actual NIF construction site.

This is simply a location of all those areas. I don't really think I need to point them out, but each of the seven areas is delineated there.

The investigation under the Joint Stipulation and Order had records and photos reviewed, and pressed -- and past and present employees were interviewed. Geophysical surveys were conducted where it was felt to be appropriate or where there was some indication that they might be useful.

Groundwater wells and soil borings and excavations were drilled or made. Quarterly reports were provided to the court, and now we're, of course, preparing the Supplemental EIS.

Characterization activities included, as I said, the review of the historical records; examination of aerial photographs; interviews with current and past employees; conducting magnetometer, electromagnetic induction, and ground-penetrating radar surveys; drilling boreholes and analyzing soil samples; drilling monitoring wells and analyzing the groundwater samples. We also made a number of exploratory

excavations based on those geophysical results.

Characterization activities actually encompassed four magnetometer surveys, two electrical conductivity surveys, one ground-penetrating radar survey, six new groundwater monitoring wells, 31 soil boreholes, 11 test excavations, and a comprehensive review of existing data and just data in general.

Just to provide you an idea of the magnitude of the number of groundwater wells we have, this is the northeast portion of the -- of the site. But throughout the site, there's about 450 active groundwater monitoring wells being reviewed. And this -- again, the data was looked at in a comprehensive manner, and this is, again, the northwest -- northeast section.

The characterization findings of the NIF construction area itself were: Sediment samples found no contaminants above levels of regulatory concern; construction debris was uncovered during drilling of boreholes and excavation based on the geophysical results, and there was a number made; groundwater sampling at the NIF site found ongoing cleanup had continued to reduce the previous contamination levels; and no PCBs have been

1 detected in groundwater anywhere on the site.
2 The geophysical results in the other areas:
3 Again, boreholes and/or excavations on significant
4 geophysical anomalies were found only -- found only
5 construction debris; groundwater sampling found
6 ongoing cleanup had continued to reduce the prior
7 contamination levels.
8 We also did come across a PCB contamination
9 in the East Traffic Circle in about December of
10 '98. PCB-contaminated soil was identified during
11 routine maintenance, which is out -- and this is
12 about an eighth of a mile from the NIF construction
13 site. Approximately 110 cubic yards of
14 contaminated soil have been removed through a
15 regulatory -- regulator-approved level.
16 Now, removal action was taken under guidance
17 of the CERCLA RPMs, and the cleanup level of 18 ppm
18 was used. Clean fill was used to cover this
19 excavation, and an action memorandum is in
20 preparation.
21 We come to the environmental impacts in the
22 Supplemental EIS. And there's a low likelihood
23 that buried hazardous, toxic, and/or radioactive
24 objects remain in the stipulated area. Soil and
25 groundwater sampling indicate that there is a low

1 likelihood of finding additional buried waste.
2 Continued construction and operation of NIF would
3 not result in a release of hazardous, toxic, or
4 radioactive materials to the groundwater.
5 The cumulative impacts in the Supplemental
6 EIS is that historical, ongoing CERCLA cleanup
7 actions and the recently completed site
8 characterization have cleaned up contaminated soil
9 and removed buried objects -- buried capacitors;
10 resulted in a continued reduction in groundwater
11 contamination, and shown a low probability of
12 finding any additional buried hazardous, toxic, or
13 radioactive material.
14 Reduction in the cumulative impacts from the
15 historical soil and -- reduction in cumulative
16 impacts from historical soil and groundwater
17 contamination at Livermore will continue to improve
18 the environments at Livermore and its surrounding
19 community.
20 The NIF SEIS alternatives under the Joint
21 Stipulation and Order evaluated two no-action
22 alternatives. The preferred no-action alternative
23 is to complete the NIF project at Livermore,
24 continue to construct in accordance with this
25 detailed site characterization under the JSO and to

1 operate the NIF under the ROD for the SSM PEIS.
2 The other no-action alternatives that were
3 considered in the Supplemental EIS would be the no
4 NIF project at Livermore, and that is to complete
5 the construction for an alternate use and demolish
6 the facility and return the site to an original
7 condition.
8 And this is, you know, the full range that
9 we considered of the possible no-action
10 alternatives.
11 The draft SEIS finding is -- results of the
12 analysis indicate that concentrations of the
13 contaminants are below applicable levels of
14 regulatory concern, and the impacts from buried
15 material on human health and the environment are
16 very low.
17 The schedule for the remaining Supplemental
18 EIS process is, again -- well, to go back, we
19 issued the Federal Register Notice of Availability
20 11-5-99; we held a public meeting in Washington,
21 D.C.; we're holding this one now and another one
22 tonight here; public comments are due here 12-20-99
23 in writing, if we can have them.
24 We'll issue our final Supplemental EIS based
25 on our response to those comments in the spring of

1 2000 and publish a Record of Decision in the
2 Federal Register in spring of 2000.
3 Essentially, that's the DOE review of the
4 process.
5 MR. BROWN: It is now time for the question
6 and answer period.
7 I'd like to introduce the other members of
8 the panel in addition to Richard. Dave Crandall is
9 the Director of the Office of Defense Science at
10 the DOE headquarters. Steve Ferguson is an
11 attorney with the Offices of General Counsel in
12 Washington. And Scott Samuelson is the DOE Field
13 Manager for NIF.
14 I'd like to remind you to hold your comments
15 until the comment period. This question and answer
16 period is intended to clarify points about the
17 document or the project.
18 And in order for everybody to have an
19 opportunity to ask at least one question, if I can
20 have people ask one question and perhaps one
21 follow-up until everybody's had a chance, and then
22 we can come back to anybody who has additional
23 questions.
24 So we are open for questions. Who would
25 like to start? Okay.

MS. CABASSO: Hi. I'm Jackie Cabasso. Can you hear --
MR. BROWN: Yeah, that's fine.
THE REPORTER: Actually -- excuse me. I'd prefer if she comes up here. I can't hear her.
MR. BROWN: Okay. I guess with the air-conditioning on, I think we've got a little competition.
THE REPORTER: Thank you.
MR. BROWN: So if you don't mind stepping up to the mike? Thanks.
MS. CABASSO: Yeah. My name is Jackie Cabasso. I'm the executive director of Western States Legal Foundation, which was one of the plaintiffs in the lawsuit. And my question is very specific.
In the most recent Green Book, that is the DOE Defense Programs Fiscal Year 2000 Stockpile Stewardship Plan, which is one of the documents we actually obtained indirectly through the lawsuit, a Memorandum of Understanding between the DOE and the Defense Threat Reduction Agency is described, and I quote, "...to ensure the implementation of the design features required for weapons defense testing on the National Ignition Facility."

That's at page 7-27.
"Some types of experiments discussed include ones that would use a lithium hydride atmosphere."
So my question is: In light of the recent disclosures about the possible design delays and technical problems, how would operating the NIF at lower energies affect plans for conducting weapons effects experiments including those using exotic materials? Would it make early use for weapons effects experiments more or less likely? And along the same lines, would operating the NIF at lower energies make experiments of any kind employing plutonium or uranium more or less likely?
And those, I think, are questions that go directly to potential conventional environmental impacts.
MR. CRANDALL: I guess I get tagged to respond to that one.
I would like to comment. From the beginning, you mentioned lithium hydride I think in terms of the neutron scatterer. There are no plans for that application that have been proposed by some scientists, but there are no plans for that application at NIF, and we never did have any plans

3-1

for that application at NIF other than the proposals from the scientists.
The change that may occur in NIF as a consequence to the present cost and schedule difficulties are not well-defined yet. Certainly there's an expectation that we will operate the facility, and it could be operated for some time at less than the full original power.
Many of the materials kinds of experiments, including weapons effects, could be pursued under the reduced power but not all. And that has not been considered in detail because we don't have a baseline plan that we're working toward.
But there's no change in the nature or quantity of experiments that's been identified yet associated with the present change in the cost and schedule.
You specifically addressed, also, plutonium and enriched uranium. We do not have any plans for experiments with plutonium and enriched uranium, but we have discussed them briefly in the PEIS -- not the Supplemental because it didn't deal with that. But there's been no change in that situation.
We will -- according to the statements we

made in association with the Stipulation and Order, we will, before -- before January 1st of 2004, decide whether or not we should propose to do any experiments with plutonium or enriched uranium. And if we decide we will propose to do that, we would immediately start environmental action. But we have no plan for doing anything specific at this point.
MR. BROWN: Thanks. Other questions?
Yes. If you could step up to the mike because this is being transcribed. Thanks a lot.
MS. KELLEY: This is a question of a different sort. There's an awkward balance between the fact that a question and answer period is not on the record and a comment is. And my comment has some questions in it.
So what I would like to propose, if the panel is willing, is I will go ahead and ask them in the public comment period -- I'll provide you with a copy -- and then if there's time left over -- the other thing is I want to make sure everybody who wants to comment gets time. And if there's time left over, can we have a discussion of some of those questions then?
MR. FERGUSON: I think there may be some

1 misunderstanding. The question and answer period
2 is on the record. It's being transcribed.
3 MS. KELLEY: Yeah. But in a -- if a lawsuit
4 were to result regarding the adequacy of this, it
5 would be arguable, and it would be probably argued
6 by DOE, that it wasn't -- that the questions asked
7 during this period were not necessarily part of the
8 administrative record.
9 So I just want to not get into that by
10 asking them during the official comment period, and
11 then I'd love to have some back and forth in a
12 discussion and see what can be answered informally
13 as well -- as well as what can be answered
14 formally.
15 MR. BROWN: I think our -- our format is to
16 pose questions now, and then once it seems that
17 we've had all the questions answered -- if, as a
18 result of the questions, you have a comment, I
19 don't know if you've signed up to speak --
20 MS. KELLEY: Yeah. I have about ten
21 questions, though, so, I mean --
22 MR. BROWN: Okay. Well, why don't you pose,
23 say, two of them now, and then we'll go on to the
24 next people and then try and get back to your
25 further questions?

1 MS. KELLEY: Am I being unclear, or is it
2 just not okay to go back to question and answers
3 after you hear public comments?
4 MR. SCOTT: For purposes of the public
5 hearing and the need for process, we typically try
6 to use the question and answer period to explain or
7 to -- something actually in the Supplemental EIS or
8 the presentation to kind of make that clearer and
9 not really to engage in question and answers and
10 debate on any of the issues.
11 MS. KELLEY: Right. I don't want to debate,
12 but I do want to give you folks who are here an
13 opportunity to take any of the questions that I
14 present during comments that I think should be
15 discussed and analyzed in the final document and --
16 and -- and respond or engage or whatever. So I
17 just --
18 MR. CRANDALL: Well, in terms of your point
19 of order, I don't think there's any difference in
20 the way we would treat your questions versus your
21 comments.
22 MS. KELLEY: And so what is your pleasure?
23 MR. CRANDALL: They will both be on the
24 record, and we will respond to both of them.
25 MR. BROWN: Why don't you pose two

1 questions?
2 MS. KELLEY: All right.
3 MR. BROWN: We'll see how our time goes.
4 MS. KELLEY: Okay. Some of the operational
5 procedures under consideration for the National
6 Ignition Facility might have new, heretofore
7 unanalyzed environmental consequences. For
8 example, the technical problem of damage
9 propagation at NIF's final optics package where the
10 beams converted to ultraviolet, referred to as the
11 third harmonic, it's been disclosed that this may
12 cause lenses to shatter more often than had been
13 anticipated or desired, and therefore this could
14 engender a vastly scaled-up change-out schedule. **3-2**
15 Are there potential radiological risks that
16 may result from employees having to change out the
17 final optics more frequently? For example, the
18 debris shield which is part of this optics package
19 is intended to protect the lens from fragments
20 resulting from the experiments, but what about
21 neutron flux? Will there be any or could there be
22 any neutron activation products?
23 MR. CRANDALL: Am I the target, or can I
24 defer that to Scott?
25 We have no expectation that there are going

1 to be any shattering of lenses beyond what has been
2 analyzed from the beginning in the project. And
3 the damage issues don't change that. The --
4 MS. KELLEY: Well, the damage issues mean
5 that you have a choice to run it at half energy
6 right now if you can't resolve the problems **3-2 (cont.)**
7 otherwise, or to go for some of the high-gain shots
8 or risk-damage propagation and shatter more lenses.
9 MR. CRANDALL: There is no expectation of
10 shattered lenses. They will be replaced long
11 before they've shattered.
12 MS. KELLEY: Okay.
13 MR. CRANDALL: So that's a very strange
14 question that I don't really know quite how to
15 respond to. In addition --
16 MS. KELLEY: So the increased change-out **3-2 (cont.)**
17 schedule --
18 MR. CRANDALL: The increased change-out
19 schedule would not have any known or quantified
20 radiological hazards associated with it. It has
21 very standard hands-on kind of work.
22 MS. KELLEY: Right. So the neutron flux
23 doesn't reach the shield? There aren't any neutron **3-2 (cont.)**
24 activation products? Is that what I'm hearing?
25 MR. CRANDALL: What neutron activation

products could be expected at that point are extremely low under any circumstances. So you're assuming that we have successful ignition many times over before we have any neutron activation. And that's a problem we'd love to have but I don't expect.

MS. KELLEY: Well, you have -- you have fusion neutrons at NOVA. I mean, you even get into the neighborhood. And you have neutrons in some alphas Is this going to be analyzed? **3-2 (cont.)**

MR. CRANDALL: Of course. This has been analyzed. There's no measurable neutron activation product associated with that change-out.

MS. KELLEY: Same question about chemical risks that could be increased due to more frequent change-outs. **3-3**

MR. CRANDALL: You'd have to be more specific. I don't know what chemical risks would be induced. There's no significant chemistry involved in the change-out other than washing --

MS. KELLEY: Volatiles, et cetera? **3-3 (cont.)**

MR. CRANDALL: No.

MS. KELLEY: There wouldn't?

MR. CRANDALL: No.

MS. KELLEY: And how about NIF's waste

stream? Has that been analyzed in terms of how that might be impacted by more frequent change-out? I mean, we're talking potentially substantially more frequent. **3-4**

MR. CRANDALL: I doubt that, actually. There's a limit to -- the waste stream was analyzed for NIF in the SEIS, and we have no expectation under any servicing conditions of exceeding the waste stream that was analyzed.

MR. BROWN: Let me try and get a few other people, and maybe we can get back to you.

MS. KELLEY: All right. Or I'll just do it during the --

MR. BROWN: Okay.

MR. SCOTT: Well, these are some detailed questions. We probably would like to get them in writing so we can respond, you know, in the appropriate forum there. And so I'm sure you'll provide them in writing, and we'll be able to respond in the final Supplemental EIS. Because that's -- we don't need to do this here. You know, the purpose of this is to explain.

MS. KELLEY: But time allowing. I'm -- I'm actually interested. That was an honest question about the neutron flux.

MR. SCOTT: Okay.

MR. BROWN: Other questions? Yes.

MR. ZAHN: My name is Ken Zahn, resident of Tracy. And I just wanted to ask if, perhaps, during the start of the comment period it might be reiterated by the moderator or one of the panel members what the scope is for comments and questions.

As I recall or understood, this was to be a discussion of the Supplemental EIS, not necessarily general questions. Certainly general questions could be posed, but to take the time to discuss ancillary issues that aren't pertinent to the supplement itself seems, to me, to be not where we should be going with this. **3-5**

So I would hope and propose that you could review for the group what the scope of comments that are pertinent to this subject are for purposes of the public periods that we have available to us.

Thanks.

MR. BROWN: Thanks. I think the comments that will be most helpful and the ones that will be responded to in the final Supplemental EIS document are those that relate directly to the document and the range of the document. I mean --

MR. FERGUSON: Just to add to that, all comments will be responded to. But the response to some comments may well be that they aren't relevant to the questions raised in the document.

MR. BROWN: Are there other questions?

UNIDENTIFIED SPEAKER: I have a quick follow-up on some very specific things.

MR. BROWN: Oh, sure.

I'm sorry. This gentleman hasn't posed a question yet. Go ahead and pose a question, then we'll get to you next.

MR. STEINHAUER: Just a brief question in regard to the most recent remarks that have been made. And I understand -- I truly understand your need to focus on the document, and I understand the problems behind it.

You have a magnificent opportunity here to go beyond that narrow, horse blinder vision of dealing with those issues in the document and trying to deal with other things that will undoubtedly come up. And along the way, they will lead to other challenges and other lawsuits and other problems. **3-6**

And I understand your vested interest, and I think that you gentlemen should take a hard look at

the interests of some of the other people that are gathered here and the other concerns that they have.

And if you're not prepared to widen your scope of the issues that are being raised and dealt with here, not just the cost overrides and the technical problems and all other things, and actually the concealment of some of the data that has to be drug -- dragged out through the Freedom of Information Act and other questions -- other formations, whether you're not going to delay the process that you are trying to move along. **3-6 (cont.)**

And so maybe for now it rests on the four of you gentlemen to decide whether you're going to deal honestly with integrity and with honesty with the issues or whether you're going to try to say, "Well, we're only dealing with this issue."

And if you succeed in that, well then, fine. But you're only going to create more problems down the road. You're only going to generate more challenges, more lawsuits, and more delays.

So to some degree, I'm asking, you know: What's the depth of your integrity in this matter? How honest and open are you prepared to be?

I'll take the answer from my seat. Thank

you.

MR. BROWN: Thank you.

MR. FERGUSON: I'm not sure there's a question there, but I'll try to answer it.

This process, as laid out originally by the moderator and by the first speaker, was the one that was initially documented when the process was started.

There has been no attempt to conceal information, no attempt to have it be anything other than as it's stated. The Supplemental EIS is being produced as a result of an agreement reached by the parties in the lawsuits. The scope of the document was delineated within that agreement. There was a very specific issue raised at the time.

The purpose of this document is to address that issue. That does not preclude other processes the Department might undertake to address concerns raised by the public. And I think the Department has a very good record in raising and addressing those concerns and listening to the public.

But today we are here for a very specific purpose.

MR. BROWN: Okay. There was a follow-up question?

MS. CABASSO: Yeah. Jackie Cabasso again.

I wanted to go back to my original question and just ask you if you could comment on this Memorandum of Understanding between the DOE and the Defense Threat Reduction Agency regarding ensuring the implementation of design features required for weapons effects testing in the NIF. **3-7**

What does that -- we know the Memorandum of Understanding exists. What does it -- what does it talk about?

MR. CRANDALL: The Memorandum of Agreement is a very brief and simple document. It may be two pages, but I think it's only one.

It recognizes what is in the Mission Needs Statement for the NIF, that radiation effects and weapons effects are part of the mission for the NIF. And it stipulates that the DOE will work to include design features that allow that to happen.

Principally, the point was to provide a basis for cooperation between DTRA and the Department of Energy on that issue. And it specifically was included and analyzed in the PEIS, the NIF-specific portion of the PEIS. And the principle effect of that design was to allow for red light -- not the blue light, but the red

light -- to be distributed within the collision chamber to be put on so that x-rays could be directly converted from the red light of the laser to provide a large area illumination of things that might be put in the target chamber.

This involves no radioactivity, involves no hazardous materials beyond those innate already in the facility, and it does not involve fusion ignition.

That was the principle effect. It wasn't the only one. What we did was to make sure that the facility was as flexible as possible for producing radiation light that would be useful in weapons effects. And it did not change the facility in any substantial ways other than the ability to redirect red light into the chamber.

MS. CABASSO: Is it a particularly sensitive document?

MR. CRANDALL: No.

MS. CABASSO: Because we have FOIA'd it, and we've been waiting quite a while for a response. Is there anything you could do to help us get it? **3-8**

MR. CRANDALL: I'm surprised. I think you already have that document.

MS. CABASSO: No, we don't.

MR. CRANDALL: I bet you do. I bet you I can help you find it. It's in the legal proceedings that were done before, documents that were provided to you. So when you find it, you're not going to find anything very interesting, I'm afraid.

MS. CABASSO: But I can come back to you if we can't find it?

MR. CRANDALL: We should get it in your hands. There's no secret here.

MS. CABASSO: Yeah. All right. Well, I'm just saying, though, this is how rumors develop and how perceptions of bad faith come up in a public process when we actually FOIA something and we don't get anything, and then we begin to wonder. So I'm just -- it's an illustration of the kind of thing that comes up.

3-9

I have to respond to the gentleman who spoke from Tracy and say that under NEPA there is nothing that precludes the Department of Energy in this process from taking another look at the purpose and need for the program and the scope of the hearing.

And so, as you correctly responded, the time when the DOE will declare something out of bounds is after they've heard what it is, not before.

MR. BROWN: Thank you.

Other questions?

(No response.)

MR. BROWN: How did you want to -- did you want to make your questions and comments, combine them during the comment period?

MR. SCOTT: Excuse me. There's one over here.

MR. BROWN: I'm sorry. I didn't see the hands. Yeah?

UNIDENTIFIED SPEAKER: Hi. My question has to do with the Purpose and Needs Statement in the document. It says that -- I'll read the sentence. It says,

> "As explained in the SSM PEIS those models" -- speaking of the computer models -- "are needed to simulate weapons physics, thereby providing insights on the reliability of the weapons stockpile."

3-10

In previous hearings, the question has been asked about reliability, whether reliability ever meant that there was any question that the weapons that we have in the stockpile would not go off at all.

And Dr. Crandall answered that question in previous hearings to say, no, they would always go off. The question had to do -- the question about reliability had to do with the yield curve, the particular characteristics of the explosion, not whether they would explode at all.

3-10 (cont.)

And I want to ask the same question again: Is that still true?

MR. CRANDALL: No matter what I say, it will be used differently probably.

There can be no clear answer to what the reliability issues would be unless we know very specifically what it is we're addressing.

There are a large range of physical processes and materials responses that have to be understood in evaluating what we find in our nuclear weapons. We do a regular surveillance of nuclear weapons. We find issues problems all the time that -- many of them that need specific resolution in terms of the behavior of materials under different conditions.

There are few, if any, previous expectations that there would be zero functioning of a nuclear weapon, but there are -- there are serious and less serious and various degrees of analyses that are

done for every one of those that come up.

And you have to be able to speak to individual ones to be -- to be concrete as to whether or not it's a yield issue or a function issue or a characterization of the output issue that you're dealing with, and those become classified subjects when you get specific.

So there's a full range, very broad range of materials issues that get addressed.

UNIDENTIFIED SPEAKER: I understand that these are material issues. I understand it's a broad range, and I understand that they're classified. I'm not asking you about any particular issue that's classified.

3-11

I'm asking: Because you're building this facility to the tune of, you know, a billion plus dollars, in your statement saying, "This is to address reliability."

I'm asking: Are any of those reliability issues concerned with whether the weapons will work? And buried in your answer was, there is very little, zero expectation, that there would be zero yield on anything. And that's really not what you're building this for, right? I mean, that's what I'm asking.

MR. CRANDALL: What we evaluate to is the military effective yield, which is set by DOD requirements. And to my knowledge -- to my personal knowledge, we have not had situations in which we thought there would be no consequence from triggering a nuclear weapon. But that's -- I don't know everything, fortunately.

UNIDENTIFIED SPEAKER: Okay. I take that as my answer, and I would summarize the answer and ask you if this is a correct summary: That, although in the public and newspapers and so forth, reliability is often interpreted as, "Is our stockpile reliable," in a sense, "Will it work?" That's not the issue here.

3-11 (cont.)

Your reliability is measured against the military need for a weapon to perform in a certain way. And that's the only -- the perceived military need for the weapon to perform in a certain way, and that's what you mean by reliability, not whether the weapons will work.

Right? Did I -- did I capture what you said correctly?

MR. CRANDALL: Yes, except that you can't say that that's exclusive of whether the weapons would work, but yes.

MR. FERGUSON: I think it's worth mentioning, too, that the Department of Defense and Energy must jointly, yearly certify to the President that the stockpile is safe and reliable.

That certification, as I said, must occur on a yearly basis. And your question implied a static situation. And as time progresses and the stockpile ages, questions about function will merge and blur, and each year that certification still has to be made.

So I'm not a scientist, but all I can say is I think it's a mistake to consider this to be a static, snapshot question or issue with respect to reliability.

UNIDENTIFIED SPEAKER: I know that the phrase "safety and reliability" gets used a lot together. I point out that this document says nothing about safety issues. It says only about reliability issues. So I don't think we ought to bring up the safety question here.

3-12

You're not building this to ensure the safety of the stockpile. You're building this to ensure the reliability of the stockpile. And my question had to do with what you mean by "reliability."

You're also building it to look towards the future. So if you're building it for the reliability of the stockpile, you can't just say, "Well, there might be something that comes up in the future that we might be able to use this for." You must have particular things in mind that, as Dr. Crandall says, are classified.

I'm not asking about what those particular things are. I'm just saying: Are any of those particular things that you have in mind have to do with whether the weapons will function? And the answer was "no."

3-12 (cont.)

Okay. And I don't think you ought to muddy it with safety, reliability and thinking about, you know, what might happen in the future. That's not what you're building it for. You're building it for what you know about now and what you're projecting for the future.

At least I hope you're doing it, and not just doing this on a lark, spending all this money on a lark.

MR. CRANDALL: But the comment is: The NIF is designed for and needed for looking at material responses, how materials function at very high densities, temperatures, and pressures; that NIF is

the principle instrument of doing that with respect to stockpile issues for either known, unknown, known-unknowns or unknown-unknowns that may occur in the stockpile.

We know that the materials in nuclear weapons have to carry out certain behaviors and functions at very high temperatures, pressures, and densities. And this is our principle instrument for being able to examine materials in that physical regime.

MR. BROWN: Okay. Are there other questions?

(No response.)

MR. BROWN: I was going to suggest, in response to your questions, that many of them seem to be fairly detailed and technical. And perhaps, as the panel suggested, they could be submitted in writing to get a more comprehensive -- okay.

And also, after the question and answer period, some of the panelists may be available to talk to you informally, and you are signed up to make comments. So you can make your comments at that point.

Are there any other questions at this point?

(No response.)

MR. BROWN: Okay. I think we will now move into the formal comment period. I believe we have 12 persons signed up to speak. Has anybody else come in who would -- who's not signed up to speak who would like to? I'm trying to figure out how we apportion our time. Just have a show of hands.

Anybody else who will be wanting to make comments?

UNIDENTIFIED SPEAKER: Excuse me.

MR. BROWN: Yes?

UNIDENTIFIED SPEAKER: Since nobody got call backs from calling in in terms of signing on, who is on the sign-up sheets so we know the names that are listed? Some people might have called and not be on the list.

MR. BROWN: Okay. Let me read through the folks that I have. Karen Majors, with the mayor's office; then Marylia Kelley, Sally Light, Don Larkin, Dale Nesbitt, Madilyn Duckles, Rene Steinhaven (sic), Janis Turner, Cindy Pile, Tal Simchoni, Ann -- is it Beier or Beier?

MS. BEIER: Beier.

MR. BROWN: -- Beier who signed up this evening, and then Jackie Cabasso who also signed up this evening. So those are the names that I have.

UNIDENTIFIED SPEAKER: Madilyn Duckles will not be here. She called me to let me know she was not going to be here.

MR. BROWN: Okay. All right. Well, I'll call the names in order, and if folks aren't here, we'll go on to the next.

Is there anybody missing, or is there anybody here who would like to make comments?

Okay. I guess we have on the order of 10 or 11 speaking.

We're now prepared to take formal comments. I will ask each person, as their name is called, to step up to the microphone and identify themselves and provide an organizational affiliation, if that is appropriate.

Because of the number who are signed up -- and I want to make sure that everybody has an opportunity to speak -- I'll ask that the initial presentation be confined to ten minutes. I will notify you after eight minutes have elapsed, and if you can wrap your comments up within ten minutes, that's fine. And if not, if you can end at ten minutes and you have further comments after everyone else has had a chance to speak, we'll come back to you so that you can complete your

statement.

So I'd like to call our first speaker at this point. That's Karen Majors, who is the Economic Development Director for Mayor Cathie Brown's office.

MS. MAJORS: Good afternoon. My name is Karen Majors, and as the gentleman said, I'm the Economic Development Director for the City of Livermore.

Mayor Brown asked me to come and read a letter that her office prepared as written testimony, and she would like to have it read into the record. Unfortunately, her schedule did not permit her to be here this afternoon.

The letter is addressed to Mr. Richard Scott, U.S. Department of Energy.

"Dear Mr. Scott,

"On behalf of the City of Livermore, I would like to affirm the City's support of the construction and operation of the National Ignition Facility at Lawrence Livermore National Laboratory.

"Today's public hearing is about

3-13

the draft Supplemental Environmental Impact Statement or SEIS. This SEIS was necessitated because of the fact that during excavation for NIF in 1997, the construction contractor unexpectedly uncovered electrical equipment containing PCB oil, a hazardous material.

"It was disturbing that an undocumented hazardous material dump was uncovered; however, I was impressed with the speed and professionalism of Lawrence Livermore National Lab in handling the situation. Representatives from Lawrence Livermore National Lab notified me immediately and continued to keep me informed -- fully informed of the circumstances. I was assured that at no time the citizens of Livermore were in any danger from this event.

"This type of response, when

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unexpected events occur, gives me confidence that Lawrence Livermore National Lab is a good neighbor. I continue to support the NIF and urge you to accept the SEIS and proceed with the project. "Sincerely, Cathie Brown, Mayor" **3-13 (cont.)**

Thank you.

MR. BROWN: Thanks very much.

Our next speaker is Marylia Kelley.

MS. KELLEY: Hi. I, too, was impressed with the speed of the cleanup but need to mention that it was an emergency removal action under the Superfund Law.

What I want to say regarding this particular document is it must be noted that no scoping meeting was held. Now, it's the agency's discretion whether they want to hold a scoping meeting or not. You folks chose not to.

As currently written, the scope of the draft Supplemental Programmatic Environmental Impact Statement is inadequate because it's absurdly limited. Currently the draft Supplemental PEIS is limited to a mostly backwards-looking analysis of how the Department, way back in 1997, cleaned up **3-14**

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112 PCB-laden capacitors found in an undocumented waste dump during the initial phase of NIF construction, with some mention added about the court-ordered investigations that followed and the discovery of additional PCB-contaminated soil in the Special Study Area in 1998, which were later removed.

The National Environmental Policy Act, the law under which this document is being prepared, intends environmental analyses to be forward-looking and to assist an agency and the public in engaging in good decisionmaking.

If this document is to meet that bar, it must be expanded to incorporate new information and new proposals regarding the National Ignition Facility construction and operation that have emerged since that 1997 court order, including a full analysis of NIF's cost overruns and the underlying technical problems.

Second, there are proposals before the Department that, in essence, make NIF a very different and, therefore, new project, unlike the NIF that was analyzed in the 1996 PEIS, making that out of date. **3-15**

There is a proposal currently before DOE to

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build a half NIF consisting of 96 beams. This proposal comes with a subpart containing changes in the order in which the laser beams are to be brought on-line.

The order in which laser beamlines become operational and whether there are full or half of them affects NIF's experimental capabilities. **3-15 (cont.)**

Further, these new proposals may alter the time frame in which different categories of experiments are likely to be done. These things, in turn, could mean a change in the environmental impact of NIF.

The supplemental PEIS should analyze, for example, whether experiments using plutonium or highly-enriched uranium are made more likely by the change in the beamlines' number and/or operational order, as was mentioned in the Q and A time.

Further, the document should explore whether experiments that could use plutonium or HEU are likely to occur earlier or later as a result of these changes. **3-16**

And those same questions should be answered and were partially answered by you but should also be in the document -- "you" in this case being you, David -- about weapons effects testing.

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There could be differences in various kinds of toxic materials that may or may not be used.

Third, the draft Supplemental PEIS relies on a Purpose and Needs Statement made in the 1996 PEIS which is inadequate in light of this new information and potential changes for NIF.

Regarding the purpose and need for NIF as put in this document, Chapter One, page 3, contains the statement that, quote,

"NIF will provide a unique capability as a key component of DOE's science-based stewardship of the nation's nuclear weapons stockpile," end quote. **3-17**

NIF's operational capabilities are very much called into question by the serious, unresolved technical problems with laser glass and other optics, with target fabrication and with diagnostics. At a minimum, this should trigger a reassessment of NIF's purpose and need.

We note, as well, that the U.S. Environmental Protection Agency requested that the draft Supplemental EIS contain a, quote, clear statement of purpose and need. And that's in Chapter One, page 7. The DOE declined to do so. **3-18**

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This deficiency must be remediated in the final -- remedied in the final document. **3-18 (cont.)**

Four, DOE's preferred choice called the no-action as an ongoing activity -- which is an interesting way to turn "no-action alternative" on its ear -- in Chapter Two of the Supplemental PEIS is so narrowly construed that it becomes useless as a decisionmaking tool.

Chapter Two, page 1, states, quote,

"Under this interpretation of the no-action alternative, DOE would make no changes in the design of NIF, would undertake no deviations in construction techniques, and would impose no operational changes in response to the information regarding site contamination obtained during the characterization studies." **3-19**

This is a surreal inversion of the reality surrounding the NIF. In fact, there are proposals that would significantly alter all three of those above-quoted parameters; that is, NIF design, construction techniques, and operational changes.

DOE hinges its preferred action on a mere

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assertion that these major changes are not necessarily linked to the discovery of the PCB-laden soils in the NIF construction area.

So what? Should DOE simply ignore the larger reality and proceed? If DOE chooses this course, it will waste taxpayer money and run contrary to the spirit and letter of the National Environmental Policy Act. A second, hard look at NIF is the action that's warranted at this juncture in time.

Furthermore, DOE must seriously consider a true no-action alternative; that is, to halt the construction of the National Ignition Facility.

The draft Supplemental PEIS dodges giving this option the consideration that it deserves. In fact, various parts of this document have prejudicial wording regarding the impacts of not moving forward with construction. **3-20**

There's one part that says that there could be radioactive releases associated, for example, with using the building for other purposes. Right now it's just concrete. There's no radiation there today. So that's an outrageous statement because whether or not there would be radioactive releases would depend entirely on what the other use was.

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You can't put that down as a negative impact of not continuing with what is, in fact, a radiological facility to begin with. **3-20 (cont.)**

Also, this draft document contains unsupported statements about other uses using fewer employees. It is not justified in this document. The opposite could, in fact, end up being true.

The NIF, according to DOE and Lab documents, may employ only 230 to 300 long-term employees, and most of those were moved over from NOVA. And as Dave Crandall knows, we objected to the dismantling of NOVA. So in terms of new jobs, transitioning this facility into something else at the Lab could, in fact, have a net job gain. **3-21**

Six, "Operation" -- this is a quote from your viewgraph, Richard.

"Operation of NIF will have no impact on soil or groundwater," end quote.

I just want to point out that part of the Superfund cleanup going on at Livermore Lab includes a Freon plume as well as TCE and other organics in the laser area. And the only candidates for that Freon plume are NOVA and U-AVLIS. **3-22**

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So you can't just simply, blithely, make that statement. It's something -- the environmental impacts seriously need to be looked at.

Seven --

MR. BROWN: Two minutes, Marylia.

MS. KELLEY: All right.

MR. BROWN: Thanks.

MS. KELLEY: Regarding my earlier questions about the change-out. Part of your reply, David, was that there's no expectation of shattering lenses.

And I want to seriously suggest that the less optimistic aspects of some of these problems need to be analyzed in the document. In other words, you maybe should consider that there may well be a lot of shattered optics, a lot of additional change-outs, and a lot of impacts that could be downstream from that that should be looked at. **3-23**

I also want to take this opportunity quickly to ask for three documents and that they be made part of the record.

One is, Mike Campbell told me in August of last year when he was Associate Director for Lasers **3-24**

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that there was a report delineating all of the Beamlet experiments, not only their purposes but also an evaluation of them, a look at their parameters, a look at what they proved or didn't prove. And he said he would make that report available to me after it got out of the internal peer review here about the first of this year. I have yet to see that report.

So any report or reports on the results of Beamlet experiments, since everything in NIF -- not everything, but many things in NIF are predicated on what was supposedly proved in Beamlet. And I'm referring to the Lab's presentations to the Secretary of Energy Advisory Board task force on that.

3-24 (cont.)

And those statements are being made without the base document being available to the public to analyze whether or not that, in fact, justifies the statements made by the Lab.

The second thing that should be part of the record is the Livermore Lab's new baseline report that they submitted to the Department of Energy a couple weeks ago now.

The Lab is claiming that that's in draft form, but, in fact, at least as a preliminary

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report, that is their final of that aspect of it, and that should be part of the record now. We shouldn't have to wait until next June when it's due in Congress to be able to see that because the baseline impacts the project and whether, in fact, it's a substantially different project with substantially different impacts. And that needs to be part of this record.

The third thing is, I also want to make sure that the MOU between the DOE and the Defense Threat Reduction Agency is made part of the record, and also additional MOUs with France and Great Britain that impact the design, construction, and operation and monies for NIF also be made part of the administrative record.

And finally, I just want to quote Richard. He said at the beginning, "This is a narrowly-scoped Supplemental EIS," and I want to thank you for that honest statement. And my comment is: Too narrowly scoped.

3-25

Thank you.

MR. BROWN: Thanks very much.

Sally Light?

MS. LIGHT: Good afternoon. My name is Sally Light. I work for Tri-Valley CAREs,

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Communities Against a Radioactive Environment. I'm the nuclear weapons and waste program analyst.

A lot of my concern today -- there will be others who will speak in detail about the actual document, such as Marylia and Jackie and so forth.

I question -- I want to bring up the issue of credibility, generally and specifically. Credibility in terms of DOE's credibility with the public. Every time that we have an EIS or a PEIS, it's the DOE who is performing that. It's not an independent, outside agency that's unbiased. And so that always brings up issues of credibility for me.

3-26

And when I looked to the specifics of the NIF situation, it takes a further wrinkle because I think that the Department of Energy and the Lab's conduct in terms of the time -- at the time the capacitors were found in the target chamber as it was being dug out -- I mean, I happen to -- I was actually in the -- in the Tri-Valley CAREs' office the day that we got a call saying that these capacitors were being unearthed.

And as I recollect -- and I was a part of the steering group on this lawsuit, so I was deeply involved in all of this -- that actually the bare

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minimum of reporting was accomplished by the Lab and DOE about those capacitors.

And I was the one who suggested that we contact our attorney and see whether this would be of interest, and it turned out to be very much of interest. We would not be sitting here today discussing this draft document had we not acted on it, researched it out, got to the court. And the court was irate at DOE and the Lab. And that turned a lot of things around in terms of the whole lawsuit.

So, again, when I think about that, that is a major question, and I want the media to remember back to that time, two and a half years ago.

And also, when I look at EISes in terms of how DOE produces the documents, in general they're very flat, flat, narrow in scope, rather toothless documents with very predictable findings.

And this -- this particular document is also like that. I'm very upset with the narrowness of the scope and some of the issues that others have already raised today in terms of the Q and A period as well as their comments. I underscore their concerns about the lack of reality about what's going on now in terms of new proposals concerning

3-27

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the design and so forth of the NIF and how it plays here in terms of the document.

And I think the document is inadequate as it is, but it certainly is far more inadequate in view of the last six months' revelations concerning the NIF. **3-27 (cont.)**

I think that the style of the document is rather arrogant. I think that, you know, it wasn't done out of voluntary good faith, goodwill to present alternatives to the public. We dragged it out of you through our having to go to court, which is a shame, but that's the way it is. And I think that also plays into the credibility of the public.

I -- I feel that DOE and the Lab just -- they don't want anything to impede the NIF. The NIF has been touted by DOE as the flagship project of the Stockpile Stewardship Program. And so, again, the issue of good faith comes in. **3-28**

When I think back to June of this year at the target dedication, the NIF dedication ceremony, when Secretary Richardson actually got up and boasted that the project was within budget and on time, that brings up another issue of credibility to me because at the very minimum he was, shall we say, misled by the Department of Energy, his own

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Department, about what was going on out here.

If he's lied to by the Department of Energy, how can the public rely upon the Department of Energy to be truthful in anything?

Right now there is an investigation going on by -- by -- actually three different investigations; one is already complete -- by U.C. One is the SEAB, which Marylia really mentioned -- alluded to which is a very interesting process, and the other is by the General Accounting Office.

And I know that for the press here today, I just want them, as well as the public, to know that in the spring of 2000, approximately around there, there will be at least testimony in a hearing and perhaps a report by the GAO on the problems with NIF being very much over budget and having major technical problems driving the over-budget problem as well as being behind schedule.

If DOE calls NIF its flagship project for the SSP, somehow I just want to end on a rather jovial note, perhaps. Some of us are beginning to think that maybe the flagship should be called the Titanic. I think it's sinking into its own pit along with its capacitors and bones of ancient animals and whatever else they find out there.

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That's my main thing. I -- I -- how can I stand here and believe anything anybody's telling me anymore about NIF? **3-28 (cont.)**

Thank you.

MR. CRANDALL: I would like to make one comment or two comments in response, and it's partly to Marylia's question.

First of all, the Department is concerned about its credibility, and some of us urge openness and -- and easier communication. Our position is undermined by revisiting the same issues too many times. And so we could use help from everybody in helping -- in trying to make credibility and openness easier for the Department to execute and achieve.

Secondly, we do not have -- it is certainly true that NIF is going through a question associated with the cost and schedule. And we don't have a baseline plan for what we're coming to, so we don't have something to analyze at this point.

However, there is zero expectation in any of the discussions so far that the fundamental missions and needs and experiments change because of this. They may change in time; that is, they

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may happen at somewhat different times, but there's been no expectation of change. If there is, we would certainly revisit the analysis.

And finally, just one last thing: The rebaseline document is a draft. It is something -- it will be a departmental document. And what we have is a draft that we requested from the Lab which we are modifying. And so when we have finished developing a rebaseline plan, it should become a public document.

MS. KELLEY: My point is that you asked -- you ideally asked the Lab reporting to submit this rebaselining to you. So it is final as the Lab's proposals to you. It is not final as your report.

That proposal that the Lab submitted to you on their letterhead, not on DOE letterhead, is what should be released as their document. Then when DOE does finalize its report, then that should also be released. That's my point.

MR. CRANDALL: It's a fine point. It's a draft. We asked them for a draft, so we still consider it to be a draft. But I'll do whatever is expected.

MR. BROWN: Okay. I think he understands that the document is a draft.

I might suggest that I'd prefer to have just comments here. If we begin engaging in dialogue -- we're already, I think, running up against our evening meeting. So it seems like everybody here knows each other. And if it may be after this session you could engage in some of that dialogue then, why don't -- I want to make sure that everybody has a chance to get their comments on the record.

Our next signed-up person is Don Larkin.

MR. LARKIN: Hi. I'm Don Larkin from Santa Cruz, and I am going to rehash old issues because I think it's appropriate to rehash them. Times have changed; conditions are different. And the statement you -- the draft -- the process we're engaged in right now, as I understand it, has to do with whether the environmental risks are worth -- worth it.

One of the options is a no-action alternative. There's two no-action alternatives. One of the no-action alternatives is to stop construction of NIF. And this seems to be a balancing act between the purpose of the project and the risks associated with the project.

So I would like to examine what this -- this

document says in terms of the purposes of the project. And I know you've done this before, but I think you need to do it again because, as I read the statement in the document -- and I'll read it here.

"The purpose and need for the NIF is explained previously and summarized here. The NIF will provide a unique capability as a key component of DOE's science-based stewardship of the nation's nuclear weapons stockpile. Planned experiments with NIF at temperatures and pressures near those that occur in nuclear weapons detonations will provide data needed to verify certain aspects of sophisticated computer models."

3-29

I'll stop there and say that those models are the models used to do virtual design of nuclear weapons. This statement here doesn't say that.

"As explained in the SSM PEIS, those models are needed to simulate weapons physics thereby providing insights on the reliability of the

weapons stockpile."

Going on,

"As a multi-purpose inertial confinement fusion facility, the NIF will also be used, important to national energy, that is as a critical step in scientific evaluation of inertial fusion energy as a future environmentally-attractive energy source."

It goes on. It says -- it mentions other things as well.

I went back -- so now what's being presented as part of Stockpile Stewardship and Management needed to ensure the reliability of our stockpile, there's no mention here explicitly of weapons design function.

3-29 (cont.)

I went back and looked at old documents, including the institutional plan for Livermore Labs six years ago, December 1993. It has an item there for fiscal year 1996 called the National Ignition Facility estimating only $677 million.

But here's what it says the mission are -- there's three mission points.

"The mission of the National Inertial Confinement Fusion Program is three-fold: One, to play an essential role in accessing physics regimes of interest in nuclear weapons design and provide nuclear weapons-related physics data, particularly in the area of secondary design.

"Two, to provide an above-ground simulation capability for nuclear weapons effects on strategic, tactical, and space assets, including sensors in command and control. And, three, to develop inertial fusion energy for civilian power production."

I understand why you've, sort of, dropped nuclear weapons design out of your PR and your public statements, but I think it's dishonest of you to do so.

Clearly, this -- this facility, from the beginning, was intended to provide experimental data to plug into computer models and where those models -- to refine those models to the point where

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they could be used to do design of new types of weapons and new types of weapons and putting this to stockpile.

But in public discourse about this, people always bring up the third item on that list; that is, the energy-related item. Even good reports in the Sunday Mercury News say that the -- refer to this as a facility that's going to be -- help us get to nuclear energy. But it's not.

The only reason it's being built is because of nuclear weapons reasons. We've never had a national debate on whether we needed to develop fusion energy. We've never compared that to solar and wind energy.

3-29 (cont.)

It's admitted that this is not a prototype at all for a nuclear energy facility, and people in the labs have told me that it's at least 50 years away before we even know what to do with it. This is sort of like on spec. Maybe we're going to have fusion energy.

If there was that debate, if this was really for fusion energy, Congress might not provide you the funds. The only reason you're getting the funds is because this is a nuclear weapons design facility.

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And I think, then, you need to evaluate the environmental risks against that purpose, not just the purpose you have stated here in your document.

So I wanted to make a couple comments about that purpose. As in my earlier question about the reliability issue, often the discussion shifts to, "Oh, yes, this is just" -- the answer comes back as a, "This is a pure research design; we're doing pure research."

Now, I have to say that I support nuclear physics research on the cutting edge. But I would support it in a regime where we knew we had abolition of nuclear weapons; we knew what the products of that research were going to be.

So it's not enough to say, "Yes, this is" -- when you come to the practical purposes to shift back and say, "Oh, yes, basic research." We have to look at the practical purposes. And is this the appropriate thing to do now for these purposes given the risks? And I would say "no."

3-30

I would like to raise one -- one other issue in this regard. A number of years ago, there was a special study done about the proliferation risks from NIF. And at that -- that was, I think, in 1995 the report came out. The hearings were, I

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think, in 1994.

At that time, the conclusion was -- it was an optimistic conclusion and without any evidence. It said that NIF would support the non-proliferation of nuclear weapons. Why? Because it supported the Comprehensive Test Ban Treaty. It enabled us to continue developing weapons with the Comprehensive Test Ban Treaty where other nations would be forestalled from that purpose.

And because the Comprehensive Test Ban Treaty supported non-proliferation, then, by inference, NIF had to support non-proliferation because NIF made it possible for us to enter into a comprehensive test ban treaty. That was the logic.

3-30 (cont.)

Well, here we are today. First of all, we have India and Pakistan who have developed nuclear weapons in that period of time; both countries pointing to the United States as continue to develop investment in nuclear weapons research and design, projects like NIF, as a reason why they would go ahead and do their own nuclear weapons programs; that is, if it's good enough for us, it's good enough for them as well.

MR. BROWN: Two minutes remaining.

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MR. LARKIN: Thanks.

We've had the leaks. We've had the stories about secrets from the labs getting to China and other places. And, in fact, those leaks will continue to happen.

I notice that recently the security safeguards have been lessened because there were complaints that in this sort of pure research, cutting-edge environment, you needed cooperation from people around the world.

And, in fact, I have a story here from the 1994 San Francisco Examiner which says that at that time, Livermore Lasers Program alone now interacts with, quote, unquote, several hundred Russians at 25 to 30 institutions in Russia.

This kind of project necessarily involves people from all over the world. And it -- just logically looking at it, all weapons technology proliferates over time. You can't name a case where that's not true. You can't keep this confined here.

So the question is: Why do it, if you know you're funding and developing the nuclear weapons that will be in other people's hands in the not-too-distant future?

Given those purposes of this program, I would say no environmental risks, no matter how slight, are worth it. And I would say, then, that you ought to take the second no-action alternative: Stop the construction; tear it down; stop it now. **3-31**

MR. BROWN: Dale Nesbitt?

UNIDENTIFIED SPEAKER: Does it have to be so cold in here?

MR. BROWN: Thank you. Where's the technician who knows how to control the temperature? Yeah.

UNIDENTIFIED SPEAKER: I think it might have a chilling effect.

MR. BROWN: Yes, Dale. Go ahead.

MR. NESBITT: I'm Dale Nesbitt. I speak here officially on behalf of the East Bay Peace Action. I'm also a board member of the Western States Legal Foundation. I am a retired staff scientist from the Lawrence Berkeley Laboratory, not to be confused with Livermore.

I'm here because of my concern for the very survival of humanity. I want to share some of my experience of working under very similar scientific projects of the NIF. I will do that incorporated in my comments.

First of all, to the scope of this particular draft EIS, I think it is much too narrow. And again, just to repeat, the court order does not limit it to just the question of the toxics found during the construction. **3-32**

Points that I think that should be considered are as follows: One is the cost overruns and the technical problems associated that are causing them. Second is the danger to our national security. And third is the fact of whether or not -- or the question of whether or not there is any technical reason for the NIF in particular.

First, to go into some detail on the cost overruns. I have certainly considered -- considerable experiences here. I've been project manager of a number of projects -- particle detectors, subatomic particle detectors, and the world's largest telescope, the ten-meter Keck telescope which involves a great deal of optics. **3-33**

Never in my experience have I found that any of the estimates that we made, even if they were made honestly, ever came close to the final figure.

When I first heard the figure of some 600 million, it reminded me of what one of my

managers once told me. He says, "Dale, I'm sure that you've done a very good job of making this estimate, and I'm sure that that is what it should cost. Now let's multiply it by pi. And we can say that's exactly what the cost is going to end up right now. Some 600 and multiply it by pi." **3-33 (cont.)**

Most of the people here know what pi is. For those that don't, it's 3.14 or 16 -- whatever. And that would be my estimate of what the final cost will be if it's carried to conclusion.

Second, I think there's very, very serious technical reasons to feel that it may never work. Now, frankly, I hope it doesn't. I object to it from the standpoint that I think it is a horrible waste of money of us taxpayers.

Now, I was never directly involved in the Superconducting Supercollider Project, even though I had some 30, 40 people sitting outside of my office working on it for some number of months. I didn't take part in it by choice because I didn't really feel that it was, perhaps, in the best interest of science overall because it would drain money from a whole bunch of other scientific projects which had more direct application to day-to-day needs of people. **3-34**

However, it was a pure scientific project, and it got killed. And there was, indeed, a great deal of basic science that could have been gained from that, where I think, the NIF, in my technical opinion -- and it is an opinion, of course -- not only will not provide any useful scientific information, but I think it is of great danger to our national security.

Why do I think that? Just think for a matter -- for a minute. What is the perception of other countries when they see the United States continuing to do all of this effort towards continuing to design, refine, improve our nuclear weapons? **3-35**

But we tell them, "Oh, no, you can't do it because there's non-proliferation." What would be your reaction if you were a leader in some other country? I know what my reaction would be. "Look what they're doing. So what can I do? The only thing I can do is to have a few nuclear weapons of my own."

Is there anybody in this room that could even think that we would have bombed Yugoslavia if they had had 200 nuclear weapons?

UNIDENTIFIED SPEAKER: Say "yes." Say it.

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MR. NESBITT: They would not -- we would not have bombed Yugoslavia. Why shouldn't India and Pakistan develop their own nuclear weapons as long as we insist to continue this mad rush of insanity to suicide, which is what it is? **3-35 (cont.)**

Another point which I wish to make based on my experience, and that is that once a certain technology is developed, it is much less expensive to duplicate it. And whether it is stolen through spying or whether it is in public domain or whether it's just the fact that you know someone else has already done something, then you have the confidence to go ahead and do it yourself.

And if we aren't stupid enough -- if we would not develop this, then no other country, I think, would be dumb enough to try to duplicate it. **3-36**

Another thing which hasn't been mentioned here, and certainly it doesn't -- isn't included in any official DOE weapons labs documents, and that is that the real possible benefit of the research that would be done on the NIF would be in aiding the ability of designers to design pure fusion weapons.

We know that this work has been going on for many years. I don't know any of the details. I do

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know people that do, but I don't know them. And this is one place where the NIF would be useful.

The third point is then a question: Is the NIF useful in any way for trying to ensure the safety, reliability of the existing stockpile? And I say that the technical information that's available clearly comes down on the side that it has essentially no utilization. **3-37**

I will mention Ray Kidder. I think everyone in this room knows who Ray Kidder is. He certainly feels that it doesn't. And many, many other experts that are not directly, or at least no longer, employed by the weapons labs feel the same.

Another thing that I will mention that the NIF, if it has any value, only deals with the fusion end, the secondaries. The secondaries, the designs are well-known; they're well-documented; they've been very, very reliable; there have been very, very few problems with them. There is a technical report out at Sandia which details all these. **3-38**

Then, I would say that what is needed to maintain the safety and reliability of the existing stockpile, while awaiting dismantling as our treaties certainly demand that we should, is

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good-quality engineering and perhaps a few less physicists. **3-38 (cont.)**

So I would say that what I would recommend certainly would be that the no construction -- to halt construction while a debate goes on, and I would hope that it would mean a cessation in the entire program. **3-39**

Thank you.

MR. BROWN: Thank you.

Rene Steinhaven (sic)?

THE REPORTER: Can I just ask you to wait one second while I change my paper?

MR. STEINHAUER: Yes, that's all right.

Just by way of short introduction, my name is Rene Steinhauer, and I'm with Tri-Valley CAREs. And I'm the community organizer for that organization.

And it's hard enough to talk with the objectives that we try to bring here to a panel such as yourselves, but when one of you is missing, I'm really not interested in talking to you.

So I'm going to defer for now until that gentleman comes back and takes his place at the seat, or maybe we could all have a short break to go drink water or go to the bathroom.

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Thank you.

MR. SCOTT: I'm sorry, Mr. Steinhauer. He has a young child he has to pick up. He just had to go for that.

MR. CRANDALL: And -- and Richard is his direct representative, so --

MR. STEINHAUER: We think it's still covered, but -- your choice.

MR. SCOTT: I'm the DOE document manager. Please go ahead.

MR. STEINHAUER: There will doubtlessly be conversations among the four of you as to some of the material that you hear here -- two different spellings.

MR. FERGUSON: Everything -- everything you put on the record, sir, will be available to Mr. Samuelson, like it will everyone else. So...

MR. STEINHAUER: Well, I'm familiar with reading some of those records and how much attention people pay to the written record as opposed to what they hear. But I will proceed then, knowing that he's not going to come back at all tonight. Is that right?

MR. SCOTT: I'm not sure. If he finds someone, he'll try to come back for the later

session, I believe.
MR. STEINHAUER: All right.
Well, first of all, I would like to start out by saying that although you've learned that I'm with Tri-Valley CAREs, it's clear we didn't coordinate our activities in here or plan things because practically who has gone before me has stolen most of the thunder that I would like to have presented here tonight. And that's good, and that's well, and that's fine because that gives me time for some other things.
But one of the things that I would like to go to is, again, from this -- from this original report here. And it's in section 1-7 -- it's page 1-7, and it's section 1.4. And I'd just like to read one paragraph from you in connection with this when this was being considered.
"DOE received one set of comments from the U.S. Environmental Protection Agency, EPA, on the September 25, 1998, anointing. The EPA commented that the SEIS" -- there are so many acronyms here -- "a scope should include seismic potential, environmental hazards of

3-40

operating NIF that were not identified in the Joint Stipulation and Order, waste streams and waste management from operations, and permitting and regulatory approval. DOE has considered these comments and has addressed them in a manner consistent with the scope of the SEIS, i.e., whether they bear on the question of contamination by hazardous, toxic, or radioactive materials in the area of NIF.
"However, DOE does not believe that it is appropriate to expand the scope beyond that established by the Joint Stipulation Order. DOE agreed to conduct the characterization activities described above and to prepare the SEIS in response to the discovery of the buried capacitors during the construction of NIF.
"No other site -- no other new information has been developed that would call into question the

analysis and conclusion contained in the SSM PEIS and the NIF PSIA contained therein regarding the environmental impacts and the constructing and operating of NIF."
And, again, I think most of what you have heard tonight has been from people who are concerned and, as I said before when I raised the question earlier, that have deliberately tried to narrow the scope so that you don't have to get into that muddy water of what the issues are about.

3-40 (cont.)

But I think one of the questions that you're going to have to deal with is, and one of the realities that you're going to have to deal with is, that you're not fooling anybody. There are serious problems out there.

3-41

There are problems of contamination, both radiological and chemical -- other toxic materials. There are problems about actual -- I mean, cover-up. There are questions about covering up these immense cost overruns. There are questions about lying about where the stage of the operation is at in regard to the development -- you're a couple of years behind, and you're hundreds of millions of dollars over cost.

3-42

Now, this is related to other issues that have come before the national attention lately about all this business about espionage and whether some Chinese person is really the culprit for all that has happened.
I want you to understand that when things like this go on and one operation is so greedy and is so involved in garnering all the money and keeping in its kind of bystands (sic), all those people that were cut off from the AVLIS project and others, and all that money is being sucked up.
And that money is coming out of other scientific projects that are going on at the Lab and other labs that it's no wonder that other well-intentioned scientists -- and they're not traitors; they're not agents of China or Russia or North Korea -- get a little pissed off at this business. And they come to us, and they tell us about these things that are going on.
When you continue to support an operation like this that is clearly lying about its present status -- and other people have mentioned about that June ceremony where all those grandiose statements were made -- and they're clearly lying about it, that you're going to have a lot of other

3-43

1 problems coming forward with this thing.
2 That's why there are so many other people,
3 organizations, agencies looking into this matter.
4 That's why I raised the question earlier about
5 integrity because you're here, and you're trying to
6 keep this to that narrow horse blinder view, the
7 business about the toxics at that site.
8 And if you're not prepared to deal with it
9 now, that's going to come back and lay around your
10 necks because you're the persons that were here at
11 this point.
12 Now, a lot of the people here are out of the
13 peace and freedom and justice organizations, and **3-43**
14 I'm reluctant sometimes to use military metaphors, **(cont.)**
15 but you're the guys who are here holding the line.
16 You're the ones that are here to hold that bridge.
17 And that's the way it is.
18 Either you're here to hold that bridge, and
19 you've got to decide: Which side are you holding
20 the bridge for? Are you holding the bridge for all
21 those people that want to cover up and go on and
22 keep bleeding the nation's economy with this money,
23 or are you here to hold the bridge for the
24 citizens?
25 And I don't know who's paying your money. I

1 mean, I've always thought that we, the taxpayers,
2 paid your money because you go to the same trough
3 everybody else does. But maybe somebody else is
4 paying money here, somebody that Eisenhower, you
5 know, referred to ages ago about the
6 military-industrial complex. Who is paying you?
7 And you're the guys that are holding the
8 bridge, but I don't know which side you're holding
9 it for. And that is a matter of integrity. That's
10 the question I raised earlier.
11 So, I mean, you can sit here and narrowly
12 define the views that you have about dealing with
13 these other toxics, like the PCBs in that area, or
14 you can really get on with the issues that this
15 thing is all about and how effective -- and there's
16 no need for me to go into it because other people
17 have already gone into this business -- all of the
18 issues related to the effectiveness of the NIF
19 project and where it's going, what it's doing to
20 both the Comprehensive Test Ban Treaty, the ABM,
21 and all the others.
22 And to go forward with this thing only puts
23 the world at greater risk. So these are the issues
24 I'm talking about when I mention "integrity." Are
25 you really going to stand up, and if you'll forgive

1 me, are you going to have the balls to go forward
2 with the thing that needs to be done, or are you
3 going to go on being bureaucrats in just carrying
4 the company line? **3-43**
5 That's the issue that concerns me; it's the **(cont.)**
6 issue that has always concerned me; it's why I'm
7 here. And you, gentlemen, will have to go home
8 tonight and look at yourselves in the mirror.
9 Thank you.
10 MR. BROWN: We've had a few additional
11 people sign up, and I think we're going to be
12 running close to our limit to the start of the next
13 meeting, so I'll just make note of that as I call
14 each person up.
15 So our next speaker is Janis Turner.
16 (No response.)
17 MR. BROWN: All right. I'll come back to
18 names I call who aren't here.
19 Cindy Pile? Hi.
20 MS. PILE: Hi. I'm Cindy Pile. I'm the
21 director of the Nevada Desert Experience, which is
22 a faith-based organization working to end nuclear
23 weapons testing. And I'm used to being in a **3-44**
24 pulpit, but I don't think this is very different
25 because I want to continue in this vein that our

1 definition of "environment" in these statements is
2 so narrow.
3 We really don't deal with the moral and the
4 spiritual implications, and so I just want to touch
5 on that, noting the time, very briefly.
6 First of all, I think we need to be very
7 honest about what we're doing here. We use all
8 these euphemisms. I haven't even heard the word
9 "death." And we need to be clear that what we're
10 doing is building a facility that develops weapons
11 of death. We don't hang bombs on our Christmas
12 trees. We don't give our children bombs to play
13 with. We kill people with bombs.
14 And, of course, the usual argument is that,
15 "Well, we're building these bombs so that other **3-45**
16 people aren't going to attack us, and so these are
17 weapons of peace, in fact." But their very
18 existence means death for a lot of people that I've
19 lived with and I've worked with, homeless people
20 who are impoverished because we're spending all of
21 our time stockpiling these weapons.
22 And I think that these weapons kill not only
23 the body but our soul and that what we're doing is
24 sinful. I don't believe, no matter by what name we
25 call upon God, that this is what our God is asking

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of us. And I'd ask us, all these words I hear here, to just stop and to ask what it is we're really doing. Is this really the legacy that we want to hand on to our world, to our children, to our God? I hope not.

And I think we'll be further inspired in our reflection if maybe we just look at each other for once? We're all looking up here. If we look, gaze deeply into the eyes of one another and we see that we are sisters and brothers, sisters and brothers also with the people who walk the streets, the people in India, Pakistan, China, Russia, and that we are one body and that we are going to be killing this one body. **3-45 (cont.)**

I think the beauty of this body, though, is that we've all been given these different gifts -- some of you as administrators, scientists, peace activists out here -- and we're called to use these gifts really wisely.

And we're also called to deal with this violence because all of us -- and I include myself; all of us include ourselves -- have helped unleash this violence. And it might be just by giving orders to test bombs; it might be in delivering food to the cafeteria here, paying taxes to build

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these bombs. It doesn't matter. We've all contributed.

And I think we can put these gifts to better use than constructing this National Ignition Facility. **3-46**

So, I guess, in the season of justice and peace, the season of light a lot of us are celebrating with Advent and Hanukkah, my prayer and my hope is that we open ourselves up a little bit more here. Let's open ourselves up to dream some dreams we don't usually dream and to do things we don't usually do, maybe think about not constructing this National Ignition Facility.

It's the start of a new millennium; it's the time of a new birth, and I hope that we can really work to build something that so many think is this utopian dream. It's not. It's right before us. It's within our grasp. It's a world of justice and peace. **3-47**

So thank you.

MR. BROWN: Thank you.

Tal Simchoni?

MR. SIMCHONI: Hi. My name is Tal Simchoni. I'm with Physicians for Social Responsibility. I'm the project coordinator for PSR. This is for the

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San Francisco Bay Area chapter.

PSR is a nationwide organization of over 20,000 physicians who have a long history of opposing nuclear weapons. And I, too, believe that the scope of this hearing is too narrow, and so I'd like to open it up and talk about the bigger picture which is -- which I'll exemplify that with a few facts. **3-48**

The first: That the Stockpile Stewardship has a budget of $60 billion over 13 years. And this is to modernize nuclear weapons, basically. And this money is more -- this is more money per year than the U.S. spent on nuclear weapons during the Cold War. **3-49**

And the second point and, actually, I really question why we're putting more money into projects such as this, such as NIF, that serve to escalate proliferation when hundreds of billions of dollars are needed to spend on cleaning up the mess that we've made already, such as plants at Hanford. **3-50**

And when I say "cleanup," I have serious doubts about the adequacy of a cleanup when there are persistent chemicals -- excuse me -- persistent toxic products such as plutonium that are difficult to clean up. **3-51**

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And, furthering the bigger picture, I think it's important to -- if the United States is committed to non-proliferation and peace, to not support projects such as NIF and to urge you -- to encourage you that you have the power to have a say in a decision in this matter, in NIF, and that we need to go towards de-escalation and getting rid of these weapons, abolition versus furthering the military-industrial complex. **3-52**

Thank you.

MR. BROWN: Thanks very much.

Ann Beier?

MS. BEIER: My name is Ann Beier, and I'm with Western States Legal Foundation.

And as outlined in the draft Supplemental EIS, I am in support of the no-action alternative which would cancel the NIF project, ceasing construction, and making the site usable for another purpose.

I support this alternative for the following reasons: The cost overruns have not yet been completely ascertained with any degree of certainty. Because the heart of the National Environmental Policy Act is alternatives analysis which provides decisionmakers and the public **3-53**

1 information about impacts of the proposed action in
2 order to allow the project's purported benefits to
3 be balanced against the potential for harms, I
4 believe the NIF project cannot proceed until there
5 is full disclosure analyzing the cost.

3-53 (cont.)

6 In the recent testimony of Sandia Director
7 Robinson on the ratification of the Comprehensive
8 Test Ban Treaty, he indicated more money may be
9 necessary for the Stockpile Stewardship and
10 Management Program, of which NIF is central.

3-54

11 Secondly, the environmental analysis and
12 information provided is inadequate and much too
13 narrow in scope.

3-55

14 Although the questions were raised earlier
15 by Jackie Cabasso, I would still like to reiterate
16 about plans to use plutonium, uranium, and lithium
17 hydride in future experiments. Should these be --
18 these should be analyzed in a draft SEIS, and, for
19 example, accident scenarios to workers in the
20 surrounding community in handling lithium hydride.

3-56

21 The overall scope of the draft SEIS should
22 be broadened. Although the draft states the scope
23 only covers what is mandated in the Joint
24 Stipulation and Order, there are reasons to broaden
25 the scope to include the proliferation impacts and

3-57

1 the enormous environmental costs associated with
2 the proliferation of nuclear weapons technology and
3 knowledge.
4 For example, we are currently cooperating
5 with both the French and the British on inertial
6 confinement fusion. There is a need for more
7 analysis on proposed design changes, as discussed
8 by the recently-formed SEAB.

3-58

9 And last, other -- other environmental
10 issues which should be analyzed are the monetary
11 costs of decommissioning and decontaminating NIF,
12 and where will the waste generated by NIF be
13 transported, treated, stored, and disposed of?
14 MR. BROWN: Okay. Thank you.
15 Jackie Cabasso?
16 MS. CABASSO: Thank you. I'm going to use
17 some viewgraphs, and I'm going to ask Ann to assist
18 me.
19 UNIDENTIFIED SPEAKER: Jackie, you've gone
20 over to the other side.
21 MS. CABASSO: Just wait till you see the
22 viewgraphs.
23 MR. BROWN: Is this a first?
24 MS. CABASSO: No, it isn't. I occasionally
25 use them.

1 MR. BROWN: All right.
2 MS. CABASSO: My name, again, is Jackie
3 Cabasso. I'm the executive director of the Western
4 States Legal Foundation. And I'm going to take my
5 ten minutes here to try to reframe the issues.
6 My basic premise, I guess, is that the scope
7 of this Supplemental Environmental Impact Statement
8 is too narrow. So I want to start with a quote.

3-59

9 "The working definition of an
10 expert is a person who can solve a
11 problem faster or better than
12 others, but who runs a higher risk
13 than others of posing the wrong
14 problem. By virtue of his or her
15 expert methods, the problem is
16 redefined to suit the methods."
17 That's a quote from Charles Perrow from a
18 book called Normal Accidents: Living with High Risk
19 Technologies.
20 So I'd like to start by basically reframing
21 the questions with another quote.
22 Could I have the first viewgraph, please?
23 This is a statement that the mayor of
24 Hiroshima made to the International Court of
25 Justice in the Hague in 1995 when they were

1 considering whether the threat or use of nuclear
2 weapons is legal under international law.
3 "History is written by the victors.
4 Thus, the heinous massacre that was
5 Hiroshima has been handed down to
6 us as a perfectly justifiable act
7 of war. As a result, for over 50
8 years we have never directly
9 confronted the full implications of
10 this terrifying act for the future
11 of the human race."

3-60

12 So I'd like to now go on to what some of
13 those implications are.
14 Could I have the next one, please?
15 This is a statement that was made in
16 September by the U.S. negotiator to the
17 Comprehensive Test Ban Treaty, Steven Ledogar, at
18 an event I attended in New York. He said,
19 "The basic fact is, this effort,
20 the CTBT, represents a treaty whose
21 time has come. This idea's time
22 came when technology reached the
23 state that the United States began
24 to have confidence it could
25 maintain its nuclear weapons

stockpile safely and reliably without explosive underground testing... We believe that we are trying to ban the bang, not the bomb." **3-60 (cont.)**

Unfortunately, most of us and most countries in the world thought the CTB was about banning the bang and the bomb.

So, next one?

Here, of course, is some of that technology he was talking about. Some of you will recognize this. It is, of course, the NIF target chamber, which, I think, Mike Campbell aptly described as the Death Star from Star Wars at the groundbreaking ceremony which I was the sole representative of the regular people in attendance. **3-61**

The purpose of the National Ignition Facility is usually described in terms of maintaining the safety and reliability of the enduring stockpile.

Can I have the next slide?

Now, this is one of the viewgraphs that was presented to the first meeting of the Secretary of Energy Advisory Board here on November 15th. And it's entitled, "21st Century Science Based

Stockpile Stewardship." "Safe and reliable stockpile without underground testing; comprehensive program from concepts and certification to products."

And it includes many, many things -- the whole Stockpile Stewardship system, modeling, simulation, experimentation, development and certification, and science-based manufacturing. **3-62**

So I was most intrigued when -- next slide, please -- Gilbert Weigand, the Deputy Assistant Secretary for Research, Development and Simulation for U.S. Department of Energy Defense Programs described that slide as, "This is how we maintain our nuclear weapons superpower status," which I think is the first honest description of Stockpile Stewardship that I've ever heard from a U.S. official.

Now, what is the role of Stockpile Stewardship in U.S. national security policy? Quote,

"Our nuclear deterrent posture is one of the most visible and important examples of how U.S. military capabilities can be effectively used to deter **3-63**

aggression and coercion, as reaffirmed in a Presidential Decision Directive signed by President Clinton in November 1997. Nuclear weapons serve as a hedge against an uncertain future, a guarantee of our security commitments to allies and a disincentive to those who would contemplate developing or otherwise acquiring their own nuclear weapons.... The United States must continue to maintain a robust triad of strategic forces sufficient to deter any hostile foreign leadership with access to nuclear forces and to convince it that seeking a nuclear advantage would be futile. We must also ensure the continued viability of the infrastructure that supports U.S. nuclear forces and weapons. The Stockpile Stewardship Program will guarantee the safety and reliability of our nuclear weapons **3-63 (cont.)**

under the Comprehensive Test Ban Treaty."

And this is a quote from A National Security Strategy For a New Century, which was issued by the White House in October of 1998.

Now, let's see what another country has to say about the CTBT.

"We have always believed that the objective of a CTBT was to bring about an end to nuclear weapons development. We are all aware that nuclear explosion technology is only one of the technologies available to the nuclear-weapon States. Technologies relating to subcritical testing, advanced computer simulation using extensive data relating to previous explosive testing, and weapon-related applications of laser ignition will lead to fourth generation nuclear weapons even with a ban on explosive testing. It is a fact that weapons-related research and development in these technologies **3-64**

is being promoted. Our objective therefore was a truly comprehensive test-ban treaty, rather than merely a nuclear-test-explosion-ban-treaty. For many years, we had been told that a CTBT was not possible because testing was required for the safety and reliability of existing nuclear weapons. We questioned it then and now we know that we were right. Today, underground explosion technology has the same relevance to halting development of new nuclear weapons by the nuclear-weapon States as banning atmospheric tests did in 1963."

3-64 (cont.)

That was India.

Now, could I have the next slide?

This may seem like a non sequitur, but it isn't because I'm going to tie it all in.

This is the Wingspread statement on the precautionary principle. And I'm just going to tell you what it is; I'm just going to sum it up. I don't know if you can -- it doesn't look like

it's quite in focus there.

What is the precautionary principle? This is a comprehensive definition that was spelled out at a major meeting in January 1998 of scientists, lawyers, policymakers, and environmentalists.

And basically, its sum says,

"`When an activity raises threats of harm to the environment or human health, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically.

"Key elements of the principle include taking precaution in the face of scientific uncertainty, exploring alternatives to possibly harmful actions, placing the burden of proof on proponents of an activity rather than on victims or potential victims of the activity, and using democratic processes to carry out and enforce the principle -- including the public right to informed consent."

3-65

And it's in that spirit that I'm making that

presentation.

Now, what if India adopts the same method of ensuring its national security as the United States has? Why shouldn't they? In fact, it does seem, unfortunately, that they are moving in that direction. And what if their neighbor Pakistan feels the need to ensure its national security against India the same way?

3-65 (cont.)

Could I have the next slide, please?

MR. BROWN: Two minutes.

MS. CABASSO: Okay.

This is the cover of a report written by a friend of mine for IPPNW, International Physicians for the Prevention of Nuclear War. It's called Bombing Bombay? Effects of Nuclear Weapons and a Case Study of a Hypothetical Explosion.

"Based on the available population data, the historical experiences of Hiroshima and Nagasaki and different physical models, we have estimated short-term casualties from a hypothetical explosion over Bombay. For a 15 kiloton explosion, the number of deaths would range between 160,000 and

866,000. A 150 kiloton weapon could cause somewhere between 736,000 and 8,660,000 deaths. In addition, there would be several hundreds of thousands of people who would suffer from injuries or burns. Many of them may die without prompt medical aid, which is quite unlikely. These estimates are conservative, and there are a number of reasons to expect that the actual numbers would be much higher. Further, these estimates do not include the long-term effects like cancers that would afflict thousands of people in the following years or genetic mutations that would affect future generations.

3-66

"The immense scale of these effects, and that too resulting from just a single fission weapon with a low yield, should make it clear that the possible use of such weapons would lead to a major

catastrophe. The only guarantee that such a tragedy would never occur is complete elimination of nuclear weapons, from both the region and from the world, and the means to manufacture them." **3-66 (cont.)**

I would suggest -- this is my concluding statement -- in view of these potential environmental impacts, implementation of the precautionary principle is clearly indicated. The NIF project should be canceled as indicated in the true no-action alternative. **3-67**

Thank you.

MR. BROWN: Donald King?

MR. KING: Good evening. I'm Donald King, and I've been in Livermore since 1978; worked for the Lab for four years. Not a scientist, though. I was in administration.

And I've briefly went through the draft Supplemental Environmental Impact Study -- or Statement to glean out a few points that I feel I would like to make.

Under the heading of "Lawsuit," on September 22nd, 1997, the Natural Resources Defense Counsel, et al. -- and I believe that included my

organization, Tri-Valley Communities Against a Radioactive Environment -- brought suit against the Department of Energy.

The NRDC, et al., contended that the DOE, prior to beginning construction of the NIF, sited it in an area known to be contaminated, and that the DOE failed to do sufficient preliminary analysis of the site to weigh the risks involved. **3-68**

How did the NRDC, et al., arrive at that conclusion? Frankly, I do not know. I've not read their Complaint.

At any rate, we are here today because that suit was brought. The court, on October 27th, 1997, ordered that the DOE agree to prepare a supplemental to the original Environmental Impact Statement. That supplemental study would address the deficiencies that the court found in the Department of Energy's original Environmental Impact Statement. **3-68 (cont.)**

Under the heading of "Restricted Scope," the Department of Energy, perhaps understandably, decided to fulfill their legal obligation by focusing narrowly upon environmental impacts related to or resulting from contamination found to be present at the construction site.

And, of course, that relates to the fact that the suit resulted when excavation at the NIF site uncovered capacitors containing toxic PCB oil. And that was on September 3rd, 1997. The capacitors and surrounding contaminated soil was removed on September 12th, 1997. **3-68 (cont.)**

The DOE, as a result of its cleanup, concluded that contamination of PCBs in soil or groundwater would be below any level of regulatory concern for all alternatives.

And what alternatives did the DOE consider? There were two: Construct the NIF at another site or cancel the program entirely.

Well, my view: I agree with the Department of Energy that now that the NIF is 80 percent complete, it would not make sense to begin all over again at another site. As to the other alternative, cancel the project, that idea is addressed in section 4.3 of the draft and Supplemental Environmental Impact Statement. **3-69**

Look there, and you find that statement -- that the Department of Energy does not consider ceasing NIF construction to be a reasonable -- or to be reasonable.

The report then presents a detailed listing

and analysis of ways by which the facility could be modified to serve other purposes; that it's done its present stated purpose as necessary to carry out the Stockpile Stewardship Program.

And, frankly, I was a little surprised to see all those alternatives, and some of them seemed pretty desirable to me in hoping that we would depart from the stated present purpose, which was to carry out the -- the nuclear weapons program.

I should say that many of us have followed the Department of Energy and this nation's nuclear weapons policies and have questioned the need for the NIF. We see it as facilitating a policy based upon deterrents that goes way beyond the need to assure the maintenance of a safe and secure and steadily decreasing stockpile of nuclear weapons. **3-70**

We feel that the NIF represents vividly the current administration's failure to follow through on its obligation, to aim at a world in which the nation threaten -- no nation threatens others with a nuclear option.

I'd like to emphasize, also, my associate Rene Steinhauer mentioned the Environmental Protection Agency's position, another federal agency that I think has competent scientific **3-71**

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1 personnel.
2 And in section 1.4 of the draft Supplemental
3 Environmental Impact Statement, that Department
4 commented that the scope should include seismic
5 potential and environmental hazards of operating
6 NIF that were not identified in the Joint
7 Stipulation Order, waste streams and waste
8 management from operations, and permitting and
9 regulatory approval. **3-71**
10 The DOE rejected the EPA's comments. The
11 DOE, quote, does not believe that's appropriate, to
12 expand the scope of the -- of the statement beyond
13 that established by the Joint Stipulation Order.
14 Period.
15 Needless to say, I think the DOE is wrong
16 and the EPA is right.
17 Thank you.
18 MR. BROWN: Thanks.
19 Wes Nicholson?
20 MR. NICHOLSON: If I were to sum it all up
21 in one word, this would be it: A stop sign. But
22 guess what? I get ten minutes to talk, so -- so **3-72**
23 I'm going to elaborate on that "stop."
24 There's an old saying -- I heard this on the
25 way over, and it seemed to apply, so I'm going to

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1 recount it. I'll wait until you guys are ready,
2 though. Okay?
3 There's an old saying, "We can plan for 100
4 years from now, but we don't know what's going to **3-73**
5 happen in the next moment."
6 When I was a young kid, I wanted to be a
7 scientist; I wanted to be an astronaut and a
8 scientist. You know, so I really can appreciate
9 and I can respect the mentality that wants to
10 prove, that needs to know, that wants to push the
11 boundaries. I respect that because I've felt it
12 myself.
13 But there's some things that we don't need
14 to know. We don't need to know how many times over
15 we can, you know, improve on a nuclear weapon. We
16 don't need to know what the outcome is going to be
17 for the people when we shoot depleted uranium bombs
18 at them.
19 We don't need to know, you know, what's
20 going to happen to the people later on that have,
21 you know, relied on drinking water that was
22 contaminated by nuclear waste. There's some things
23 that we don't have to know; we don't have to prove.
24 There's some things we already do know.
25 Radioactive illness is very prevalent in the world

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1 today, and it's caused by activities directly **3-73**
2 related to what goes on here at the Lab. **(cont.)**
3 We also do know there's been a lot of
4 coverups through the history of DOE and coverups
5 right here at the Lab. We've already mentioned
6 that.
7 We also do know already that the DOE doesn't
8 have too good a credibility, being as they've lied
9 to Congress on numerous occasions. We also do know
10 that human error is a very real thing, a real
11 factor, and it's directly related to activities of **3-74**
12 this magnitude when we're handling nuclear weapons
13 and nuclear waste.
14 So I suggest that we need to change this
15 paradigm of science where we have to do everything
16 just because, you know, we haven't proved it yet or
17 haven't -- see if we can do it; we have to do it.
18 No, we don't have to do everything. We need
19 to change that.
20 And we need to start using common-sense
21 intelligence or maybe refer to it as emotional or
22 spiritual intelligence that will start to guide **3-75**
23 science a little bit more. Okay? And I don't want
24 to go into too much what that means, but let's just
25 think about it.

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1 Emotional intelligence. What's our gut
2 reaction, you know, when we think of what a nuclear
3 bomb does? You know, what's some of our spiritual
4 intelligence tell us about this kind of technology?
5 Now, a lot of conversation here and a lot
6 goes on about the cost for the NIF. Okay? We hear
7 these phrases, "cost effective," "over budget."
8 Well, I got a little calculator here. I can add up
9 seven billion times three million or whatever, you
10 know, all these different numbers, and I can get
11 lots of fancy figures; I can revise my figures; I
12 can cheat; I can, you know, change them around to
13 suit what I want.
14 But there's one thing that this calculator **3-76**
15 cannot do, and it's the same as all of your guys'
16 calculators can't do, and that is: Determine the
17 cost in human terms. The real costs. What are the
18 real costs of nuclear weapons and nuclear power?
19 I'd like to give you a couple examples of
20 the real cost. Okay? One example is a recent
21 little war in Kosovo where we bombed people with
22 depleted uranium weapons. Now, whoever got off in
23 thinking of that, I don't know. But, you know, God
24 have mercy on their soul because, you know, there
25 are people that are going to be suffering because

of that years and years down the line. **3-76 (cont.)**

Another -- another example of the human cost: We cannot even deal with our current waste. You know, we have all these problems. "Well, these fuel rods are coming in; where are we going to put them?" "Oh, they're safe."

Well, if they're so damn safe, why don't we bury them, you know, in Washington or put it somewhere where it will be safe? No. They end up getting distributed to poor communities and different places that are going to be moved around. Okay? And we all know that nuclear waste directly relates to radioactive illnesses. **3-77**

Okay. So, here's something that's not figured in with all your fancy, you know, money things: That people are being poisoned.

Just the other day I heard a report from the Marshall Islands. You guys ever heard now? There's a new term out there. It's called "monster babies." What's a monster baby? A monster baby are the children that are being born in the Marshall Islands, where we first started testing nuclear weapons, from the generation -- the kids that are being born now were -- their mothers had not yet been born then when they started testing. **3-78**

Now, the monster babies are babies without skeletons. Just think of that for a minute. A child without a skeleton? This is the result of nuclear weapons and nuclear weapons testing. This is part of the human costs that you won't find on any calculator. Okay?

Another example: The contaminated soil in the parks of our own community, Livermore. The parks where maybe our kids play in has contaminant soil from years back when we were told, "Well, let's just give some of this out as sludge." You know, "Hey, it's good for the lawn." You know, these are examples of the real human cost. Okay? **3-79**

Now, I'd like to say something else. I'd like to relate something here -- I'd like to read to you just very briefly, it's in the Universal Declaration of Human Rights, Article IV -- and I got this in my recent trip to the U.N.

Article IV,

> "No one should be held in slavery or servitude. Slavery and the slave trade shall be prohibited in all their forms."

I suggest to you, and I've always maintained, that the people of the world have been **3-80**

in a state of slavery ever since we've developed and used nuclear weapons. So we're going against our own Universal Declaration of Human Rights when we continue to develop nuclear weapons, okay, because it's a type of slavery.

You know, that's really what it feels like when you're held -- you know, when somebody else has the power over you that you don't want, and the power to wipe you out, basically. **3-80 (cont.)**

Now, we live in a pass-your-buck kind of society. Pass the buck. "Well, you know, it's not me; it's those guys," or whatever. Well, I'm telling you, the buck starts right here because you guys are the ones that develop these weapons. And as far as I'm concerned, it should stop right here.

Now, human organisms are very frail and complicated. And when we introduce things into them, change their environment, there's outcomes that we can't predict.

Now, we know by the outcome already from nuclear waste that what happens is it ends up making the people of the world human guinea pigs by the activities that happen because you guys don't always know what -- you know, we don't always know what's going to happen, but it's like making us **3-81**

guinea pigs.

But the people of the world are calling for abolition. This is evidenced by the Abolition 2000 Movement. People in countries all over the world are saying, "Let's get rid of it." **3-82**

And why? Nuclear power is not economical. It just isn't. It's just financed by governments, but it doesn't make any money. You know, it's just -- it's not economical.

And another thing: Nuclear weapons are not ethical. Tell me one person who believes that, you know, setting 50,000 people on fire at one time is ethical. **3-83**

I'm going to finish, okay. I drove all the way from Concord.

MR. BROWN: Yeah.

MR. NICHOLSON: I'm almost done. Okay?

MR. BROWN: Thanks.

MR. NICHOLSON: So what I'm saying is: We need to shift our consciousness away from death and destruction, and we need to -- we need to start healing the people that have been harmed by nuclear weapons already in parts of our planet, okay -- that means ecosystems, too. We need to adopt a policy of negotiation not incineration. Okay? **3-84**

Williams Reporting Service

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So, you know, we just -- the NIF -- we've heard all this stuff "it's over budget." You know, I don't care if the thing is half price on sale. You know, we don't need it, and we don't want it. **3-85**

And we've got to remember something, okay? We are all connected. You know, and our new physics teaches us that. It teaches us what the indigenous people knew all the time: That we're connected. **3-86**

Now we have our physics that proves it, our new physics. Okay? You guys are familiar with new physics. It shows us that on atomic -- subatomic level, we are all connected together.

So I urge you guys to use your hearts and your conscience, you know, with the decisions that you make on a daily basis. You know, when you get this many people out of the community -- and there's lots of people that couldn't even come today; they had to work. **3-87**

You know, I represent myself and also a few -- a lot of other people that agree with me. But, you know, thank God we have a few open hearings. You know, we had to go to court to get them, but -- you guys, really, listen to the people. We don't want the NIF; we don't need it.

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Thank you.

MR. BROWN: The final person who signed up is Mr. Tupadocus -- Tupadocus.

MR. TUPADOCUS: My name is Andreas Tupadocus. I obtain a Ph.D. degree in chemistry from the University of Michigan ten years ago.

I have worked in the industry, universities, have lived in different -- eight different states in the United States, 20 years in the United States. I was born and raised in Greece.

I worked in Los Alamos as a post doc. Pure hydrogen chemistry -- had nothing to do with weapons. I did environmental work in Los Alamos. I had the luck -- I don't know how to call it -- to find myself in the labs where they assemble, disassemble the pits. I had to put my hands one day in there just to keep my job. **3-88**

We had accidents very well-reported in the news, major news with spills. And I lived all this terror in that place, and I was forced to go in -- eventually I did not because I did not belong, and I was not doing such work.

The man who made the mistake was fired in one month. He breathed plutonium. He got sick, in other words. I know the details of all these

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things: How they happen, why they happen, and who is behind all these things and why things don't work the way they're supposed to work. **3-88 (cont.)**

And because I was working for environmental work -- and the environmental work does not get money; the weapons get the money -- I was running out of money. And so I had to apply for a job, and I got the job in Lawrence Livermore National Laboratory one and a half year ago to work on environmental work.

I find myself after a year -- rather after two, three months, to be expected to do nuclear weapons work. And I was actually asked a few months ago to write proposals on it. I refused because I was hired to do environmental work. And I found myself one floor down in a cubicle in a week. At this point, I guess I'm on assignment -- employee between assignments.

I have made up my mind, my fellow workers, citizens of the Lawrence Livermore National Laboratory, to make my announcement probably publically this night, that I have decided to resign from this place of insanity. And I expect that many others will follow my example.

I will follow this talk of mine later on in

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the news, and I will report what insanity I have seen taking place in these places.

Every one of us is counted accountable for this. How can we have our conscience right, go and have our children on our lap, provide to our families food when we know we are building the machine for Armageddon?

How can we walk out of this room and go expect a paycheck this month to know that this money we're getting is coming because one day humanity is going to be as a prophet said? **3-89**

And I know very well many of you go to the church, and you feel pretty good about it because you give poor to the organizations for the poor. But you are accountable -- each one of you -- the work you do for humanity, to save humanity or destroy humanity.

I came here -- the first impression the Lab gave me was that Lee -- Mr. Lee was a spy. They gave us indoctrination about espionage because I was holding and I am holding a high-security clearance. And I left from that room, and I knew, I believed -- they made me believe that Dr. Lee was a spy. **3-90**

Well, after a while, the Government comes in

and says, "We are not sure if he's a spy."

The polygraph testing came. The DOE proposed for 5,000 people to be tested. Now they are down to 1,000. Why? Why is that? Did they start considering the insanity of their decision?

Mr. or Dr. -- I do not know what to say any more -- Campbell disappeared. The management did not give any explanation to me, as a worker, staff in this Laboratory, why he left. What is behind all this disappearance, and what is happening now? I have no clue.

3-90 (cont.)

I demand to know what happened. Is he a Dr. or a Mr.? Very important to know. Give us the results. Give us information. We are behind the fence, but we do not know what is happening.

What is the management's position about polygraphy? Allows the DOE come in and put wires on the people's hands to see what they think, to read their thoughts. What does the management of Lawrence Livermore National Laboratory has done about it to protect the employees and their rights?

When I was hired, no one told me I will sit on a chair, put wires here on my hand to read my thoughts. And if I don't, then I will have to find a different job. That was one more reason to make

up my mind to get out of this, to resign.

MR. BROWN: Two minutes.

MR. TUPADOCUS: How long are you going to deceive humanity? And I'm not speaking only to you; I'm speaking all to those that have decided to go on with these projections, with these details of how to construct a machine to burn up humanity in the name of saving humanity.

3-91

Someone made a very clear statement before and very important one. Yugoslavia was bombed, yes, because they didn't have nuclear weapons. If they did, they would not.

Now, what are you going to do? Are you going to start bombing everyone who doesn't have nuclear weapons? What other nations are going to do that they do not have nuclear weapons? They will say, "Well, one day we will be bombed. Let's make more bombs."

3-92

So then you're saying -- and you have a whole office -- millions of dollars spent for non-proliferation. And what are you doing? You multiply nuclear weapons on -- on our planet.

Therefore, I'm telling you: Follow my example. As a scientist with a career of $91,000 a year, a permanent job, I have decided to go and

teach my students about the truth, how to save humanity, if we can; if it's not too late.

Do you have children? You love them. And you see them coming to you, and you rejoice. I'm asking you: Will you see your grandchildren to come to your knees, on your lap, and you feel that joy again?

3-92 (cont.)

God is my witness. If you do not change this direction -- and I'm not talking to only these three of you; I'm talking to all the ones that will read this that the stenograph is writing.

It is my witness, the Lord of the Universe, that if these people who control and decide for the fate of this world -- and they know very well who they are -- if they do not change their direction, God is my witness, Armageddon is knocking your door. And you will see it with your own eyes. And that day you will say, "What have we done?"

I recommend to you to go and see the video made by the International Action Center titled NATO Targets. Go and see it. And I know that as a human being, you will feel that which millions of people will feel very soon if we do not change our direction.

Thank you very much for your patience to

listen to me.

MR. BROWN: Thank you.

Okay. That concludes the persons who signed up; it also concludes this hearing. We are over time.

Now, we will have an evening session. We'll have, again, the same format: a brief presentation, questions, and answers. I know some people may have additional comments to make. Maybe we can just take a quick break for the panel.

You want to take maybe three to five minutes?

And if there are folks who wish to make additional comments, maybe they can talk to me, and we'll figure out how we can get these put in the record.

Again, I appreciate your attendance here, your interest. And we'll break for five minutes and then start the evening session.

Thanks very much.

(Whereupon, the proceedings adjourned at 5:37 p.m.)

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2)
3 STATE OF CALIFORNIA) ss.
4)
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6
7 I, LETICIA A. RALLS, a Certified Shorthand
8 Reporter in and for the State of California, do
9 hereby certify:
10 That said proceedings we reported by me
11 at said time and place, and were taken down in
12 shorthand by me to the best of my ability, and were
13 thereafter transcribed into typewriting, and that
14 the foregoing transcript constitutes a full, true
15 and correct report of the proceedings which took
16 place.
17 I further certify that I am not of counsel
18 nor attorney for either or any of the parties
19 hereto, nor in any way interested in the outcome of
20 said proceedings.
21 IN WITNESS WHEREOF, I have hereunder
22 subscribed my hand this 11th day of December 1999.
23
24
LETICIA A. RALLS, RPR
25 CSR NO. 10070

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DOCUMENT 4: Meeting Transcript, Livermore, California, December 8, 1999, 6:30 p.m.

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1 UNITED STATES DEPARTMENT OF ENERGY
2 OFFICE OF DEFENSE PROGRAMS
3 ---oOo---
4
5 In re:
6 DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT
FOR THE NATIONAL IGNITION FACILITY
7
8 PUBLIC MEETING

9
10
11
Proceedings before: HOLMES BROWN, Facilitator
12
13
14
Wednesday, December 8, 1999
15
6:30 p.m. session
16
17
18
Taken by Lesley D. Schneider,
19 a Certified Shorthand Reporter
in and for the State of California
20 CSR No. 10580
21
22
23
24
25

PROCEEDINGS

BE IT REMEMBERED, on Wednesday, the 8th day of December, 1999, commencing at the hour of 6:45 p.m. of said day, at the LAWRENCE LIVERMORE NATIONAL LABORATORY, SOUTH CAFETERIA, East Avenue, Livermore, California, before me, LESLEY D. SCHNEIDER, a Certified Shorthand Reporter in and for the State of California, said proceedings were had.

APPEARANCES

HOLMES BROWN, of AFTON & ASSOCIATES, appeared as the Facilitator.

RICHARD SCOTT, of the DEPARTMENT OF ENERGY, Document Manager for the NIF SEIS, ES&H Program Manager for NIF, Oakland Operations Office, appeared as the presenter and as a panel member.

THOMAS FINN, of the OFFICE OF DEFENSE SCIENCE, appeared as a panel member.

STEVE FERGUSON, of the DEPARTMENT OF ENERGY, Attorney, Office of General Counsel, appeared as a panel member.

SCOTT SAMUELSON, of the DEPARTMENT OF ENERGY, NIF DOE Field Manager, Oakland Operations Office, appeared as a panel member.

(Whereupon, a presentation was given by Richard Scott consisting of the same information as the afternoon session, including the same viewgraphs.)

MR. BROWN: It's now time for the question-and-answer period. I would like to introduce the other members of the panel other than Richard.

We have Tom Finn, who is with the Office of Defense Science. Steven Ferguson is an attorney with the DOE's Office of General Counsel in Washington D.C., and Scott Samuelson is the DOE Field Manager for NIF.

In order for everybody to get their questions in, I will ask if we can start off with folks just asking one question and one follow-up, and we'll just see if we can run through all the questions.

Also, for the sake of the court reporter, if you could step up to the microphone and identify yourself, and if there is an organizational affiliation that is appropriate also provide that.

I know there are a lot of questioners out there. Who would like to start? Ann.

ANN BEIER: I'm Ann Beier of Western States Legal Foundation, and I have questions about receiving documents. Like the transcripts, you said, would be available. How will they be available? On the web site? Is there somebody to talk to, or anybody who goes to this meeting, will we get copies of the transcripts? **4-1**

MR. SCOTT: Typically, the transcripts go out as an appendix to the final SEIS with the viewgraphs, and then everybody who is on the list will get a copy of that, and the viewgraphs will be reduced and put in there, again, in the appendix --

MS. BUYER: Thanks.

MR. SCOTT: -- of the final Supplemental EIS.

MS. BUYER: Okay. Thanks.

MR. BROWN: Yes.

MS. KELLEY: This is just a point of information. When people -- the sign-up thing, it doesn't ask for their address, so I would just recommend that you specifically say, "Please give us your address so that we can send this to you." I mean, you can find me, I know, but there are other people who might want a copy.

MR. BROWN: Thanks for that clarifying point.

Other questions?

MR. SCOTT: Just a point of clarification, we sent around 220 SEIS copies out, and we sent one to everyone who asked, but it's also on the web site.

Normally we would not send it to you unless you specifically asked for a copy because we prefer doing it electronically, so if anyone wants a copy, they have to ask and give us their address at that time.

MS. KELLEY: Right. But you just said everybody who is here and speaks will get a copy, and I was just trying to be helpful and tell you that there were people who were here and are here and spoke, and you don't have their address.

MR. BROWN: It's possible they are clairvoyant, but assuming in some cases they aren't, your suggestion that --

MS. KELLEY: I expect a lot from government officials, but that is not on my list.

MR. BROWN: Okay. Questions?

MR. LARKIN: I have a question that arose out of reading the San Jose Mercury News, which

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usually does pretty good reporting about NIF, and I'll read the portion here. It goes on about some of the difficulties that you're encountering and talks about the different likely outcomes and suggests that one outcome might be using NIF at lower power, and then this is what it says:

"Researchers could use the laser at lower power, which causes less damage to the glass, but that move would limit the laser's usefulness, particularly in the field of nuclear fusion energy research."

4-2

So my question is: What is behind that? If you use the laser, if you use the NIF at lower power, it limits its usefulness, particularly for the energy research justification for this project versus the weapons development justification for this project.

First of all, is that true, and if it is true, why is it true? What is behind this statement? I just want to understand it better.

MR. FINN: It's estimated that in order to reach ignition, the baseline of the facility is about 1.8 megajoules. I think the codes

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predict that you need around a megajoule to get into the ignition research, so the thinking is if we can't get above a megajoule, we have difficulty getting into that ignition regime. So you need a certain amount of energy to be able to hit the pellet hard enough to get into the burning nuclear fusion regime.

MR. LARKIN: And then, just following up on what you said, just so I understand, if you don't get it to ignition, then its usefulness for fusion energy research is undercut, in some way, is reduced more than its usefulness for weapons research.

4-2 (cont.)

MR. FINN: Yes, that is true.

MR. LARKIN: Thank you. So really -- okay. I can draw my own conclusion.

I have a second question.

MR. BROWN: That's fine. Sure.

MR. LARKIN: And this has to do with something I alluded to this afternoon when I was talking, and that is that there was a proliferation impacts study of the NIF done in 1994, 1995. I believe those are the years, but it was a while back. Since that time, a lot has changed.

4-3

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First of all, the justification -- the report came out and said that NIF would promote non-proliferation because, primarily, it promoted the United States' ability to enter into a conference of test ban, and a conference of test ban, in turn, promoted non-proliferation.

We now see that things have changed since that time. We now see that even when the administration tried to use the Stockpile Stewardship Program as their justification for doing the CTBT, it was rejected, so you can't rely upon the CTBT to sort of say that NIF is for non-proliferation.

4-3 (cont.)

We are also seeing that countries like India have entered into the -- to become nuclear powers in part because the United States continues -- at least in their own words, because the United States continues to do nuclear weapons research.

We also see that there has been a lot of leaks from -- I'm saying leaks; people talk about espionage. But, anyway, the results of the research done at the labs, this gets out into others' hands, and the labs have entered into joint agreements, say, with France on their

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megajoule project, and other countries.

So there has been a big change since that study came out. I think the study -- that whole process was flawed. The results were wrong.

But now, given that the world has changed, that you can't rely upon the CTBT to say that there is no proliferation impact from NIF, my question is this: Would you now redo that -- reopen that process; take another look at that; allow public comment, and enter into this issue again? It seems appropriate to do so at this time.

MR. FERGUSON: If you're suggesting that that's what the Department should do, we'll take that as a comment. There is no one here who can speak for the non-proliferation program.

This is a question-and-answer period on the Supplemental EIS, and we're prepared to answer those questions.

Your question goes to a much broader scope of questions associated with the Department and, frankly, the U.S. Government's policies on proliferation, and we aren't experts in that area, and we shouldn't hold ourselves out to be.

MR. LARKIN: Let me clarify. I'm not

asking about the United States Government's policies on non-proliferation. The United States Government's policy on non-proliferation is it's against it.

I'm asking about NIF's impact on proliferation or non-proliferation of nuclear weapons. That was an issue. The situation has changed since the last study. I'm just asking whether the Department, not the whole United States Government, but whether the Department will now enter into a re-examination of that issue under the new circumstances and whether they would undergo hearings and have comments on that. **4-4**

MR. FERGUSON: No one here can answer that question.

MR. LARKIN: Okay. Who can answer that?

MR. FERGUSON: I personally know of no plans to do so, but there could very well be such plans. The people who run the non-proliferation program for the Department were the ones who managed the last effort, and they would have to be the ones to make that decision in consultation, I'm sure, with the upper management of the Department.

If you're making that as a suggestion, we will take it as a comment, but, I reiterate, we are not in a position to answer your questions.

MR. BROWN: Other questions?

(No response.)

MR. BROWN: All right. I guess we are now prepared to take formal comments. I'll ask each presenter, again, to step up to the microphone and identify themselves and provide an organizational affiliation, if that is appropriate.

I'll also ask if each person can confine their initial remarks to ten minutes in order for the number of folks who signed up to all have an opportunity to make their initial presentation in a timely fashion.

I'll notify you when you have reached the eight-minute mark and when you have two minutes remaining. If you can wrap your statement up within the ten-minute period, that is fine. If you have comments beyond that, if you can end at the ten-minute mark, and I will go through all of those who have signed up and then come back, and people can complete their statements.

I'd like to call on the -- well, first, I

guess, as a formality, I'll ask if there are any representatives of elected officials here. We did have one this afternoon, but I don't think anyone is here this evening.

(No response.)

MR. BROWN: Okay. In that case then, we will proceed to call people in the order in which they have signed up.

The first person is Stephanie Ericson. Good evening.

MS. ERICSON: My name is Stephanie Ericson. I'm a resident of Dublin, formerly a resident of Livermore, and I've been a member of Tri-Valley CAREs for a number of years.

I want to first congratulate the 39 peace and environmental groups for their successful legal challenge that resulted in part in this hearing, a hearing to provide greater review and public disclosure of the National Ignition Facility.

While NIF was never really properly reviewed in the context of its overall role within the DOE's mislabeled Stockpile Stewardship Program, in the first place, in my view, certainly NIF's technical setbacks, projected **4-5**

budget increases and resulting changes in NIF's likely eventual configuration really require a full and broader reevaluation of the project.

DOE has often tried to publicly justify NIF on grounds of developing nuclear fusion as a new source of energy. If this were the case, I believe it would utterly fail to win Congressional funding favored against more promising areas of research development, such as solar, hydrogen fuel cells, et cetera, certainly on the level of the massive funding that is being proposed. But NIF is a military program, and so has not suffered the same level of cost/benefit scrutiny that civilian projects are subject to. **4-6**

I will not repeat the very fine technical and general comments being made by many others today -- many of them earlier today and some presumably later on -- except to say that I agree that NIF does present a potential environmental and health danger to our community, and that it also presents a danger to the global community, a community that can truthfully point to NIF as another example of U.S. hypocrisy in matters of nuclear weapons development and proliferation. **4-7**

This is especially true in the wake of the

Senate vote against the Comprehensive Test Ban Treaty. As many of us and you are aware, the Clinton administration's decision to go along with the nuclear weapons labs Stockpile Stewardship Program was part of a backroom political deal, a quid quo pro for the Lab's support of the CTBT.

4-7 (cont.)

It was a very bad deal from the start, in my opinion and in the opinion of many, but the Lab's, at best, tepid support for the CTBT during the critical debate in the Senate, showed how bad and how one-sided that deal really was.

I must say that this all makes me very tired.

In recent years we have seen the so-called peace dividend dangled enticingly before our eyes at the end of the Cold War only to be to swallowed up, not by improved social programs to help improve health care and education and address other critical needs, but by continuing high levels of so-called defense spending.

4-8

I'm tired of seeing military programs receive less than a tenth of the scrutiny that civilian programs undergo.

I'm tired of seeing communities near

contaminated DOE sites around the country struggle to stretch minimal dollars allocated for cleanup and public health, while the nation remains on a dangerous and budget-busting nuclear weapons' treadmill that we seem not to be able to get off.

Frankly, I'm tired of seeing the black hole of military spending gobbling up our resources. There is no excuse anymore, if there ever was one. NIF is just the latest example. But as a single project, it's a doozy.

I used to keep track of what it's supposed to cost, but I finally gave up on that. Its multi-billion dollar price tag is a moving target, and the direction is always up. To borrow a phrase from Ross Perot, "Do you hear the sucking sound?"

Our nation and our world cannot possibly benefit from the economic waste and extraordinary danger from continuing nuclear weapons development. Let's draw the line in the sand with NIF here and now and begin living up to our legal and moral commitment to reducing the threat of nuclear war.

Thank you.

MR. BROWN: Thanks very much.

Our next speaker is Joanne Fresch. Is she here?

(No response.)

MR. BROWN: Okay. I'll come back to her then.

Ed Rippy.

(No response.)

MR. BROWN: These were folks who had signed up. They may be coming later. Okay.

MS. KELLEY: Also, we got a lot of calls at our office asking if people were actually signed up because they didn't get confirmation calls.

MR. BROWN: I see.

MS. KELLEY: So if they don't come later, DOE needs to follow up, because there was some confusion about whether the sign-ups got reported.

MR. BROWN: I see. Okay.

And there were a couple names this afternoon. In fact, I know one person who was signed up this afternoon has arrived this evening who will be speaking. So, anyway, we'll check on that.

Barry Luboviski.

MR. LUBOVISKI: Good evening. My comments will be brief. My name is Barry Luboviski. For the record, that's spelled L-u-b-o-v-i-s-k-i. I'm secretary-treasurer for the Building and Construction Trades Counsel for Alameda County.

We currently represent workers who are working on the NIF site and on work contained under a project labor agreement.

I briefly reviewed a document that I have with me here, the National Ignition Facility Draft Supplemental Environmental Impact Statement to the SSM PEIS.

It is my understanding that due to the discovery of contaminants, specifically PCBs, that the ensuing remediation occurred which successfully removed -- identified and removed those contaminants.

4-9

Our counsel represents 26 local unions and approximately 25,000 workers that work in construction activities in the Bay Area. Hearing such an occurrence is not unusual. It's not something that we look forward to, but within the Bay Area, there are numerous sites which come across all kinds of debris or unanticipated

4-10

1 substances in the ground when they are digging.
2 Whether it's coming across unidentified gas lines
3 or electrical lines which weren't properly
4 located in the construction plans or whether it's
5 coming across unidentified landfills, this is
6 something that occurs, and it's expected to
7 occur.
8 So when I discovered that there was
9 remediation, I felt confident with regard to one **4-10**
10 thing, and that is that workers on this site **(cont.)**
11 represented by our Building Trades Counsel and
12 the crafts, because of these kinds of expected
13 problems and others, are trained in what we call
14 HAZMAT training, hazardous material handling.
15 That occurs in most of our apprenticeship
16 programs. It also occurs with journeymen. And
17 in some sites, such as some of the refinery sites
18 in Contra Costa County, it's expected.
19 So I expect, as do the workers, that the
20 remediation should be and must be done in a safe
21 manner.
22 I've not heard to this point that the **4-11**
23 specific remediation for the PCBs was handled in
24 a manner to endanger the workers or the general
25 population in terms of the way it was removed

1 from the site.
2 I would expect that there is, in fact -- I
3 always like to look at the glass as being half
4 full -- that there is a benefit. To the extent
5 that additional excavation, should this project
6 proceed, discovers additional contaminants, it
7 affords everybody the opportunity of being aware
8 of exactly what those contaminants are and
9 knowing that those contaminants will be removed
10 fully and completely and that the proper studies
11 will ensue to ensure that that comes to fruition.
12 For those reasons and because of my
13 assurance of the competency of the work force
14 that handled this remediation and would handle **4-12**
15 remediations if they were to occur in the future,
16 I would support this project continuing.
17 I would think that, really, the most
18 important aspect to focus on is effective
19 identification or removal of hazardous substances
20 and not lengthy studies which would stall this **4-13**
21 project and, in fact, might potentially raise the
22 costs and not benefit either the local population
23 or, in general, government financing for this
24 project.
25 Now, we have historically -- in the past,

1 the building trades has come out in support of a
2 process which reviewed all aspects of the NIF
3 project. The review process ensued and came to
4 final conclusions and to completion. The project
5 is now under construction. This work is being **4-14**
6 done under a project agreement and affords the
7 proper wages and working conditions, and, I might
8 add, safe working conditions, for workers working
9 on the project.
10 So speaking on behalf of all the crafts
11 that I represent, we feel that it is appropriate
12 that this project should continue until and
13 unless such a time that there are substances or **4-15**
14 actions with regard to the discovery of any
15 dangerous substances which would necessitate the
16 stopping of this project. At this point, we do
17 not see anything that at least convinces us that
18 that has happened.
19 Thank you.
20 MR. BROWN: Thank you.
21 Joanne Freemire.
22 MS. FREEMIRE: That's Joanne Freemire,
23 J-o-a-n-n-e, F-r-e-e-m-i-r-e. And I live in the
24 town of Sunol, which is just south of Livermore.
25 I am a member of Tri-Valley CAREs, and I care not

1 only about the healthy -- you know, having a
2 healthy environment, and I have concern about **4-16**
3 radioactive contamination of the environment, but
4 also as a taxpayer, you know, I watch how the
5 Government spends my dollars.
6 And when the NIF was first proposed, it
7 was advertised as an energy project. I still
8 felt -- even though I support, you know, the use
9 of alternative energy, clean energy, I was
10 opposed to the project because of the large
11 amount of money that was being proposed that had
12 to be spent to make this project. I felt, you
13 know, if you had used that same amount of money **4-17**
14 for other energy-related projects, it would have
15 gone further. We would have gotten a better bang
16 for our bucks as taxpayers.
17 As far as jobs go, it would have created a
18 larger number of jobs and crafts, some more, for
19 sure, energy sources than fusion, which is still
20 very questionable as to whether it can actually
21 be achieved.
22 Then, you know, as time went on, it
23 becomes more obvious that its primary purpose is **4-18**
24 for military purposes, weapons research, and I am
25 totally opposed to that. And I'm watching the

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cost go up and up and up, and I'm thinking these are my tax dollars at work, so when I heard of the opportunity to speak at this hearing, I wanted to come and, you know, let my feelings be known. **4-18 (cont.)**

I noticed in your presentation at the beginning there were two alternatives offered. Under the no-change alternatives, one was to continue the project as it's going, and the other was not to build the project. And I, obviously, would support not building the project. I feel that is the best alternative. **4-19**

One of the proposals that I have heard to keep the NIF within the original budgeted -- or at least the last budgeted amount of money that was -- we were told it was going to cost is now to reduce the size of the project to a 96-beam project. Well, in my mind, this would remove its ability to be used as an energy project, and so now it's perfectly clear it's just a weapons project. And it also appears to me that this would then be a new project and then would require a new PEIS. **4-20**

But, if those that make these decisions insist on proceeding with the project as the

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no-change alternative, then it would seem to me the SEIS needs to address the waste that would be created by the NIF, which apparently it does not.

I mean, what I saw in his presentation tonight mostly dealt with waste that was already on the site from previous operations, but it certainly should include any waste that is going to be created by this project, especially any radioactive waste that, you know, might be long-lasting in the environment that we and our children and grandchildren and many, many generations of descendants would have to live with and deal with. **4-21**

So, anyway, those are my thoughts.

MR. BROWN: Thank you very much.

Janice Turner.

MS. TURNER: Janice Turner. I live in Livermore, and I am allied with the Sierra Club, the Bay chapter of the Sierra Club, and with Tri-Valley CAREs.

My concern is for the environmental -- the environmental impact of the residue which will be created from the work that goes on inside of the chamber. Basically, if we're speaking of tritium being used as the core that the laser beams are **4-23**

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being -- are attacking, the tritium that will land as residue inside of the chamber will need to be cleaned. What will happen with that cleaned tritium? How will it happen? Where will it go?

The filters that filter the air inside of the ignition chamber will obviously collect radioactive wastes, and then how will these filters be dealt with?

The lubricants inside of the system that -- the air-conditioning, I think, will probably need some lubricants. This will absorb the radioactive elements. What will happen with these oils and these lubricants? How will they be safely dealt with? **4-22 (cont.)**

Also, I understand there are some cameras that will be involved with taking pictures of what goes on inside the chamber. These cameras will need to be removed periodically and cleaned and repaired. The radioactive residue that will come with these has to be dealt with.

So my concern is, whatever comes out of the chamber, what will it bring with it into our environment, and how is this going to be safely dealt with?

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I live within a mile of the Lab. I have lived within a mile of the Lab for over 30 years, and I want to know what will be the effect upon me from these residues. That's my main concern. And I'd like this issue addressed in the impact statement. **4-23**

Thank you.

MR. BROWN: Thank you.

Is there anybody else who would like to make a statement at this time? I know we have one person who has been very patient, and I think that completes the list of folks who signed up.

And, I guess, Marylia, you had some remarks you would like to make.

MS. KELLEY: Hi. I'm not going to repeat my remarks of the afternoon. I just wanted to add a few things.

I want to make it very clear that the Joint Stipulation and Order that initiated this Supplemental Pragmatic Environmental Impact Statement was never ever intended to rescind or roll back the National Environmental Policy Act. Rather it specified a set of activities that the Department of Energy must undertake, so the Supplemental PEIS, therefore, must meet the **4-24**

requirements of both the Joint Stipulation and Order and the National Environmental Policy Act.

The reason I'm bringing this up is some of the text in the draft document itself and some of the spoken remarks from this afternoon seem to indicate that DOE feels that it only needs to meet the minimum requirements of the court order, and every time someone has brought up the requirements of the National Environmental Policy Act, their response has been something along the lines of "that wasn't in the court order."

4-24 (cont.)

Well, no, what was in the court order was to do a supplemental PEIS under the National Environmental Policy Act. So just to make really clear that because this was ordered by a court does not mean that NEPA is somehow held in obeyance.

The second thing that I would like to reiterate is that taking a look at all of the revelations that are coming out now about the National Ignition Facility's cost overruns and schedule slippages, taking a look at all of the changes that are being proposed for the National Ignition Facility in terms of potentially the number of beams, potentially the energy at which

4-25

it is run, the different proposals for bringing it on-line in different orders, which, as I said this afternoon, means you are doing different experiments in a different order, all of these things really do make it under NEPA a substantially changed and new project. Therefore, I believe you would need to do a supplemental PEIS at this juncture, regardless of the Joint Stipulation and Order.

So the question in my mind is: Is the Department of Energy going to make wise use of the taxpayer dollars that are going into this document -- never mind for a moment the taxpayer dollars going into the project -- and take this juncture in time and take that second hard look at the National Ignition Facility that is required by NEPA?

The third thing, I would like to extend my remarks of this afternoon regarding the purpose and need, because I was reminded that in the Department of Energy's formulation of purpose and need for the National Ignition Facility is some language about civilian fusion energy applications, and while I agree with speakers this afternoon who said that the true mission of

4-26

NIF is nuclear weapons work, and it is, nonetheless, the DOE is justifying it and legally putting in its Purpose and Needs Statement civilian fusion energy applications.

4-26 (cont.)

That brings up two things under NEPA.

First, I would like to point out that the Stockpile Stewardship and Management PEIS never included an analysis of programmatic impact from fusion energy. That kind of programmatic analysis would look at everything from the impact of packing those pellets with the tritium and deuterium under high pressures, which is a place where there could very well be many, many emissions. It would look at the whole thing all the way through to the idea of power plants. So that programmatic look has never been done.

4-27

The second thing I would point out is that the changes in NIF designs that have been talked about here, both the potential change to go to 96 beams and the potential that it will run at lower energy because they cannot resolve the problem of the damage propagation in the final optics, either one of those alone, and certainly both together, forego even the slightest prayer of ignition.

4-28

Now, as was brought up earlier, the National Ignition Facility's nuclear weapons mission does not require ignition but as stated on numerous occasions by DOE, the scientific mission of NIF does require ignition. So once again, the purpose and need needs to be revisited at this time.

4-29

The fourth thing, I would like to add a little to the discussion about nuclear proliferation risks. That 1995 study also concluded that the proliferation risks of the National Ignition Facility could be made quote, unquote, "manageable" and, therefore, could be made quote, unquote "acceptable." That is an explicit admission that there are nuclear proliferation risks of the National Ignition Facility.

4-30

That document then went on to say on balance because there is a political deal. I want to make this clear. It is not a technical deal. There is no technical need for NIF in order to stop testing and enter into a CTBC. It's a political deal.

The document said because of this political deal, this supports the CTBC, and,

therefore, it has an overall ameliorating benefit to non-proliferation. As previous speakers have said, that benefit has now essentially, for the moment anyway, disappeared, and the risk is still there. **4-30 (cont.)**

Much else has happened in the world as has been mentioned. India and Pakistan tested nuclear weapons and mentioned the U.S. Stockpile Stewardship Program and, specifically, NIF as part of their rationale for needing to test and needing nuclear weapons. Also, as has been brought up, the labs are embroiled in a security scandal. **4-31**

I would submit that nuclear proliferation is much more complex than just espionage, which has existed since the Manhattan Project, and, in fact, I would submit there is no different evidence for espionage, specifically in this case. **4-32**

So rather than subject innocent employees to lie detector tests, the Department should take a hard look at nuclear proliferation, and if you take that look -- and this is the one time that Edward Teller and I are going to agree, so, please, make note of this -- if you take that

look, you would find that nuclear weapons "secrets" quote, unquote are really non-secrets and that any advances that any country makes in nuclear weaponry and nuclear weapons technology becomes known by any other interested nation within about five years. That is what Edward Teller said.

Therefore, the NIF's stated admission, as was read from the Lab's institutional plan this afternoon, to advance our knowledge in the area of the thermonuclear secondary and in the fusion part of the weapon, will, by definition, proliferate. **4-33**

An underlying document that points to this is the 1981 Arms Control Disarmament Agency Impact Report to Congress. 1981 is interesting. That was before NIF was specifically considered. They were talking about inertial confinement fusion, the type of fusion that NIF would be. And they said inertial confinement fusion may very well contribute to nuclear proliferation in two ways: **4-34**

It could help a country that has a good technological base get more quickly deboosted fusion or thermonuclear weaponry. These would be

countries such as India, Pakistan, Israel, Iran, Iraq, Egypt, Japan, Germany, I mean, should they decide to go nuclear. That's a very direct proliferation impact.

That same Arms Control Impact Statement also said that other nations might use the cover of fusion programs to develop that capacity. In other words, if we have it and say that we are not using it to develop nuclear weapons, then we can hardly complain when other countries have it and say they are not using it to develop nuclear weapons, when, in fact, that is its most utilitarian purpose. **4-34 (cont.)**

So at this time, at this juncture, I would agree with the previous speakers that this Supplemental PEIS should also include a re-analysis of the very real proliferation impacts. **4-35**

Thank you.

MR. BROWN: Thanks very much.

That concludes our list of speakers who have signed up. Again, I'll ask if there is anybody else who would like to make a comment at this time.

(No response.)

MR. BROWN: We are scheduled to remain available for comments until 8:30. I think customarily what we do when no one is ready to make comments is we will recess at this point. We will be ready to reconvene at the point where anybody here would like to make a comment or if somebody arrives later who would like to make a comment. So why don't we recess at this point.

Thanks a lot.

(Whereupon, a recess was taken.)

MR. BROWN: We will formally reconvene, and I would like to call Ed Rippy.

You're next. If you'll step up to the mike and identify yourself, and if there is any organizational affiliation that's appropriate, you can tell us that as well, and you're on. Thanks. I'm glad you could join us.

MR. RIPPY: My name is Ed Rippy, R-i-p-p-y. For identification purposes, I am a member of the executive board of the East Bay Chapter of Peace Action. I've come to speak about the political philosophy implications of the National Ignition Facility and the Stockpile Stewardship Program in general.

This government, especially the Department **4-36**

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of Energy, has had a long history of exposing unwilling subjects to radiation hazards, ignoring responsible, competent research on the effects of low-level radiation. As an example, the atmospheric -- the A-bomb tests around Camp Desert Rock where soldiers were marched into ground zero only minutes after detonation, exposed to high levels of radiation; Hanford residents, where the U.S. Government sold contaminated land without telling anybody about the contamination; the injections -- secret injections of radionuclides and unwilling suspects and other exposures as medical experiments and unwilling suspects which have been revealed; the suppression and ignoring of work by such really good physicists, doctors. There is John Gofman, Arthur Chaplin, Rosalie Bertell, Thomas Mancuso, and many, many others.

4-36 (cont.)

These things continue. We have found plutonium -- unexplained plutonium in the park for three samplings in a row around here in Livermore. We have unknown and unexplained releases of tritium at Lawrence Berkeley National Lab. This Lab here, Livermore National Lab, is also on the Superfund list with a lot of very

4-37

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nasty tritium around. These are all lies which hurt people and kill people, not only here, but around the world.

The Department of Energy's five-year plan, the Green book -- well, maybe four-year or six-year plan -- was secret until parts of it were declassified as a result of a Freedom of Information Act lawsuit by a large coalition of groups. They still haven't fully declassified, however, despite repeated assurances from Department of Energy spokespersons that there was no nuclear weapons development going on.

4-38

The Green book showed the certification of the B-6111 earth penetrator, which is certainly a new military capability. They are saying it is only modified -- a modified weapon, but it has a new military capability. They have been working, still working, perhaps, on a glide bomb. Again, a new military capability.

All of these, again, are lies which endanger the peace and threaten peace, security and life all over the planet.

4-39

Our Declaration of Independence states that the just powers of Government derive from the consent of the Government, but how can there

4-40

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be consent when those governed do not know what their Government is doing to them?

Even a foundational document of the English Social Contract Theory, John Locke's second treatise on civil government, states that:

> "When Government through deception or abuse of power injure their people, they create a state of war with those people. There is no longer a state of social contract. There is a state of war."

4-40 (cont.)

So our Government, and especially the Department of Energy, is, in fact, at war with the people of the United States, with the people of other nations, and even the earth herself.

Indeed, international law would look very disfavorably upon stockpile stewardship. The international court of justice has, of course, declared even the threat of use of nuclear weapons illegal, and, of course, given the standing first use policy of the United States and, indeed, of NATO to continue development of nuclear weapons certainly implies the threat of

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their use.

The Nuremberg principles state that citizens of every country have a right, if not a positive obligation, to take non-violent action to stop their governments from committing grave crimes, crimes against humanity, war crimes, indiscriminate use, weapons which cannot -- the use of weapons which cannot discriminate between civilians and military targets.

As far as the non-proliferation -- oh.

And we also have obligations under Article VI of the Non-proliferation Treaty to engage in good faith towards the elimination of nuclear weapons. How can we be engaging in negotiations in good faith while we secretly continue to develop further weapons?

4-41

As an example or an illustration of the proliferation dangers, I'll quote from C. Wright Mills' book Listen Yankee written quite some years ago about the situation in Cuba. He was repeating, perhaps paraphrasing, the words of Cuban guerilla fighters that he had met and interviewed, and I will quote:

> "Where did I get my gun? From you, of course. At least I

guess you paid for it. Maybe you didn't know that, but it's true. It happened like this: You pay taxes to your government and your government took your money and bought my gun and gave it to Batista, that bloody bastard, and Batista gave it to one of his murdering gangsters. But one night in an alley in a little town you wouldn't even know the name of, the four of us jumped you. I killed him himself with my machete. It was a war, Yankee, and so I got my gun off him. Then I went to the Sierra to Fidel and fought with him against all the Batistas."

4-41 (cont.)

Given the way that the United States drives the nuclear arms race and drives nuclear weapons technology and then ultimately winds up exporting much of that technology to other countries in order to curry favor, it can be clearly seen that the environment, the nation and

the entire world is damaged by war and the preparations for war that are being carried on by stockpile stewardship of which National Ignition Facility is the largest part.

Thank you.

MR. BROWN: Thank you very much.

Is there anybody else who would like to make a comment at this point?

(No response.)

MR. BROWN: Again, we will recess, but be available to reconvene until 8:30. Thank you so much.

(Whereupon, a recess was taken.)

MR. BROWN: We will formally reconvene this evening's meeting on the Supplemental Environmental Impact Statement on the National Ignition Facility, and noting that there is no member of the public who wishes to speak at this point, this meeting is formerly adjourned.

I thank you very much.

(Whereupon, the proceedings adjourned at 8:30 p.m.)

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STATE OF CALIFORNIA)
)

I, LESLEY D. SCHNEIDER, a Certified Shorthand Reporter in and for the State of California, do hereby certify:

That said proceedings were reported by me at said time and place, and were taken down in shorthand by me to the best of my ability, and were thereafter transcribed into typewriting, and that the foregoing transcript constitutes a full, true and correct report of the proceedings which took place.

I further certify that I am not of counsel nor attorney for either or any of the parties hereto, nor in any way interested in the outcome of said proceedings.

IN WITNESS WHEREOF, I have hereunder subscribed my hand this 11th day of December, 1999.

_____
Lesley D. Schneider, RPR
CSR No. 10580

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