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Title: TMI-2 Solutions, Inc.

Docket Number: 50-320-LA-2

ASLBP Number: 23-977-02-LA-BD01

Location: Rockville, Maryland

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4	ATOMIC SAFETY AND LICENSING BOARD PANEL
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6	HEARING
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8	In the Matter of: : Docket No.
9	TMI-2 SOLUTIONS, LLC : 50-320-LA-2
10	:
11	(License Amendment Request : ASLBP No.
12	for Three Mile Island : 23-977-02-LA-BD01
13	Nuclear Station, Unit 2) :
14	x
15	Thursday, January 19, 2023
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17	Hearing Room T3 D50
18	Two White Flint North
19	11555 Rockville Pike
20	Rockville, Maryland
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22	BEFORE:
23	E. ROY HAWKENS, Chair
24	NICHOLAS G. TRIKOUROS, Administrative Judge
25	DR. GARY S. ARNOLD, Administrative Judge

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13	AMY HAZELHOFF, Vice President of Regulatory Affairs,
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10:00 a.m.

CHAIR HAWKENS: Good morning, we'll hear oral argument today in a license amendment proceeding entitled TMI-2 Solutions, LLC. Docket number 50-320-LA-2. Petitioner, Mr. Eric Epstein, challenges the request submitted by the applicant, TMI-2 Solutions, to amend its possession only license for Three Mile Island Nuclear Station Unit Two. My name is Roy Hawkens, I'm a legal judge, I chair this licensing board.

And I am joined by Technical Judge Nick Trikouros and Technical Judge Dr. Gary Arnold. We're also joined by our law clerk, Emily Newman, as well as law clerk Allison Wood, who is participating remotely. This argument is being held in the hearing room at the RNC headquarters in Rockville, Maryland, and I'll note this is the first in person hearing we've had since the pandemic, and I'm pleased to welcome counsel and those here assembled in the audience.

For interested persons who could not be here, we have a listen only telephone line, and in addition a court reporter is preparing a transcript that will be accessible to the public next week in the NRC's electronic hearing docket. The proposed

licensed amendment that petitioner challenges, as it's characterized in the Federal Register, seeks to revise the license conditions for TMI Unit Two to comport with current plant conditions and to enable the plant to transition to a decommissioned status.

Petitioner argues the proposed amendment should be denied, because it improperly fails to consider potential harm to the environment, including harm from recriticality due to airplane crashes, explosions, fires, and terrorist attacks. The applicant and the NRC staff oppose the petition arguing petitioner lacks standing and fails to proffer an admissible contention.

We'll hear argument today from counsel on behalf of all three parties. For the record, would counsel please introduce themselves and any colleagues who are accompanying them, starting with petitioner?

MS. BERNABEI: Good morning, this is Lynne Bernabei and Kristen Sinisi representing the petitioner, Eric Epstein.

CHAIR HAWKENS: Thank you.

MS. ROMA: Good morning, I'm Amy Roma, and at the law firm of Hogan Lovells, and I'm representing the licensee, TMI Solutions. To my right is my colleague Daniel Stenger and Amy Hazelhoff from TMI

Solutions, and in the front row there is our colleague 1 2 Stephanie Fishman. 3 CHAIR HAWKENS: Thank you. 4 MR. McMANUS: Good morning, Your Honors. 5 My name is Joseph McManus, and I, along with Angela 6 Coggins and Travis Jones, am counsel for the NRC 7 staff. We also have in the hearing room Shaun 8 Anderson as a staff technical expert. 9 All right, thank you, CHAIR HAWKENS: 10 welcome to all of you. As explained in this board's December 12 scheduling order, the parties will be 11 12 allotted 30 minutes present argument, to petitioner may reserve up to ten minutes for rebuttal. 13 14 The board's law clerk, Ms. Newman, will keep track of 15 the time, when five minutes are left, the yellow light will be illuminated. 16 17 When time is expired, that'll be the green When five minutes are left, yellow will come 18 19 When time has expired, the red light will on. illuminate. Do counsel have any questions? 20 MR. EPSTEIN: I just wanted clarification, 21 the pronunciation on my name is Epstein. 22 I just wanted to clarify the pronunciation of my name is 23 24 Epstein, not Epstein. I don't want to be confused

with some other people who have been recently in the

1	media. If you forget, there's Einstein, Epstein,
2	Frankenstein, I'm the Jew in the middle.
3	CHAIR HAWKENS: Thank you, Mr. Epstein.
4	Any other questions from counsel? Judge Trikouros,
5	Judge Arnold, anything to add before we begin?
6	JUDGE ARNOLD: No.
7	JUDGE TRIKOUROS: No.
8	CHAIR HAWKENS: All right, Ms. Bernabei as
9	petitioner, you may start. And before proceeding, how
10	much time, if any would you like to reserve for
11	rebuttal?
12	MS. BERNABEI: Five minutes please.
13	CHAIR HAWKENS: Five minutes, all right.
14	Thank you, you may proceed, Ms. Bernabei.
15	MS. BERNABEI: Okay. I want to give a
16	little factual background, because some of us have
17	been living with this case for a long time, over 25
18	years
19	CHAIR HAWKENS: Before you begin, a
20	question, it's my understanding based on email
21	exchanges between Mr. Epstein and our law clerk that
22	you just recently have become acquainted with this
23	case in early January, is that correct?
24	MS. BERNABEI: With this particular
25	petition. But I have represented TMIA and Mr. Epstein

going back to the 90s.

CHAIR HAWKENS: I commend you for your willingness and ability to prepare on such short notice.

MS. BERNABEI: Thank you. What I'd like to sort of give a general outline and then get into the more technical argument, what we really have in this case is a fairly new licensee, a new licensee certainly to TMI-2, which has no experience working with this damaged reactor.

CHAIR HAWKENS: Ms. Bernabei, we're familiar with the background in the petitioner, and given the serious questions, issues involved both in standing, and in contention, admissibility, I think we'd be grateful if you'd turn to them reasonably promptly.

MS. BERNABEI: Okay. Mr. Epstein has been a pro se petitioner up to this point in time, and as you all know, there is a relaxed standard for standing for pro se litigants. The recent cases of Seabrook, and also Fermi, which is a 2020 case, said that petitioners, when they are not represented by counsel, that the NRC considers them to have relaxed standing. And while they -- and they generally look at not the standing, but the contentions, if they're good

1 contentions. 2 And I would just note that Mr. Epstein --CHAIR HAWKENS: Can you -- I understand 3 4 there's а relaxed, more lenient standards for 5 But the standards for standing itself, I don't think are any different from any other party, is 6 7 that correct, is that your understanding? MS. BERNABEI: No, that isn't. What the 8 9 Seabrook case says is we generally construe standing in favor of the petitioner. 10 The requirements for standing are not strict by design, this is especially 11 so when we're a pro se petitioner. 12 I think Mr. established consistently 13 has 14 proceedings going back 30 years that he has sufficient interest. 15 He not only lives in the community, works 16 17 in the community, he's also been the signatory to a number of agreements to monitor the safety of the 18 19 plant. 20 CHAIR HAWKENS: As I understand from your briefing, you're alleging three theories for standing, 21 discretionary intervention, 22 proximity, and traditional? 23 24 MS. BERNABEI: Yes, Your Honor.

Do

you

HAWKENS:

CHAIR

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that

agree

discretionary intervention is simply not available 1 under the regulations? 2 3 MS. BERNABEI: In this particular case, I 4 would argue that it is, because of the special, unique 5 nature of TMI-2, and --CHAIR HAWKENS: All right, well I don't 6 7 think you'll get very much traction. You can argue 8 that if you like, but I think you'll have better 9 traction with the other two theories. MS. BERNABEI: Well, the essential point 10 is that Mr. Epstein lives, works, and has monitored 11 the damaged reactor for 30 years at least. And he has 12 been granted standing in other proceedings, in two 13 14 signed by the Nuclear Regulatory agreements 15 they have acknowledged, Commission, as has licensee in those instances, that he has an interest 16 17 in the proceeding. CHAIR HAWKENS: As between proximity 18 19 presumption standing and traditional standing, which is the strongest theory of standing in your view? 20 MS. BERNABEI: Traditional standing. 21 22 CHAIR HAWKENS: All right, would you address that? 23 I think you can't 24 MS. BERNABEI: Yes. sort of separate it from the contentions itself under 25

the case law. The case law says if you have standing or an interest in the possible danger of a nuclear plant, now most of these occur when the plant is licensing. We have a unique situation here with the damaged reactor. But if you have an interest in possible emissions from a damaged reactor in this case, you can have standing.

And I would just note that the cases, and they're very recent cases, they're 2020, say very clearly that the standards are relaxed, and what the board or the NRC should look at is the contentions, and whether the contentions are valid contentions, they don't look at standing by and large. They are very liberal in construing standards. And I think Mr. Epstein, throughout this 30 years, has established that he is currently the main person that monitors the site under the safe store.

He signed two agreements, including the original one in the early 1990s and the recent one when the licensee was changed. And he continues to monitor and follow all the studies, and the Federal Register, and what's coming out in terms of that. And the contentions he makes are serious ones, and I'd like to just go to those.

CHAIR HAWKENS: Before you do that, can I

ask a couple more questions about standing?

MS. BERNABEI: Sure.

CHAIR HAWKENS: Typically there's a causation component, and here when there's a license amendment, they must show that the amendment being challenged will cause a distinct new harm or threat to him or increase the threat or harm that currently exists. And can you explain how these proposed license amendments fit that description?

MS. BERNABEI: Yes. You have in this instance a very poorly set forth plan. The NRC has not even done a final analysis of it. And the plan, among other problems, has that -- we contend, and there's expert evidence that has been presented, that this plant, given the damaged nature of the fuel, the amount of the fuel, and the particular unknown configuration of the fuel could still go critical, that's number one.

Number two, there has never been an analysis of the particular dangers that Mr. Epstein brought up in his original petition, that has to do with a potential fire, terrorist attack, or aircraft accident. And the reason that these were never looked at is because this plant was shut down very early, before 9/11, and before there was the new regulations

1 that have to do with the potential dangers. So, we think that these contentions about 2 terrorist attack, 3 an aircraft attack, and internal threat have never been looked at in this 4 5 plant, because it was simply not necessarily, because it was in so called safe store. With the licensee, 6 7 the new licensee is asking for a radical change in 8 that. And the particular danger is one, it could go 9 critical. And these kinds of accidents, which have 10 never been looked at after the initial licensing of 11 TMI-2, could cause radiation exposure. We know for a 12 occupational 13 that the exposure 14 heightened by a factor of two if it is decommissioned. 15 I'd also like to say --16 CHAIR HAWKENS: Before you go to that, and 17 we'll be getting more into that when you get into your contention admissibility arguments, but did 18 19 represent Mr. Epstein in the 2020 case of TMI Nuclear Station Units One and Two? 20 MS. BERNABEI: No, Your Honor, but this is 21 22 CHAIR HAWKENS: Are you familiar with that 23 24 case? MS. BERNABEI: Yes. 25

CHAIR HAWKENS: In that case, the licensing board held that he did not demonstrate either proximity presumption standing, or more pertinent here, more traditional standing. Can you distinguish that case from this case?

MS. BERNABEI: Yes, Your Honor. This is a radical departure. This is a radical departure from the status of the damaged reactor. We no longer have one licensee for two reactors. We have TMI-1, that has no regulatory responsibility over TMI-2. And this is a radical departure from the safe store in which this reactor is being held. And at the time, in the 1990s, the NRC staff and the licensee signed an agreement saying we don't know how to get rid of the damaged fuel.

We don't have a place to put it, we don't really have a firm plan. So, we're going to keep it in safe store. Mr. Epstein at that point agreed to it. Since that time, nothing's changed inside of TMI-2, except the licensee has changed multiple times. And what we have is a plan that is not fully thought out in terms of how they're going to get rid of the damaged fuel.

They cannot rely on TMI-1 any longer, because TMI-1 is decommissioning, it's a different

licensee, has no requirement to take the damaged fuel. We have an extra wrinkle, which we explained in the supplemental pleading, which we just became aware of, is that TMI-2 Solutions has no guarantee of water to kind of do this decommissioning, and that TMI-1 is under strict requirement from the Susquehanna -- the Pennsylvania Commission.

That it shall not, except for minimal amounts, give any water to TMI-2. So, the difference here is you have a licensee, TMI-1, which was the licensee for both reactors, that has a plan for decommissioning. Here you have a newcomer, TMI-2 Solutions, that really has a very, very, I would say tenuous plan. They don't know where they're going to put the waste.

They have no contractual -- TMI-1 is struggling to handle its own waste, no contractual obligation to take things from TMI-2, because it's a different licensee. Idaho has no obligation to take this waste, and there's no water that's guaranteed for the cleanup. So, the worst thing that could happen, and the most danger of radiation exposure proven to the workers, the workers are going to be exposed, the estimates are two times the radiation exposures as if you kept it in safe store until there were a better

plan.

There's radiation exposure, and there's just simply not a good, thought out plan of how to do this. And TMI-2 Solutions says well, we want to regularize, normalize this. This is not a normal plant. This is a damaged reactor with a great deal of damaged fuel in an uncertain condition. And that means you can't pretend, which I think TMI-2 Solutions is trying to do, that this is a regular plant, it's not a regular plant.

And there's no firm plan as to where they're going to store this waste once they remove it.

Idaho won't necessarily take it, and TMI-1 is under no obligation --

CHAIR HAWKENS: The waste storage is not really a component of either of your contentions as I need them.

MS. BERNABEI: No, it is, Your Honor, because if it goes critical while they're in the midst of this unformed plan, they have no ability to handle what they're supposed to do. And the fact that the plan is so poor from the beginning, I think sheds light on the credibility and the competence of TMI-2 Solutions to carry out this plan.

CHAIR HAWKENS: Okay, why don't you go

into your contention admissibility arguments please?

MS. BERNABEI: Well, number one, it's been established for a long time, and this was basically the basis on which the safe store, which this reactor is still in, it's still in safe store. The basis for that is that we contended, Mr. Epstein contended, and TMIA contended that it could still go critical. There have been no studies that show that it can't. And given that uncertainty --

CHAIR HAWKENS: Is contention one, only difference looks the between the contentions their on face appears to be recriticality component that's in contention two, but in contention one in the basis several times, you arque about recriticality occurring, the possibility So, it appears that the two contentions are substantially identical, or at least substantially similar, is that correct?

MS. BERNABEI: I would say in part, okay? They rely on two things, one is that recriticality is possible. Two, there have never been analyses of these hazards and what it would do to the damaged reactor. And there just hasn't been any. So, if you start carting this fuel around, and there's an aircraft -- there's now an international airport near

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1 Harrisburg, or if there's a terrorist attack, this plant has not been analyzed for any of those. 2 3 Because it was already shut down by the 4 time these NRC regulations went into effect. So, you 5 have an untested damaged plant. So, it's not just recriticality, it's also environmental damage from 6 7 these kind of attacks that could occur. CHAIR HAWKENS: So, it's your position in 8 9 both contention that NEPA requires the analysis for 10 airplane accidents, fires, explosions, terrorist attacks which could result in recriticality? 11 MS. BERNABEI: Yes, yes. 12 13 CHAIR HAWKENS: Okay. 14 MS. BERNABEI: And the NRC and the 15 licensee have argued there's a categorical exclusion, 16 we don't think that that applies, because there's 17 exceptions including that there may be an increase in the amount of effluence, and there 18 may be 19 significant increase, and I think this is in Mr. Epstein's pleading, in the cumulative occupational 20 The studies that have been done 21 radiation exposure. say that would double. 22 think categorical 23 So, also the we 24 exclusion does not apply, because there are special This is the only plant in the United 25 circumstances.

1	States that has been so heavily damaged. And so
2	CHAIR HAWKENS: I didn't see in any of
3	your pleadings the term special circumstances.
4	MS. BERNABEI: Well, it's in the
5	controlling regulation, Mr. Epstein
6	CHAIR HAWKENS: I'm aware of that, but
7	MS. BERNABEI: Mr. Epstein did this as
8	CHAIR HAWKENS: In order to put the
9	licensing board on notice, and the other parties on
10	notice, it's an argument that should be expressed in
11	your pleadings.
12	MS. BERNABEI: Well, Your Honor he's
13	excuse me. He's a pro se plaintiff, and I think the
14	licensing boards and the NRC appeals boards have been
15	very clear that he should be given leeway. The facts
16	are in his pleadings, and he has said all over his
17	pleadings that there are special circumstances, and
18	that's a categorical
19	CHAIR HAWKENS: Well, no, he's never used
20	the term special circumstances.
21	MS. BERNABEI: Well, let me tell you where
22	he raised that, page 17. NEPA requires the NRC to
23	consider and attempt to avoid or mitigate significant
24	adverse environmental damage. And he also says the
25	NRC should take a hard look at environmental impacts.

and that NEPA places upon the agency the obligation to 1 2 consider every significant aspect. And then page 18 to 20 of the original petition, he says his entire 3 4 argument talks about the special circumstances that 5 apply to TMI-2. TMI-2 -- Three Mile Island Two --6 CHAIR HAWKENS: What page is that on? I'm 7 sorry. 8 MS. BERNABEI: 18 through 20, these are 9 where he argues that Three Mile Island --10 CHAIR HAWKENS: Did he use the term special circumstances? I just want to be clear, 11 because I hadn't seen it, perhaps I overlooked it. 12 MS. BERNABEI: He implies an exception to 13 14 categorical exclusion. But he was a pro se plaintiff, 15 he makes it very clear that Three Mile Island Unit Two 16 is unique. And I think the panel can take judicial 17 notice that this is a unique situation. There is no other plant in the United States that had a near 18 19 meltdown with a heavily damaged core going into a possible decommissioning. 20 The other thing that I wanted to address 21 legal terms is that the NRC 22 and arguments, and Mr. Epstein did not challenge the NRC's 23 24 preliminary determination of no significant hazards.

In fact the controlling regulation, this is 10 CFR

50.92<sup>©</sup> states the NRC may determine that a proposed amendment involves no significant hazards if operation of a facility in accordance with an amendment would not, and then they give a series of things.

Involve a significant increase in the probability or consequences of an accident. We believe that they have not demonstrated that. And throughout the pleadings, the NRC and the licensee attempt to put the burden on Mr. Epstein to show there will be an accident. That's not his burden, the burden is on the licensee and the NRC to show that there is no probability, or very low probability of an accident.

Number two, create the possibility of a new or different kind of accident from any kind of accident previously evaluated. This is a plant that hasn't operated for 40 years, 35 years. So, this is certainly ripe for the kind of accident that the NRC has never evaluated. And then number three, it says it does not involve a significant reduction in the margin of safety.

We think that it does reduce that margin of safety in the ways we've described. And the ultimate issue here is you have a plant that's been in safe store for 30 years. It's never been subject to

1	the same regulatory authority, and now you have a new
2	licensee that can't depend on TMI-1 to protect it.
3	And I want to just point out where he made these
4	arguments in his petition page one, the proposed LAR
5	will reduce safety margins and increase the likelihood
6	of significant hazards during phase 1B and phase two.
7	Page four
8	CHAIR HAWKENS: And how will it do that?
9	I agree there are a number of assertions, but are they
10	supported, and do they point to a particular provision
11	in the LAR?
12	MS. BERNABEI: Yes. The proposed
13	amendment undermines the cleanup by deleting or
14	modifying technical specifications for PDMS, that's
15	the safe store, leaving out surveillance requirements,
16	and leaving out administrative controls. And it also
17	allows
18	CHAIR HAWKENS: I'm familiar with that
19	passage, and I highlighted it because it's not clear
20	to me what particular provisions he's pointing to and
21	how those provisions impair the cleanup.
22	MS. BERNABEI: Because if you remove all
23	the controls, and they're storing high level waste on
24	an island in the Susquehanna River for an undetermined
25	period of time without surveillance

CHAIR HAWKENS: What controls though, we didn't point out where -- it's a fairly extensive license amendment request, and it makes conclusory representations about what's in there, and then makes conclusory representations about the adverse impact. And it may -- perhaps it will cause an adverse impact, but it was incumbent on him to satisfy admissibility requirements to identify the specific provision.

And explain why it was deficient and why it would have the adverse impact. And I had difficulty seeing that in the pleading.

MS. BERNABEI: Okay, well look at page four, the relocation of the debris. He says after the applicant vacates Three Mile Island, it poses a significant hazard based on the inability of the federal government to locate a permanent waste site. That is absolutely clear from the license amendment, that the federal government has not guaranteed a site for the waste.

That is what he says is a significant hazard, that fits within. On page six, footnote six, it says the applicant sites the DOE contracts number -- and I won't quote it, because it's in footnote six, of page six, abnormal waste contract, but it omits any

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details about post storage safety challenge. And those are that they won't find a permanent home for this waste.

TMI-1, which is very well explained, TMI-1 won't accept this waste, and it will start decommissioning and not be able to finish it because there's no home for this waste. Now, that's explained very carefully, and that's actually the gist of the whole license amendment. But they're going to remove this waste with no clear plan of where it's going to go.

CHAIR HAWKENS: It's difficult for me to connect that harm with the express language of your two contentions, which talk about the failure to conduct any kind of NEPA consideration for those four triggering events, which would result in recriticality.

MS. BERNABEI: If you take the waste out of TMI-2 and don't have a home for it somewhere else, that imposes an environmental hazard. It's not upon Mr. Epstein to make out the burden or to -- it's not his burden to show that it will definitely lead to irradiation, it's the burden of the licensee and the NRC staff to show that it won't. And if they do not have -- and we filed something last night, which you

1 may not have had a chance to review, but this licensee 2 CHAIR HAWKENS: We have not had a chance 3 4 to review that. 5 MS. BERNABEI: I understand. That it has no home for this waste, TMI-1 is under no obligation 6 7 to take it, different licensee, different regulatory 8 authority, Idaho is not taking it, and now we know 9 they don't even have any guarantee of water if the 10 decommissioning goes through. And TMI-1 is prohibited from giving its water to TMI-2. So, if it takes this 11 fuel out, and it has no permanent home for this waste, 12 it will lead to additional radiation exposure. 13 14 But that's the burden of the licensee and 15 the NRC to prove that that's not true. And that's the 16 argument he's raised, page one, page four, and then 17 page six, footnote six. CHAIR HAWKENS: Can you reconcile your 18 19 contentions with the Oyster Creek 2007 Commission decision, which was affirmed by the Third Circuit? 20 MS. BERNABEI: Oyster Creek was a normal 21 Oyster Creek had no damaged core, no unknown 22 amount of damaged fuel, and no uncertain configuration 23 24 of fuel. It was a plant at the end of its normal operating cycle. So, it's a totally different set of 25

1 facts. You didn't have, what we contend is a damaged reactor that's been in safe store with an uncertain 2 3 amount of damaged fuel and а potential 4 recriticality. 5 CHAIR HAWKENS: With one percent of fuel, 6 as opposed to 100 percent at Oyster Creek. 7 MS. BERNABEI: The problem is that you know what that core looks like. You don't know what 8 9 the remaining core at TMI-2 looks like. It's a normal reactor in the sense that TMI-2 I think calls it 10 regularized, normalized, it's a regular reactor, it's 11 So, it doesn't have highly had no serious damage. 12 radioactive damage fuel in the same sense that TMI-2 13 14 does. The problem with TMI-2, which the NRC has 15 always recognized, that's why it's sitting in safe 16 17 store, and that's why it shouldn't be granted, is they don't know what this looks like. They don't know, 18 19 because they can't get close enough to it, so they have to use all kinds of things that have been 20 controversial. 21 CHAIR HAWKENS: Well, let's talk a little 22 bit about your concern about, and I see as you do, the 23

time has expired, but we have a few more questions for

you.

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MS. BERNABEI: Okay.

CHAIR HAWKENS: The pleadings don't address in any detail the license amendment requests extensive discussion and calculations and conclusions that it's impossible for criticality to occur, even in the most ideal setting for criticality. Can you address that please?

MS. BERNABEI: Number one, the amount of damaged fuel that exists in TMI-2 is uncertain, they don't know. And they used, I believe it's 1100 as their figure, and said there's a plus or minus 5 percent. The figures range up to 1300, so we don't -- nobody knows, because there's been so many different calculations of this, how much damaged fuel there is. And the other issue, which they've never addressed, is it's not just the amount.

Assuming for the moment that they're right on the assumption you can't go critical at 1100 or 1200, okay? The thing that they haven't addressed is the configuration of the fuel, which no one knows about. And so the problem is the configuration of this damaged fuel is unknown.

JUDGE TRIKOUROS: I have a question in that regard. If I remember the LAR analysis correctly, the configuration that they chose to do the

criticality analysis was, let's just say the optimum worst conservative configuration one can achieve for criticality, which really is a spherical configuration.

You're saying there's some likelihood that the configuration of the fuel at TMI-2 today could somehow be rearranged by processes that would be ongoing that would create a configuration that would be more severe than a sphere?

MS. BERNABEI: Possibly, because, and I'm going to get the technical term wrong, the way the fuel is held, they're cracking, there's crack in what's holding, I don't know if it's called caskets, they're cracking in those. And so it may be rearranged, and the problem is this has been basically an abandoned plant for 25 years. So, we don't know what configuration -- we didn't know back then, and we don't know now, because it is changing.

And the second thing is the NRC has never done their own analysis of this. They've just said okay, you say it's okay, so it's okay. That's, we think an abdication of the staff's responsibility. So, we do think that it can still go critical given the failure to do a deep analysis of this.

JUDGE TRIKOUROS: So, you're saying that

the analysis that was presented in the LAR was not deep enough?

MS. BERNABEI: I'm saying it's untested. It's been unreviewed, not peer reviewed, and I think Mr. Epstein deserves the opportunity in the hearing to challenge it, that's what I'm saying. Because the NRC staff has not done an adequate review of it. I mean they admit this is a preliminary review, and there is no evidence that we've seen of their review of it, in terms of a final review of it. We think it's premature at this point.

JUDGE TRIKOUROS: All right, well I guess we'll have that opportunity to ask that question of the staff shortly.

JUDGE ARNOLD: I would like to just go back for a moment to the question of standing. And I personally, let me explain how I see the situation, and you can tell me where I'm wrong. Now, the 50 mile proximity presumption was based upon a plant that has a full core load, a full equilibrium decay heat, is hot, and is at power. And that is not what we have at TMI-2.

We have 99 percent of the fuel removed, which means we have two orders of magnitude less radioactive material in it, plus in the 40 some odd

years, it's decayed by a factor of approximately ten to the fourth. Now, what those two reductions do, is it makes the remaining fuel in the core or in the plant, has about one one millionth of the radioactivity of the operating plant for which the 50 mile proximity presumption was developed.

Now, in my mind, if I scale down the area of the proximity presumption using the radiological hazard that exists at TMI-2, I come up with the proximity presumption would give standing to people who are within 264 feet of the reactor. That's based just on what the radiological hazard is now. So, how do I come to grips with your claim that there's a risk beyond the plant boundary?

MS. BERNABEI: A few things. One is the amount of fuel is uncertain. And scientifically, you have an assumption that has wildly various assumptions, they can't all be right. It cannot all -- they can't all be correct, and what that shows is that there's uncertainty in the assumptions, number Number two, it's not in a configuration that's known, because you can't really examine the damaged fuel, and the configuration is changing.

So, what we have is something that's uncertain, been studied for a while, not really in

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depth, because people can't go down and look at this stuff given the situation with the reactor. A regular operating reactor, you know what the core looks like, you know what it looks like when it's shutdown, you know the amount of fuel and where it is. You don't have any of those assurances with this facility, which means you have to look better.

Now, just to prove this point, is this was the whole premise, that you don't know what's in the core, when the NRC and the then licensee entered into the safe store agreement, you don't know about this core, because it's a heavily damaged reactor. So, what we're saying is you have to take more precautions to let these newcomers on the block, TMI-2 Solutions, start carting around this waste that we think still could go critical and expose the community without a really, really good plan, and they don't have a good plan.

That's our basic. And so I think the assumptions that you're raising are different for an operating plant that's coming to the end of its life where you know what the core looks like, versus TMI-2.

JUDGE ARNOLD: Thank you.

CHAIR HAWKENS: A couple more questions, and we won't hold this against your rebuttal time.

1 You include in your reply brief, a paper by Dr. Kaku, when was that --2 MS. BERNABEI: Kaku, Michio Kaku, yes. 3 CHAIR HAWKENS: Thank you, I'll need to 4 5 get my pronunciations correct. When was that written? 6 MS. BERNABEI: That was, I guess he has 7 issued testimony all through the 80s, and I believe 8 are --9 That original was '87, and MR. EPSTEIN: 10 there was a modified testimony in '90. MS. BERNABEI: And we actually have copies 11 if you'd like, we don't have multiple copies, but we 12 can get them to you, of his testimony, but the facts 13 14 remain the same. There's multiple estimates of how 15 much damaged fuel remains in the reactor, and the 16 configuration is unknown. And his opinion is that 17 that is enough to go to criticality. Or at least, let me put the burden the right way, the licensee cannot 18 19 show that that will not lead to criticality. That's the point, not that Mr. Epstein has 20 to show that it leads to criticality. 21 MR. EPSTEIN: There's studies if you want 22 to look at them, I don't know if you recall the 23 24 advisory panel, Mike Masnick, the NRC, we had '93 hearings, those studies are entered into evidence as 25

1 we were going through this. So, you already have it, we can bring it, but it's already been entered into 2 3 evidence at an NRC hearing. MS. BERNABEI: Is that -- I think we have 4 5 some of them, which we can hand up. CHAIR HAWKENS: That's not necessary, 6 7 In fact we prefer not to have that at this 8 juncture. Now of course the LAR does contain, as I 9 extensive analyses, and although you make 10 representations about what Dr. Rasmussen has said and what Dr. Kaku has said, there's nothing in your 11 pleadings which indicate they have reviewed the LAR, 12 is that correct? 13 14 MS. BERNABEI: No, but if we were granted 15 a hearing, we would get an expert that was capable of 16 reviewing it and giving an opinion. The whole thing 17 in our mind is premature. This has been rushed through for no apparent purpose, to take this plant 18 19 that has been shut down comfortably for 30 years and rush it through to decommissioning. 20 There's reason, because this is not a great plan. 21 think Mr. Epstein deserves a hearing. 22 CHAIR HAWKENS: Ms. Bernabei, I know you 23 24 weren't involved in the filing of the reply brief, but

the deadline for filing was December 5, and it was

1	filed the next day without any representation that
2	good cause was satisfied. In fact it erroneously
3	stated it was timely filed, and I'm wondering why we
4	should consider it, given
5	MS. BERNABEI: I can't answer that, other
6	than Mr. Epstein is pro se.
7	MR. EPSTEIN: Yeah, based on my
8	conversations with and I don't
9	JUDGE TRIKOUROS: Mr. Epstein, could you
10	use the microphone?
11	MR. EPSTEIN: Yeah, this is probably a
12	horrible way to start the response, I'm pretty anal.
13	It was done a week before, I waited to file it, I was
14	under the impression that it was under the deadline,
15	that's why there was no comment as to because I
16	think you're actually right Judge Hawkens, I said it
17	was timely, because in my opinion, when I did the
18	calculation, and conversations I had, I was under the
19	impression it was timely.
20	There was no exigent circumstance that
21	caused it other than maybe I need a better calendar,
22	I don't know what to tell you. But if you look at my
23	filings and pleadings, I'm always ahead of the game.
24	CHAIR HAWKENS: Almost always.
25	MR. EPSTEIN: Well, yeah, I mean again

1 CHAIR HAWKENS: I understand, thank you. That explains, I understand, thank you Mr. Epstein. 2 EPSTEIN: 3 MR. Ιf you use 4 calendar, I'm a couple days ahead, but I guess we're 5 using the lunar. 6 CHAIR HAWKENS: All right. 7 MS. BERNABEI: And I might just note, he 8 is pro se, and there's no prejudice. I mean when 9 you're dealing with a pro se, you give some leniency. 10 CHAIR HAWKENS: I understand. Do you have any more questions for Ms. Bernabei before we? 11 JUDGE TRIKOUROS: Yeah, I just want to 12 follow up on the criticality issue. It's your opinion 13 14 that the criticality possibilities at TMI-2 15 likely, or unlikely at the present time? 16 MS. BERNABEI: Let me run it the other way 17 for you, not to not answer your question. But I don't think the burden is on Mr. Epstein to have someone 18 19 make that determination. I think it's on the licensee and the staff to assure you, or whoever is going to 20 make the final decision, that it is not at all likely. 21 That they can represent that it is not at all likely. 22 And our opinion is that it's probable 23 24 enough, given this plan, that it has to be further looked into, and that's why we want a hearing. 25

MR. EPSTEIN: Can I add something quickly since I wrote it? Real briefly. This is what we were told when the plant was being built, Unit One came online in '74, TMI-2 in '79, the exact quote from the company is an accident here is as likely as a meteor falling from the sky. This is theoretical, and if you look at what we said, it is unlikely. But when we had the accident, failure of imagination.

Same thing, O rings in the space shuttle. I just think we need, deserve the ability to have a hearing to examine it. So, nobody's saying it's ultimately going to happen, hopefully it won't, I live there.

MS. BERNABEI: And can I just raise one thing? This plant was built to sustain supposedly the most severe accident, and you'll have to forgive me, it's class eight, class nine, I can't remember the classes any longer. It was meant to not have the core melt under that serious an accident, but it exceeded the basis on which it was built. That accident was greater than what the NRC said licensees had to plan for.

So, we've already had a problem with this plant that the accident that occurred exceeded, and led to, we believe exposure of radiation beyond the

design basis that the NRC originally said could never happen, it did happen. I'm sorry to interrupt you.

JUDGE TRIKOUROS: Yeah, with respect, again, I want to close this criticality question. The licensee performed a fairly detailed analysis in the LAR. It looked like they made extremely conservative assumptions and reached the conclusion that the possibility of a criticality is essentially not credible, that it is not a credible event.

And in your pleadings you did not specifically evaluate that at the level where we could see that you've done a review of it and had reasons why you believe it's incorrect. And you've told us this morning that you would be satisfied if the staff reviewed it and found it to be an acceptable analysis, is that correct?

MS. BERNABEI: It depends on what the staff does, it hasn't done it up to now. But the reason we haven't done that analysis is because we haven't had a hearing in which we could find an expert who would apply that math. We need a hearing so this can be explored, that's what Mr. Epstein is asking for, because that's what a hearing is for, it's to challenge the assumptions.

And I think frankly this whole thing is

premature. You have a pretty inexperienced licensee that talks about normalizing or regularizing this plant, has no place for the waste, has no committed space for the waste, and no water. It seems like it's premature. The NRC staff should finish its review, we can look at it, and we may still ask for a hearing, but it should be able to be challenged in a hearing by Mr. Epstein.

JUDGE TRIKOUROS: Right, but prior to getting to the hearing, there's a requirement that one has to show that there's something to litigate, and that has not been done in terms of this, and again I want to focus on criticality, because I want to finish that. And we'll talk about that with the staff when they get to the podium.

MS. BERNABEI: I think that the key on this, and this is in -- and they weren't in the right form, so we do have the declarations and testimony from Michio Kaku, who is sort of a world famous physicist, that it's not just the amount, it's also the configuration, and that has not been addressed. The configuration of the fuel. They've said okay, up to 1100, we know it can't go critical. But one of the estimates is it could be as much as 1300.

But Kaku makes the express statement that

it's the configuration of the fuel, which also makes this a more complicated problem, and it can go critical.

MR. EPSTEIN: Can I add something?

Because I wrote it, is the key point, as someone who has tracked this issue for 43 years is not necessarily commission, but omission. If you haven't looked at the scenarios or viability of an external threat and the external threat reconfiguring or creating an accident that we haven't really looked at, it's hard for me at the time -- I read the LAR.

I can't look at something that wasn't written, what I'm postulating is that we deserve the opportunity to look at an external accelerant here. This is all internal configuration, and theories are only as good as the theory. And I'm saying that, my profession is a Holocaust historian, and I believe when you look at history and facts, you have people who look at the facts, and you also have the context of on the ground.

And I think the two merge here is that the experience that I've had, that we've had over time, and that's why I put in there what Distenfeld came up with, Lee Thonus came up with, Mike Masnick, who is a good friend of mine. This has been a fluid adventure.

1 You keep saying 99 percent, based on what I see in Idaho, I think it could be 97 percent. 2 you're starting from a place at 99 in the K effective 3 4 that can't happen that I don't agree with. like the opportunity to argue that. 5 JUDGE TRIKOUROS: All right, fine, thank 6 7 you. 8 CHAIR HAWKENS: Anything else? No, all 9 right, thank you very much. 10 MS. ROMA: Good morning, Your Honors. Good morning, Ms. Roma. 11 CHAIR HAWKENS: MS. ROMA: My name is Amy Roma, just again 12 for the court reporter, and I am representing TMI-2 13 14 Solutions. I was briefly going to mention, I'm doing 15 some pivoting here based on the type of questions you asked earlier, so I was going to briefly explain the 16 state of the plant, very briefly, because it goes into 17 the radiological risk that addresses both standing and 18 19 contentions. So, as you alluded to earlier, the 1979, 20 there was an accident at TMI-2, the plant shut down, 21 it only operated for a few months before the accident 22 All the fuel has been defueled from the 23 occurred. 24 Only about one percent of the spent fuel

remains on site, and that is dispersed throughout

various systems. And it wasn't pulled out back in the 1980s when most of the defueling was done because of the form that it took and the location that it was.

So, there's some dust at the bottom of the plant, there's some hardened spent fuel on piping and equipment, and there's some film on other equipment.

So, it's not just sitting like a core configured for an operating plant, it's dispersed throughout. So, it wasn't removed at the time, because it was inaccessible or too difficult to pull out as part of the defueling.

So, back in the 80s, 99 percent of the fuel was taken out of the plant, put into casks, and sent offsite. So, it's now at a DOE national lab. So, what we're dealing with here when we're looking at any radiological risk from the plant, is actually a very small amount of material. In 2020 TMI-2 Solutions -- the plant has been sitting for basically 30 years in a monitored manner, per an amendment to the NRC license in the early 90s that transferred it to a possession only license.

So, it's not been operating, there hasn't really been a lot of activities at the site, and in 2020, TMI-2 Solutions, who is the most experienced nuclear decommissioning company in the United States

acquired the plant for purposes of decommissioning the facility, removing the remaining radioactive material, and releasing the site. So, the fact that this was going to be moving into an active decommissioning site has been known for quite some time.

And in fact was inevitable, since the plant was shut down, and moved into monitored storage in 1990. The decommissioning of the TMI-2 plant is separated essentially for purposes of our discussion today into two remaining phases, phase 1B and phase two. Phase 1B is the next phase of decommissioning, where TMI-2 Solutions will be focused on reducing the source term at the plant by removing the remaining spent fuel and moving it into spent fuel casks.

The total number of casks that we're talking about here is estimated to be in the 12 to 15 cask total range. So, unlike an operating plant, which has an ISFSI with 50 to 100 or more spent fuel casks, we're only talking about 12 to 15 casks. So, it's a small amount of casks. And it's to remove the residual radioactive material in order to reduce the dose to the decommissioning workers, and in line with ALARA, the as low as reasonably achievable principle.

So, once this is done, TMI-2 Solutions will essentially have made the plant more in line with

other shut down facilities that are undergoing decommissioning. The environmental impacts of the phase 1B activities were previously analyzed by the NRC in the programmatic environmental impact statement for TMI-2.

For the next phase, in phase two, the plant will be dismantled with equipment like the reactor vessel head being one of the last things to be dismantled, and otherwise, after all the spent fuel debris has been removed. So, removing kind of the major equipment that is around the plant won't happen until towards the end stage of phase two. The environmental impacts of the phase two activities were previously analyzed by the NRC, and the generic environmental impact statement for TMI-2.

So, in order to transition from the monitored stage to the active decommissioning stage in phases 1B and 2, TMI-2 Solutions will need to submit a number of license amendment requests in order to move into that decommissioning phase.

JUDGE TRIKOUROS: Let me ask you, the material that will go into these canisters, will it be only spent nuclear fuel, or will it be structural material to which the fuel has adhered and somehow connected?

1 MS. ROMA: I think they're going to try to get it off as much as possible, and if I need to, I 2 3 can refer to our technical specialist that we have 4 They're going to try to get it off as much as possible and then put it into the casks for storage 5 and disposal. 6 7 JUDGE TRIKOUROS: From the material that I've seen in the pleadings, it looks like the plant 8 9 will be sort of cut up into pieces, which will include the nuclear material. 10 MS. ROMA: Yes. 11 JUDGE TRIKOUROS: And that material will 12 be cut up in such a manner that it will fit in the 13 14 canisters? 15 That is my understanding. MS. ROMA: 16 JUDGE TRIKOUROS: All right, thank you. 17 MS. ROMA: So, the particular license amendment that we're talking about today is limited in 18 19 it is consistent with scope, and decommissioning plan that has been in place for a 20 The LAR would amend the TMI-2 21 number of years. possession only license and the associated 22 related tech specs, because it's no longer going to be 23 24 in the post defueling monitored storage state, and is

instead going to be in a decommissioning state.

There are a number of license conditions and technical specifications that need to be removed from the license in order to permit them to move into that next phase. Other factors, other administrative changes are the administrative control will be moved into -- will be removed from the license and moved into a decommissioning quality assurance program for example.

Notably, the LAR does not propose changing the reactor building, so structurally TMI-2 is going to remain essentially the same, with no new risks raised under this license amendment request. This staff's aligns with the NRC determination with respect to the LAR involving a no significant hazards consideration, which means that the proposed license amendment does not involve a significant increase in probability, or create the possibility of an accident that has not already been previously analyzed.

To be admitted into a proceeding on this license amendment request as required by 10 CFR 2.309, the petitioner must demonstrate standing and offer at least one admissible contention. The fact that he is a pro se litigant no longer pro se is irrelevant to meeting the NRC regulatory requirements for both

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standing and for contention of this ability, and the applicant is still required to align with Commission case law in this area.

CHAIR HAWKENS: Are you familiar with the Seabrook case that Ms. Bernabei mentioned, which said case law relaxes the standing standards for pro se litigants?

MS. ROMA: So, it's relaxed, but it's not eliminated. He still has to make the showings of standards, which is either traditional proximity or discretionary standard. He can probably just be -- we can probably be a little bit more permissive in how he gets there, but there's still a regulatory requirement for standing, and there's still a Commission precedent on how standing is met.

And that is not to say that just because he cannot meet the requirements for a hearing on this license amendment request, that the petitioner cannot participate in other ways, such as through submitting comments, participating in public meetings, or joining the citizens advisory panel for the plant. But the hearing requirements are strict by the design, and the petitioner does not even come near meeting their threshold.

With respect to the petition, I'm first

going to address standing, and then I'm going to move into the contention admissibility. With respect to standing, the petitioner asserts that he has standing to intervene under both traditional and proximity standing. And it sounds like their focus is really on meeting the threshold for traditional standing, and also requests that he be granted discretionary intervention.

He does not meet the criteria, as I think the board has already acknowledge, for discretionary intervention, so I'm not going to address it, on its face, it doesn't meet the requirements of regulation. So, standing is not mere technicality, it has essential element in an determining whether there is any legitimate role for this adjudicatory body in dealing with a particular grievance raised by the petitioner.

So, I'm going to walk through the elements of standing and explain why he doesn't meet them. With respect to traditional standing, in order to demonstrate that he has met traditional standing, the petitioner must show that he has personally suffered or will suffer a distinct harm known as an injury in fact, that the injury is caused by the challenged action, that the injury is likely to be redressed by

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a favorable decision.

So, the reason I wanted to take the time to go through the condition of the plant and the scope of the license amendment request that is being made is because the petitioner has not shown how he can meet the injury in fact element. When asserting standing in a license amendment proceeding such as this one, it is incumbent upon the petitioner to provide some plausible chain of causation explaining how the proposed license amendment will result in a distinct and substantiated new harm or threat that will lead to offsite radiological consequences.

To show injury in fact, the Commission has held that pleadings must be more than academic exercises in the conceivable. A plaintiff must allege that he has or will in fact be harmed by the challenged agency action, not that he can imagine circumstances in which he can be affected by the agency's action. And I just want to push back on the contentions made by the petitioner's counsel just now, that all the burden is on the applicant and the NRC staff to prove that none of the statements that the petitioner says are true.

Those are not the legal standards for this proceeding. The burden on him is to show that he

meets the regulatory requirements for both standing and contentions to intervene, and that he provides the logical argument, as well as any necessary evidence in order to make his case. And so, it's not on us, just because he says it's true, to assume it is, and prove that it's not.

The petitioner argues that -- his arguments here have been insufficient to establish traditional standing to intervene, as the petitioner never squarely addresses the injury element. When the petitioner claims the LAR will result in adverse health and safety risk to him personally, he's failed to provide any evidentiary support or plausible connection to demonstrate that such an injury is more than speculative, or somehow traceable to the actions requested in the LAR.

Especially since TMI-2 is permanently defueled, and the spent fuel has been moved offsite. There's such a small amount of radioactive material here, he has not shown how that small amount of radioactive material could possibly cause him injury. The petitioner also fails to show that plausible chain of causation, explaining that the LAR would result in a distinct substantiated harm or threat --

CHAIR HAWKENS: Ms. Roma, may I interrupt

please?

MS. ROMA: Yes.

CHAIR HAWKENS: They do say that they have
-- in their pleadings, they represent statements by
Dr. Rasmussen and Dr. Kaku, that criticality is
conceivable, not likely, but could be possible. How
do you respond to that? I think they seem to hinge a
lot of their contention admissibility, as well as
standing arguments on that.

MS. ROMA: So, I think we've seen a lot of attempts in the previous arguments to try to rehabilitate a petition that doesn't otherwise meet the contention admissibility standards. So, in the actual petition for a hearing to intervene, there's random quotes to reports with no reports provided. There's no explanation of the qualifications of the people that are being quoted.

There's no explanation of how what is being quoted possibly or even logically connects to the arguments at hand. He quotes some numbers saying there's this amount of material, and that amount of material, but I don't know where those come from or what the bases are. So, we're left sorting a needle through the haystack trying to make sense --

CHAIR HAWKENS: Hold on, they did include

1 a paper by Dr. Kaku in the reply, and I just want to make sure, it appears since you did not object to the 2 3 untimeliness of it, that you would not oppose us 4 exercising our discretion to consider it, is that? 5 MS. ROMA: No, that was my next sentence, was that it was untimely. 6 It was not submitted in 7 time, it should not be considered in this proceeding. 8 Likewise, all the arguments that were made --9 CHAIR HAWKENS: There's some irony in you 10 making an untimely objection to their untimely reply. MS. ROMA: Well, also the filing that was 11 made last night at 7:30 at night when we have a 10:00 12 o'clock oral argument, of which they extensively 13 14 incorporated new water arguments, also it's not part 15 of this proceeding today. 16 CHAIR HAWKENS: That's not part of this 17 proceeding, we agree. And so to the extent that in MS. ROMA: 18 19 the reply brief, he attaches one report, it still is not clear whether report that was attached is the 1987 20 report that was referenced in the petition. It also, 21 in order to put the applicant and the staff on notice 22 as to the arguments he's making, had to be attached in 23 24 the original petition that he filed. I looked through

it, I think calling it a report appears generous.

It doesn't appear to have any technical analysis in it, it doesn't have any citations to underlying information upon which he was relying, there's no explanation of his credentials or what he's talking about. And so, even on its face, even assuming it is admissible, which I contend it's not, even assuming that the filing was timely and that we should consider it, it should have been in the original petition.

So that we can better evaluate what the arguments are that the petitioner is trying to make. Otherwise, again, we're all left trying to find a needle in the haystack about what the arguments are that he's making. So, the other thing that I wanted to point out is that the NRC has consistently denied standing when the threat of injury was too speculative.

So, we have no evidence, no logical explanation, no expert witness, no legal analysis to explain how this injury is even plausible. And in fact, with respect to the criticality, and I'll go into this more when I go into the contentions, I did note earlier that the programmatic EIS and the generic EIS are bounding for both the phase 1B and phase 2 decommissioning.

And in the programmatic, I ask, for example which covers the phase 1B decommissioning, the NRC did look at criticality and did determine that it was not credible. And so, that was already in a previous EIS that was not addressed at all by the petitioner. And if you look at the -- when the applicant first moved into the PDMS stage, they had to submit a defueling completion report and a license amendment request in order to move to a possession only license.

This was 30 years ago, and in order to do that, they had to show that criticality was not possible based on the amount of material and the configuration of the plant. So, that is discussed to some extent in the license amendment request in the, I believe it's attachment five, which is the spent fuel mass limit analysis.

So, the LAR also states that the prior analysis shows that there is no postulated accidents that can occur during the next phase of decommissioning that could be enabled under the license amendment request, and that could result in the dose at the site boundary exceeding regulatory limits.

JUDGE ARNOLD: If I may interrupt, you've

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1 hit upon my single question for you. I noted that in your answer, you stated that exact thing. 2 say prior analysis, were these just analyses that have 3 4 been done, were sitting on the shelf, or were they for 5 a licensing action? MS. ROMA: The programmatic environmental 6 7 impact statement and the generic environmental impact 8 statement I believe contains analysis. 9 JUDGE ARNOLD: So, these conclusions are 10 conclusions that have been reviewed by the NRC and factored into a licensing action? 11 MS. ROMA: Correct. 12 Thank you. 13 JUDGE ARNOLD: 14 MS. ROMA: With respect to proximity based 15 standing, petitioner the claims that he has demonstrated standing by his proximity to TMI-2, 16 17 claiming he lives within 12 miles of the plant. However, he fails to meet the standard for proximity 18 19 standard as well. As this board noted, the only presumption for proximity standing for 50 miles is for 20 significant licensing action the 21 such as construction of a new plant. 22 everything establish 23 For else, to 24 proximity standing, the standard is more than just

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living near the site.

The petitioner has the burden

to provide a fact specific standing allegation, not just conclusionary statements, and he needs to show how there's an obvious potential for offsite consequences.

Again, the reason why I wanted to start my argument by explaining what the radiological footprint at the plant was, and what we were dealing with, and the fact that significant prior submissions to the NRC, including NEPA analysis conducted by the NRC show that recriticality is not possible. The fact that the applicant provided extensive information on this in the license amendment request doesn't change the fact that because it's not credible, the likelihood of him being able to demonstrate that he has injury essentially disappears.

But with proximity standing, it's not just that he can be injured, it's that there's an obvious potential for offsite consequences. And a very similar case to this one, in the Zion licensing proceeding, and the Zion plant by the way, is also decommissioned by Energy Solutions, the parent company of TMI-2 Solutions, so they have extensive decommissioning experience.

The petitioner in that proceeding tried to argue proximity standing, and that petitioner was ten

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miles away, so closer than the current petitioner, and in that case the licensing board said that given the shut down nature of the plant, the fact that the fuel has been removed from the core and is in the spent fuel pool, there is no obvious potential for off-site consequences.

In that plant they still had spent fuel on site sitting in a spent fuel pool. Here we've had 99 percent of the spent fuel removed, and it's off site in Idaho. And so, just like the petitioner couldn't get proximity standing in that case, the petitioner here also cannot satisfy proximity standing, because there's no obvious potential for off-site consequences.

CHAIR HAWKENS: Ms. Roma, can you address petitioner's claim that this license amendment would condemn TMI to become a high level waste site for an indefinite period of time at an undisclosed area on the site?

MS. ROMA: So, the spent fuel that is going to be removed from the plant is going to go into a spent fuel cask, and it's going to be put on an independent spent fuel storage installation facility, an ISFSI, just like every other reactor in the United States.

1	CHAIR HAWKENS: Would that require another
2	discrete license amendment request, or is that?
3	MS. ROMA: For the ISFSI, I don't believe
4	the ISFSI has currently been built. There's a general
5	license for the ISFSI.
6	CHAIR HAWKENS: All right, so it would go
7	into an existing ISFSI.
8	MS. ROMA: Yes. It also will not
9	contribute to the criticality argument, which is the
10	contention that he's arguing.
11	JUDGE TRIKOUROS: Well, let me ask a
12	question regarding that. There's a phase three to
13	this decommissioning process I understand. Phase
14	three would be the management of all of those high
15	integrity containers that are grouped together in an
16	ISFSI, and that contain all the remaining spent fuel?
17	MS. ROMA: Yes, correct.
18	JUDGE TRIKOUROS: But again, not separate
19	spent fuel, but tied with the structural elements as
20	well?
21	MS. ROMA: Correct.
22	JUDGE TRIKOUROS: So, the likelihood of a
23	criticality in all of those containers, would that be
24	any different than the likelihood of criticality with
25	the fuel currently sitting inside the reactor vessel

1	and the attached piping I assume?
2	MS. ROMA: I would imagine it would be
3	even less, so even less than non-critical.
4	JUDGE TRIKOUROS: It would be though, at
5	the mercy of the elements, right? So, that ISFSI
6	would have to be designed for, I assume earthquake,
7	flood, and TMI has had issues with floods in the past,
8	et cetera, tornadoes.
9	MS. ROMA: Yes, it would have to be
LO	designed to withstand all of those.
L1	JUDGE TRIKOUROS: Right, and that would be
L2	submitted to the NRC for approval, I assume?
L3	MS. ROMA: Correct, and the NRC also needs
L4	to approve the casks that will be used to hold the
L5	debris.
L6	JUDGE TRIKOUROS: The high integrity
L7	canisters haven't been approved yet, is that what
L8	you're saying?
L9	MS. ROMA: So, there's tons of MPCs,
20	multipurpose canisters that are used for spent fuel
21	storage, but I believe that the one that will be used
22	for this specific facility is under review from the
23	NRC.
24	JUDGE TRIKOUROS: All right, but it hasn't
25	been licensed yet by the NRC?

1 MS. ROMA: Correct. 2 JUDGE TRIKOUROS: Okay. 3 CHAIR HAWKENS: But that's not part of 4 this license amendment request Ms. Roma? 5 MS. ROMA: No, it's not part of this 6 license amendment request. 7 CHAIR HAWKENS: So, would that mean that 8 the challenges to the future storage of this would 9 appear to be outside the scope of this proceeding, because it's not related to this LAR? 10 MS. ROMA: That is correct. I'm now going 11 to turn to the contention admissibility standards, 12 To grant the petition, the board must first 13 14 find that the petitioner not only meets the NRC 15 standing requirements, but also has submitted at least contention that satisfies each 16 17 admissibility criteria set forth in 10 CFR 2.309(f)(1). 18 19 The proposed contentions must be rejected, because the petitioner's claims, which we address as 20 a single contention, because I think Judge Hawkens, as 21 you noted in the questioning that you had before, the 22 only difference in the actual words of the contention 23 24 is one contention says criticality, and the other one

doesn't, but then the arguments are copy and pasted

from each other and nearly identical, so we just combine them into one.

So, this contention fails to meet the contention admissibility criteria, including by failure to show a genuine dispute of fact or law with the license amendment request, and failing to offer anything more than speculative assertions unsupported by evidence. This is particularly important, because the NRC's six contention admissibility requirements are according to the Commission, strict by design, and they serve multiple functions.

Including focusing the hearing process on real disputes that can be resolved to giving all parties notice regarding the petitioner's grievances, and three, assuring that hearings are triggered only by petitioners able to provide at least a minimum factual and legal foundation in support of their contentions.

It's not up to the hearing stage to see if the petitioner can find a witness that can help support their contentions or evidence to support their contentions. It's a threshold consideration as to whether the contention is admissible in the first place. Otherwise we're left with just the petitioner saying all these things can happen, and therefore I

1 want a hearing, so that I can eventually prove it to 2 you. 3 And so, any claims that this is moving 4 along fast, or somehow the petitioner didn't know this 5 was coming, when TMI-2 Solutions acquired this plant in 2020, at which he tried to petition to intervene, 6 7 and was denied, he knew that they were moving towards 8 decommissioning. This specific license amendment 9 request was submitted over a year ago. The notice in the Federal Register came 10 out months ago, and then he filed the petition. 11 So, we've had plenty of time to know this was coming, and 12 for the petitioner to be able to kind of assemble the 13 14 bare minimum of factual and legal information he 15 needed in order to make the argument, he just failed 16 to in his petition. 17 CHAIR HAWKENS: Ms. Roma, can you address Ms. Bernabei's assertion that it's implicit in Mr. 18 challenging 19 Epstein's pleading that he was categorical exclusion? 20 MS. ROMA: I did not find it explicit at 21 all. 22 CHAIR HAWKENS: Maybe I misspoke, she said 23 24 it was implicit. MS. ROMA: Yes, I did not find it implicit 25

either. I could not tell what NEPA criteria he was trying to challenge. He was just saying there's all these accidents, it's going to make everything go critical, and therefore NEPA requires you to consider this with no analysis of what NEPA requires. Absolutely no analysis that there's an existing NEPA analysis with the programmatic EIS, and with the generic EIS that covers both phase 1B and two.

He just said there was no NEPA. But he also did not say why the applicant did not meet the criteria for a categoric exclusion. And it's expressly explained in detail in the license amendment request, and there's an attachment, I can't remember, maybe it's attachment one, section four explains in detail why it meets the criteria for a categorical exclusion.

And then the NRC's analysis in the Federal Register, he didn't have to dig too deep to find the categorical exclusion, or the NRC's analysis in the Federal Register notice walking through why the NRC was making an initial finding of no significant impacts with respect to whether this license amendment introduced any new risk that was previously unanalyzed.

So, I think we have that entirely

unaddressed in the petition, and it was up to this licensing board and the staff and the applicant to try to piece through what NEPA argument he was trying to make. And at bottom, first he doesn't challenge the categorical exclusion or explain why the categorical exclusion does not apply, and that's a legal analysis that he could have walked through.

Second, he didn't show that there was no analysis of credible accidents or criticality that needed to be done under NEPA and ignored the fact of the PEIS and GEIS in analyzing these issues. And third, he says you have to consider it because I said, that's basically what it comes down to. And now they're trying to push it back on us and say well no, we have to prove what you're saying doesn't make sense.

So, what we're arguing is you did not explain how any of these accidents are credible, and therefore warrant a new NEPA analysis for this specific license amendment request. And he kind of conflates a lot of different things, including arguing that the NEPA analysis requires a consideration of the environmental impacts of terrorism, which is not true for this case.

I believe that you mentioned the Third

Circuit decision saying that terrorism events at
nuclear power plants are too speculative to be
required to be considered under NEPA. And the Third
Circuit is where the TMI-2 plant is located. And so,
we don't have any legal connecting of the dots, and we
don't have any factual connecting of the dots to try
to make this argument make sense. We have to read a
lot between the lines to even come to the analysis
that I just gave.
CHAIR HAWKENS: If this licensing board
were to conclude that Mr. Epstein did not argue that
an exception should be applied here to the categorical
exclusion, does that result in the rejection of both
contentions?
MS. ROMA: No, then we would need if
this licensing board held that a categorical exclusion
was not
CHAIR HAWKENS: If we found that he waived
or failed to argue that categorical exclusion should
not have been applied, should we therefore conclude
that both contentions should be rejected?
MS. ROMA: Yes, because there'd be no
basis to even consider them.
CHAIR HAWKENS: Okay, I just wanted to
make sure that was your position.

MS. ROMA: Okay, I wanted to make sure I was understanding your question.

CHAIR HAWKENS: I had a lot of negatives in there.

MS. ROMA: I was trying to follow them, but I got there in the end. And so the requirements for contention admissibility again, is to focus on real disputes, giving the parties notice of what the actual grievances are, and having something factually or legally to litigate. That's where there has to be a genuine dispute of material fact in law.

We don't have any of that here. At best we have a promise that it would be coming in the event that a hearing is granted. And that is not the time, that doesn't meet the contention admissibility standards set forth in the regulations. And then let's see, we've just covered some of my arguments, so I'm trying to skip ahead. So, I address the NEPA.

Here, the NEPA analysis is not required for this LAR, because we've already said that the license amendment request is bounded by the prior environmental impact statements in any event, and the LAR introduces no new significant hazards, considerations that would increase the probability or create the possibility of an accident that was not

66 1 otherwise considered. And then --CHAIR HAWKENS: Ms. Roma, may I interrupt 2 3 again? 4 MS. ROMA: Yes. 5 CHAIR HAWKENS: Mr. Epstein indicates in his reply that the remaining mass of core debris 6 7 material in TMI-2 was determined using theoretical 8 calculations that were not peer reviewed, 9 calculations and analyses in the LAR required to be 10 peer reviewed? MS. ROMA: There's no requirement that any 11 document that's ever submitted to the NRC be peer 12 reviewed, it's not publication in a journal, it's the 13 14 preparation submission of a licensing submittal for 15 the NRC, and there's no requirements for peer review. I would also note that if you look at the attachment 16 17 five of the LAR, at page five and six they explain how the analysis came to be. 18 19 So this isn't an analysis, the spent fuel 20

So this isn't an analysis, the spent fuel mass limits are not an analysis in a vacuum. This is building upon over 30 years of information that has been evaluated by the licensee, and a lot of that initial analysis about recriticality, and proving to the NRC that criticality was not possible was submitted as part of the possession only license

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1 transmission. And so, in that they had actually a slightly higher number. 2 3 And if you look at the attachment five in 4 the license amendment request, it actually explains 5 how they came to a slightly lower number for purposes of those calculations, and among other things it was 6 7 based on physical information. So, it kind of 8 explains what information went into that, and it's 9 actually a pretty extensive attachment that walks 10 through the analysis that they did on how to get to that number. 11 I see your time 12 CHAIR HAWKENS: has expired --13 14 JUDGE TRIKOUROS: Let me just -- should we 15 CHAIR HAWKENS: Go ahead, no, if you have 16 17 a question. JUDGE TRIKOUROS: Mr. Epstein 18 19 concerned that there were no design basis accidents associated with TMI-2, and I was wondering if you 20 could explain why there are no design basis accidents 21 associated with TMI-2? 22 MS. ROMA: There are currently no design 23 24 basis accidents for TMI-2, because it doesn't have a pressure boundary, 25 reactor vessel so it's

1 required. The analysis presented 2 JUDGE TRIKOUROS: in the LAR basically says without a reactor pressure 3 4 boundary, and without an event that exceeds 10 CFR 5 100.11, there cannot be a design basis accident. Does that mean there is no accident, or that it simply 6 7 doesn't meet the definition of a design basis accident 8 under Part 50 requirements? It means it doesn't meet the 9 MS. ROMA: 10 definition of a design basis accident, and so --Right, not that there 11 JUDGE TRIKOUROS: are no accidents. 12 13 MS. ROMA: Correct. 14 JUDGE TRIKOUROS: Thank you. 15 MS. ROMA: Thank you. 16 CHAIR HAWKENS: Did you have any questions? 17 JUDGE ARNOLD: No. 18 19 CHAIR HAWKENS: Okay. MR. McMANUS: May it please the board, my 20 name is Joseph McManus, and I am the representing 21 counsel for the NRC staff. I realize Your Honors have 22 read our brief, but I'd like to reiterate that it is 23 24 the staff's position that the petitioner has not met

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proceeding, and that the proffered contentions do not meet the Commission's contention admissibility requirements.

Though, I'd like to start with some background. TMI-2 is currently in a safe store like position condition called post defueled monitoring storage, or PDMS. The facility was authorized for this status in 1993 via license amendment. TMI-2 is a defueled reactor, although some fuel debris remains at the site. This proceeding concerns a license amendment request that proposes to delete certain technical specifications and limiting conditions for PDMS.

Other requirements that are no longer applicable to the facility, updating safe fuel mass limits, and proposes administrative changes to the TMI-2 license. The licensee states that it submitted this application to support its ability to enter active radiological decommissioning. Regarding the staff's status on the review of the application, the NRC staff is currently in review of the application, and has made no final determination on whether to grant the application as of yet.

The staff sent out requests for additional information to the licensee within the last month.

1 The NRC staff has not yet conducted its safety or NEPA evaluation, so to repeat, has accordingly made no 2 determination whether it will grant TMI-2 Solutions' 3 4 license amendment request. Returning to the 5 petition's standing in this proceeding, it is the NRC staff's position that the petitioner has not met his 6 7 burden under relevant NRC case law. 8 In a license amendment case such as this, 9 petitioner needs to assert an injury in 10 associated with the license amendment at hand, arque general objections or grievances with the 11 facility or licensee. Here the petitioner failed to 12 establish a plausible nexus between the proposed 13 14 license amendment and his asserted harm, and also failed to indicate --15 16 CHAIR HAWKENS: Counsel quick 17 interruption. When you said the staff has not yet completed its NEPA analysis, do I understand you to 18 19 mean the staff has not yet examined the categorical exclusion conclusion reached by TMI-2 Solutions? 20 It's made its preliminary 21 MR. McMANUS: finding, but it hasn't --22 23 CHAIR HAWKENS: So, when you say you 24 haven't done your NEPA analysis, that's what you're

referring to?

MR. McMANUS: Correct.

CHAIR HAWKENS: Okay, thank you.

MR. McMANUS: So, going to petitioner's standing in the proceeding, here the petitioner failed to establish a plausible nexus between the proposed license amendment and its asserted harm. And has also failed to indicate how the proposed license amendment would obviously increase the risk of an off-site release of radioactive fission products, as instructed by the Commission's 1999 Zion decision.

For the reasons stated in the staff's brief, the Commission's Zion decision concerning standing is directly on point, and this board should find it controlling. As the TMI-1 and 2 board in 2020 did in another similar license amendment proceeding. The petitioner has not established standing under traditional judicial standing requirements or the proximity presumption.

Petitioner should also be denied discretionary standing by this board as a matter of law, which I think we've discussed earlier today. For these reasons, the petition should be denied. Turning to the proffered contentions, the petitioner argues that the license amendment request does not comply with NEPA, because it failed to consider the potential

for harm that would result from an airplane crash, explosion, fire, or terrorist attack.

And that significant and reasonable foreseeable harm could result in recriticality from an airline crash explosion, fire, or terrorist attack. The hearing request should not be granted because none of these environmental contentions are admissible under 10 CFR 2.309(f)(1). And again, the petitioner fails to connect his asserted claims with the licensing action and the applicable requirements at hand.

In the license amendment request, the licensee argues that the proposed changes to the license meet the criteria for a categorical exclusion under 10 CFR 51.22(c)(9). The petitioner does not challenge the licensee's proposal, notwithstanding the process for him to challenge categorical exclusions by showing special circumstances, or by showing that the license amendment, if granted, would increase releases of effluence, or increase individual or cumulative occupational radiation exposure.

CHAIR HAWKENS: Counsel, why shouldn't we agree with Ms. Bernabei that that argument was implicit in the pro se petitioner's pleading?

MR. McMANUS: Well, Your Honor, I don't

1 think that -- well, speaking on behalf of the NRC staff, it was not implicit. All parties have to be 2 3 put on notice, and there was no indication that the 4 petitioner was challenging the special circumstances 5 or any categorical exclusion. Going back to the TMI-1 6 and 2 case in 2020, the petitioner actually was put on 7 notice on how to challenge the special circumstances. 8 He was the petitioner in that case, and in 9 that decision, it was very similar situation, it was 10 a license amendment case for TMI-1 and 2, and in that decision by that licensing board, it was a similar 11 finding, or that's what the board held, that the 12 petitioner then failed to challenge the categorical 13 14 exclusion. So, as we have here, the petitioner was put on notice on how to challenge the categorical 15 exclusion, and --16 17 CHAIR HAWKENS: As I recall, that aspect of the licensing board's conclusion was affirmed by 18 19 the Commission, and that's why the Commission rejected the petition, is that correct? 20 MR. Yes, I recall 21 McMANUS: appealed, or one aspect was appealed, but I believe it 22 was affirmed, that's correct judge. 23 24 CHAIR HAWKENS: Thank you. Counsel, can you address in the pleading, Mr. Epstein claimed that 25

1 the proposed amendment undermines the cleanup 2 deleting and modifying technical specs for the PDMS 3 surveillance requirements and administrative controls, 4 and claims that's an adequate basis for going forward? 5 MR. McMANUS: Well, Your Honor, all I can really say at this time is the NRC staff is still 6 7 conducting its review. I don't see that in the -besides his bare assertions, I didn't see any evidence 8 9 or factual basis to back that up, besides just the So, I didn't see the dispute, or a direct 10 attack on the application, or pointing to directly 11 where that dispute was between where in fact the 12 petitioner is challenging against the application. 13 14 So, besides just that bare assertion, I can't really speak to that, that's all I have. 15 16 CHAIR HAWKENS: All right, thank you. 17 MR. McMANUS: So, just continuing on, ultimately the proffered contingents did not meet the 18 19 2.309(f)(1) standard either because they're adequately supported by facts or expert opinion, they 20 are out of scope, or they fail to show a genuine 21 dispute with the application. For example, regarding 22 the petition being supported by facts or expert 23 24 opinion, certain claims reference particular studies

without citations to those studies, and the petitioner

fails to explain why those studies are relevant.

Moreover, the petition is full of generalized grievances against the licensee and the NRC, but fails to show a genuine dispute with the application, as required under 10 CFR 2.309(f)(1)(6). Parties in a proceeding are entitled to a fair chance to defend, and are therefore entitled to be told at the outset with clarity and precision what arguments are being advanced, and what relief is being sought, and that was not done here.

And that's Fermi CLI 15 18. Accordingly, the board should deny the petition. So, if the board has any further questions for the NRC staff, I'd be happy to take them now.

JUDGE TRIKOUROS: With respect to criticality, you heard the arguments that were made earlier. It sounds like the petitioners didn't have the resources to review and comment on the detailed criticality analysis that was performed in the LAR. The question came up has the staff reviewed and approved this? And we were getting some conflicting answers to that question really. Could you identify whether or not the staff has reviewed and approved the criticality analysis in the LAR?

MR. McMANUS: So, the staff is currently

1	reviewing, they're conducting a criticality analysis
2	as part of this LAR. But I would just comment that if
3	we look at the contentions themselves, the criticality
4	portion of the contention, well contention two, you
5	look at the criticality is a very small portion, if
6	you look at the contention as written, as proffered.
7	So, it looks like you need, as proffered
8	by the petitioner, the petitioner is asserting that to
9	get to criticality, we would need an airplane crash,
10	a fire, or a terrorist attack. So, I would just kind
11	of note that for the record.
12	JUDGE TRIKOUROS: Could the staff say
13	anything regarding the likelihood of a criticality at
14	this time?
15	MR. McMANUS: I don't believe so, I would
16	have to confer with the staff. No, it's still in
17	review right now.
18	JUDGE TRIKOUROS: Is the staff reviewing
19	the calculations that are in the LAR in addition to
20	doing their own criticality analysis, sort of an
21	independent criticality analysis?
22	MR. ANDERSON: Yes, we will be doing
23	independent analysis and calculations.
24	JUDGE TRIKOUROS: Okay, thank you.
25	JUDGE ARNOLD: I have a question on a

1	different topic. You've already heard my impression
2	of the radiological threat of TMI-2, as compared to an
3	operating nuclear power plant, and the impression I
4	get is that TMI-2 is no longer a reactor plant, it's
5	more like a former nuclear facility that remains
6	highly contaminated. What I would like to know is
7	what is it's legal status?
8	Is it still being treated as a reactor, or
9	is it an old facility that's contaminated?
10	MR. McMANUS: Well, it does have a Part 50
11	license, and it will continue to have a Part 50
12	license, so yeah, that's so it will continue to be
13	a reactor Part 50 license.
14	JUDGE ARNOLD: Okay, thank you.
15	CHAIR HAWKENS: Mr. McManus, does the NRC
16	staff like TMI-2 Solutions raise an untimely objection
17	to the untimely reply?
18	MR. McMANUS: Your Honor, we failed to
19	object at that time, and given that Mr. Epstein was
20	pro se, we didn't object. So
21	CHAIR HAWKENS: That's fine, thank you,
22	just wondering your position.
23	MR. McMANUS: We're not taking a position
24	on the reply.
25	CHAIR HAWKENS: All right.

1 JUDGE TRIKOUROS: Do you agree with the discussion we had earlier regarding design basis 2 3 accidents, that the statement that there are no design 4 basis accidents for TMI-2 refers to the -- how it 5 the Part 50 definition of a design basis 6 accident? Not that there aren't any accidents 7 considered, but that the accidents considered simply won't meet the definition? 8 9 MR. McMANUS: Right, so the accident under 10 50.2 definitions, but there could be accidents at a decommissioning facility, is that what you're saying, 11 Your Honor? 12 JUDGE TRIKOUROS: Yeah, so I think there's 13 14 been some confusion, when one says there are no design 15 basis accidents at TMI-2, that there are no accidents considered at TMI-2, and I wanted to make clear what 16 the truth of that was. 17 MR. McMANUS: Yeah, I think that's 18 19 correct. JUDGE TRIKOUROS: All right, thank you. 20 CHAIR HAWKENS: Following up on that Mr. 21 I know in the LAR, there was a discussion 22 integrity container 23 hiqh fire about commissioning, as well as discussions about other 24 25 types of fires, and seeing as I read both contentions

1 as contentions of omission, which saying there was no analysis for a fire, given that there was in fact 2 3 analysis about a fire, is that a basis for rejecting 4 that component of both contentions? 5 MR. McMANUS: I believe so, Your Honor. And actually I believe in petitioner's pleading, the 6 7 petitioner did mention the high HIC canister, because 8 they did -- he did quote the RAIs to that, but indeed 9 there was analysis to the HIC fire. So, if there was 10 any consideration that there was a contention of omission, the LAR does have fire analysis. 11 All right, thank you. 12 CHAIR HAWKENS: We talked about phase 13 JUDGE TRIKOUROS: 14 three of the decommissioning, storing many of these 15 high integrity canisters on site. I don't think a location has been identified as far as I know, but 16 17 there will be a site, an area on site that these will be stored. Does that go through -- and we also have 18 19 been told that the specific high integrity canister has not yet been selected I believe, or that --20 MR. McMANUS: Your Honor, I believe that's 21 what the licensee said. 22 JUDGE TRIKOUROS: Right, and I wanted to 23 24 just make sure that I understood what would be the

licensing requirements for this ISFSI, that if we call

it an ISFSI, what would be the licensing requirements for that? Would there be a separate licensing requirement for that, or is this part of the decommissioning?

MR. McMANUS: Well, Your Honor, just to be clear, just to reiterate, this is outside of this proceeding, phase three. This ISFSI, phase three that we're talking about, this is outside of the scope of this proceeding. But my understanding is that the licensee, as a Part 50 licensee, they have a general license to store fuel. And so they can -- by having that, they can store fuel on site without going through a licensing process.

So, there would be no need to lodge a -to have a -- to ask the NRC for a license to store
fuel, because they have a Part 50 license, but that's
outside of the scope of this proceeding. But that's
up to the licensee. I mean that's up to -- that's
outside of the scope of this proceeding. The staff
doesn't know, that's up to them.

JUDGE TRIKOUROS: So, the categorical exclusion analysis didn't consider the likelihood of an accident or release of radiation associated with the ISFSI, it was only looking at the plant itself, and the radioactive material in the plant itself?

1 MR. McMANUS: Right, because it's outside of the scope of this license amendment. 2 3 JUDGE TRIKOUROS: All right, thank you. CHAIR HAWKENS: Anything else? Thank you, 4 5 Mr. McManus. MR. McMANUS: Thank you, Your Honors. 6 7 MS. BERNABEI: I know I only have a few 8 minutes. 9 We were responsible for CHAIR HAWKENS: 10 you using much of your time before, and going overtime, so please use your full five minutes, 11 although you're not required to. 12 13 MS. BERNABEI: Okay. I wanted to just 14 point out the rebuttal to some of the plant's. The 15 special circumstances, if you do a fair reading of the 16 pro se petition of Mr. Epstein's petition, it's all 17 over the petition. TMI-2 is a special circumstance, there's no other plant in the United States that's 18 19 being considered for decommissioning. I'd also like to point out one of the exceptions that he's relying 20 21 on. Which is that there will be, the former 22 licensee acknowledged that there will be significant 23 24 times the occupational exposure if decommissioned at this time. This is GPU Nuclear 25

appendix H of August of 2013, this is cited in his 1 brief, and it basically says --2 3 CHAIR HAWKENS: What page of the brief is 4 it on? 5 MS. BERNABEI: I can find it for you, I don't have it in front of me. But it is cited in his 6 7 brief, and I'm sorry, this is PDMS Safety Analysis 8 Report Update GPU Nuclear August 23rd, 2013. And this 9 is what he cites to in his brief, and we can find the It says by placing TMI-2 in a long term 10 page number. monitored storage condition at this time, until the 11 time of decommissioning, is that a 30 day delay, now 12 we're talking about 2013. 13 14 A 30 day delay -- 30 year delay, 15 sorry, 30 year delay from 2013 would reduce worker exposure by a factor of approximately two. 16 17 from the licensee at that time, GPU Nuclear. Ιt decided that waiting for 30 years would reduce 18 19 occupational exposure. Mr. Epstein clearly stated that in his brief, and cited to that study. The other 20 thing I'd like --21 Can you tell me how you 22 CHAIR HAWKENS: insinuate that particular claim into the language of 23 24 your two contentions? 25 MS. BERNABEI: That any event of

unsettling event, such as an air attack or a terrorist attack, that number is going to continue, and possibly be aggravated by the plant going critical. So, what I'm trying to show is that this is an exception from the categorical exclusion, that there is a significant increase in occupational radiation exposure, and he set that out in his brief.

The other thing that we have from the LAR itself, there was some question about well petitioner never looked at the LAR, so he doesn't know that there's no surveillance, there's no removal of all these protections, internal controls. In fact he reviewed the LAR and saw that those had been removed, those surveillance and other protections that are in the steady state.

The other thing I wanted to point out that there was a question about do you need peer review. You don't need peer review, but you need standard scientific studies that tell you how much is the damaged core that's remaining. We have wildly different estimates, and any scientist will tell you when you can't reproduce an evaluation such as that, it is not a solid evaluation.

If it tends from 650 to 1300, there is controversy that makes any estimate not scientifically

valid, and that's particularly the case when you have a configuration such as this. So, you don't need peer review, but you do need a scientific analysis that says why are all these experts coming up with different evaluations. The other thing I'd like to mention is there was this statement that the EIS that was conducted looked into these issues.

That's simply not true. The only issue, and this is on -- I'm losing track of my papers here. This was on the EIS conducted by TMI-2, okay this is May 16th, 2022 supplement. TMI Solutions states that the only -- the most limiting scenario is a reactor building fire, okay? So, they say that that's the design basis accident they look at. They specifically do not look at a terrorist attack or an aircraft attack.

And the last thing I'd like to mention is all this talk, which just emphasizes our point that this is all premature, I think the Commission should order a hearing, all these things should be examined. It is simply not true that TMI-1, which formally was linked at the hip with TMI-2 is going to accept this waste, or even can accept this waste. And given that that's simply not contractually, or in a regulatory manner required of TMI-1, in fact that's part of the

reason it spun of TMI-2.

Is that you can't find that this is a rational, or a kind of plan that protects the public health and safety.

CHAIR HAWKENS: Questions?

JUDGE TRIKOUROS: No.

CHAIR HAWKENS: Thank you Ms. Bernabei.

MS. BERNABEI: Thank you.

Want to express our gratitude to counsel and petitioner for their written pleadings, for their oral presentation today, and consistent with our regulatory milestone, we'll endeavor issuing a decision on this particular hearing request within 45 days unless there's a wrinkle thrown in as a result of the additional pleadings submitted yesterday, but we'll handle that going forward.

I'd also like to acknowledge and express gratitude for the continuing support of the panel's IT expert, Andrew Welkie, thank you Andy. The panel's administrative assistant, Twana Ellis, and the board's law clerks, Emily Newman and Allison Wood. And lastly, we appreciate the services of the court reporter, Jim Cordes, thank you Jim. Do you have any follow up questions after we adjourn for the parties?

1	We will, so I'll ask the parties after we
2	adjourn to remain present, so Jim can ensure the
3	transcripts are accurate. Judge Trikouros do you have
4	any additional questions or comments?
5	JUDGE TRIKOUROS: No, thank you.
6	JUDGE ARNOLD: No.
7	CHAIR HAWKENS: The case is submitted, and
8	we are adjourned, thank you.
9	(Whereupon, the above-entitled matter went
10	off the record at 11:50 a.m.)
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