# Official Transcript of Proceedings

# **NUCLEAR REGULATORY COMMISSION**

Title: Three Mile Island Unit 1 License Renewal

Public Meeting - Evening Session

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4	PRELIMINARY RESULTS
5	THREE MILE ISLAND NUCLEAR STATION
6	UNIT 1
7	LICENSE RENEWAL ENVIRONMENTAL REVIEW
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9	PUBLIC MEETING
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11	TUESDAY,
12	FEBRUARY 24 <sup>TH</sup> , 2009
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14	The Public Meeting was held at 7:00 p.m.,
15	at the Sheraton Harrisburg Hershey Hotel, 4650 Lindle
16	Road, Harrisburg, Pennsylvania, Bo Pham, Facilitator,
17	presiding.
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1	APPEARANCES:
2	SARAH LOPAS
3	STEPHEN KLEMENTOWICZ
4	RON BELLAMY
5	DIANE SCRENCI
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#### P-R-O-C-E-E-D-I-N-G-S

7:00 p.m.

FACILITATOR PHAM: Good evening. My name Во Pham. I work for the Nuclear Regulatory Office Commission in the of Nuclear Reactor And I will be the moderator/facilitator Regulations. for tonight. The purpose of tonight's meeting is to receive your comments, the public's comments on the Draft Supplemental Environmental Impact Statement.

We came here back in May of last year.

And we conducted a similar public meeting. At that
time that was for scoping to establish the scope of
the review.

The agenda tonight is going to start with a brief presentation by Ms. Sarah Lopas, who is the Environmental Project Manager at the NRC, for the review of the application of TMI.

Once she finishes with her presentation we're going to go ahead and open up the podium for the general public to come up and make your comments. Some notes about that. These yellow cards that I'm holding right here, if you are interested in speaking, please raise your hand to let me know if you want one of these cards to fill out so I can get you on the list.

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At this time I only have two cards. Also, there's a sign-up list out front. If you didn't get a chance to do it, at some point in the evening please make sure you sign-in so we can have a good account of attendance here.

Also, we have a Court Reporter in the back who is recording. This meeting will be transcribed. All the comments that are given here tonight verbally will be considered as part of our review to produce the final environmental impact statement.

Also, we have a few staff members here who will be available to do our best to answer any general questions regarding the procedure or the environmental review processes, as much as we can.

We have Mr. Ron Bellamy from Region 1, which is King of Prussia Office. We have Mr. Stephen Klementowicz, who is a Senior Health Physicist at NRC headquarters.

We have Ms. Diane Screnci who is the public affairs officer back there and myself as the moderator.

So, with that I will go ahead and move forth to the next part, which is a quick presentation by Ms. Lopas.

here and her presentation.

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MS. LOPAS: Hello, thanks for coming out tonight. My name is Sarah Lopas, I'm the Environmental Project Manager for Three Mile Island, Unit 1 License Renewal Application Review.

I'll start off tonight with a brief overview of why we're here, some background information about NRC'S Environmental Reviews and then I'll move to presenting the preliminary findings of our Environmental Review of the Three Mile Island License Renewal Application, Unit 1. I'll refer to Three Mile Island as TMI-1 for the rest of the presentation.

I'll then provide some information about the schedule for the remainder of our review and how you can submit comments. After the presentation the rest of the meeting will be dedicated to receiving any comments you may have on the Environmental Review. Next slide.

The Atomic Energy Act gives the Nuclear Regulatory Commission the authority to issue operating license to commercial nuclear power plants for up to 40 years.

The Atomic Energy Act also allows the license renewal for up to an additional 20 years, depending on the outcome assessment to determine

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whether a power plant can continue to operate safely and whether the protection of the environment can be assured during the 20 year license renewal term.

The National Environmental Policy Act of 1969, referred to as NEPA, established a national policy for the impact of federal decision making on the human environment.

The Commission determined that reactor license renewal constitutes a major federal action for which an environmental impact statement is warranted.

I'll abbreviate environmental impact statement as EIS throughout the rest of the presentation.

In exercising its authority, the NRC's mission is three fold, to ensure adequate protection of public health and safety, to promote common defense and security, and to protect the environment.

Next slide. The operating license for TMI-1 will expire in April of 2014. The NRC received AmerGen Energy Company's application for license renewal for TMI-1 on January 8<sup>th</sup>, 2008.

AmerGen Energy Company became Exelon Generation Company, LLC back in January. As part of the NRC's review of Exelon's license renewal application, we performed an environmental review to determine the potential impacts of operating TMI-1 for

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an additional 20 years. Next slide.

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The Environmental Review is being conducted in accordance with NEPA. NEPA requires that federal agencies follow a systematic approach in evaluating potential environmental impacts associated with certain actions.

The NRC is required to consider the impacts of the proposed action and any mitigation for those impacts that would be considered significant. Alternatives to the proposed action include taking no action on the Applicant's request are also to be considered.

I'll discuss further in a little bit, but the NRC Staff developed a generic environmental impact statement that addressed a number of issues that are common to all nuclear power plants.

The Staff is supplementing that generic EIS with a site-specific EIS that will also address issues that are specific to the TMI-1 site. The Staff also evaluates the conclusions reached in the generic EIS to determine if there's any new or significant information that would challenge those conclusions that we reached in the generic EIS.

NEPA is specifically structured to involve public participation and, accordingly, our

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Environmental Review includes opportunities for public involvement.

The first opportunity was during the scoping period last year. And, as Bo had mentioned we were here back on May 1<sup>st</sup> in Middletown for the scoping meeting. This is the meeting on the Draft Supplemental EIS and is another opportunity for public participation.

The draft report has been published for comment. And that's why we're here today, to receive your comments. In July 2009 we'll be issuing the final version of the supplemental EIS, which will address the comments that we receive on the draft, including those provided to us tonight.

Next slide. In the mid 1990's the NRC developed a generic environmental impact statement by evaluating the impacts of all operating nuclear power plants across the U.S.

The NRC looked at 92 separate impact areas and found that for 69 of those areas the impacts were the same for all plants with similar features. The NRC called these category 1 issues or generic issues.

And we were able to make generic conclusions that all the impacts on the environment would be small. The NRC was unable to make similar

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determinations for the remaining 23 site-specific issues.

And, instead, we prepared a supplemental environmental impact statement for each plant to address these remaining 23 issues, which we call category 2 issues.

Accordingly, the Staff is supplementing the generic EIS with the site-specific EIS that addresses those issues that are specific to TMI-1. Together the generic EIS and the supplemental EIS will form the Staff's analysis for the environmental impacts of license renewal at TMI-1.

Also, during the review the NRC Staff looks for and evaluates any new and significant information that might call into question the conclusions we'd reached previously in the generic EIS.

The Staff also searches for new issues that aren't addressed in the generic EIS. Next slide. So, how do we quantify these impacts? The generic environmental impact statement defines three impact levels, small, moderate and large.

Fish in the Susquehanna River could be used as an example. So, despite prevention measures, the TMI-1 intake may affect fish populations.

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If the decrease in fish are so small that it cannot be detected in relation to the total population of fish in the river, that impact would be small. If losses cause the population to decline but then stabilize at a lower level, this would be a moderate impact.

If the intake causes fish populations to kind of plummet and the decline doesn't stop, then we would call this impact large. We apply this methodology to each resource that we look at. So this includes things such as terrestrial resources, water use impacts, etcetera.

Next slide. This is our decision standard for the environmental review. Simply put, is license renewal acceptable from an environmental standpoint? To make this determination the NRC Staff uses information from various sources as we conduct our Environmental Review.

We use the information received in the environmental report that was submitted as part of the TMI-1 license renewal application. We conducted an environmental audit in late April of last year where we toured the TMI-1 facility, observed plant systems and evaluated the interaction of the plant operations with the environment.

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We talked to plant personnel and reviewed specific documentation. We also spoke with Federal, State and Local officials and agencies. Additionally, we considered the comments received during the public scoping period last year.

All of this information formed the basis of our preliminary conclusions that are presented in the draft supplemental EIS. Next slide. This slide and the next slide is a small slide, so you might want to look at your handouts.

These two slides are the 59 generic or category 1 environmental issues that are applicable to the continued operation TMI-1 during the license renewal period.

Steve, you can move on to the next slide. For these 59 generic issues NRC Staff did not find any information that would call in to question the conclusions that we reached in the generic EIS.

As such, we have preliminarily adopted the conclusions that impacts and category 1 issues would be small. Next slide. Radiological impacts is a category 1 issue deserves a little bit more in discussion.

As a category 1 issue, the NRC made a generic determination based on information evaluated

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from all nuclear power plants operating in the U.S. that the impact of radiological releases from normal nuclear powerplant operations during the period of extended operations is small.

By design, the operation of nuclear powerplants is expected to result in small releases of radiological effluence. TMI-1 is no exception to this.

During our site audit we looked at selected parts of the radioactive effluent monitoring and radiological environmental monitoring programs and supporting documentation.

We looked at how the gaseous and liquid effluence are controlled, treated, monitored and released, as well as how solid radioactive wastes are handled, packaged and shipped.

We looked at how the Applicant's radiation protection program maintains radiological releases in compliance with the NRC regulations. We also looked at the Applicant's radiological environmental monitoring data from on-site and off-site monitoring stations.

This data includes the results of evaluations of water, milk, fish, food products and direct radiation. Based on our review of the data, we

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found that the calculated dose to the maximumly exposed member of the public to be well within the NRC's radiation protection limits.

The dose of the maximumly exposed person is a conservative calculation, which assumes maximum values for activities such as breathing rate, food consumption, drinking water and proximity to the plant associated with an individual who is exposed to all radiation sources and to TMI-1.

Based on a historical review of the radiological data and the current status of the plant's radiological systems, the NRC concluded that radiological releases from the plant are expected to be similar on a year-to-year basis during the period of extended operation.

During the NRC's review no new and significant information related to this issue was found. Thus, we have preliminarily concluded that TMI-1's radiological impact on human health and the environment is small.

This finding is contained in the license renewal generic EIS. Next slide. This slide lists the site-specific issues that we reviewed for continued operation of TMI-1 during the proposed license renewal period, including potential impacts

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expected during the steam generator replacement project at TMI-1.

I'll discuss a few of these issues quickly. The first set of issues I'll discuss relate to TMI-1's use of groundwater and surface water. TMI-1 has seven on-site wells that withdraw groundwater for plant services and drinking water.

TMI-1 also withdraws surface water from the Susquehanna River for use as plant cooling water. Plant surface and groundwater use is regulated by the Susquehanna River Basin Commission, which requires annual reporting of groundwater pumping rates and surface water withdrawals.

A review of groundwater pump tests indicated that TMI-1 groundwater withdrawals had no affect on nearby wells. Surface water withdrawals in the Susquehanna River are a small percentage of the river's flow, even during low flow conditions.

Furthermore, TMI-1 participates in the Cowanesque Lake Water Storage Project, which releases water to the Susquehanna during drought conditions. NRC determined that potential impacts from water use conflicts would be small during the license renewal period.

With regard to threatened and endangered

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species, during both the license renewal term and refurbishment, the Staff consulted the U.S. Fish and Wildlife Service Pennsylvania Field Office, the Pennsylvania Fish and Boat Commission, the Pennsylvania Department of Conservation and Natural Resources and the Pennsylvania Game Commission.

The Fish and Wildlife Service determined that no Federally listed, threatened or endangered species are known to occur in the vicinity of TMI-1 or its transmission line corridors.

The Pennsylvania Department of Conservation and Natural Resources noted that, although several state listed species of concern may occur in the vicinity of TMI-1 and its transmission line corridors, the proposed action and associated refurbishment would not cause any adverse impacts to these species.

With regard to socioeconomics, because employment levels at TMI-1remain non-outage relatively unchanged during the license renewal period, and because the length of time needed for the generator project is of steam relatively short duration, there would be no impacts or small impacts related to housing, education, transportation, and land use.

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No impacts to known historic or archeological resources are expected with continued operation of TMI-1 or during refurbishment because Exelon does not plan to modify plant or transmission line structures.

Next slide. The next issue I'd like to discuss is cumulative impacts. These are impacts that are minor when considered individually, but could be significant when considered with other past, present or reasonably foreseeable future actions regardless of what agency or person undertakes the other actions.

The Staff considered cumulative impacts on water resources, aquatic resources, terrestrial resources, human health, and socioeconomics, which included historic and archeological resources.

contributors Some to cumulative environment impacts include other power generating plants in the lower Susquehanna River Basin, including hydro-electric dams the Susquehanna, on gas drilling in the river basin, past and industrial discharge the Susquehanna to right-of-way transmission line maintenance and development of rural land in the lower sub-basin.

Our preliminary determination is that any cumulative impacts resulting from the operation of

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TMI-1 during the license renewal period would be small, with the exception of aquatic resources, where cumulative impacts resulting from all past, present and reasonably foreseeable future actions, including those non-TMI-1 actions, would be small to moderate.

The NRC Staff determined there would be no cumulative impacts to socioeconomics and historic resources during the license renewal period. Next part of NEPA slide. As and as part of environmental review process also evaluated a we number of alternatives to license renewal.

Specifically we looked at the impacts of replacing the power generated by TMI-1 with other power sources, or by energy efficiency and conservation measures.

In evaluating alternatives to license renewal, the NRC Staff screens available technologies to remove those that cannot meet future system needs or those whose costs and benefits don't justify inclusion in the range of reasonable alternatives.

For alternatives to TMI-1 license renewal the NRC Staff initially considered 17 discrete potential alternatives, including technology such as wind and solar power, wave energy and wood waste

And then we narrowed these lists down to

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four discrete alternatives and one combination alternative.

Alternatives the teem looked at included not renewing the TMI-1 license, replacing TMI-1's generation with power from coal or natural gas plants, or purchasing power from electricity providers.

We also evaluated a demand side energy conservation or energy efficiency measure. Finally, the Staff analyzed the combination alternative that included portions of conservation energy efficiency, natural gas production and power uprates at existing hydro-electric dams on the Susquehanna River.

Next slide. For each alternative we looked at the same types of issues that we did when evaluating the environmental impacts of license renewal.

The NRC's preliminary conclusion is that the environmental impacts from not renewing the TMI-1 license, that is if the plant just shut down, could have moderate impacts in the area of socioeconomics.

Environmental impacts from likely power generation alternatives could reach moderate to large significance with regard to air quality, terrestrial and aquatic resources and land use.

For the combination alternative,

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environmental impacts would likely be small for most areas considered, with some moderate impacts. The energy conservation and efficiency alternative is the environmentally preferred alternative to license renewal.

Next slide. During the environmental review we found no information that would challenge the conclusions contained in the generic environmental impact statement regarding nuclear powerplant license renewal.

Therefore, we preliminarily adopted the generic conclusions that the impacts associated with the 59 category 1 issues applicable to TMI-1 would continue to be small during the proposed license renewal period.

In the draft supplemental environmental impact statement we analyzed the remaining site specific issues that were applicable to TMI-1 and determined that the environmental impacts resulting from these issues would also be small.

We also evaluated some potential likely alternatives to energy production to TMI-1 and determined that the environmentally preferred alternative overall is energy efficiency and conservation.

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However, that finding doesn't make the option of renewing TMI-1 unreasonable. Therefore, based on these conclusions, the NRC'S preliminary recommendation is that the environmental impacts of license renewal of TMI-1 are not so great that license renewal would be unreasonable.

Next slide. This slide shows the important milestone dates for the environmental review process. The highlighted dates indicate future milestones in the Environmental Review.

The draft supplemental environmental impact statement was published on December  $2^{nd}$ , 2008. We also call that supplement 37 for TMI-1. We're currently accepting public comments on the draft until March  $4^{th}$ .

As Bo mentioned earlier today, today's meeting is being transcribed for the purposes of us making sure that we get your comments correctly when we go back to headquarters.

Any comments that you provide here tonight carry the same weight as any written comments that we might receive. Once the comment period closes we'll develop the final supplemental EIS, which we expect to publish in July 2009.

Next slide. This slide shows that I'm the

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Environmental PM and I'm your primary point of contact for any environmental issues or questions you might have.

Jay Robinson is the Safety Project Manager. And the Safety Review of TMI-1 is ongoing. Documents related to the TMI-1 review may be found at the Londonderry Municipal Township Building, the Middletown Public Library and the Pennsylvania State Harrisburg Library.

You can also find other license renewal applications and the application, and obviously the environmental impact statement online at our website there, that address there at the bottom.

There's also hard copies of the EIS out on the registration table outside. If you filled out a registration card outside and you put your address on it, we will mail you a copy of the final environmental impact statement, the one that's published in July.

Next slide. So, there's other ways to submit comments. If you're not ready to speak tonight you can also email us at to ThreeMileIslandEIS@nrc.gov.

You can send us anything you need to by mail to the address up there. Or you can stop by at Rockville and visit and tell us what you think

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personally there.

But emailing is probably the quickest way. And that's all by March  $4^{\rm th}$ , the deadline.

And, with that, my presentation is finished. I'll hand it back to Bo and we'll get your comments. Thank you.

FACILITATOR PHAM: Thank you, Sarah. Like Sarah said, this is not the only opportunity that you'll have to provide comments to the NRC for consideration. As you can see on this screen here, email is probably the most expedient way to get your comments to the NRC.

Tonight I only have two speakers registered with yellow cards to speak. Is there anyone else that would like to sign up to speak?

Okay, I'll get you a card.

The first speaker we have tonight is Ms. Judith Johnsrud from the Sierra Club. Also, I asked if you can speak into the mike so that the transcriber can record it.

MS. JOHNSRUD: Thank you. Am I audible? Good. My name is Judith Johnsrud. I hold a Doctoral Degree in the Geography of Nuclear Energy. I have served as an intervener in the licensing of TMI, the operating license for TMI-1 and TMI-2, and TMI-1

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restart following the accident.

I wanted to start my comments with the observation that, so far as I know, most of the preparation of the EIS was based on existing criteria of the Agency, of the NRC, and no special information was incorporated from what we may be learning as the result of climate change.

I suggest to the NRC that it would be extremely important, as communities world-wide begin to cope with changes in climate that result in different consequences that may be far more damaging to the public than had been anticipated in the development of the EIS.

In addition to this, which I really urge the Agency and the Pennsylvania organization, I really urge them to take into consideration the importance of preparing for changes in the future, the 20 year future, hoping that there would not be another 20 year continuation beyond.

I have been asked to present a short presentation on behalf of another organization. In addition to Sierra Club I do direct the Pennsylvania-based Environmental Coalition on Nuclear Power.

And I'm on the boards of a number of other organizations, including the Optimistic Beyond

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Nuclear, which I commend to you all. The Radiation and Public Health Project has summarized some data that I think also need to be carefully considered, particularly for those who live within the vicinity within Dauphin County.

Their statement begins, new data on high local disease rates suggest link with TMI. Harrisburg, updated data documenting high rates of infant mortalities, low weight births, child cancer deaths and thyroid cancer cases in Dauphin County suggest radioactive discharges from the Three Mile Island Unit 1 nuclear reactor that may be harming local citizens.

The analysis is presented today with the hope that they will be taken seriously by the Agency, by the NRC and by the utility. I'm quoted in their statement, continued high local disease rates in those most vulnerable to radiation exposure raise concerns.

And I want to add there that -- actually, he continues that the National Academy of Sciences in 1999 and again in 2005 concluded that there is not safe dose of ionizing radiation, that there may be damages that do not show up immediately, there may be damages that will no occur for a long time into the future but are the result of genetic alterations.

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26 I've been following these issues for a number of years. And, I must say, that is conclusion that many specialists in these fields have now reached, that we have allowed far more sources of radiation into our environment than we human beings and other species are capable of coping with safely. The data that I want to present to you now very briefly come from the U.S. Centers for Disease Control and Prevention. And they show Dauphin County U.S. rates exceeded rates for the following

First, a plus 21.1 percent for births under 5 and a half pounds. A 24.2 percent for deaths among infants in the first month of life. A 28.6 percent for cancer deaths among children under the age of 20, in other words, those that were born in the aftermath of the accident at TMI-1.

FACILITATOR PHAM: Judith, excuse me, could you state which report you're reading from so we can get it in the record?

MS. JOHNSRUD: Yes, this is from Radiation and Public Health Project.

FACILITATOR PHAM: Thank you.

MS. JOHNSRUD: And, finally, of this short list, a 31.4 percent for the incidence of thyroid

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conditions.

cancer among all ages. Reactors produce over 100 radioactive chemicals to generate electricity.

Most are stored as waste. But, of course, increasingly some of those low dose wastes are allowed to be released and recycled into consumer products. Some of these are routinely emitted from local air and water, entering human bodies through breathing and the food chain.

These chemicals damage cells leading to cancer, especially thyroid cancers, and are especially harmful for infants and children. Three Mile Island, Unit 1 began its operation in 1974 but was closed in 1979 for a TMI-2 accident from 1979 to 1985 after the meltdown at Unit 2.

Like all reactors, this plant is licensed for 40 years. The NRC has granted 20 year extensions for some 51 of the 104 U.S. reactors. The NRC hearing is required by law.

It takes place one month prior to the 30<sup>th</sup> anniversary of the 1979 meltdown, the worst nuclear accident of U.S. history. I hope that those of you who live in Dauphin County and those of you who have friends and family who live in the county will take to heart the implications of this report from the Radiation and Public Health Project. Thank you.

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FACILITATOR PHAM: Thank you, Judith.

Next we also have from the Pennsylvania Sierra Club is

Laura Piraino.

MS. PIRAINO: I just have a very brief I was very encouraged that the NRC is statement. considering energy efficiency as alternative an consideration and investment, which the Sierra Club very much supports, reducing demand through demandgreen side energy efficiency, management, construction, and technologies, particularly nonpolluting renewable energy technologies.

But, coming from previously the College of Engineering at Penn State, I want to share with you a quote from a Department of Energy Office of Energy Efficiency and Renewable Energy report in 1997 since you're considering energy efficiency.

A 30 percent improvement in U.S. building efficiency would reduce energy bills for Americans by 75 billion dollars in 15 years and eliminate the need for 80 new nuclear power plants over the next 20 years.

Building codes are up for review in the state of Pennsylvania. And that 30 percent improvement in building efficiency could be achieved through improved building codes. Thank you.

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FACILITATOR PHAM: Thank you, Laura. Next 2 we have Mr. Eric Epstein from TMI Alert. MR. EPSTEIN: Eric Epstein, Three Mile Island Alert. I've been around a while. I now have gout and I'm bald and fat. And I don't really care 6 what people think what I have to say. And that's sad, because this is actually 8 my third re-licensing proceeding. I think more than 9 anybody else in America I've probably been intermittently involved with three processes that, 10 11 frankly, I think have little to no value. 12 I read the entire GEIS. I'm not normally a big fan of fiction, but I did read it. I was going 13 to offer comments to telling issues. These were my 14 15 comments. I'm not going to submit them. It won't 16 It really won't matter. I read the entire 17 document as I read the entire document at Peach 18 19 Bottom, as I read the entire document at Susquehanna and it had no value. 20 The only thing I'm going to formally enter 21 -- and I'll give it to you, Sarah -- is on your 22 chronology of environmental review, there were 14 23

correspondences that you missed, among other things.

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My comments tonight actually have very

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little to do with the re-licensing of Three Mile Island. I think Exelon is a smart company. They are a strategic company.

If I were them I would try to re-license TMI -2. Frankly, TMI-2 would get through. I'm just telling you. And I said the same thing before in May. By the way, to the police, relax.

Hopefully you're getting overtime for this. I have no idea why you're here. But relax and enjoy the evening. Actually, my neighbor could have used you the other night, they had a domestic issue.

TMI re-licensing, as with the re-licensing of every nuclear powerplant, is a done deal. It's a smart move for Exelon. It doesn't cost a lot of money.

In fact, the next generation of nuclear powerplants is where the existing generation is. It's a smart move. They'd be nuts not to do it. In fact, that's why we didn't oppose or challenge re-licensing.

In fact, that's why I settled with Exelon.

It made more sense. I'm here tonight, frankly, to congratulate the Nuclear Regulatory Commission on a job well done.

You know, from my experience, and I'm still involved in the re-licensing process at

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Susquehanna, the process is designed to fast track and approve, much better than you did the first time around, minimize public input, put a smiley face on a nuclear bail-out.

You guys are doing a good job. Frankly, it's amazing. Because we litigate, intervene, that's TMI Alert. Before the EHB, before DEP, before the PUC.

You should really take a page from Pennsylvania public participation. They do, I think, a much better job. On a solemn note, I was just looking for answers to the 50 questions I submitted on May  $1^{\rm st}$ .

I don't think I'm ever going to get responses. Based on my experiences in re-licensing, what happens is you put a question in and what comes back, it's bizarre.

You don't get your question back. You get this generic format. And then there's some response at the end that bears no relation to the question. You may want to work on that.

I did find some issues here. But what I'm going to do is just go through the process that I experienced as a human being, trying to offer input and comments on re-licensing.

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Back on March  $25^{\rm th}$  I contacted Sarah Lopas. And I said, I asked -- I kept all my notes because I'm anal and have no social life. And I asked for responses to questions that I was going to submit on May  $1^{\rm st}$ .

And she got back to me that day. And this was her response. She replied quickly. It was great. I will do my best to answer any of the environmental license renewal questions regarding TMI-1 or any questions you might have on the license renewal process in general regarding consumptive water use, groundwater monitoring, bio-fuel control of the circulating water system, da, da, da, da.

I was really getting into it and encouraged. So I can't make any definitive statements until December until we tentatively plan to publish the draft.

And then she outlined the scoping period.

And I thought initially, wow, this is pretty cool.

We're getting off to a better start. I made initial contact with the representative from the NRC who, by the way, came to visit in Harrisburg.

And we had established a dialogue. So far so good. Not really. Not really. If you look hard, and I did when I read this, you can see how the NRC

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altered the intent in the content of my questions and then they melded them into a response.

It's like this massaged composite format.

I've never seen anything like it before. But you have to squint real hard, otherwise you miss it. And I'll give you an example.

One example, I spent a lot of time submitting really well defined and researched questions relating to invasive species, which is a problem not just for nuclear powerplants, but for all powerplants on the Susquehanna River.

You'd have to get out your microscope, but you might find actually a reference to our questions on Asiatic clams and zebra mussels. Actually, if you want to and you have nothing else to do, and you want to join me in not having a life, you would go to 2.3, 2.32 and 2.3 -- you'd have to look hard.

And then if you go back to the question we asked, I thought it was right on. By the way, the question is listed on A-5 of the appendix with no response. However, I persisted.

There's only one issue, frankly, after we settled with Exelon, that I really cared about more than any other issue, and that's emergency planning.

And I think that should be obvious by what we've done

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at the NRC.

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The EJ person, which I guess Environmental Justice person, which is interesting because the NRC's definition of environmental justice bears no relation to DEP's definition of environmental justice.

Just for shits and giggles I'll read you - sorry, strike it, don't strike it, I don't care.
Environmental Justice to the DEP is the fair treatment
and meaningful involvement of all people, regardless
of race, color, national origin or income with respect
to the development of implementation.

I wrote a letter to Sarah. And she wrote back. She said he -- I guess there's some buddy named Jeff Rikhoff who I never met, who never contacted me, and apparently I'm never going to hear form.

He wasn't coming to the meeting on Thursday. And you were very nice. She said, I apologize for that, he has been CC'd on the email. I will ask him to give you a call to discuss this week.

That was May  $5^{th}$ , never heard from him. My phone number has been the same. The address remains the same. The bill collectors find me. My ex-wife finds me, he can find me. Hard to miss.

Since the NRC'S socioeconomic designant,

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Mr. Rikhoff, did not attend the May 1<sup>st</sup> meeting I followed up with Ms. Lopas and requested a meeting with the NRC representative on socioeconomic impacts.

Again, this is just my experience trying to get some questions. Two months later, this is in August, Mr. Rikhoff had not emailed me, but Ms. Lopas did and stated, actually, there are numerous EJ issues that we're still wanting to contact Mr. Rikhoff about.

That's what I was saying to her. And she wrote. And again, Sarah's pretty good, the same day. If you have specific questions regarding environmental justice and the TMI-1 license renewal I can forward them on to him although, keep in mind, scoping is over.

So I'm not really sure how I was to be scoped if nobody contacted me. And we're putting the draft SEIS together, which is why I recommend waiting until the draft is published.

All right, maybe miscommunication, maybe we missed each other. How does this all come together, what issue am I raising? The only issue -- that's okay, Sarah, because you'll ignore me again anyway.

The issue I'm raising is that of the Amish and the Mennonite, that I've been trying to raise for

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25 or 30 years. It's very bizarre. It's that we have a special needs population who is not ambulatory, who does not use electronic devices, who was left behind during the last accident.

I thought, very basic, just one issue we'll see if we can get some attention for. And this is what I wrote Ms. Lopas. One of the special needs populations that is also an EJ issue is the status of alerting and evacuating the Amish, who don't own cars or use phones or may not have access to potassium iodine.

However the Amish, as well as some Mennonite sects, are mostly agricultural communities and will likely stay behind, which causes problems beyond their enclaves.

For instance, the sale of their produce and livestock, chronic health issues, low birth weight from midwife delivery, dedicated water contamination, etcetera.

And I said to you, that is why we wanted to meet with a live human being. Visual inspections and the realities of these problems just don't drop off the sheep.

Furthermore, I thought based on the experience we had with Three Mile Island -- and for

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some people that's an ancient event -- and more recently the experience the Amish went through with Nickel Mines should have sensitized people to the need to include these people in a plan so that they're accounted for in the event of an accident or incident.

The only issue I have pursued since May.

Nothing. I would also point out, and I don't know,

and at some point maybe somebody can explain this to

me.

According to the GEIS, I figured, look, if we can make a population disappear we can probably make weather disappear. I don't know what a severe weather incident is.

But, when I looked in the records, and I may be wrong, we've had an earthquake, a tornado and a drought the last couple of years. And they weren't included.

So, this isn't a criticism. I just and trying to find some idea of constitutes a severe event. This is it. I mean, I'm not going to come up and testify in this process or participate in the process anymore.

We submitted 50 questions in the same format May  $1^{\rm st}$ . I'm not going to get responses. TMI Alert is not going to get responses. We're okay with

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that. You know, we tried to work with the company. That's going so-so.

Based on my experiences at Susquehanna, I know even if I did get a response, the agency would distill and homogenize and tailor that response to meet some limited low-hanging NRC metric.

But part of the problem is me. And I recognize that. I mean, I can continue to participate in a regulatory white-out and a linguistic shell game. Or what I'm going to propose tonight is I can formally cease to exist.

And I propose that I no longer exist. And my request to the NRC is simple. And I'd like a response. And I think this would probably make Exelon happy.

I would like you to expunge every comment, every piece of paper, letter or whatever I submitted. Get rid of it as if I -- what I just said tonight, get rid of it.

What I want you to do is expunge everything that I've said or done relating to the relicensing issue. And then I'll feel as if we're okay, that I've done what I was supposed to do.

Because I tried to do what I was supposed to do. It didn't work. I realize that. I just think

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it would make everybody feel happy, certainly Ralph, 2 Jan, Exelon, the NRC because I will not be coming back. And, Sarah, can you do that? Everything I 5 just said, can you take off the record and everything I testified before. Can you do that? Please get back 6 to me because I don't want to put any more effort into 8 it and I don't want to be a party to it. 9 And to the guy back there, I'm sorry, I 10 should have told you I was going to do it before you got carpal tunnel issues. Poof, I'm gone. 11 12 nice evening. FACILITATOR PHAM: Thank you, Eric. 13 sorry you feel the way you do. And I don't think 14 15 anything I could say tonight is going to help that situation. 16 17 But we won't expunge your comments though. We'll have it on record. I don't think it serves any 18 19 purpose to expunge the record. (Inaudible, 20 MR. EPSTEIN: not at microphone.) 21 22 FACILITATOR PHAM: No, I'm not making a legal declaration. But we'll consider it. 23 have is Scott Portzline from TMI Alert. So we have a 24 25 multimedia presentation.

(Video played.)

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MR. PORTZLINE: For me that is the biggest problem that we have with environmental scoping, the most important issue of all the longest lasting is not even on the table. That's a real problem.

I agree with Eric. That's a very odd involved with. Houdini act he's I certainly understand the feeling because, as said this I afternoon, we filed a petition for rule-making with the Nuclear Regulatory Commission on entrance guards, site protection officers to be required the entrances of all nuclear powerplants.

And, on 40 occasions, over a seven year period, the NRC did not follow its own guidelines and broke its own rules. So it really does feel like -- and is our experience, not just a feeling.

It's our experience that it doesn't do much good to participate in these hearings anymore, whether it be the annual safety assessment of Three Mile Island where we can ask questions and the NRC can answer but the company feels that it's not allowed to answer.

At least that's what the Vice President told me at the last meeting. So he doesn't even know the rules of how the meeting goes. This gets to be

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old. And I'm not saying anything new tonight compared to what I said this afternoon.

But there is one leftover question, and that was the concerns about the steam generator that will be in the parking lot at Three Mile Island for a while. The answer given to me at the lunch break was that there is no regulation saying how long that can be there, that it will be monitored for radiation.

I sure would like to see that monitoring be implemented into Eric's EMFR radiation monitoring network. They should have a feed to that information also.

So my question to Exelon here tonight, and I know there's a couple people at least from Exelon, what is the plan? How long will that steam generator be there?

That's an expensive item to move because it's enormously heavy. And there's going to be failures in the nuclear industry just like there is in every other economic industry we have right now.

And there's going to be companies walking away. And so I think the state of Pennsylvania would be concerned too about what they're going to walk away from and to try to minimize Pennsylvania's exposure financially and radiologically.

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So, how long will the steam generators 2 remain at the parking lot, so to speak? 3 FACILITATOR PHAM: I don't think -- I 4 think your point is noted. I don't know if anybody is 5 available from Exelon to provide that answer tonight. MR. PORTZLINE: Why doesn't the Nuclear 6 Regulatory Commission have a limitation? FACILITATOR PHAM: A limitation for? 8 9 MR. PORTZLINE: For how long they can 10 store nuclear waste on their site. 11 FACILITATOR PHAM: Steve, could you talk about this briefly? As I understand it, and I was 12 listening to your discussion during lunch, the way the 13 NRC regulates is exposure, not by 14 by 15 component is sitting around, on a case-by-case like that. 16 17 MR. PORTZLINE: As long as you have a radioactive source term of this degree you have to 18 19 have a license. And that's why even Unit 2 has to special license for post-fuel monitored 20 have 21 storage. So there's a specific classification. 22 want to know what the specifics are for the Nuclear 23 Regulatory Commission regarding the steam generator's 24 25 storage and what Exelon's plans are.

And if you haven't thought about that, you're not doing your job. And I want you to do your job.

MR. KLEMENTOWICZ: The NRC has regulations on essentially radiation limits. So we require the storage of these radioactive steam generators to be stored safely in accordance with our regulations.

The plant has a Part 50 license. Under that Part 50 license they are allowed to have and use and possess and store any amount of radioactive material that they need for the operation of the facility.

So they have a blanket license to safely handle and store all radioactive material generated by that facility. So, in a sense, the time limit is tied to their operating license.

At the end of their license we would require them to enter the de-commissioning mode. Now, of course, with spent fuel there's a separate license for the spent fuel.

And there are facilities that have been de-commissioned and the spent fuel remains on that site, even though the plant has been removed and it's gone back to a green field mode.

That's where the Department of Energy

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kicks in. They are the ones who actually own the fuel. And they are obligated to take possession of that at some point.

So, as long as there's no place to dispose of the spent fuel, it has to remain on the site. Now, the generators are a different issue. So, you know, I could speculate that at de-commissioning when they demolish the plant and haul off all the radioactive material, that it's likely they would do the same with the steam generators.

Other facilities have discarded their steam generators. They cut them up and it's gone into low level waste disposal sites. So, essentially, while they're on site they're going to be in a shielded condition.

Our routine health physics inspections will look at that, look at the radiation readings, look at everything associated with the safe storage of that radioactive material.

But there's no specific license for that or time limit.

FACILITATOR PHAM: And Ron, as I understand it, there are no cited violations at this time for any situation of steam generators being stored on site.

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MR. PORTZLINE: Well, I would hope that Pennsylvania Department of Environmental Resources with their Bureau of Radiation Protection, I see Mike back there, I hope you're paying attention to what some of the other states are doing, asking some hard questions and getting some court rules and getting some commitments.

And, I think with the economic crises that we have today, it changes as to whether we could have another flood that could impact even the storage of the steam generators, that Pennsylvania will make some demands here and play a little more hardball.

I mean, this is the state that suffered the scariest and most dangerous accident in the United States. And you owe it to us, and so does the NRC, to give us good answers.

We're asking good questions. The last thing I want to say is, let me give you a quick lesson in security. That's what I do most of all, research in sabotage and terrorism in nuclear powerplants.

It will be 25 years come April. And cyber-security is of course the new frontier for terrorism. It happened right here in Harrisburg, actually, with a water treatment facility where a hacker was able to take control of what's called Scada

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system.

The engineers here know what that means.

And with that system they could disable the water treatment facility, poisoned us with large release of chlorine, possibly, done some nasty things.

And so, the NRC is quite familiar with what I'm talking about. So, when I give you my flash drive and you put it in your computer, and I appreciate that, so I can show the video, you've once again broken policy --

(Inaudible.)

MR. PORTZLINE: As she says, it's her personal computer, and so was -- what did you say?

(Inaudible.)

MR. PORTZLINE: By the way, a true friend doesn't stab you in the back, he stabs you in the front. So that's why I'm making a public display of it.

But I've had this conversation with the NRC on several other occasions. And it continues to happen. The laptop that was used by the person who infiltrated the Harrisburg Water Treatment Facility was also a home computer, a personal computer.

And one day you'll find yourself at work with that and using that. Well, there's exceptions to

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everything. Maybe you won't. But it's not proper for the Nuclear Regulatory Commission to allow people access to their computer like this.

There could be a worm. There could be a data monitor on my flash drive. I could have pulled information off of her computer right there. And so, what I'm proposing is that in the future people like me who want to show video presentation bring their own laptop and then it's only going through the projector, which has no -- well, I'm sure that capability is around the corner too.

But I don't think that should be happening. Okay, that's it.

FACILITATOR PHAM: Thank you, sir. With that we have the last comment of the evening. Is there anyone else out there who wishes to make a comment? Yes, ma'am. Can I get you to say your name please?

MS. OSBOURNE: Mary Osbourne. I'd like to know how many curies a day TMI Unit 1 releases, how many curies a month TMI-1 releases, how many curies a year TMI-1 releases.

I know Unit 2 what they were releasing. But I don't know what Unit 1 does.

FACILITATOR PHAM: I could probably take a

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stab and say, unless someone has those numbers ready 2 right here, we can probably research that for you afterwards. Maybe he does. MR. KLEMENTOWICZ: This is Steve 5 Klementowicz. No, I don't have the numbers, but TMI submits an annual effluent release report that is a 6 public document and can be accessed from the NRC'S 8 files where they report everything that they 9 discharge. So, I mean, they don't do it on a daily 10 11 basis, but you could take those number. 12 MS. OSBOURNE: Before they get licensed they have to do the EIS. And that's where I've come 13 to Unit 2. So I just never --14 15 FACILITATOR PHAM: We're not getting you on record. Would you like to come up and make a 16 17 comment? 18 (No verbal response.) 19 FACILITATOR PHAM: We are available to 20 discuss with you what Steve was starting to talk With that I'd like to take the meeting to a 21 about. close. 22 23 I understand a lot of issues came out tonight, and a lot of different viewpoints regarding 24 25 the environmental review, as well as other aspects not

related to the Environmental Review. You know, we do consider everything that is provided in comments to us. It doesn't always mean we will agree with you. And it doesn't always mean -it may not sound responsive to you in the way you want it. Nevertheless, NRC does take these comments 8

in to full consideration. And we will respond to them as part of formulating the final EIS. And that's due in July of 2009.

With that I'd like to close out the meeting. Thank you all again for attending tonight.

8:05 p.m. the (Whereupon, at aboveentitled matter was concluded.)

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