

Official Transcript of Proceedings

NUCLEAR REGULATORY COMMISSION

Title: R.E. Ginna Nuclear Power Plant
License Renewal - Public Meeting
Evening Session

Docket Number: (not applicable)

Location: Ontario, New York

Date: Thursday, August 7, 2003

Work Order No.: NRC-1026

Pages 1-100

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
OFFICE OF NUCLEAR REACTOR REGULATION
+ + + + +
PUBLIC MEETING ON THE
DRAFT ENVIRONMENTAL IMPACT STATEMENT
FOR THE
R.E. GINNA NUCLEAR POWER PLANT
LICENSE RENEWAL

+ + + + +
THURSDAY, AUGUST 7, 2003

7:00 P.M.

FIREMAN'S EXEMPT HALL

1840 ROUTE 104

ONTARIO, NEW YORK 14519

The meeting on the above-entitled matter commenced at 7:00 p.m., Francis "Chip" Cameron, presiding as Moderator/Facilitator.

NRC Presenters:

JOHN TAPPERT
RUSSELL ARRIGHI
ROBERT SCHAAF
DUANE NEITZEL
MARK RUBIN
RICHARD EMCH

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I-N-D-E-X

Welcome and purpose of meeting	3
Overview of license renewal process	10
Overview of environmental review process	24
Results of the environmental review	29
How comments can be submitted	75
Public comments	78
Closing/availability of transcripts, etc.	100
Adjourn	100

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P-R-O-C-E-E-D-I-N-G-S

7:01 p.m.

1
2
3 MODERATOR CAMERON: Good evening,
4 everyone. My name is Chip Cameron, and I'm the
5 special counsel for public liaison at the Nuclear
6 Regulatory Commission. I'd like to welcome you to the
7 NRC meeting tonight and I'm pleased to serve as your
8 facilitator for the meeting tonight and in that role
9 I'll just try to help all of you have a productive
10 meeting.

11 Our topic tonight is to discuss the
12 environmental review, the draft environmental impact
13 statement that the NRC has prepared to help it in its
14 decision making on whether to renew the license
15 application, renew the license for the Ginna Nuclear
16 Power Plant. And we received an application from
17 Rochester Gas and Electric to renew the license and
18 the environmental impact statement is part of our
19 evaluation.

20 We're here tonight to make sure that we
21 clearly explain to everyone what the license renewal
22 process is all about, specifically the environmental
23 review process and to talk about the preliminary
24 findings in the draft environmental impact statement.
25 And we also want to hear from any of you, either in

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1 question and answer sessions that we do, or in a
2 formal comment session that we're going to do later on
3 tonight.

4 And the information sharing aspect is very
5 important because any comments you make tonight, we're
6 going to evaluate. We have Mary Ann, our stenographer
7 is taking a transcript of the meeting and that will be
8 the written record of the meeting and it also
9 available to anyone who wants a copy of it. But as
10 you'll hear from the NRC staff, we're also asking for
11 written comments on these issues, so the information
12 you hear from the NRC staff tonight or from others in
13 the audience may be helpful to you in preparing any
14 written comments that you want to submit.

15 The format for the meeting matches the
16 objectives. First of all, we're going to start out
17 with some NRC presentations to give you background on
18 the license renewal process and on the draft
19 environmental impact statement. The second part of
20 the meeting is to give you an opportunity to come up
21 here or I can bring you this microphone and for you to
22 give us formal comments on the record tonight.

23 In terms of the agenda, I'm going to
24 introduce the NRC and our expert consultants who will
25 be speaking to you and give you an idea what we're

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1 going to be talking about tonight, but before I do
2 that, just let me talk about some simple ground rules.
3 If you have a question just signal me and I'll bring
4 you this cordless microphone and if you could tell us
5 your name and affiliation, if appropriate, ask your
6 question and we'll try to answer it for you. I would
7 ask that only one person speak at a time so that we
8 can get a clean transcript and so that we can give our
9 full attention to whomever has the floor at the
10 moment. And try to concise in your questions and your
11 comments, just so that we can make sure that everybody
12 has a chance to talk tonight. I don't think we're
13 going to have a time problem, so I don't think that we
14 need any rigid ground rules, but usually we ask people
15 to confine their formal comments to in the 5 to 7
16 minute area.

17 And in terms of agenda, I'm just going to
18 run through the whole agenda and tell you who is doing
19 what parts and then I'll introduce the NRC staff to
20 you so you'll have an idea what their expertise is.

21 We're going to start out with a welcome
22 from the Chief of the Environmental Review Section,
23 Mr. John Tappert right here and then we're going to
24 give you some background on the license renewal
25 process. First of all, we're going to go to Mr. Russ

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1 Arrighi who is here. He's the Project Manager on the
2 Safety Review on this Ginna license application,
3 license renewal application. Next, we'll talk about
4 the environmental review process and that's the
5 responsibility of Mr. Robert Schaaf, Project Manager
6 for the Environmental Review. We'll go out to you for
7 questions at that point and then we're going to get to
8 the substance of the draft environmental impact
9 statement and we have Mr. Duane Neitzel, right here,
10 who's with Pacific Northwest Lab. He's the team
11 leader on the preparation of this environmental impact
12 statement and he's going to discuss the draft
13 environmental impact statement.

14 We'll then go out to you for more
15 questions, obviously, on that important subject and
16 then we're going to come back to a small, but
17 important part of the draft environmental impact
18 statement and that's a discussion of something called
19 Severe Accident Mitigation Alternatives. And we have
20 Mr. Mark Rubin from the NRC staff here with us tonight
21 who is going to address that. Go out for questions
22 and then have a summary of how to submit comments and
23 then we'll go to you for more formal comments.

24 And then just briefly in terms of
25 introductions, John Tappert, as I mentioned, is the

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1 Chief of the Environmental Review Section in our
2 Office of Nuclear Reactor Regulation. He's been with
3 the NRC for about 11 years and he has served as a
4 Resident Inspector. These are the people who live in
5 the community where we have a licensed nuclear power
6 plant and they are there on site to make sure that the
7 NRC regulations are complied with. And John was in
8 the nuclear Navy and got a master's in environmental
9 engineering from Johns Hopkins University and has a
10 bachelor's in aerospace and oceanographic engineering
11 from Virginia Tech.

12 In terms of Russ Arrighi's background,
13 he's been at the NRC for about 14 years. He also has
14 served as a Resident Inspector at the Millstone plant
15 in Connecticut and the Pilgrim plant in Massachusetts.
16 He was previously, before the NRC, at the Norfolk
17 Naval Shipyard as a test engineer and he has a
18 bachelor's in science, chemical engineering from the
19 University of Rhode Island.

20 Bob Schaaf, our Environmental Project
21 Manager, has been at the NRC for about 13 years and
22 he's been a Project Manager in operating reactors and
23 environmental review during that time. Before that,
24 similar to Russ, he was at the Charleston Naval
25 Shipyard and he has a bachelor's degree in mechanical

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1 engineering from Georgia Tech.

2 And finally, Mark Rubin is the Section
3 Chief of the Probabilistic Safety Assessment Branch in
4 our Office of Nuclear Reactor Regulation. All of
5 these gentlemen are in that office and Mark has been
6 with the NRC for 27 years, specializing in
7 probabilistic risk assessment. He has a master's and
8 a bachelor's in nuclear engineering from UCLA.
9 University of California, Los Angeles.

10 With that, I think I'll turn it over to
11 John to get started. I would just thank all of you
12 for taking the time to be with us tonight to help us
13 with this decision and we do have an evaluation form
14 for the meeting back on the desk and we use that to
15 help us improve how we do public meetings, notice of
16 the meeting, whatever. So if you have some comments,
17 please give them to us.

18 John?

19 MR. TAPPERT: Thank you, Chip. And good
20 evening and welcome. As Chip said, my name is John
21 Tappert and I'm the Chief of the Environmental Section
22 in the Office of Nuclear Reactor Regulation. On
23 behalf of the Nuclear Regulatory Commission, I would
24 like to thank you for coming out tonight and
25 participating in our process.

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1 I'd like to start out by briefly going
2 over the purposes and agenda of tonight's meeting.
3 First of all, we want to provide you a brief overview
4 of the entire license renewal process. This includes
5 both the safety review as well as the environmental
6 review which will be the principal focus of tonight's
7 meeting.

8 Next, we'll present to you the findings of
9 our draft environmental impact statement which
10 assessed the environmental impacts associated with
11 extending the operating license of the Ginna Nuclear
12 Power Plant for an additional 20 years.

13 Next, we'll give you some information
14 about the schedule for the balance of that review and
15 how you can submit additional comments after tonight's
16 meeting.

17 And then comes really the principal focus
18 of tonight's meeting which is to receive any comments
19 on the draft environmental impact statement that you
20 may have tonight. But first, I'd like to provide some
21 general context on the license renewal process and why
22 we're here today.

23 The Atomic Energy Act gives the NRC the
24 authority to issue operating licenses to commercial
25 nuclear power plants for a period of 40 years. For

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1 the Ginna Nuclear Power Plant that license will expire
2 in 2009. However, our regulations also make
3 provisions for extending those operating licenses for
4 an additional 20 years and R.E. Ginna has requested
5 license renewal for Ginna.

6 As part of NRC's review of that
7 application, we are developing an environmental impact
8 statement and as part of that EIS process, we held a
9 public meeting here last fall to seek early public
10 input during our review.

11 As we indicated at that earlier scoping
12 meeting, we've returned here now today to present the
13 results of our review and again, the most important
14 part of this meeting here today is receiving your
15 comments on that draft.

16 And with that brief introduction, I'd like
17 to ask Russ to give us some more details on the safety
18 review.

19 MR. ARRIGHI: Today's meeting is on the
20 draft environmental impact statement that the NRC has
21 prepared to assist the NRC in making a decision on an
22 application to renew the license at the Ginna Nuclear
23 Power Plant. And this application was submitted by
24 Rochester Gas and Electric. And I just wanted to take
25 just a couple of minutes to go over some of the

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1 meeting process issues before we get into the
2 substance of today's discussion.

3 In terms of objectives for the meeting, we
4 want to make sure that we clearly explain to everyone
5 what the license renewal process is all about, what
6 the role of environmental review is and that license
7 renewal process. And most importantly, in terms of
8 information to give you a summary of what the NRC has
9 found in the draft environmental impact statement.

10 The second objective is to hear from you,
11 anybody who wants to give us any advice or
12 recommendations on the license renewal process and
13 specifically the draft environmental impact statement.
14 And I do want to emphasize the information aspect of
15 the meeting, because we're also requesting written
16 comments on the draft environmental impact statement,
17 but we wanted to be here with you today to talk to you
18 in person and anything that you say today, anything
19 you give us in comments will be, will have the same
20 weight as a written comment.

21 We're transcribing the meeting. Mary Ann
22 is our stenographer and that will be a written record
23 of the meeting that will be available not only to the
24 NRC for purposes of evaluating comments, but also to
25 the public. And you may hear things this afternoon,

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1 either from the NRC or from members of the audience
2 that will give you information that will either
3 perhaps simulate you to submit a written comment or to
4 help you to prepare your written comments. So if
5 there's anything that you don't understand that we
6 don't clearly explain to you, please ask so that we
7 can try to get you that information.

8 The format of the meeting matches the
9 objectives in terms of providing information. We're
10 going to have some NRC presentations for you on
11 various issues, and I'll go through those in a minute.
12 And then after each presentation or each two
13 presentations, we're going to go out to you to see if
14 you have any questions that we can answer for you.

15 Second part of the meeting is for us to
16 listen to any formal comments that you may have and if
17 you want to make a comment, there is a yellow card in
18 the back that we'd like you to fill out. And that's
19 not a requirement. If you want to come up and speak,
20 that's fine. But it just gives us an idea of how many
21 people to expect during the formal comment period.

22 And that leads me to the ground rules for
23 today's meeting, which are very simple. If you want
24 to say anything, ask a question, please just signal me
25 and I'll bring you what the NRC's staff has told is a

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1 wireless microphone. And we'll get you in the record.
2 If you can just give us your name and affiliation if
3 appropriate and ask your question and we'll try to get
4 an answer for you. And when we get to the,
5 particularly when we get to the formal comment part of
6 the meeting, I just ask everyone to try to be as
7 concise as possible so that we can make sure that we
8 hear from everybody who wants to speak.

9 I don't think that we have a whole lot of
10 people this afternoon who want to talk, so that gives
11 us a little bit more flexibility time wise. But
12 usually I use a guideline of five to seven minutes,
13 but as I've said that's not any sort of a drop dead
14 guideline because we do have time this afternoon. I
15 want to just tell you what the agenda is so you know
16 what to expect, and give you a little bit of an idea
17 biography on some of our speaks so that you know what
18 their expertise is. We're going to start in just a
19 moment when I'm done with John Tappert who is right
20 here.

21 And John Tappert is the chief of the
22 environmental review section within our Office of
23 Nuclear Reactor Regulation. And John and his staff
24 are responsible for overseeing the environmental
25 reviews that are done not just on these types of

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1 license renewal applications, but for any issue that
2 deals with reactors, where the NRC needs to look at
3 environmental impacts before they make a decision on
4 a particular issue.

5 In terms of background, John has been with
6 the new NRC for approximately 12 years. He was a
7 resident inspector and these people are particularly
8 important to the NRC because they are the ones who are
9 near the reactors. They live in the community and
10 they make sure that NRC requirements are being
11 followed. Before that, he was in the Nuclear Navy.
12 He has a bachelors degree in Aerospace and
13 Oceanographic Engineering from Virginia Tech and a
14 masters degree in Environmental Engineering from Johns
15 Hopkins University.

16 John is going to give us a short welcome
17 and then we're going to go to two members of the NRC
18 staff who are going to give you an overview of the
19 license renewal process. The first person that we're
20 going to hear from is Mr. Russ Arrighi, who is right
21 here. He's the project manager for the safety review
22 on the Ginna License Renewal Application. And then
23 we're going to go to Bob Schaaf who is the project
24 manager on the environmental review, which is the
25 specific focus of today's meeting. Then we'll go on

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1 to you for any questions that you might have about
2 process.

3 In terms of Russ' background, he's been
4 with the NRC for about 14 years. He was also a
5 resident inspector, like John Russ was at the
6 Milestone Power Plant in Connecticut and also the
7 Pilgrim Power Plant in Massachusetts. Before the NRC,
8 he was at the Norfolk Naval Ship Yard as a test
9 engineer, and he has a bachelors in chemical
10 engineering from the University of Rhode Island, and
11 we'll have Russ up there in a minute.

12 Bob Schaaf is right here and Bob has been
13 with the NRC for about 13 years also. He has served
14 as project manager in our office of Nuclear Reactor
15 Regulation in operating reactors in the environmental
16 section. He also worked at the Naval Ship Yard, the
17 Charlottestown Naval Ship Yard in engineering and he
18 has a bachelor's in mechanical engineering from
19 Georgia Tech.

20 So after we get done with process, we're
21 going to focus on the heart of the discussion today
22 and that is the findings in the draft environmental
23 impact statement. And to present that, we have Duane
24 Neitzel who is right here and Duane is the team leader
25 for the group of Expert Scientists that the NRC has

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1 doing the environmental review for the Ginna Plant.
2 Duane is a fish biologist. He's been with Pacific
3 Northwest Lab for about 32 years. He has a bachelors
4 in zoology from the University of Washington and a
5 Masters in Biosciences from Washington State?
6 Washington State University.

7 After Duane is done, we'll go back out to
8 you again for questions and then we're going to go to
9 a special subject in the draft environmental impact
10 statement, and that's something called severe accident
11 mitigation alternatives. And they're called SAMAs.
12 We have Mark Rubin from the NRC staff with us who is
13 going to do that presentation and Mark is a Section
14 Chief in the probabilistic safety assessment branch.
15 Again, Office of Nuclear Reactor Regulation at the
16 NRC. And he's been at the NRC for 27 years, primarily
17 working in something that's called probabolistic risk
18 assessment, and I think when you hear from Mark today
19 you'll get a better understanding of what that
20 particular expertise says. He has a Masters and
21 Bachelors of Science Nuclear Engineering from the
22 University of California in Los Angeles, UCLA. He's
23 a member of the American Nuclear Society, the
24 Probobalistic Risk Assessment Standards Committee.

25 With that, I would just like to thank you

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1 all for being here. We have a lot of experts from the
2 NRC and our expert consultants. We have people from
3 our office of general counsel. I would just urge you
4 to after the meeting, if you have questions, get to
5 know them, talk to them. And keep in touch if you
6 have questions or concerns. We'll give you some phone
7 numbers and addresses today and we do have something
8 called an evaluation form. I think formally it is
9 called a feedback form where we try to find out how
10 we're doing in public meetings. So it is at the back
11 table and if you could just fill it out and leave it
12 with us if you're so inclined.

13 It already has a metered stamp so to speak
14 on it. You can just drop them in a mailbox. And with
15 that, I'm going to ask John to come up and welcome.

16 MR. TAPPERT: Thank you, Chip. Good
17 afternoon and welcome. As Chip said, my name is John
18 Tappert and I'm the chief of the Environmental Section
19 in the Office of Nuclear Reactor Regulation. And on
20 the behalf of the Nuclear Regulatory Commission, I
21 would like to thank you for taking time of your
22 afternoon today and participating in our process.

23 I would like to briefly go over the agenda
24 and purposes of today's meeting. First of all, we're
25 going to provide a brief overview of the entire

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1 license renewal process. Now this includes both a
2 safety review as a well as the environmental review,
3 which will be the principal focus of today's meeting.
4 Then we're to provide you the results of our
5 environmental impact statement that was developed to
6 assess the impacts associated with extending the
7 operating license of the Ginna Nuclear Power Plant for
8 an additional 20 years.

9 Then we'll provide you some information
10 about the balance of our review schedule and how you
11 can submit comments after today's meeting. And then
12 the most important part of today's meeting, which is
13 to receive any comments that you may have today on our
14 draft and environmental impact statement, or EIS. But
15 first I'd like to provide some general context on the
16 license renewal program and why we're here today.

17 Next slide.

18 (Slide change.)

19 MR. TAPPERT: The Atomic Energy Act gives
20 the NRC the authority to issue operating licenses to
21 commercial nuclear power plants for a period of 40
22 years. For the Ginna power plant, that operating
23 license will expire in 2009. Our regulations also
24 made provision is for extending that operating license
25 for an additional 20 years as a part of a license

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1 renewal program and R.E. Ginna has requested renewal
2 for Ginna.

3 As part of the NRC's of that application,
4 we developed an environmental impact statement. As
5 part of that environmental impact statement process,
6 we held a public meeting here last fall to seek early
7 public input in our review. As we indicated at that
8 earlier scoping meeting, we're here today to present
9 the findings in our draft environmental impact
10 statement. And again, the principal purpose of
11 today's meeting is to receive your comments on that
12 draft. With that brief introduction, I'd like to ask
13 Russ to provide some more insights on this safety
14 review.

15 MR. ARRIGHI: Thank you, John. As John
16 mentioned, my name is Russ Arrighi. I'm the Project
17 Manager for the Safety Review of Ginna's license
18 renewal application. Before discussing the license
19 renewal process, I'd like to talk a little bit about
20 the Nuclear Regulatory Commission and its role in
21 licensing and regulating nuclear power plants.

22 The Atomic Energy Act of 1954 authorized
23 the NRC to regulate civilian use of nuclear material.
24 The NRC mission is threefold: to ensure adequate
25 protection of public health and safety, to protect the

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1 environment and to provide for common defense and
2 security.

3 The NRC consists of five Commissioners,
4 one of whom is the Chairman and the NRC staff. The
5 regulations are enforced by Title 10, Code of Federal
6 Regulations, commonly called 10 CFR.

7 The Atomic Energy Act, as John mentioned,
8 provided for a 40-year term and Ginna did apply for a
9 20 year license renewal. As a result of the 40-year
10 life, some components weren't designed to last the 40
11 years and operating experiences demonstrated that some
12 major components such as steam generators wouldn't
13 last that long. For that reason, a number of
14 utilities have replaced major components and therefore
15 the plant's life is really determined by economic
16 factors.

17 I'd like now to talk about the license
18 renewal process. This part is governed by 10 CFR Part
19 54 of the Code of Federal Regulations.

20 The license renewal rule also incorporates
21 10 CFR part 51, by reference. This part of the Code
22 provides for the preparation of an environmental
23 impact statement.

24 The license renewal process involves a
25 safety review and an environmental review, plant

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1 inspections and a review by the Advisory Committee of
2 Reactor Safeguards or ACRS. The ACRS is a group of
3 scientists and nuclear industry experts who serve as
4 a consulting body to the Commission. They review the
5 staff safety evaluation and the license application
6 and they report their findings directly to the
7 Commission.

8 (Slide change.)

9 MR. ARRIGHI: This next slide illustrates
10 the two parallel processes for license renewal. The
11 upper part is a safety review and the lower part is
12 environmental review. The safety review involves the
13 staff review of the technical information on the
14 application to verify with reasonable assurance that
15 the plant can continue to operate safely during the
16 extended period of operation. The staff assesses how
17 the applicant proposes to monitor and manage the aging
18 effects applicable to passive long-lived structures
19 and components and that within the scope of license
20 renewal and documents, the effectiveness of this, of
21 the applicant's programs and safety evaluation report.

22 The current regulations are adequate
23 addressing active components such as pumps, valves,
24 which are continually challenged to reveal failures
25 and degradations so that corrective actions can be

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1 taken by the licensee.

2 Current regulations also address other
3 aspects of the original license such as security and
4 emergency planning. These current regulations also
5 apply during the extended period of operation. The
6 ACRS reviews the staff safety evaluation report and
7 again, they review the safety evaluation report and
8 the application and give their recommendations to the
9 Commission.

10 The safety review process also involves
11 two or three inspections. These inspections are done
12 by the region and essentially what the inspections
13 entail is the regional inspectors will walk down the
14 plant, look at the condition of the plant and assess
15 the effectiveness of the utilities aging management
16 programs.

17 At the bottom of the slid eis the other
18 parallel process, the environmental review. The
19 environmental review involves scoping activities,
20 preparation of the draft supplement to the generic
21 environmental impact statement, solicitation of public
22 comments in the draft supplement and then issuance of
23 a final supplement to the generic environmental impact
24 statements.

25 The decision to review an operating

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1 license, NRC considers all these things, the safety
2 evaluation report, the ACRS report, the inspection
3 reports and also the NRC Regional Administrator's
4 recommendations and in addition, the environmental
5 impacts is used for the assessment of whether the
6 license would be renewed.

7 The license renewal process also allows
8 for hearings. In September 2002, the NRC issued a
9 Federal Register notice to announce its acceptance of
10 Ginna's license renewal application for renewal of the
11 operating license at Ginna. This notice also
12 announced the opportunity for public participation in
13 the process. There were no petitions to intervene
14 that were received by the public.

15 This concludes my overall summary of the
16 license renewal process.

17 MR. MITCHELL: Thanks, Russ. I want to
18 get Bob up here, but I did want to introduce someone
19 very important from the NRC staff. I talked a lot
20 about how some of these gentlemen had served as a
21 Resident Inspector, but we do have our Resident NRC
22 Inspector for Ginna, Ken Kolsezyk, back here and I
23 just thought I'd let everybody know that and
24 introduce. Thank you very much, Ken.

25 MR. SCHAAF: Thank you, Chip. I would

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1 also like to welcome everyone to our meeting tonight.
2 Your participation is appreciated. We look forward to
3 hearing your comments.

4 As Chip said I'm the Environmental Project
5 Manager for the Ginna license renewal. My name is Bob
6 Schaaf. I'm responsible for coordinating the efforts
7 of the NRC staff and our contractors from the National
8 Labs to conduct and document the environmental review
9 of R.E. Ginna's application for license renewal at
10 Ginna.

11 NEPA, the National Environmental Policy
12 Act, was enacted in 1969. The Act requires all
13 federal agencies to use a systematic approach to
14 consider environmental impacts during certain decision
15 making proceedings regarding major federal actions.
16 NEPA requires that we examine the environmental
17 impacts of the proposed action and consider mitigation
18 measures which are actions which can be taken to
19 decrease environmental impacts which are identified.

20 NEPA also requires that we consider
21 alternatives to the proposed action and that we
22 evaluate the impacts of those alternatives. Finally,
23 NEPA requires that we disclose all of this information
24 and that we invite public participation to evaluate
25 it.

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1 The NRC has determined that it will
2 prepare an environmental impact statement for requests
3 to renew a plant's operating license for an additional
4 20 years. Therefore, following the process required
5 by NEPA, we have prepared a draft environmental impact
6 statement that describes the environmental impacts
7 associated with operation of Ginna for an additional
8 20 years. That draft environmental impact statement
9 was issued at the end of June. The meetings today are
10 being held to provide an overview of the NRC's
11 preliminary conclusions and to receive your comments
12 on the draft.

13 (Slide change.)

14 MR. SCHAAF: This slide describes the
15 objective of an environmental review as defined in our
16 regulations. To put it in plain terms, we're trying
17 to determine whether the renewal of the Ginna license
18 is acceptable from an environmental standpoint.
19 Whether or not that option is exercised, that is,
20 whether or not the plant actually operates for an
21 additional 20 years will be determined by others such
22 as RG&E and state regulatory agencies. And it will
23 also depend on the outcome of the NRC safety review.

24 (Slide change.)

25 MR. SCHAAF: This slide shows in a little

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1 more detail our process for the environmental review
2 of the Ginna license renewal application. The
3 application was received at the end of July of last
4 year. The NRC issued a Notice of Intent which was
5 published in the Federal Register in October. The
6 notice informed the public that we were going to
7 prepare an environmental impact statement and invited
8 the public to provide comments on the scope of our
9 environmental review.

10 In November of last year, during the
11 scoping period, we held two public meetings in the
12 area to receive public comment on the scope of issues
13 that should be included in the environmental impact
14 statement for the Ginna license renewal. Also, in
15 November, we went to the Ginna site with a team of
16 NRC staff and personnel from several of our national
17 laboratories with background in specific scientific
18 and technical disciplines required to perform our
19 review. We familiarized ourselves with the site. We
20 met with RG&E staff to discuss the information
21 submitted in their application. We reviewed
22 environmental documentation maintained at the plant
23 and we examined RG&E's environmental evaluation
24 process.

25 In addition, we contacted federal, state

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1 and local officials, local service agencies and Native
2 American tribes with potential historical ties to the
3 plant area, all to gather information for our review.
4 At the close of the scoping comment period, we
5 gathered up and considered all of the comments that we
6 received from the public and from these other
7 agencies. Many of these comments contributed to the
8 document that we're here today to discuss.

9 In December of last year, we issued
10 requests for additional information to ensure that any
11 information that we relied on in our document that had
12 not been included in the original application was
13 submitted for the public record. At the end of June,
14 again, we issued the draft environmental impact
15 statement for public comment. This was issued as
16 Supplement 14 to the generic environmental impact
17 statement regarding license renewal.

18 It's considered a supplement because we
19 rely on the findings of the generic environmental
20 impact statement regarding license renewal for part of
21 our conclusions. Duane Neitzel will provide
22 additional detail about the relationship between the
23 generic impact statement and the Ginna supplement as
24 part of his presentation.

25 The fact that we refer to the supplement

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1 as a draft does not mean that it is incomplete. It is
2 considered a draft because we're at an intermediate
3 stage in our environmental review. We are in the
4 middle of a second public comment period to allow you
5 and other members of the public, as well as state and
6 local agencies, other federal agencies and the Native
7 American tribes to review our preliminary findings and
8 conclusions and provide any comments you may have on
9 the report.

10 After we gather these comments and
11 evaluate them, we may find that we need to make
12 changes to the draft document. The NRC will make any
13 necessary changes and then issue a final environmental
14 impact statement related to license renewal for Ginna.

15 Our goal currently is to issue that
16 document in February of next year.

17 This concludes my overview of the process.
18 I can entertain any questions on the process now.

19 MODERATOR CAMERON: Thank you, Bob and
20 thank you, Russ. Any questions on either of those two
21 presentations that we heard about the process that the
22 NRC goes through for license renewal?

23 (No response.)

24 We can always come back if a question does
25 occur to you based on something else you heard, we'll

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1 come back to this particular issue.

2 Let's go to Duane Neitzel who is going to
3 tell us about the draft environmental impact
4 statement.

5 MR. NEITZEL: Thank you. My name is
6 Duane Neitzel. I am the laboratory lead for the
7 license renewal project. I'm responsible for
8 coordinating the efforts of the staff from the
9 National Laboratories to conduct and document the
10 environmental review.

11 I'm going to talk about -- tonight, I'm
12 going to talk about the information gathering process
13 that we used, the composition of the review team, the
14 process we used to review the applicant's
15 environmental report and then I'll deal directly with
16 some of the results and the results we got after this
17 review.

18 Up here on this draft now, right here,
19 this is a SEIS. There are copies of this back there.
20 Please look at that. If there are not enough copies
21 and you want one, request one.

22 The information that I'm going to talk
23 about is summarized and documented in here. We took
24 a lot of information to put into this document. First
25 of all, RG&E issued a license renewal application.

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1 Their environmental report was part of that
2 application. We use that information.

3 NRC staff and staff from the National
4 Laboratories went out to the site, looked at the
5 operations there, talked to the people that are
6 operating the plant, looked at records of their
7 monitoring of their evaluation, how they run the
8 plant. Did that site audit. That was used in this
9 report.

10 We got comments from the public when we
11 were here in November. You made some comments.
12 Others of you made comments. We got comments in
13 writing. We used that information. We used those
14 questions in developing the supplement.

15 We also talked to state and local
16 officials, people at these agencies and federal
17 agencies about the resources that they manage, whether
18 they be social services, fish, wildlife,
19 transportation, power. We talk to them and that
20 information went into the SEIS.

21 I keep using the word SEIS. That's a
22 supplemental environmental impact statement. It's a
23 supplement to the generic environmental impact
24 statement for license renewal. That generic impact
25 statement you'll here us refer to, the GEIS, is the

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1 generic environmental impact statement. That is a
2 review process that was gone through. I looked at
3 that and I'll come back to that. This is the
4 supplement to that, that is specific for Ginna.

5 Next slide.

6 (Slide change.)

7 MR. NEITZEL: Who did this work? It was
8 a team of experts. I'm going to talk about the team
9 from the National Laboratories and the scientists and
10 engineers that we brought together to do this work.
11 We have people that are experts in land use, aquatic
12 and terrestrial ecology, hydrology, water quality,
13 radiation protection, socio-economics, historic and
14 archeological resources, atmospheric resources and
15 they are from the -- I'm from the Pacific Northwest
16 National Laboratory in Richmond, Washington. We had
17 a group from -- some from Lawrence Livermore in
18 California and Argonne in Illinois and we made up this
19 team. Some of those members are here tonight to
20 answer your questions, to talk to you. If you have
21 questions of them, they'll be around here after the
22 meeting and would be more than willing to talk to you.

23 Next slide.

24 (Slide change.)

25 MR. NEITZEL: Here's the process that we

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1 went through to get to this, to perform the site
2 specific analysis. As I mentioned, there's this
3 generic impact statement. NRC and NRC staff looked a
4 long list of issues related to resources at power
5 plants. They come up with a list of over 90 issues
6 and some of them they decided were Category 1 issues.
7 Category 1 issues are those where no matter where they
8 looked they got the same impact statement.

9 Some of those were Category 2 issues.
10 Those were issues they said we can't -- these are not
11 necessarily going to be the same depending on where we
12 look and every time we go out and supplement this,
13 we're going to have to look at these Category 2 issues
14 because they might be different.

15 So what we did was we looked at the
16 Category 1 issues and said is there anything new,
17 anything significant that could change that
18 conclusion? I'm going to talk more about the new and
19 significant information later, but we got this
20 information from our searches, from NRC, from the
21 applicants and from the comments that you gave us.

22 We also looked at the category 2 issues
23 and here we did a site specific assessment,
24 specifically related to the operations and the
25 environment at Ginna. We also, in scoping. and in the

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1 license renewal process, in talking with agencies and
2 stuff, we said are there any new issues? Of these
3 over 90 issues is there something we missed here? And
4 then brought that down to evaluate that and see if it
5 was new. We put that in here to further analyze it.

6 But this is work that we did was
7 performing this site specific analysis. This is how
8 we moved to that point.

9 Next slide, please.

10 (Slide change.)

11 MR. NEITZEL: As we did the analysis of
12 those issues and how they affected the resources, we
13 come up with three categories or three answers:
14 small, moderate and large. Those are categories or
15 conclusions that are consistent with the Council on
16 Environmental Quality and NEPA analysis and what that
17 says for the small conclusion is we can't detect a
18 change in the resource. It's such a small change, we
19 can't detect it and it's not going to destabilize the
20 resource.

21 Moderate, there is some change, but it's
22 not destabilizing. Large, there is a change and it is
23 destabilizing. The metrics or the rubrics to decide
24 whether those are small, moderate or large are all
25 listed in NRC documentation for each of these

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1 resources and you can go and look at those and
2 specifically see what we looked at and how we assessed
3 it.

4 Next slide.

5 (Slide change.)

6 MR. NEITZEL: I'm going to talk about some
7 of the conclusions we -- that are documented here in
8 the slides.

9 First of all, I want to say if I talk
10 about conclusions, I want you to remember these are
11 preliminary conclusions. This is a draft document.
12 We're here for further comments. If I forget to use
13 the word "preliminary" please excuse me, added into
14 the statement. These are preliminary conclusions by
15 the staff to whoever reads this document.

16 Okay, these are some of the areas where we
17 looked at the cooling system, water coming into the
18 power plant, being used to cool the plant, going back
19 out into the environment, transmission lines, the
20 corridors along which power is transmitted and where
21 the power -- where the lines are, how that is operated
22 and maintained, what is the process that RG&E uses to
23 make sure that that stays clear; how do they manage
24 that area. Radiological. Is the radiation that's
25 monitored and at the plant, how is that controlled,

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1 how is that documented? The socio-economic. This
2 relates to the taxes, transportation, the work force,
3 the make up of the work force in the area, groundwater
4 use and quality and then are there any threatened,
5 endangered species. Those are the kind of questions
6 we ask, how things are reviewed. And then how we come
7 to the conclusions.

8 I'm going to focus on a couple of these.
9 I'm going to start with the cooling water system. Go
10 there next.

11 (Slide change.)

12 MR. NEITZEL: Under the cooling water, we
13 looked at -- really looked at three things. These are
14 the biggest part of that issue, entrainment,
15 impingement and heat shock. Here's a picture of the
16 site, kind of a north-facing picture with the lake out
17 there, water is drawn into the plant, used to cool the
18 plant and that heating water is discharged back out
19 into the lake.

20 What can be drawn in with that water? How
21 are those organisms protected? What habitat is
22 affected by the heated water?

23 Our preliminary findings are that the
24 impacts related to these issues are small and then one
25 other conclusion that you'll read when you look at

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1 this is you'll see the statement. There's no
2 additional mitigation required. When this plant
3 operates, for instance, with entrainment, the
4 placement of that intake structure, the placement of
5 where the water is drawn from the lake is done to
6 minimize the amount of animals or habitat that will be
7 impacted.

8 The screens are placed and operated and
9 configured in such a way to minimize potential impacts
10 from impingement. The heat shock, the water is
11 discharged back into the lake to minimize potential
12 impacts. Those are all mitigation measures that are
13 in place. We look to see are there additional
14 mitigation required to protect these resources and
15 have concluded for this that no additional mitigation
16 is required, so please look for that statement as you
17 read through the sites.

18 Next slide.

19 (Slide change.)

20 MR. NEITZEL: One of the Category 1 issues
21 that we looked at is the radiological impacts. As I
22 said, this is a Category 1 issue. It's been decided
23 that it's a generic issue, but because it's often a
24 concern to the public, and I'm going to take just a
25 minute and discuss how we determine that there's no

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1 new information that's related to the radiological
2 impacts for the plant. We looked at the effluent
3 release and monitoring program during our site visit
4 and we looked at how gaseous and liquid effluence were
5 treated and released and we also looked at the solid
6 waste, how they're not released -- they're treated,
7 packaged and shipped away for disposal. We looked at
8 that process. This information is recorded in the
9 SEIS. I believe that's in Chapter 2.

10 And then we looked at how the applicant
11 determines and demonstrates that they've complied with
12 these regulations. We looked at five years, the last
13 five years of their monitoring and documentation to
14 determine and evaluate for ourselves, their compliance
15 with these regulations and issues.

16 And again, our finding is that there's no
17 reason to change what the Commission has already
18 determined, that this is -- that these impacts are
19 small.

20 So go to the next slide, please.

21 (Slide change.)

22 MR. NEITZEL: One of the areas that I
23 said I'd come back to was this new and significant.
24 I think this is a real important part of this process.
25 It's an important part for the public and it's really

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1 important to scoping and now again here at the comment
2 thing. We have these issues. Are there new issues?
3 Is there new information and as I said before, the
4 licensee looks for this information constantly. NRC
5 staff, in their review of these power plants and
6 specifically they bring that information of what
7 they've learned to Ginna and then the National Lab
8 staff is helping the NRC. We also look for that, but
9 we also look to the public and we look to the state
10 agencies, federal agencies and other individuals and
11 groups that we talk to and ask that question, is there
12 new information that we need to evaluate related to
13 the operation of Ginna?

14 We've concluded and I want to go into
15 this, there was one issue when we talked to the New
16 York State Department of Environmental Conservation.
17 During the audit they said you know, there's a
18 revetment out there, along the shoreline. If you
19 think back to that picture, there's riprap all along
20 that was added there during construction and somebody
21 from the state said we might have differential rates
22 of erosion along there because this is protected to
23 the east and west of that, that's not and could that
24 be an issue? Could that -- is that something you
25 should evaluate?

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1 Well, the applicant, RG&E, they performed
2 a survey of the shoreline in the vicinity and they
3 discussed this with the state and the survey is going
4 to help understand the degree to which the revetment
5 has altered this process of natural erosion and stuff.

6 And we went and reviewed that information,
7 reviewed the comments by the state, talked to the
8 state people, got this shoreline survey and the staff
9 preliminarily concludes that the comments made by the
10 New York State Department of Environmental Quality,
11 Environmental Conservation do not represent
12 information that would call into the question the
13 Commission's conclusion regarding the GEIS Category 1
14 issues on aquatic, terrestrial resources, land use or
15 water quality, any of those things.

16 So that's how that new and significant
17 information process works and how it worked here at
18 Ginna. Let's see, let's look at the next slide.

19 (Slide change.)

20 MR. NEITZEL: Cumulative impacts. Another
21 very important area to look at. This was a comment.
22 NR -- the CEQ and NEPA require that you look at
23 cumulative impacts. NRC and their guidance requires
24 it and then in the last, at the scoping meeting, we
25 had people ask how are you going to look at cumulative

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1 impacts, what cumulative impacts are you going to look
2 at. Well, we look at cumulative impacts for all
3 these, for all of the resources that have been listed
4 and a couple points that I'd like to bring out that we
5 discuss in there and I would like you to read. We
6 have to look at both a temporal and a spatial
7 component of these temporal, of these cumulative
8 impacts. They're not just what's going on with
9 operation now. For the temporal component, we looked
10 at when construction started and we're going through
11 the 20 years of operation. For the geographic
12 boundaries, it depended on the resource. Like for the
13 aquatic resources, most of the aquatic resources at
14 Ginna are associated with Lake Ontario. With the
15 terrestrial stuff, it's the footprint of the plant and
16 the transmission lines.

17 The socio-economic impacts related mostly
18 to the counties right here and the cities right around
19 the plant because that's where the people who work at
20 the plant live. That's where the taxes are paid, the
21 school districts. That's where the transportation
22 corridors are for people coming to and from the plant
23 and that's the kind of things that we looked at and
24 looked at the past, current and foreseeable future
25 impacts. And we found that there are no significant

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1 cumulative impacts related to the renewal of this
2 license.

3 Two other areas that we looked at and
4 looked at the potential impacts are the uranium fuel
5 cycle and solid waste management and decommissioning.
6 Decommissioning is the activity that occurs after the
7 plant is shut down, after plant shutdown is completed
8 and what are the impacts of decommissioning?

9 The environmental issues associated with
10 the uranium fuel cycle and solid waste were discussed
11 and are discussed in the generic impact statement and
12 the staff has not identified any new and significant
13 information on this issue during this review of Ginna
14 or the site visit and the staff has preliminarily
15 concluded that there are no impacts related to these
16 issues beyond those discussed in the GEIS.

17 Also, for the decommissioning, there is a
18 generic impact statement for decommissioning. We
19 looked at that and the staff has concluded that the
20 conclusions in that GEIS on decommissioning are small
21 and are not changed by the information we learned here
22 at Ginna.

23 Finally, two more slides. Another thing
24 that's required by this process is to look at
25 alternatives to the proposed action. The proposed

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1 action is to continue operation of the power plant for
2 an additional 20 years beyond the current license.
3 What are the alternatives to doing that? Well, the
4 main alternative and the alternative that is required
5 by NEPA is no action to shut down the power plant
6 after the license expires. We looked at that and then
7 we looked at other alternate energy sources, other
8 ways of getting the power that's produced at Ginna,
9 new generation, coal, natural gas, other nuclear,
10 electrical power purchases, other alternatives, oil,
11 wind, soil, conservation and then we looked at a
12 combination of those alternatives. If you combined,
13 if you took a little, some conservation, some oil,
14 some coal, how could you combine those to look at
15 that.

16 For each one of these we looked at all
17 those same issues that we looked at for the extended
18 operation of Ginna and went through and made the
19 small, moderate and large determination on those
20 impacts. Those impacts and the comparisons of those
21 are listed in here and they're all in one table. The
22 issues that were evaluated, the different alternatives
23 and the different ratings on that. So again, that's
24 summarized in here and you can look at that.

25 The last slide.

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1 (Slide change.)

2 MR. NEITZEL: This is the conclusion on
3 the alternatives. The alternatives including the no
4 action alternative may have environmental effects in
5 at least some impact categories that reach moderate or
6 large significance, compared to all small impacts for
7 the license renewal. So that is the summary of the
8 findings that we had. If there are any questions
9 right now --

10 MODERATOR CAMERON: Thank you very much,
11 Duane.

12 Let's go to this gentleman right here and
13 if you could just tell us your name and affiliation,
14 if appropriate.

15 MR. MITCHELL: Thanks, Chip. My name is
16 Peter Mitchell and I'm a citizen. My question would
17 be is how much space is left in the spent fuel pool?
18 If Ginna was to be relicensed and operate for another
19 20 years, what does that mean in terms of storing the
20 radioactive rods and is there enough space and if not,
21 what's going to be done?

22 MR. NEITZEL: Bob or John? Which one of
23 you wants to answer?

24 MODERATOR CAMERON: Thank you.

25 MR. NEITZEL: Bob is our NRC person on the

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1 spent fuel.

2 MR. SCHAAF: Right, I don't have the
3 specific answer as to when they would run out of space
4 in the pool. You're considering what other options as
5 far as storage.

6 UNIDENTIFIED AUDIENCE MEMBER: That's a
7 very important question.

8 MODERATOR CAMERON: Let's make sure we get
9 you on the transcript.

10 UNIDENTIFIED AUDIENCE MEMBER: I'm sorry.

11 MODERATOR CAMERON: But let him, I think
12 he's going to -- he'll put it in context for you,
13 hopefully.

14 Go ahead, Bob.

15 MR. SCHAAF: It's really, its current
16 operating plant issue, it's not in the scope of the
17 license renewal review. There are options that
18 utilities have for storing spent fuel. They can
19 construct and independent special storage facility
20 which would typically consist of using dry casks to
21 store. Typically, the oldest fuel goes into the cask
22 first because it has the lowest heat load, so
23 therefore it's easier to pass it in pool.

24 The Commission has determined in its waste
25 confidence rule that fuel from operation, including

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1 continued renewed operation can be safely stored on
2 site for up to 30 years beyond the end of an operating
3 period which can include renewed license.

4 MODERATOR CAMERON: Let me just get one
5 fact on the record here in terms of -- from George
6 Wrobel from the plant.

7 Go ahead, George.

8 MR. WROBEL: Well, just the fact that the
9 spent fuel pool has enough storage space in it right
10 now until about 2010, 2011. After that we would be
11 putting the fuel into dry storage and that's
12 irrespective of whether we do license renewal or not.
13 If we decommission, we would put dry casks out there
14 and if we continued operating, we would put dry casks
15 out after 2010 anyway. So that's why there's really
16 no impact based on operation or decommissioning.

17 MODERATOR CAMERON: And was there someone
18 else that I missed who wanted to provide some
19 information on this issue?

20 Let me see where we are with this. I
21 think we heard that 2010 is the date when the switch
22 would have to go to dry storage.

23 Can NRC staff, Bob, if you didn't do it,
24 can you describe what the NRC licensing process is for
25 dry storage? Can someone tell us that?

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1 MR. MASNIK: I'm Mike Masnik. There are
2 two options open to the licensee at the time that they
3 would run out of storage in the spent fuel pool. They
4 can license a facility with a site specific license
5 under part of the regulations which would require a
6 license amendment and there would be an opportunity
7 for public interaction.

8 The licensee can also license -- I'm
9 sorry, can also construct a dry storage facility under
10 their existing part 50 license, if they used a
11 certified cask that the NRC has licensed. We actually
12 license the casks. So those are the two options open
13 to the licensee. They can use under the general
14 license provisions of part 50 or a site specific
15 license.

16 MODERATOR CAMERON: Okay, let me make sure
17 -- do you have anything else on that one right now?

18 MR. MASNIK: We'd be happy to talk to you
19 afterwards if you want and give you some more
20 information.

21 MODERATOR CAMERON: Okay, other questions if
22 related to that or specifically on Duane's
23 presentation on draft preliminary conclusions and the
24 draft environmental impact statement?

25 Okay, and please introduce yourself to us.

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1 MR. MITCHELL: Hugh Mitchell, Sierra Club.
2 So the question then about this dry cask storage would
3 be are those casks liable to be the ones that might be
4 used to transport off-site, for example, to Yucca
5 Mountain storage?

6 MR. MASNIK: Again, Mike Masnik. The
7 casks that are being licensed today are what they call
8 dual-use casks. They can also be used in the
9 transport of the fuel to Yucca Mountain or to some
10 other facility. It doesn't necessarily have to be
11 Yucca Mountain. But yes.

12 MODERATOR CAMERON: Okay, thank you.
13 Let's go over here and please tell us your name.

14 MS. CLAYTON: My name is Julie Clayton and
15 I'm a resident of Brighton near the Rochester area.
16 I'm just wondering what are the specific plans like in
17 2010 what to do with those casks at this point?

18 MODERATOR CAMERON: It sounds like -- go
19 ahead, Mike, and then we'll fill in.

20 MR. MASNIK: Again, we're speculating
21 what's going to happen in 2010 and actually perhaps a
22 better person to ask would be the licensee for this,
23 but the casks, typically, if it happened today, they
24 would be loaded, they would be put on a concrete pad
25 in a facility on site and they would be stored there

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1 until they could be shipped off site.

2 MODERATOR CAMERON: George, do you have
3 any -- okay.

4 John, do you want to add something to
5 this?

6 MR. TAPPERT: Yes, because there's not a
7 whole lot of detail on that in the site-specific
8 environmental impact statement. And as Duane pointed
9 out earlier, the structure of this, as we look at
10 generic things and a generic environmental impact
11 statement and generic venues and this particular EIS
12 is really on the site-specific impacts at Ginna. When
13 you're talking about spent fuel storage, as Bob
14 pointed out, the Commission has determined generically
15 that there are options to store spent fuel safely on
16 site. And since that has been determined generically,
17 we did not look beyond that. We look for new and
18 significant information and we didn't find anything
19 that would call that finding into question. We're
20 trying to be responsive to your questions, but you're
21 not going to see a lot of detail on that in the
22 document.

23 MODERATOR CAMERON: But I think that the
24 important point to remember is that and correct me if
25 I'm wrong here, John, although there may not be much

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1 in this license renewal document, the NRC does have a
2 regulatory and licensing process for the specific
3 expansion.

4 MR. TAPPERT: Right. For whatever option
5 they choose, there will be a licensing process that
6 will ensure that it's done safely and appropriately.

7 MODERATOR CAMERON: So do you have a
8 further question, Julie, on this?

9 MS. CLAYTON: What is being done with the
10 rods that are there now? The spent fuel that is there
11 now? Are they just buried and forgotten or are they
12 going to be taken somewhere else?

13 MR. TAPPERT: Well, there's a wet storage
14 -- it's a spent fuel pool with borated water to cool
15 the rods and store them for decay. And when that pool
16 becomes full, there will be other options which will
17 be executed to dispose of the fuel or store it.

18 MODERATOR CAMERON: And that safety of the
19 rods and the pool is monitored by the NRC to make sure
20 it makes NRC regulations?

21 MR. TAPPERT: Absolutely.

22 MODERATOR CAMERON: All right. Let's go
23 right over here to this gentleman?

24 MR. HERMAN: Roy Herman and I'm a dweller
25 of this fine community. I'd like to ask the question

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1 and you don't have to put the exact amount, but how
2 much have we paid the federal government to take care
3 of our spent fuel and are we going to continue to pay
4 for that service?

5 MODERATOR CAMERON: Thank you, Mr. Herman.

6 John, you may -- if we don't have the
7 exact amount, you may want to at least describe the
8 process by who pays for that, okay?

9 MR. TAPPERT: There is a billage. There's
10 a tax on the energy that's generated from nuclear
11 power plants and that money is given to the federal
12 government which is charged with the ultimate disposal
13 of that fuel.

14 Right now, the Department of Energy is
15 seeking a license for Yucca Mountain as that geologic
16 repository. When you ask about what the exact dollars
17 are, I don't know. I don't know if anyone in this
18 room does. Perhaps we do. It's in the billions and
19 that money will continue to be paid.

20 MS. DUSEL: That number was cumulative?

21 MODERATOR CAMERON: We have to get you on
22 the record.

23 MS. DUSEL: You said it's in the billions.
24 Is that cumulative over --

25 MR. TAPPERT: Yes. They've been paying

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1 this since the National Waste Policy Act.

2 MS. DUSEL: So it's probably considerably
3 less than the \$3 million or so that Ginna pays in
4 taxes per year, is that right?

5 MODERATOR CAMERON: Considerably less?

6 MS. DUSEL: Considerably less, that we pay
7 out.

8 MR. TAPPERT: You're referring to the
9 property taxes that Ginna is paying the local
10 community here?

11 MS. DUSEL: Annually, that would be a much
12 larger sum than we're paying for disposal of fuel?

13 MR. TAPPERT: I believe that the taxes
14 that are paid is more than the taxes paid to the
15 federal government.

16 MS. DUSEL: Right, right. My point is
17 what's coming into the community is more than what's
18 going out.

19 MR. TAPPERT: That's my belief.

20 MODERATOR CAMERON: Could you just tell us
21 your name for the record?

22 MS. DUSEL: Yes. I'm Sandra Dusel.

23 MODERATOR CAMERON: Sandra Dusel. Thank
24 you and we're going to go over to this side unless
25 Duane, do you want to add something while I'm going

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1 over?

2 MR. NEITZEL: I just wanted to say that
3 for those of you that have this and were planning on
4 reading this, Chapter 6 has a summary and references
5 to specifics about the spent fuel cycle and it covers
6 the off-site radiological impacts, off-site -- the
7 collective impacts, the spent fuel and high level
8 waste impacts, non-rad impacts from the fuel cycle,
9 low level waste storage and disposal, mixed waste
10 storage and disposal, on-site spent fuel, non-rad
11 waste and transportation.

12 Now we keep saying that this is not a
13 comprehensive and not the complete analysis of all
14 these issues, but it's a very nice summary. It's in
15 Chapter 6 and I invite you to read that. I think that
16 will answer some of your questions and it will provide
17 you the references to go further and maybe, and
18 hopefully answer some of your questions, but Chapter
19 6 in the SEIS, check that out.

20 MODERATOR CAMERON: Okay, and I think we
21 have some further data for Mr. Herman and Sandra.

22 MR. MECREDY: I'm Bob Mecredy from RG&E.
23 Total property taxes that the plant pays to the
24 community includes the schools and also the town and
25 other entities is about \$5 million a year. The total

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1 amount that we pay for high level radioactive waste
2 disposal to DOE is based on the amount of generation
3 and is depending on the year, \$3 to \$4 million for DOE
4 waste disposal.

5 MODERATOR CAMERON: Thank you for that
6 clarification, Bob.

7 Do we have some further questions for
8 Duane about the preliminary findings in the draft
9 environmental impact statement?

10 And if things occur to people later, we'll
11 come back to that. Any other questions right now?

12 Yes? Dick, please introduce yourself.
13 Everybody knows you, but --

14 MR. CLARK: I'm Dick Clark. I'm the
15 supervisor for the Town of Ontario. I want to start
16 by saying that I'm pleased that the NRC found a place
17 in the town to discuss this issue of Ginna and not in
18 one of the neighboring towns.

19 I did have a comment in the socio-economic
20 portion of the draft environmental impact statement
21 that had to do with taxes. It suggests in here that
22 you should compare the dollars in taxes with the total
23 revenue that the town collects in terms of determining
24 what the impact would be if it went away. I'm
25 suggesting that's the improper comparison to make.

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1 You ought to compare the amount of taxes RG&E pays
2 with the total taxes the town pays. Compare the taxes
3 of RG&E with the total taxes, not the taxes with the
4 total revenue. Because if you look at the amount of
5 taxes compared with the total revenue, it's a much
6 smaller percent and in here you suggested that the
7 impact, if it went away, would be small and so you
8 don't have to mitigate that.

9 I'm suggesting that if you compare taxes
10 with total taxes, if it went away the impact would be
11 at least moderate and so you might have to consider
12 mitigation in that sense.

13 Now that's really the only comment I
14 wanted to make.

15 MODERATOR CAMERON: Okay, thank you very
16 much, Dick.

17 And Duane, if you need further information
18 about what Mr. Clark has said, please talk to him
19 after the meeting.

20 And let's get on to the last two parts of
21 the NRC presentations right now and the first of that
22 is to talk about severe accident mitigation
23 alternatives, okay?

24 We have Mark Rubin to discuss that and
25 then we'll go to you for any questions there. We'll

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1 do a summary of how you submit comments. We've
2 already heard from the Town of Ontario in terms of one
3 of their comments on the draft environmental impact
4 statement and we'll go out to others of you who wanted
5 to make comments in a few moments.

6 Mark?

7 MR. RUBIN: Good evening. As Chip
8 mentioned earlier, I'm a Section Chief in the
9 Probabilistic Safety Assessment Branch in Reactor
10 Regulation.

11 As part of license renewal, the Commission
12 has determined that the environmental assessment
13 should include a plant specific evaluation of severe
14 accident mitigation alternatives, even though severe
15 accident risk has been determined to be quite small at
16 operating nuclear reactors, in general, in fact, it
17 may specifically. As part of this, we look at severe
18 accident risk. What is a severe accident and why do
19 we even look at it?

20 When these plants were originally designed
21 in many cases many years ago, they were evaluated and
22 designed for what we call design basis accidents. And
23 these are typically accidents that while not expected
24 to occur were considered possible, credible, such as
25 pipe breaks, typically called LOCAs, where a large

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1 pipe is breaking, there's a discharge of reactor
2 coolant. In the plants it's specifically designed to
3 survive those accidents with essentially no impacts at
4 all. The safety systems were designed, the
5 radiological consequences were evaluated. Even
6 assuming failures of systems, the plants were designed
7 to ride through those accidents with really a minimal
8 upset and those were designed based accidents.

9 What about accidents that are very, very
10 unlikely, not really expected to occur? Goes beyond
11 the realm of credibility that they might occur, but
12 theoretically they could. Over the last few years,
13 techniques have been developed, probabilistic
14 techniques called PRA, probabilistic risk assessment
15 that allow us to study the likelihood of these
16 complex, multi-failure accidents. And those are
17 typically called severe accidents. They're very
18 unlikely to occur. They involve numerous failures.
19 Most of them are very, very unlikely, but if they were
20 to occur, they would have rather severe consequences
21 because the reactor core would typically melt and
22 there might be releases to the environment.

23 So in a severe accident study, we look at
24 the likelihood and consequences of these very low
25 probability events that are beyond the original design

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1 basis of the nuclear power reactor.

2 In the severe accident management
3 alternative assessment, we specifically look at ways
4 to reduce the impact of these severe accident
5 scenarios if they were to occur.

6 Typically, through use of a PRA
7 probabilistic risk assessment, we use mathematical
8 models of the plant components, structure, systems,
9 containment structure, to try to predict what would
10 happen, what the probability of that happening would
11 be during a severe accident.

12 Next vu-graph, please?

13 (Slide change.)

14 MR. RUBIN: Well, to conduct a severe
15 accident mitigation alternative study first we need to
16 characterize the overall plant risk. In the case of
17 Ginna, that was done with a plant specific
18 probabilistic risk assessment which does the type of
19 evaluation that I talked about earlier, including
20 modeling the effects of radiological releases to the
21 environment, land impacts, health impacts, things of
22 that nature, to get a calculation on what the impact
23 to the public and society would be.

24 So these complex models, mathematical and
25 computer models are used to assess the overall plant

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1 risk as the starting point to do the SAMA evaluation.

2 The next step is to well, where are there
3 improvements? What are things that can be done to
4 reduce the potential hypothetical risk to the public
5 and the plant if these events were to occur?

6 Typically, the types of things that get
7 looked at are harbor modifications, procedure changes,
8 typically, very inexpensive, relatively inexpensive,
9 but can give you some benefit, improvements to
10 training program, basically a fairly complete
11 evaluation of where can the severe accident risk be
12 reduced?

13 The scope of the evaluations will look at
14 ways you can reduce the probability of a core damage
15 accident or increase the performance of a containment,
16 the containment structure if a core damage accident
17 was to occur.

18 After you've identified the potential
19 improvements to the plant, the next step is actually
20 quantify the risk reduction that you'll be getting and
21 the potential implementation costs. Basically what
22 you do is you look at what benefit the plant or
23 procedure improvement will impose on the reactor
24 systems and this will allow you to recalculate the
25 likelihood or consequences of these severe accident

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1 events, so basically you look at the difference,
2 before and after, the improvement gets put in place.

3 You also look at the costs of actually
4 doing the plant improvement. It could be a few
5 thousand dollars, it could be hundreds of thousands or
6 millions of dollars and what you do is you compare the
7 implementation costs with the costs, with what's
8 called the cost benefit you get out of the
9 mathematical models of the PRA and the risk study
10 which looks at the core damage frequency, the off-site
11 consequences, the public health impacts and in fact,
12 we also look at on-site costs too, the cost to
13 replacement power, the realized costs to the plant
14 workers, the occupational costs. So we try to do a
15 relatively complete assessment of the balances on both
16 sites, the costs of implementation and the risk
17 benefit you get from reducing the severe accident
18 risk.

19 When we're done doing all this, and it was
20 based on a lot of information that was provided by
21 RG&E, as well as independent work on our own, you then
22 try to determine if any of these evaluations are cost
23 beneficial. You get more for it in public safety,
24 health benefit than the cost of doing it and at the
25 very end we try to determine well, even if it's cost

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1 beneficial, is it related to license renewal?
2 Basically, is it an aging degradation related issue?
3 If it is, it would fall under the purview of license
4 renewal. If it's not, it wouldn't be directly related
5 to the license renewal activities.

6 Next vu-graph, please?

7 (Slide change.)

8 MR. RUBIN: The evaluation that was done
9 for Ginna started out with about 200 candidate
10 improvements. Basically, what was looked at were a
11 number of improvements that have been evaluated for
12 previous plants, similar to this design, but in
13 addition, RG&E looked very closely at the plant
14 specific risk model, the probabilistic risk assessment
15 model to look for insights, effective ways to reduce
16 the severe accident risk.

17 It was a multi-step process. Much of the
18 analysis was done at what we call a bounding manner.
19 You look at a potential improvement and you make
20 simplifying assumptions that the area where some risk
21 is contributed from the PRA study, assume that this
22 improvement could make it all go away. That would be
23 the maximum benefit you could get if this improvement
24 was 100 percent effective in making the risk go away.

25 What you did typically was called a

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1 screening analysis to get an idea of what these
2 improvements would be, basically could show the
3 potential for being cost beneficial.

4 As you go through the screening process,
5 you end up with some improvements that show the
6 potential and those are subjected to a much more
7 detailed engineering theory analysis and cost
8 analysis.

9 In the case of Ginna, there are eight
10 improvements that were subjected to comprehensive
11 evaluation and two of these were found to be actually
12 cost beneficial, namely, the risk reduction benefit
13 you got from imposing these were less than the cost of
14 doing the improvements.

15 These involved addition of a third non-
16 safety related diesel generator that would essentially
17 cause risk reduction for what we call station
18 blackout, severe accident events, basically where
19 there's total loss of AC power and there would be
20 failure of the on-site diesel generators, even though
21 there were multiple safety diesel generators for
22 backup, you can calculate with these mathematical
23 models the probability that there would be additional
24 failures.

25 So that was shown to be cost beneficial

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1 and also some changes to the power alignment of the
2 train B and C charging pumps to the A power supply
3 with a procedural change was found to be cost
4 beneficial.

5 Next vu-graph, please.

6 (Slide change.)

7 MR. RUBIN: As I mentioned, two of these
8 were found to be cost beneficial, but neither of
9 these, as you can see, are aging-related. These are
10 basic system enhancements to the current design.

11 A current design has a very low severe
12 accident risk to begin with as shown by the plant-
13 specific PRA model, but these two improvements show
14 what we call a net benefit in cost benefits space, but
15 they're not license renewal related because they're
16 not an aging-related issue. Consequently, they won't
17 be required as part of our license renewal activity,
18 but they are going to be evaluated by the licensee as
19 a potential plant improvement modification as many
20 improvements have been considered in the past and
21 several of them have been implemented from the past
22 and the staff, as a matter of fact, will follow up on
23 these issues through our normal safety review process
24 to follow the status and implementation when the
25 licensee has completed their evaluation process.

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1 I believe that -- oh, next vu-graph.

2 (Slide change.)

3 MR. RUBIN: There we go. Nope, that's
4 you, sorry. My numbers are different.

5 That's it.

6 MODERATOR CAMERON: Thanks, Mark. I think
7 we have some questions for you over here. Let's go to
8 Mr. Mitchell first.

9 MR. MITCHELL: Mitchell and Mitchell.

10 MODERATOR CAMERON: Mitchell and Mitchell,
11 all right.

12 MR. MITCHELL: Mark, I'm Peter Mitchell,
13 by the way. If we had 200 areas that were looked at
14 as possible potential improvements that could be made
15 in the plant and it was narrowed down to eight and two
16 were implemented --

17 MR. RUBIN: They have not been
18 implemented. They showed a positive cost benefit.

19 MR. MITCHELL: Cost benefit. So does that
20 mean that all the other areas that you looked at don't
21 affect safety or human health?

22 MR. RUBIN: The 200 issues that were
23 looked at ran the whole gamut of plant improvements,
24 plant modifications. A number of them were historical
25 that were looked at in other plants. Some were

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1 specific, some came out of previous, for example,
2 license renewal activities where plants roughly
3 similar to this considered them.

4 Generally, to give you some historical
5 perspective, these plants have been subjected to PRA
6 studies for many, many years and a number of areas of
7 improvement for most plants have been identified many
8 years ago and have been subjected to continual
9 improvement process.

10 Typically, the types of things that you
11 find in a PRA are not of high safety significance.
12 These plants, as I was talking about the design basis
13 accidents before, have a very rigorous design
14 requirements to withstand numerous types of accidents
15 and failures.

16 The issues that are identified in the
17 probabilistic risk assessment studies are generally
18 almost always much lower in significance than the type
19 of safety issues that are dealt with in the plant
20 design basis reviews. These are things of very low
21 probabilities, 1 in 10,000, 1 in 100,000, 1 in a
22 million. But things you wouldn't expect to see
23 happen, with the new techniques that have evolved,
24 give us an ability to mathematically look for them
25 because the consequences of the accidents, if they

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1 were to occur, are very severe.

2 So the issues that were of the 200 issues,
3 the ones that didn't make the final list fall into a
4 whole bunch of categories. Some of them were issues
5 that don't apply to this design by nature, design
6 characteristics. Some have already been addressed
7 through other plant improvements. Some have such a
8 little amount of risk impact that putting a plant
9 improvement in to make that risk contribution go
10 completely away would give you no benefit.

11 The ones that were significant that apply
12 to the design fell most into the eight that we talked
13 about. If you look at the supplement section in this
14 area, you'll notice a comment that we make that is
15 always possible to hypothesize other improvements.
16 You could always think well, how about we do this and
17 this and this.

18 At this point, there are many, many years
19 of experience in doing probabilistic risk assessment
20 studies and many alternatives, many risk issues have
21 been looked at. And it's the conclusion from the
22 staff that even though you might hypothesize some
23 other improvements, the significant ones, the ones
24 that would show the real benefit and reduce the risk
25 have been captured by the SAMA analysis that we're

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1 presenting tonight. And I think that the issues that
2 show the potential for -- call it safety enhancement,
3 even though the residual risk we're talking about here
4 is very low to start with, we're not talking about a
5 significant safety problem. We're talking about
6 issues of very low public risk to start with, but the
7 techniques we have still allow us to study them. And
8 these were the data that were most significant and the
9 two that actually show some cost benefit.

10 MR. WROBEL: Okay, if I could just
11 summarize what you said then, the two areas that made
12 sense were to have a generator on hand for power
13 failure?

14 MR. RUBIN: Yes sir.

15 MR. WROBEL: And also for cross
16 connections for popping?

17 MR. RUBIN: Yes.

18 MR. WROBEL: And that everything else in
19 there did not meet the economic cost requirements and
20 that you found the plant to be just hunky dorry as it
21 is and didn't need any changes?

22 MR. RUBIN: Well, the plant meets the
23 current licensing requirements as is.

24 MR. WROBEL: Would you say that that's an
25 accurate -- we can remove the hunky dorry out of that

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1 and just say that you found the plant to not need any
2 further medications in the two that you made that it's
3 fine just the way it is.

4 MR. RUBIN: I wouldn't characterize these
5 as needed modifications. The plant is safe as
6 currently configured, very safe. These are some
7 additional improvements that would make it even safer.

8 MODERATOR CAMERON: Could we go to the
9 second Mr. Mitchell?

10 MR. MITCHELL: I would just say that
11 having the additional generator makes a whole lot of
12 sense and I would see that as a major need, rather
13 than downgrading it or giving such a low priority
14 because if you lose your power, you're in big trouble.

15 MODERATOR CAMERON: We'll note that as a
16 comment.

17 MR. MITCHELL: Hugh Mitchell, no relation
18 of Peter Mitchell.

19 In the risk assessment, I was wondering if
20 there were a low level, the lowest level radioactive
21 release to the neighborhood outside the containment
22 building, would this automatically by NRC standards be
23 considered a severe event and secondly, what would be
24 some of the possible environmental and economic costs
25 of community of such a low level radioactive release?

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1 MR. RUBIN: I'll punt this to one of my
2 health physics colleagues in just a second. A severe
3 accident, a severe reactor accident is one that
4 results from uncovering of the reactor fuel, core melt
5 of the reactor fuel and typically reactor vessel
6 failure containment and failure. We haven't had
7 anything progressing to that stage in this country.

8 The types of low level exposure you're
9 speaking of are in a different realm as far as the
10 impact and assessment and I'll -- perhaps Mr. Emch
11 would like to comment on that.

12 MODERATOR CAMERON: Rich, would you like
13 to come up and then we're going to get some more
14 information from Russ Arrighi about the question that
15 was asked previously.

16 Rich Emch. Rich, do you understand Hugh's
17 question?

18 MR. EMCH: Well, that's what I'm trying to
19 think if I really understand. Let me see. Mark has
20 already talked to you about the nuts and bolts of
21 this, but I gather your question relates, one of the
22 questions I heard was if there was some kind of
23 release would that be considered a severe accident,
24 was that your question?

25 MR. MITCHELL: Automatically considered an

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1 SAMA.

2 MR. EMCH: No, I don't believe so. If
3 something happens, where there is some release, the
4 licensee, there's a whole emergency preparedness
5 system that's in place which you folks living around
6 here, you probably already know about it. Okay, that
7 involves the licensee, involves the Nuclear Regulatory
8 Commission, involves the state, the New York State
9 authorities, county authorities and what -- if there
10 was a leak, there would be very quick assessments done
11 of how big the leak was and they would make judgments
12 about what the risk to the public of that leakage was
13 and emergency preparedness decisions, whether it be
14 sheltering or evacuation of some people or something
15 like that. Those kinds of decisions would be based on
16 those assessments. Is that what you're driving at,
17 sir?

18 MR. MITCHELL: The environmental and
19 economic costs and whether that accrues to the general
20 community or whether the Agency pays for it.

21 MODERATOR CAMERON: Okay. This is a
22 question --

23 MR. EMCH: That's a whole different kettle
24 of fish.

25 MODERATOR CAMERON: I think we can still

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1 provide an answer in terms of -- if there ever was a
2 severe accident, who bears the liability for that?

3 MR. EMCH: As far as what level of -- if
4 there were contamination, what kinds of costs would be
5 associated with it? I believe there is information
6 about that in the analyses in the SAMA analysis that
7 we put in the document.

8 MR. RUBIN: Yes, if you're talking about
9 severe accidents, the models that are done to help the
10 decision making process, look at the cost of
11 contamination, the cost of land that will be impacted.
12 If you're talking about the very small releases, more
13 like design basis accidents where there might be very
14 small releases of radionuclides, typically those would
15 not have significant impact from a perspective of
16 public health and severe accident assessment.

17 MODERATOR CAMERON: Okay, and the final
18 piece of the question and then we'll see if anybody
19 else has a question is how is liability from accidents
20 handled and there is a statutory insurance scheme on
21 this and Rich, maybe you want to just say a few words
22 now and then we can try to clarify for you later.

23 MR. EMCH: Yes, I'll say just a very few
24 -- as my colleagues and I were just talking, we think
25 what you're talking about is the Price-Anderson Act.

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1 Okay, there is a statute that's set up and a system up
2 where utilities pay into it. It's an insurance of
3 sorts and indemnifying up to a certain level. If
4 there is costs, then that's a fund that can be gone to
5 to pay for those costs. I guess that's what you were
6 talking about?

7 MODERATOR CAMERON: So there is a
8 liability scheme in place and there's so many billions
9 of dollars in that that maybe we can put together some
10 basic facts on that for Hugh and get them to him,
11 okay? And we'll talk to them later about that, but
12 thank you, Rich and I think let's go to Susan, you
13 have a question, one more on this?

14 MS. GATELEY: What was the PRA on
15 embrittlement and before the Davis-Besse hole in the
16 head, what was the PRA on that?

17 MODERATOR CAMERON: Okay. That was Susan
18 Gateley.

19 Go ahead, Mark.

20 MR. RUBIN: There are a number of things
21 in the PRA model and there are some things that aren't
22 in the risk assessment model. I'm not sure by
23 embrittlement in what context.

24 MODERATOR CAMERON: Susan, we need to get
25 you on the record. This is a little bit awkward, I

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1 know.

2 Mark, do you need further information from
3 Susan right now to answer this?

4 MR. RUBIN: No.

5 MODERATOR CAMERON: Okay, go ahead.

6 MR. RUBIN: I don't think so. If you're
7 talking about reactor vessel embrittlement, okay,
8 good. It's not built into the PRA model. It's been
9 dealt with deterministically through -- it's part of
10 the safety review process. And through materials
11 properties radiation embrittlement studies, there are
12 criteria for all the plants that the vessels must meet
13 to continue operation.

14 When that assurance is achieved, the
15 conclusion is that embrittlement won't be a safety
16 concern and it's not dealt with in a probabilistic
17 manner and in fact, it wouldn't truly be appropriate
18 to deal with it, because it's not a system component,
19 a failure type of issue.

20 So I think the perception is it's of low
21 risk. It's been given a great deal of attention and
22 reactor embrittlement is being followed closely by the
23 staff and as part of the safety case and my colleague
24 on the left, I'm sure that reactor vessel material
25 embrittlement was closely evaluated as part of the

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1 license renewal process.

2 MODERATOR CAMERON: Can we get Russ up
3 there to -- Russ, you wanted to provide us some
4 further information on a previous question, but if you
5 want, could you just amplify or just affirm what Mark
6 said in terms of how the embrittlement issue was
7 handled in license renewal?

8 MR. EMCH: Well, let me -- with regard to
9 embrittlement, as part of the application, the
10 licensee did -- embrittlement was discussed in the
11 application. It is being reviewed by the technical
12 staff. The specifics of that, I can't speak to it at
13 this point in time, but there are reviews that are
14 on-going by the staff. We'll look at that as part of
15 license renewal. We'll have to get back to you on
16 that answer.

17 One point I did want to make though with
18 regard to the prior question, with regard to the SAMA
19 for the emergency power source, a 480 power source, as
20 part of the current license, licensing basis, if the
21 plant shuts down and they need to have an alternate
22 power supply, the current license basis requires that
23 the applicant have multiple means to bring an off-site
24 power on to the plant to power the systems and
25 components.

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1 In addition, there are already as part of
2 the licensing basis, the plant is required to have two
3 emergency diesel generators. The diesel generator
4 that was mentioned and the cost benefit would be a
5 third diesel generator.

6 MODERATOR CAMERON: So it's not just a
7 single diesel generator.

8 We'll come back. I want to make sure --
9 we'll come back later on, if we have time and I want
10 to make sure that Susan's, all of Susan's questions
11 are answered, but I think what we need to do now is to
12 try to get on with this so that we can get the people
13 who want to make comments to us and then we'll come
14 back for any questions that we need.

15 Did you have a question? Is that what
16 you're trying to point out to me?

17 MR. WROBEL: For the reactor vessel
18 embrittlement part of the application and safety
19 review was that we had to analyze the reactor vessel
20 for the amount of radiation we'd get for 60 years as
21 opposed to for what it was for 40 years. That
22 submittal has been complete. It's been sent to the
23 NRC and it's under current review, but there was
24 plenty of margin, even at 60 years.

25 MODERATOR CAMERON: Thank you, George, for

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1 that clarification.

2 Bob Schaaf is going to tell you about how
3 to submit comments and what the conclusions were in
4 the GEIS or the SEIS.

5 Go ahead, Bob.

6 MR. SCHAAF: Thank you, Chip. I'll try to
7 be brief so that we can get to your comments. We've
8 had a lot of good questions here, a lot of good
9 dialogue. First, I would like to apologize for
10 misspeaking regarding the spent fuel storage issue as
11 Duane pointed out. It is addressed in the supplement
12 in summary form. It's addressed in detail in the
13 generic impact statement.

14 Turning now to our overall preliminary
15 conclusions. We found that the impacts of license
16 renewal are small in all impact areas. We also
17 concluded that the alternative actions including the
18 no action alternative may have environmental effects
19 in at least some impact categories that reach moderate
20 or large significance.

21 Based on these results, our preliminary
22 conclusion is that the adverse environmental impacts
23 of license renewal for Ginna are not so great that
24 preserving the option of a license renewal for energy
25 planning decision makers would be unreasonable.

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1 (Slide change.)

2 MR. SCHAAF: This slide provides a quick
3 recap of the current status of the review. We issued
4 the draft EIS as indicated previously in late June.
5 We're currently in the middle of a public comment
6 period which extends to September 16th and our goal is
7 to issue the final environmental impact statement by
8 February of next year.

9 We will mail a copy to anyone who wants
10 one, if you'll just leave your name and address with
11 us on one of the blue or yellow cards at the back of
12 the room.

13 The final impact statement, along with the
14 safety evaluation report, inspection reports and ACRS
15 report which were described earlier by Russ, will be
16 considered by the Director of the Office of Nuclear
17 Reactor Regulation in making a final decision
18 regarding whether to issue a renewed license for
19 Ginna.

20 The NRC staff and lab personnel that are
21 here tonight will be available after the meeting to
22 answer any questions. If you have any questions after
23 today, you can contact me at the phone number
24 indicated here. This slide also provides options for
25 accessing the draft impact statement for your review

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1 and comment. We have copies available at the back to
2 the room. The Ontario and Rochester libraries have
3 copies available for review and the document is also
4 available on the internet at the address shown on the
5 slide.

6 The meeting is being transcribed and the
7 comments provided here will be considered in
8 finalizing the draft impact statement. Outside of
9 this meeting there are four ways to provide comments.
10 There are three options identified on the slide here,
11 either by mail, in person if you happen to be in the
12 Rockville, Maryland area or by e-mail. You may also
13 provide comments through an on-line comment forum
14 which is available when you access the web version of
15 the impact statement at the address shown on the
16 previous slide.

17 All comments provided through all of these
18 methods will be collected and considered in preparing
19 the final impact statement.

20 I would like to thank the Ontario Fire
21 Department for allowing us the use of their hall.
22 Thank you all for taking the time to attend, for
23 asking these probing questions and for the comments
24 that you will provide.

25 MODERATOR CAMERON: Okay, thank you very

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1 much, Bob. And now we want to hear some more from all
2 of you and we do have several people who want to talk
3 tonight and we're going to go to first -- we heard
4 from Mr. Dick Clark, Supervisor, Town of Ontario.
5 We're next going to go to Mr. Bob Mecredy who is the
6 vice president of Nuclear Operations for Rochester Gas
7 and Electric.

8 To give you some background on why the
9 company submitted the application for license renewal
10 and next we'll go to Susan Gateley after that.

11 Bob?

12 MR. MECREDY: Thank you. I appreciate the
13 NRC holding the public meeting both in the afternoon
14 and in the evening to give members of the community an
15 opportunity to attend and participate.

16 RG&E submitted an application for license
17 renewal just about a year ago. Our rationale or the
18 reason for that was to preserve the option to operate
19 the plant in the renewed period. This recognized the
20 potential contribution that the plant could make to
21 the electric supply grid in New York State and
22 recognized the fact that Ginna does provide almost
23 half of the electricity on an annual basis that the
24 customers in our service territory would use.

25 An actual decision on whether the plant

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1 would operate into the renewed period is contingent on
2 a number of factors. First and foremost, of course,
3 is the decision of the NRC and other agencies relative
4 to granting a license. Without that, of course, we
5 would not.

6 It would then depend on other factors,
7 perhaps public policy, economics and others.

8 The employees of Ginna and RG&E take very
9 seriously and always have our responsibility to
10 operate safely and to minimize the impact of our
11 operations on the environment. One of the early
12 visible examples is the attention paid to the
13 aesthetics, the way the plant blends into the
14 environment, albeit it is a large industrial facility.
15 That attention and the broad attention to safety and
16 environment continues.

17 We continue to monitor our safety
18 performance and our environmental performance. We
19 learn from others and from our own experience and we
20 search for ways to improve our performance. There
21 also is an on-going independent oversight by the NRC
22 and by others. As you've heard one element of our
23 application process was to review the environmental
24 impact of operation and the extended period and we
25 concluded that the operation would be acceptable.

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1 The NRC's preliminary conclusion of the
2 report is that there is no reason in their view from
3 an environmental impact standpoint not to renew the
4 license and we concur with that conclusion.

5 As we continue to operate in the future,
6 now to 2009 and potentially beyond that, we will
7 continue to set as our priority safe and
8 environmentally responsible operation. We'll continue
9 to monitor and measure our performance and we'll
10 search out ways to improve that performance.

11 Thank you, Chip.

12 MODERATOR CAMERON: Thank you, Bob.
13 Susan, are you ready to talk to us?

14 MS. GATELEY: I was kind of curious, is
15 there anybody here that's not from Ginna or the NRC,
16 raise your hands? I'm kind of curious. One, two,
17 three, four, five, six, seven, eight. Who aren't
18 either R.E. Ginna employees or -- okay. I was just
19 kind of curious.

20 I'm a freelance writer and I used to live
21 right next to the plant. In fact, I could walk to the
22 plant if I wanted to and I sail around the lake so I
23 know Lake Ontario as a yachting person and I said in
24 November and I'm going to basically say again that I
25 feel that the experts here are too focused on their

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1 particular green box on the lake shore and I am
2 concerned that the impact statement is not addressing
3 adequately the cumulative effects of the great atomic
4 lake here. We have 16 nukes. We have a titanium
5 recovery facility. We have a uranium refinery. We
6 have at least two low level radioactive dumps, maybe
7 more, depending on how you calculate the content of
8 them at Lewison, at the harbor, Port Hope, some of the
9 other places around Port Hope. Some of these were
10 built after the Ginna plant and I do -- I said this
11 before and I'm going to repeat it. I think that this
12 plant was built before NEPA, the National
13 Environmental Policy Act was a law and I don't think
14 that that plant would be built today with a thorough
15 impact statement. But, of course, it's here and we're
16 going to keep it going, obviously. I think part of
17 that NEPA process is not being addressed adequately
18 which is a cumulative impact of all of these plants.

19 I'm going to skip a lot because -- but I
20 do want to say that radiation exposure is a cumulative
21 health effect and that's why radiation induced cancer
22 show up later in life. As power plants operate, they
23 expose the population and the environment to an on-
24 going burden of exposure and I'm not singling out
25 Ginna, I'm talking about perhaps the most nuclearized

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1 body of water certainly in North America, if not
2 anywhere, Lake Ontario. The longer these plants
3 operate, the more dose collectively the population
4 receives.

5 Now it is true that if you go to the
6 websites and do the research on the internet, most
7 epidemiological studies do not show cancer clusters
8 around power plants. They do not show evidence of
9 health effects, but if you dig a little deeper, you'll
10 find that many of these studies do not have a good
11 understanding of the exposures that the population
12 receives. So this is a problem when you're
13 structuring an epidemiological study, looking for
14 cancer clusters. If you don't know what the people
15 have been exposed to, and I've complained before about
16 the adequacy of the data available, how difficult it
17 is to access the radiological release data from this
18 plant and I asked back in November what about the
19 Canadian plants and the NRC response was well, I guess
20 we could obtain it, which kind of implied to me that
21 it wasn't readily available and maybe even to a
22 medical researcher, let alone to a citizen. So I
23 think that's a problem.

24 So I'm going to just skip down to my
25 conclusion. I believe the generic environmental

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1 impact statement for the renewal of these licenses,
2 this one size fits all process is flawed. I think it
3 fails to adequately address many of the changes that
4 have taken place in society like the terrorism
5 concern, the fact that we have basically an open
6 border on Lake Ontario. I think that what we should
7 do as part of this relicensing process here, for
8 Ginna, is to have a comprehensive lake-wide assessment
9 of all radiation releases, that's U.S. and Canada. I
10 think this should be made. This study should be
11 conducted by independent and academic researchers. It
12 should be rigorous and it should be interdisciplinary.
13 The study team should include biologists, maybe an
14 epidemiologist with no industry ties. It should not
15 just have HPs and engineers.

16 When the database is complete, I think the
17 study results should be published in a peer reviewed
18 journal, not buried in a file somewhere and I think
19 the database should be updated monthly, not quarterly,
20 and made available to researchers in the U.S. and
21 Canada as well as to the public.

22 I think a good model for this study that's
23 not ever been done for Lake Ontario is the current
24 assessment that's going on right now of
25 organochlorines that's being done with atmospheric

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1 deposition that's being done by researchers from
2 Pottsdam and Oswego researchers. I think that's a
3 good model. If we can look at PCBs, why can't we look
4 at radiation in the same way?

5 I'd like to see at least a thorough and
6 rigorous assessment of the radiological releases and
7 basically that is kind of what I'm going to wind up
8 with except that I think if we are going to take a
9 look at the long term at what effect these power
10 plants are going to be in the long run, if it's going
11 to operate for many, many more years and all these
12 other plants are going to through their renewal
13 process and doing the same, we should at least get
14 good data out there and be able to assess the effects
15 on the population and if such data were provided, then
16 the truth of science would answer our questions and
17 wouldn't it be nice to know that really the effects
18 are minimal and really I don't have to worry at night
19 about the long term consequences.

20 Of course, we still have Osama out there,
21 you know. There are still a few other issues besides
22 routine radiological releases, but I guess I'm just
23 going to wind up by saying that since mostly I'm
24 talking to the NRC, please -- I'm sure you do this,
25 but every day wake up and think about that culture of

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1 complacency that's led to the loss of two space
2 shuttles. Think about that every day because I know
3 you're doing it, but keep thinking about it, okay?

4 MODERATOR CAMERON: Thank you very much,
5 Susan, for those comments.

6 Julie Clayton, Julie. Could you like to
7 speak now?

8 MS. CLAYTON: Sure. My name is Julie
9 Clayton. I lived in Brighton, the Rochester area.
10 I'm a mother and a teacher and a citizen of the area.
11 I just wanted to say that we've always been risk
12 takers, people are risk takers. Every day we go over
13 bridges, we're flying in airplanes, we're driving cars
14 which is probably one of the biggest risks, but we
15 take our risks every day.

16 Even so, I'm opposed to the renewal of
17 this license. There are a number of reasons.
18 Terrorism, which we thought didn't exist before and it
19 exists and who knows what they're going to do to these
20 nuclear plants and if they are indeed strong enough to
21 withstand that. The foresight of the future as far as
22 spent fuel, the dangers there. It will be going
23 across the country in trucks. It will stay here and
24 the spent fuel is dangerous stuff. We just can't deny
25 that that's dangerous.

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1 The possible cancers, as the previous
2 speaker just said. Can you hear me better now.

3 (Pause.)

4 Also, the possible cancers or so many
5 cancers that people are suffering from now and we know
6 it could be from pesticides. It could be from a
7 million different things, but one of them could be
8 from the nuclear situation going on with Ginna and
9 with the different plants.

10 Not very long ago our country's economy
11 was dependent on slavery, the North and the South
12 depended on slavery. Well, things have changed and
13 slavery was done away with and the United States
14 adapted. Just as slavery was not a good idea, I feel
15 that the nuclear energy is for our present or for our
16 future. Alternative energies should be pursued as
17 well as conservation.

18 I think Upstate New York should be the
19 innovator, the beacon with doing away with nuclear
20 energy because the risks far outweigh the benefits and
21 I just hope that this doesn't get approved for the
22 renewal of this license.

23 Thank you.

24 MODERATOR CAMERON: Thank you very much
25 for those comments, Julie.

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1 Let's see if there's others. We'll get
2 over to you in one second.

3 Hugh, you said you might want to talk. Do
4 you want to come up? All right.

5 MR. MITCHELL: Yes, for the record, I'm
6 Hugh Mitchell. I'm the Regional Chairperson of the
7 Sierra Club. I'm not an expert in this area at all
8 and I have to confess that we do not locally have a
9 committee that actively works on it. I've been off
10 and on on the issue for 20 years myself, but I did
11 want to read into the record and help educate local
12 people and especially NRC members. I'm sure you're
13 all doing a good job with this high level technology,
14 concerning -- I'm reading into the record some brief
15 comments. It won't be long.

16 The Sierra Club conservation policies
17 related to nuclear power and relicensing applies in
18 this case of nuclear facilities. The Sierra Club
19 opposes the licensing, construction and operation of
20 nuclear reactors utilizing fusion process including,
21 in this case, relicensing. Number one, this would be
22 pending development of adequate national and global
23 policies to curb overall excessive energy use and we
24 favor alternate energy generation systems such as
25 solar and wind and so on.

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1 Number two, the resolution of significant
2 safety problems inherent in reactor operations such as
3 the disposal of spent fuels, storage of spent fuels
4 and so on, this is an earthquake zone. If the
5 containment pool were to crack, due to earthquake, the
6 liquid runout, what would happen? Would there be a
7 meltdown of those so-called spent fuel rods and so on?

8 Number three, establishment of adequate
9 regulatory machinery to guarantee adherence to the
10 foregoing conditions and I know that since this policy
11 was written quite a while back, there's been a great
12 deal of efforts to upgrade regulatory machinery and
13 this is a good example of it tonight. I appreciate
14 all the hard work you people are doing.

15 But we do have Three Mile Island to
16 consider. We always have to do all of our thinking in
17 terms of the fact that it almost happened here in the
18 United States. Chernobyl happened in Russia. Three
19 Mile Island came within a very, very close fact of
20 meltdown, so it can happen. Our technologies can
21 fail.

22 Sierra Club continues to post construction
23 of any new commercial nuclear fusion power plants or
24 relicensing.

25 Further, the Sierra Club supports the

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1 systemic reduction of society's dependence on nuclear
2 fusion as a source of electric power and we recommend
3 a phased closure and decommissioning of these
4 operating nuclear fusion electric power reactors.

5 Finally, in this area, consistent with
6 these policies that I've just mentioned, we're
7 concerned with protecting public health and safety.

8 The federal legislation to require the
9 Nuclear Regulatory Commission should be there to
10 license both military and nonmilitary in radioactive
11 waste management facilities. This isn't necessarily
12 relicensing the plant, but waste management
13 facilities.

14 And this relates also to the shipment of
15 this waste off-site because there is a risk, as we've
16 heard of the material remaining on site. You've been
17 trying to address the risk, but then we get into the
18 question of shipping. What do you do with this?
19 We've brought up that already. And a question about
20 some of the costs there.

21 And finally, the question of
22 decommissioning. If this were denied the license,
23 which it doesn't look like it's going to be, but if it
24 were, then there's a question, a lot of questions
25 related to decommissioning the plant and I won't get

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1 into extensive information about this one, but one
2 little section I wanted to mention is that most of the
3 debris from dismantling is not low-level waste. More
4 than 99 percent is using 10 CFR part 63 definition BC
5 or greater than C in radioactivity, control rods and
6 fuel assembly parts, for all intents and purposes,
7 high level radioactive waste.

8 So there's a whole policy which you can
9 find on our website related to what to do with that.

10 Thank you very much.

11 MODERATOR CAMERON: Hugh, I just wanted to
12 clarify with you for the record because it may be
13 important is did it say fusion or was it fission?

14 MR. MITCHELL: Fission.

15 MODERATOR CAMERON: Okay, so let the
16 record show that where fusion was used, it's fission.
17 All right, thank you, Hugh.

18 Sandra?

19 MS. DUSEL: Hi, my name is Sandra Dusel.
20 I live directly next door to this power plant. One of
21 the finest neighbors I've ever had. Quiet, doesn't
22 come borrow anything. Great.

23 People have voiced concerns tonight about
24 radiation. But nuclear power plants do not release
25 radiation. I would much prefer to have Ginna next

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1 door than a coal-fire plant. Coal-fire plants do
2 release radiation to the air continuously. However,
3 we're not getting anything from Ginna.

4 While it would be nice to have our country
5 run on alternate energy sources, right now those
6 aren't viable for large scale generation. If you want
7 to use solar or wind, you've got to do it yourself.
8 They're just not viable on a large scale.

9 So what are our choices? Fossil fuels or
10 nuclear power? I choose nuclear power. And I don't
11 mind having it right next door.

12 As far as environmental impact, the land
13 that you keep around that plant is wonderful. It's a
14 wonderful habitat. You should see what walks through
15 my yard from next door. It's incredible. It's like
16 being in the middle of a nature show.

17 So my only concern is that there is in
18 process now sale of some of that land to a developer
19 to be developed with an entire row of houses that face
20 the plant.

21 And my major concern about that is because
22 of the new environment of terror in this world. My
23 husband is a Colonel in the United States Army
24 Reserves. His expertise is armament and particularly
25 those used by other countries and terrorist groups,

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1 that sort of thing. His feeling is that as things
2 stand right now it would be very difficult for anyone
3 to get anything in there large enough, close enough to
4 do any significant damage except maybe make a smudge
5 on the wall.

6 If there were houses closer in, that might
7 provide a platform for terrorists. Now how close,
8 well, maybe not where they're putting -- want to put
9 the houses now, but we'd like to see as much land as
10 possible around that. The last rumor I heard was that
11 that sale was being reviewed by the NRC and as
12 neighbors of Ginna that is our only concern.

13 Thanks.

14 MODERATOR CAMERON: Thank you very much,
15 Sandra, and we'll take a look at that last comment
16 also that you made in terms of the land sale.

17 Is there anybody else who didn't get a
18 chance to fill out a yellow card who would like to
19 talk? Great. Come on up.

20 MR. MITCHELL: I don't know what happened
21 to my card that I submitted.

22 MODERATOR CAMERON: I don't know either,
23 but you're here and that's the important thing.

24 Let's --

25 MR. MITCHELL: I'm Peter Mitchell. I'm a

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1 citizen in Rochester, New York. Brief comments.
2 Major concerns are regarding -- we're talking about
3 the environment around Ginna, but we cannot talk about
4 the Ginna environment without talking about safety
5 factors and possible accidents. And my primary
6 concern with a plant that's 34 years old is what's
7 happened with the parts that have been bombarded by
8 radiation. So Ginna does have some reactor vessel
9 embrittlement.

10 Many of the pipes in the plant that have
11 been exposed to radiation have a certain amount of
12 weakening as a result of the embrittlement problem.
13 And why embrittlement is a big problem and has been
14 dealt with and has to be continually dealt with is
15 because the margins in case of a loss of coolant
16 accident decreased. And a major loss of coolant
17 accident can result in the actual vessel breaking.

18 A second problem is germane to all nuclear
19 power plants and that is the fact that as in Three
20 Mile Island, developing a hydrogen bubble, any loss of
21 coolant accident where the fuel is exposed leads to a
22 melting of the zirconian cladding on the fuel rods
23 which produced hydrogen which ends up producing a
24 hydrogen bubble. It's a problem germane to nuclear
25 power.

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1 Another area of concern we should all be
2 really concerned with is not so much the reactor
3 vessel being in some way damaged or breached by some
4 sort of terrorist accident, it's the nuclear spent
5 fuel pool and what would happen if somebody set up
6 some sort of mortar or howitzer out in the farm field
7 or out on the lake and was able to penetrate the spent
8 fuel pool and there was a loss of coolant? There's
9 more radiation to be released in the sent fuel pool
10 than in the reactor itself and anybody who knows about
11 the WASH 740 study that had been buried for a number
12 of years before it was brought to light through the
13 Freedom of Information Act, a major release of
14 radiation has devastating effects and deaths and
15 health effects for years and years to come and
16 destruction of land that is no longer useable for
17 years and years.

18 The last year of major concern that you
19 should be looking is one that has unfortunately been
20 buried and not looked at by the NRC for over 30 years
21 until recently. But we knew about it back in 1971.
22 We knew about it because of a -- I'm just looking at
23 the spelling here. It's B-E-Z-N-A-U, the Beznau 1
24 Reactor in Switzerland. There, they had a problem
25 with the reactor head being eaten away by boric acid

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1 because of the seal cladding, seal welds around the
2 control rods cracking and leaking boric acid and then
3 back in 1979, my apologies again. I'm think of the
4 Davis-Besse reactor out in Ohio. There, we had a
5 major eating of the reactor head. The actual head of
6 the reactor was 514 millimeters eaten away by boric
7 acid right down to the stainless steel lining of the
8 vessel itself which is only 5.14 millimeters.

9 And so what we found out is that we do not
10 -- we are not using sufficient technology to inspect
11 or look at cracks in seal welds around control rods
12 and there's hundreds of cracks that are going
13 undetected.

14 Now I'll just mention one name here and
15 that is Dr. Steven Hanauer. He was a senior official
16 at the NRC and he kept a file on unreported accidents
17 and safety deficiencies that was uncovered by the
18 Union of Concerned Scientists through the Freedom of
19 Information Act. And basically, what was in that file
20 showed that the NRC had been basically ignoring for 30
21 years the problem of these cracks in weld seals around
22 control rods.

23 So we need to look very closely at Ginna
24 in terms of what we have on the reactor head there.

25 Finally, I'll just say that each one of

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1 you as members of the Nuclear Regulatory Commission
2 are like me, humans who have a family, who have
3 friends, who have children, who have a heart and we
4 cannot let our decisions be swayed by control and
5 pallor and economics when we're part of the human
6 family.

7 So I expect each one of you to look at the
8 truth without rationalization in terms of what your
9 job is or who you are in terms of power within the
10 system.

11 It's your responsibility to yourself, your
12 own personal growth, to your family, your children, to
13 society, to look at the truth and act on the truth.
14 And I would hope that we continue to grow as
15 individuals towards being people of the truth so that
16 our society can be a rich and healthy one.

17 Thank you.

18 MODERATOR CAMERON: Thank you, Peter. I
19 apologize for misplacing your card and I'm glad we got
20 a chance to hear your comments.

21 Thank you very much.

22 MR. MITCHELL: No problem.

23 MODERATOR CAMERON: All right. Anybody
24 else before I ask the NRC staff if they have anything
25 at all?

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1 No, okay. Yes? Come on up and just
2 please introduce yourself to us.

3 MS. SIEGMED: My name is Heidi Siegmed and
4 I just moved to the Rochester area in April, so I'm
5 not really familiar with this plant and I came up here
6 just to learn more about the problems associated with
7 it. I did live in Oswego, New York where we had three
8 plants and I lived there for the next seven or eight
9 years and we had cracks in the core shroud and we
10 worked a lot with Union of Concerned Scientists to
11 help folks understand better what our problems were.

12 And I've actually, I've visited nuclear --
13 the spent fuel pool in one of the facilities there.
14 I don't know if I would be allowed to any more. But
15 I was glad to see that they had life preservers
16 hanging from the walls in case you would fall in.

17 I guess my concern also is the regular
18 releases that we see from these plants, the low level
19 ones which are not being addressed in this proceeding
20 because you're only looking at the SAMAs which is the
21 severe accident, but in fact, there are regular
22 releases that happen constantly that are considered
23 low level that do have to be reported and I used to
24 get up until recently e-mails that with all the
25 gobbly-gook that had to go to the NRC and it would get

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1 forwarded to me and I do see that in your report, you
2 do mention that there were some releases of various
3 strontium and different things like that, so I mean it
4 is happening. I would hate to live next to the plant
5 and not be aware of that when there's a repository
6 where you can get that information.

7 And I think the NRC just even listening to
8 when you do look at the SAMA and that you use this
9 mathematical model to just toss out all the concerns,
10 I think that's just an indication of if we could get
11 you to look at these lower level releases how you
12 would probably toss them out just as well. But I mean
13 what's really critical there is what the variables are
14 that you're using to look at, to measure human life
15 and to place importance on things.

16 I think eventually science, if people are
17 not shut down like sometimes depleted uranium
18 researchers are getting shut down all the time, we'll
19 finally be able to prove some of this causation and I
20 don't think Price Anderson is going to be the one
21 that's going to have the liability. I don't know who
22 will, but just as with tobacco and now we're trying
23 gun lawsuits and now they're trying fat and sugar
24 lawsuits. Eventually, I think the science will be
25 able to pull out causation from these regular releases

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1 and that we will get some liability and I wish the NRC
2 would be involved in looking at that liability, but I
3 think it's kind of a vain hope.

4 Thank you.

5 MODERATOR CAMERON: Thank you.

6 MS. SIEGMED: There's somebody's thing
7 here. Key chain or something.

8 MODERATOR CAMERON: Thank you very much,
9 Heidi and we'll find the owner of that.

10 I just would thank all of you for your
11 attention and your courtesy and your comments and
12 questions tonight.

13 I'm going to ask John Tappert, as our
14 senior official to close this out.

15 MR. TAPPERT: Thank you, Chip. And just
16 to echo Chip's thoughts I just want to thank everyone
17 who came out and took time out of their evening to
18 come here and share their comments with it. It is an
19 important part of our process and we appreciate all of
20 the thoughtful views that you shared with us.

21 We will be staying after the meeting, the
22 NRC staff and our contractors. A lot of you raised a
23 lot of issues and if you would like to discuss them
24 further, we'd be happy to discuss them on a one on one
25 basis.

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1 So thanks again for coming out and drive
2 safely home.

3 (Whereupon, at 9:10 p.m., the meeting was
4 concluded.)

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