

# **Official Transcript of Proceedings**

## **NUCLEAR REGULATORY COMMISSION**

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

Docket Number: (not applicable)

Location: Ontario, New York

Date: Thursday, August 7, 2003

Work Order No.: NRC-1026

Pages 1-74

**NEAL R. GROSS AND CO., INC.**  
**Court Reporters and Transcribers**  
**1323 Rhode Island Avenue, N.W.**  
**Washington, D.C. 20005**  
**(202) 234-4433**

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

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  
  
1:30 P.M.  
  
FIREMAN'S EXEMPT HALL  
  
1840 ROUTE 104  
  
ONTARIO, NEW YORK 14519

The meeting on the above-entitled matter  
commenced at 1:30 p.m., Francis "Chip" Cameron,  
presiding as Moderator/Facilitator.

NRC Presenters:

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

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25

2  
  
3  
12  
17  
22  
60  
64  
73  
74

I-N-D-E-X

Welcome and purpose of meeting

Overview of license renewal process

Overview of environmental review process

Results of the environmental review

How comments can be submitted

Public comments

Closing/availability of transcripts, etc.

Adjourn

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

1:33 p.m.

MODERATOR CAMERON: Good afternoon, everyone, and welcome to the NRC's public meeting. My name is Chip Cameron, and I'm the special counsel for public liaison at the Nuclear Regulatory Commission. It's my pleasure to serve as your facilitator for today's meeting. And in that role I'll try to assist all of you in having a productive meeting today.

Today's meeting is on the draft environmental impact statement that the NRC has prepared to assist the NRC in making a decision on an application to renew the license at the Ginna nuclear power plant. And this application was submitted by Rochester Gas and Electric.

And I just wanted to take just a couple of minutes to go over some of the meeting process issues before we get into the substance of today's discussion.

In terms of objectives for the meeting, we want to make sure that we clearly explain to everyone what the license renewal process is all about, what the role of environmental review is in that license renewal process. And most importantly, in terms of information to give you a summary of what the NRC has

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

(202) 234-4433

(202) 234-4433

1 found in the draft environmental impact statement.

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

13 We're transcribing the meeting. Mary Ann  
14 is our stenographer and that will be a written record  
15 of the meeting that will be available not only to the  
16 NRC for purposes of evaluating comments, but also to  
17 the public. And you may hear things this afternoon,  
18 either from the NRC or from members of the audience  
19 that will give you information that will either  
20 perhaps stimulate you to submit a written comment or  
21 to help you to prepare your written comments. So if  
22 there's anything that you don't understand that we  
23 don't clearly explain to you, please ask so that we  
24 can try to get you that information.

25 The format of the meeting matches the

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

1 objectives in terms of providing information. We're  
2 going to have some NRC presentations for you on  
3 various issues, and I'll go through those in a minute.  
4 And then after each presentation or each two  
5 presentations, we're going to go out to you to see if  
6 you have any questions that we can answer for you.

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

14 And that leads me to the ground rules for  
15 today's meeting, which are very simple. If you want  
16 to say anything, ask a question, please, just signal  
17 me and I'll bring you what the NRC's staff has told is  
18 a wireless microphone. And we'll get you on the  
19 record. If you can just give us your name and  
20 affiliation, if appropriate, and ask your question and  
21 we'll try to get an answer for you. And when we get  
22 to the -- particularly when we get to the formal  
23 comment part of the meeting, I just ask everyone to  
24 try to be as concise as possible so that we can make  
25 sure that we hear from everybody who wants to speak.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

1 I don't think that we have a whole lot of  
2 people this afternoon who want to talk, so that gives  
3 us a little bit more flexibility time-wise. But  
4 usually I use a guideline of five to seven minutes,  
5 but as I've said that's not any sort of a drop dead  
6 guideline because we do have time this afternoon. I  
7 want to just tell you what the agenda is so you know  
8 what to expect, and give you a little bit of an idea,  
9 biography on some of our speakers so that you know what  
10 their expertise is.

11 We're going to start in just a moment when  
12 I'm done with John Tappert, who is right here.

13 And John Tappert is the Chief of the  
14 Environmental Review Section within our Office of  
15 Nuclear Reactor Regulation. And John and his staff  
16 are responsible for overseeing the environmental  
17 reviews that are done, not just on these types of  
18 license renewal applications, but for any issue that  
19 deals with reactors, where the NRC needs to look at  
20 environmental impacts before they make a decision on  
21 a particular issue.

22 In terms of background, John has been with  
23 the NRC for approximately 12 years. He was a resident  
24 inspector and these people are particularly important  
25 to the NRC because they are the ones who are at the

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

1 reactors. They live in the community and they make  
2 sure that NRC requirements are being followed. Before  
3 that, he was in the nuclear Navy. He has a bachelor's  
4 degree in Aerospace and Oceanographic Engineering from  
5 Virginia Tech and a master's degree in Environmental  
6 Engineering from Johns Hopkins University.

7 John is going to give us a short welcome  
8 and then we're going to go to two members of the NRC  
9 staff who are going to give you an overview of the  
10 license renewal process.

11 The first person that we're going to hear  
12 from is Mr. Russ Arrighi, who is right here. He's the  
13 project manager for the safety review on the Ginna  
14 License Renewal Application.

15 And then we're going to go to Bob Schaaf  
16 who is the project manager on the environmental  
17 review, which is the specific focus of today's  
18 meeting. Then we'll go on to you for any questions  
19 that you might have about process.

20 In terms of Russ' background, he's been  
21 with the NRC for about 14 years. He was also a  
22 resident inspector. Like John, Russ was at the  
23 Millstone Power Plant in Connecticut and also the  
24 Pilgrim Power Plant in Massachusetts. Before the NRC,  
25 he was at the Norfolk Naval Ship Yard as a test

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701



1 engineer, and he has a bachelor's in chemical  
2 engineering from the University of Rhode Island, and  
3 we'll have Russ up there in a minute.

4 Bob Schaaf is right here and Bob has been  
5 with the NRC for about 13 years also. He has served  
6 as project manager in our office of Nuclear Reactor  
7 Regulation in operating reactors in the environmental  
8 section. He also worked at the Naval Ship Yard, the  
9 Charleston Naval Ship Yard in engineering and he has  
10 a bachelor's in mechanical engineering from Georgia  
11 Tech.

12 So after we get done with process, we're  
13 going to focus on the heart of the discussion today  
14 and that is the findings in the draft environmental  
15 impact statement. And to present that, we have Duane  
16 Neitzel who is right here. And Duane is the team  
17 leader for the group of expert scientists that the NRC  
18 has doing the environmental review for the Ginna  
19 Plant. Duane is a fish biologist. He's been with  
20 Pacific Northwest Lab for about 32 years. He has a  
21 bachelor's in zoology from the University of  
22 Washington and a Master's in Biosciences from  
23 Washington State? Washington State University.

24 After Duane is done, we'll go back out to  
25 you again for questions and then we're going to go to

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

1 a special subject in the draft environmental impact  
2 statement, and that's something called severe accident  
3 mitigation alternatives. And they're called SAMAs.  
4 We have Mark Rubin from the NRC staff with us who is  
5 going to do that presentation. And Mark is a Section  
6 Chief in the probabilistic safety assessment branch,  
7 again, Office of Nuclear Reactor Regulation at the  
8 NRC. And he's been at the NRC for 27 years, primarily  
9 working in something that's called probabilistic risk  
10 assessment, and I think when you hear from Mark today  
11 you'll get a better understanding of what that  
12 particular expertise is. He has a Master's and  
13 Bachelor's of Science in Nuclear Engineering from the  
14 University of California in Los Angeles, UCLA. He's  
15 a member of the American Nuclear Society, the  
16 Probabilistic Risk Assessment Standards Committee.

17 With that, I would just like to thank you  
18 all for being here. We have a lot of experts from the  
19 NRC and our expert consultants. We have people from  
20 our Office of General Counsel. I would just urge you  
21 to after the meeting, if you have questions, get to  
22 know them, talk to them. And keep in touch, if you  
23 have questions or concerns. We'll give you some phone  
24 numbers and addresses today and we do have something  
25 called an evaluation form. I think formally it is

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

1 called a feedback form where we try to find out how  
2 we're doing in public meetings. So it is at the back  
3 table and if you could just fill it out and leave it  
4 with us if you're so inclined. It already has a  
5 metered stamp so to speak on it. You can just drop  
6 them in a mailbox.

7 And with that, I'm going to ask John to  
8 come up and welcome.

9 MR. TAPPERT: Thank you, Chip. Good  
10 afternoon and welcome. As Chip said, my name is John  
11 Tappert and I'm the Chief of the Environmental Section  
12 in the Office of Nuclear Reactor Regulation. And on  
13 behalf of the Nuclear Regulatory Commission, I would  
14 like to thank you for taking time out of your  
15 afternoon today and participating in our process.

16 I would like to briefly go over the agenda  
17 and purposes of today's meeting.

18 First of all, we're going to provide a  
19 brief overview of the entire license renewal process.  
20 Now this includes both a safety review, as well as  
21 the environmental review, which will be the principal  
22 focus of today's meeting. Then we're to provide you  
23 the results of our environmental impact statement that  
24 was developed to assess the impacts associated with  
25 extending the operating license of the Ginna nuclear

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

1 power plant for an additional 20 years.

2 Then we'll provide you some information  
3 about the balance of our review schedule and how you  
4 can submit comments after today's meeting, and then  
5 the most important part of today's meeting, which is  
6 to receive any comments that you may have today on our  
7 draft and environmental impact statement, or EIS.

8 But first I'd like to provide some general  
9 context on the license renewal program and why we're  
10 here today.

11 Next slide.

12 (Slide change.)

13 MR. TAPPERT: The Atomic Energy Act gives  
14 the NRC the authority to issue operating licenses to  
15 commercial nuclear power plants for a period of 40  
16 years. For the Ginna nuclear power plant, that  
17 operating license will expire in 2009. Our  
18 regulations also made provision is for extending that  
19 operating license for an additional 20 years as a part  
20 of a license renewal program and RG&E has requested  
21 renewal for Ginna.

22 As part of the NRC's review of that  
23 application, we developed an environmental impact  
24 statement. As part of that environmental impact  
25 statement process, we held a public meeting here last

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

1 fall to seek early public input in our review. As we  
2 indicated at that earlier scoping meeting, we returned  
3 here now today to present the findings in our draft  
4 environmental impact statement. And again, the  
5 principal purpose of today's meeting is to receive  
6 your comments on that draft.

7 With that brief introduction, I'd like to  
8 ask Russ to provide some more insights on this safety  
9 review.

10 MR. ARRIGHI: Thank you, John. As John  
11 mentioned my name is Russ Arrighi. I'm the project  
12 manager for the safety review of Ginna's license  
13 renewal application. Before discussing the license  
14 renewal process and the safety review, I'd like to  
15 talk a little bit about the NRC, the Nuclear  
16 Regulatory Commission and its role in licensing and  
17 regulating nuclear power plants. The Atomic Energy  
18 Act of 1954 authorized the NRC to regulate civilian  
19 use of nuclear material. The NRC mission is  
20 threefold, to ensure the adequate protection of public  
21 health and safety, to protect the environment, and to  
22 provide for common defense and security.

23 NRC consists of five commissioners, one of  
24 whom is a chairman. They're also with the NRC staff.  
25 The regulations enforced by the NRC are issued under

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

1 Title 10 of the Code of Federal Regulations, which we  
2 call 10 CFR. Excuse me.

3 As John mentioned, the Atomic Energy Act  
4 provided for a 40-year license term for power  
5 reactors. But it also allowed for license renewal.  
6 The 40-year term is based primarily on economic and  
7 anti-trust considerations rather than safety  
8 limitations.

9 As a result, some of the components  
10 weren't designed to operate, designed to last greater  
11 than 40 years. And operating experience demonstrated  
12 that some major components such a steam generators  
13 didn't last that long. For that reason, a number of  
14 utilities had to replace major components, and since  
15 components and structures can be replaced or  
16 reconditioned, a plant's life is really determined by  
17 economic factors.

18 Again, the operating license for Ginna  
19 expires in September 2009. Rochester Gas and Electric  
20 Corporation has applied for and requests authorization  
21 to operate Ginna up to an additional 20 years.

22 Now I'd like to talk about license  
23 renewal, which is governed by the requirements of 10  
24 CFR part 54 or the license renewal rule. This part of  
25 the code of federal regulations defines the regulatory

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

1 process by which a nuclear utility applies for license  
2 renewal. The license renewal rule also incorporates  
3 10 CFR part 51 by reference. This part of the code  
4 provides for preparation of an environmental impact  
5 statement. The license renewal process involves a  
6 safety review and environmental impact evaluations,  
7 plants inspections, and are reviewed by the Advisory  
8 Committee on Reactor Safeguards, or ACRS.

9 The ACRS is a group of scientists and  
10 nuclear experts who serve as a consulting body to the  
11 Commission. The ACRS performs an independent review  
12 of the application in the staff's safety evaluation.  
13 And they report their findings and recommendations  
14 directly to the Commission.

15 Next slide, please.

16 (Slide change.)

17 MR. ARRIGHI: The next slide illustrates  
18 a two parallel process for license renewal. The top  
19 part talks about the safety review, which I'm the  
20 project manager for and the bottom section talks about  
21 the environmental review which Bob Schaaf will discuss  
22 later.

23 The safety review involves the staff's  
24 review of the technical information in the  
25 application. To verify with reasonable assurance that

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

1 the plant can continue to operate safely during the  
2 extended period of operation. The staff assesses how  
3 the applicant proposes to monitor or manage the aging  
4 applicable to passive long-lived structures and  
5 components that are within the scope of license  
6 renewal and documents its assessment of the  
7 effectiveness of the Applicant's programs in the SER.

8 So we do the review, the safety review,  
9 and we put out an evaluation in a safety evaluation  
10 report.

11 Now the current regulation is adequate for  
12 addressing active components, such as pumps and  
13 valves, which are continually challenged to reveal  
14 failures and degradation such that corrective actions  
15 can be taken to resolve them. The current regulations  
16 are also adequate to also address other aspects of the  
17 original license such as security and emergency  
18 planing. These current regulations also apply during  
19 the extended period of operation.

20 The ACES then would get the safety  
21 evaluation report where they do an independent review  
22 and again, they review the application and they  
23 provide their report directly to the Commission. The  
24 safety review also includes inspections, on-site  
25 inspections by the regional -- I'm sorry. The safety

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701



1 review process also involves two or three inspections  
2 which are documented in NRC inspection reports, and  
3 they're performed by regional inspectors. Again, at  
4 the bottom of the slide of the environmental review  
5 process, the environmental review which involves  
6 scoping activities, preparation of a draft supplement  
7 to the generic environmental impact statements,  
8 solicitation of public comments on the draft  
9 supplement, and then the issuance of a final  
10 supplement to the generic environmental impact  
11 statements, and Bob Schaaf will discuss that further.

12 The decision to renew an operating  
13 license, the NRC considers the safety evaluation  
14 report, the ACRS report, the inspection reports, and  
15 also the NRC Regional Administrator's recommendation.  
16 Again, the Regional Administrator is aware of the day  
17 to day operation of the plant and he has an input and  
18 a say on whether or not the license should be renewed.

19 The license renewal process also allows  
20 for hearings. In September of 2002, the NRC issued a  
21 Federal Register notice to announce its acceptance of  
22 RG&E's application for renewal. Its notice also  
23 announced the opportunity for public participation in  
24 the process. There were no petitions to intervene,  
25 no petitions were received by the staff.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

1                   This concludes my summary, and now I'd  
2                   like to turn the mic over to Bob Schaaf.

3                   MODERATOR CAMERON: Okay, thank you very  
4                   much Russ. And we're going to Bob and then we're  
5                   going to go out to you for questions. We're getting  
6                   some static on the transcript with this mic so why  
7                   don't you try this one and we'll see if that's better.  
8                   Bob Schaaf, the environmental review..

9                   MR. SCHAAF: Thank you, Jim. Thank you,  
10                  Russ. I'd like to welcome everyone this afternoon.  
11                  Your participation is appreciated. It is an important  
12                  component of our environmental review process.

13                  Once again, my name is Bob Schaaf. I'm  
14                  the environmental project manager for the Ginna  
15                  license renewal application. I'm responsible for  
16                  coordinating the efforts of the NRC staff and the  
17                  contractors from the national labs to conduct and  
18                  document the review of RG&E's application for license  
19                  renewal at Ginna.

20                  NEPA, the National Environmental Policy  
21                  Act was enacted in 1969. The act requires all federal  
22                  agencies to use the systematic approach to consider  
23                  environmental impacts during certain decision making  
24                  proceedings regarding major federal actions. NEPA  
25                  requires that we examine the environmental impacts of

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

1 proposed actions and consider mitigation measures,  
2 which are actions that can be taken to decrease any  
3 environmental impacts identified.

4 NEPA also requires that we consider  
5 alternatives to the proposed action and that we  
6 evaluate the impacts of those alternatives. Finally,  
7 NEPA requires that we disclose all of this information  
8 and that we invite public participation to evaluate  
9 it.

10 The NRC has determined that it will  
11 prepare an environmental impact statement for requests  
12 to renew plants' operating licenses. Therefore,  
13 following the process required by NEPA, we have  
14 prepared a draft environmental impact statement that  
15 describes the impacts associated with operation of  
16 Ginna for an additional 20 years.

17 The draft environmental impact statement  
18 was issued at the end of June. The meetings today are  
19 being held to provide an overview of our preliminary  
20 conclusions and to receive your comments on the draft.  
21 This slide describes the objective of our  
22 environmental review as defined in our regulations.  
23 Simply put, we're trying to determine whether the  
24 renewal of the Ginna license is acceptable from an  
25 environmental standpoint, whether or not that option

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

1 is exercised, that is, whether or not the plant  
2 actually operates for the additional 20 years, will be  
3 determined by others, such as RG&E and state  
4 regulatory agencies. It will also depend on the  
5 outcome of the safety review described previously by  
6 Russ.

7 (Slide change.)

8 MR. ARRIGHI: This slide shows with a  
9 little more detail the process for environmental  
10 review of the Ginna license renewal application. We  
11 received the application at the end of July of last  
12 year. We issued a notice of intent, which was  
13 published in the Federal Register in October of last  
14 year. This notice informed the public that we were  
15 going to prepare an environmental impact statement,  
16 also referred to as an EIS, and invited the public to  
17 provide comments on the scope of our environmental  
18 review.

19 In November of last year, during that  
20 scoping period, we held two public meetings in this  
21 area to receive public comments on the scope of issues  
22 that should be included in the EIS for the Ginna  
23 license renewal. Also in November, while we were here  
24 for the public meetings, we went to the Ginna site  
25 with the team of NRC staff and personnel from several

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

1 of the national laboratories with backgrounds in the  
2 specific technical and scientific disciplines required  
3 to perform our environmental review.

4 We familiarized ourselves with the site,  
5 met with RG&E staff to discuss the information  
6 submitted in their license renewal application. We  
7 reviewed environmental documentation maintained at  
8 site and we examined RG&E's environmental evaluation  
9 process. In addition, we contacted federal, state,  
10 and local officials, local service agencies, and  
11 Native American tribes with potential historical ties  
12 to the plant area to gather information for our  
13 review.

14 At the close of the scoping comment  
15 period, we gathered up and considered all of the  
16 comments that we received. Many of these comments  
17 contributed to the document we are here to discuss  
18 today. In December of last year, we issued requests  
19 for additional information to ensure that any  
20 information that we relied on in preparing our draft  
21 impact statement and that had not been included in the  
22 original application was submitted for the public  
23 record. At the end of June of this year, we issued  
24 the draft environmental impact statement for public  
25 comment.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

1           This was issued to supplement 14 to the  
2 generic environmental impact statement regarding  
3 license renewal, because we rely on the findings in  
4 the generic impact statement for part of our  
5 conclusions. Duane Neitzel will provide additional  
6 detail about the relationship between the generic  
7 impact statement and the Ginna supplement as part of  
8 his presentation.

9           The fact that we refer to the supplement  
10 as a draft does not mean that it is incomplete. It is  
11 considered a draft because we are at an intermediate  
12 stage in our decision making process. We're in the  
13 middle of a second public comment period to allow you  
14 and other members of the public, as well as state and  
15 federal agencies, to review our preliminary findings  
16 and conclusions and provide any comments you may have  
17 on the report. After we gather these comments and  
18 evaluate them, we may find that we need to change  
19 portions of the environmental impact statement based  
20 on those comments.

21           The NRC will make any necessary changes  
22 and then issue a final environmental impact statement  
23 related to license renewal for Ginna. Currently, our  
24 goal is to issue that document in February of next  
25 year.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

(202) 234-4433

(202) 234-4433

1                   This concludes my overview of the  
2 environmental review process. We can now entertain  
3 any questions regarding the processes described by  
4 Russ and myself.

5                   MODERATOR CAMERON: Okay, great. Thank  
6 you. Thank you, Bob. Thank you, Russ. Do we have  
7 some questions on process before we get into the  
8 substance of the draft environmental impact statement?  
9 If there's anything that isn't clear, please ask and  
10 we can always go back for questions after the formal  
11 comment period too if something comes up. Okay,  
12 great.

13                   Well, let's hear about the findings in the  
14 draft environmental impact statement.

15                   Duane, are you ready?

16                   MR. NEITZEL: Yes.

17                   MODERATOR CAMERON: All right. And this  
18 is Duane Neitzel.

19                   MR. NEITZEL: Thank you. My name is  
20 Duane Neitzel. I am the laboratory lead for the  
21 development of the supplemental environmental impact  
22 statement for the license renewal at Ginna. I'm  
23 responsible for coordinating the efforts of the staff  
24 in the national labs in the conducting of this review.  
25 I'm going to discuss the information gathering process

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

1 that we used, the composition of the review team, and  
2 the process we used for review, the information in the  
3 applicant's environmental review report, and then  
4 discuss some of the results and discuss the results of  
5 the supplemental EIS.

6 If you look at in the middle of this  
7 graphic here, we refer to the SEIS. That's a  
8 supplement to another impact statement that has been  
9 developed, which is the generic environmental impact  
10 statement for license renewal. That impact statement  
11 has been prepared, reviewed, and accepted by and  
12 published by the NRC.

13 As we go to each one of the power plants  
14 that request a renewal of their license, then we  
15 supplement that GEIS and for brevity we call it the  
16 SEIS. And so I'll be referring to the SEIS, which is  
17 the supplement to the GEIS throughout my talk.

18 You see the arrows pointing to the SEIS?  
19 That's where we get the information. The license  
20 renewal application, this was prepared by Rochester  
21 Gas and Electric. Part of that license renewal  
22 request included an environmental report. They looked  
23 at all these issues that we looked at. They provided  
24 information about their operations, about the  
25 environment, and about those effects. That was a big

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701



1 part of the information that we had to review. We  
2 also, the staff audit was mentioned. The NRC staff  
3 and the National Laboratory staff went to the site,  
4 looked at the facility, looked at the operations,  
5 looked at records. We did that last November.

6 We took that information. That went into  
7 the SEIS. Your comments from the scoping meeting and  
8 from other comments that were sent in were considered.  
9 We also met with state and local agencies, some  
10 federal agencies related to the management of these  
11 resources in this area. Got their comments, asked  
12 them what their concerns were on each of those issues.  
13 Then we put that information together.

14 Next slide, please

15 (Slide change.)

16 MR. NEITZEL: This is to give you some  
17 idea of the team that was brought together to evaluate  
18 each one of these issues. We had scientists and  
19 engineers that are experts in atmospheric sciences,  
20 land use, aquatic and terrestrial ecology, radiation  
21 protection, hydrology and water quality, socio-  
22 economics, historic and archeological resources. All  
23 these individuals reviewed this material. Some of  
24 them are here tonight or this afternoon and they are  
25 here to answer your questions, discuss the review with

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

1 you, and talk to you, if you have any questions.  
2 They'll be around. They have a tag on like this and  
3 with their name and identifying them as members of the  
4 Pacific Northwest National Laboratory.

5 Next slide.

6 (Slide change.)

7 MR. NEITZEL: Some more on the process  
8 that we used and back to these words, GEIS and SEIS.  
9 The generic environmental impact statement looks at a  
10 whole range of activities, issues, and come up with 92  
11 different aspects of operation in the environment that  
12 needs to be assessed, looked at those and ended up  
13 with two categories. Category one issues and category  
14 two issues.

15 Category one issues are impact statements  
16 where we've looked at the potential impact at all the  
17 plants operating in the United States and come to the  
18 conclusion that no matter where you are that you get  
19 the same impact statement.

20 There are a little over 20 of those that  
21 are category two issues. There it was determined that  
22 you could not say that the impact statement is going  
23 to be the same at every site. And those were then  
24 determined that you had to do a site-specific analysis  
25 to address those. So we had these category one,

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

1 category two issues. These issues were not ignored  
2 when we looked at the site-specific information at  
3 Ginna. They're all there. It's just that this  
4 category one, category two helps us focus on those  
5 issues specific to Ginna.

6 One of the other things that I'm going to  
7 be talking about a little bit more is we did look for  
8 new information that might say that this impact  
9 statement needs to be further evaluated and go into a  
10 site specific evaluation. So this process leads to  
11 this site-specific performance.

12 We also looked for new issues -- is there  
13 something out there in the 90 some issues that have  
14 been listed and identified and available for you to  
15 look at? Is there something new here, something we  
16 haven't seen before and does that need to be  
17 evaluated, yes or no. But all that information then  
18 goes into our analysis.

19 Next slide.

20 (Slide change.)

21 MR. NEITZEL: When we looked at these  
22 issues, looked at the operations, looked at the  
23 possibility of 20 more years of operation, then we  
24 have to say what is the level of impact. And we used  
25 three impact levels in our conclusions, small,

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

1 moderate, and large. These definitions are consistent  
2 with the Council on Environmental Quality and NEPA  
3 guidance. The NRC regulations have specific metrics  
4 and definitions of how for each of these activities  
5 how they can be rated as small, moderate, or large.

6           Quickly, the small impacts are you can't  
7 see any change from this activity and there is no long  
8 term or deleterious to that resource. Moderate is you  
9 might be able to see a change, but it is not going to  
10 have an impact on that, deleterious long term effect  
11 on that resource. And the large impacts are you can  
12 see the impact, you can measure it, and it does  
13 actually change the, has the potential to change that  
14 resource. The example that I always like to deal with  
15 is fisheries because that's my background. If one of  
16 these activities at the site you could actually  
17 measure changes in the population or changes in the  
18 habitat from withdrawing water or discharging heated  
19 water, but it wasn't changing the population. There  
20 was a lot of habitat. The habitat of the area wasn't  
21 totally effected. You could see that change, but that  
22 would be a moderate impact.

23           If you couldn't see them, couldn't measure  
24 that change, and there was no long term impacts that  
25 would be small. Large is where you could actually see

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

1 numbers of fish being taken out of the environment or  
2 significant parts of the habitat being changed. So  
3 there wasn't available to these fish and that was  
4 going to have a long term impact on the population,  
5 then that would be a large impact.

6 But for each of these categories, for  
7 socio-economic, environmental justice, radiation  
8 worker protection, each of these we went through and  
9 looked at is that impact small, moderate, or large.  
10 So the next slide

11 (Slide change.)

12 MR. NEITZEL: I'm going to talk about some  
13 of these categories, I wish I had a slide here and for  
14 the next time I do this, but it's in the draft that we  
15 brought along. I wish I had listed all 92 of those  
16 issues because I'm not dismissing them, I'm trying to  
17 keep this focused on a few of the items and how we do  
18 this. This list of all 92 issues and which ones are  
19 category one and which ones are category two are  
20 available here, summarized, we can talk about that.  
21 So I'm not ignoring other things. I'm just focusing  
22 for this discussion on what we're going to talk about.

23 One other point I want to make real  
24 quickly is when I talk about conclusions, those are  
25 really preliminary conclusions. This is a draft.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

1 These conclusions are going to be reviewed further.  
2 So the conclusions of the staff will come out in the  
3 final SEIS, not here. So if I say conclusion, here  
4 preliminary ~~conclusion~~.

5 I guess next I'm going to focus on the  
6 cooling system and how we evaluated that and looked at  
7 that. So would you go to that?

8 (Slide change.)

9 MR. NEITZEL: Here's a picture, a north  
10 facing picture of the plant, the lake out here. Water  
11 is withdrawn from the lake and discharged into the  
12 lake, and we looked at the issues related to  
13 entrainment, impingement, and heat shock for the use  
14 of that water for operating the plant. And our  
15 preliminary findings are that the impacts from the  
16 cooling water related to each of these issues is small  
17 and that no additional mitigation is required.

18 As Bob mentioned, one of the things we  
19 look at is are these resources being impacted and are  
20 potential impacts for these resources, is the  
21 operation occurring in such a way that those impacts  
22 are mitigated or lessened?

23 When water is withdrawn into the system  
24 here, there is a series of screens to keep debris and  
25 stuff out. Fish can potentially get entrained in that

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

1 water, impinged on that screen. Are those screens  
2 operated in such a way, are the gaps in the screen  
3 such that they minimize or eliminate the fish that are  
4 killed or entrained or impinged?. Those are  
5 mitigation activities and we reviewed those things.

6 The placement of the intake structure, is  
7 that such to minimize the entrainment of fish? Is the  
8 placement of the heated water discharge such to  
9 minimize impacts to fishery habitat? And we've  
10 concluded that there is no additional mitigation  
11 required related to the issues withdrawing cooling  
12 water. And so we did this kind of thing for each one  
13 of those issues, went through and made these kinds of  
14 determinations and looked at mitigation.

15 The next example that I want to talk about  
16 is the radiological impacts. This is a category one  
17 issue. You get to the same conclusion for all plants  
18 and so the site's specificity is related back to the  
19 generic environmental impact statement. But because  
20 it is often a concern of the public, I'm going to take  
21 just a minute and discuss how we determine that  
22 there's no new information that is related to the  
23 radiological impacts for the plants. And we looked at  
24 the radiological effluent release monitoring program  
25 during our site visit. We looked at how the gasses

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

1 and liquid effluents were treated and released.

2 Then we also looked at the solid waste,  
3 which is not released. It is treated, packaged, and  
4 shipped elsewhere for disposal. This information is  
5 in the SEIS, in the draft SEIS, and we looked at how  
6 the applicant, RG&E, how they determined and  
7 demonstrated their compliance with these regulations.  
8 We looked at five years of records, reviewed them with  
9 the applicant and then they gave us access to those  
10 records and we reviewed them in the draft SEIS, and we  
11 looked at the how the applicant, RG&E, how they  
12 determined and demonstrated their compliance with  
13 these regulations. We looked at five years of  
14 records, reviewed them with the applicant and then  
15 they gave us access to those records and we reviewed  
16 them.

17 Our expert from Lawrence Livermore looked  
18 at those records independently and reviewed them and  
19 looked at these things, came up with the no new  
20 significant information, no change from the conclusion  
21 that's in the GEIS. Thank you.

22 Another area that was in that flow chart  
23 that's really important that I want to talk about is  
24 new information and whether new information that we  
25 find is significant. This is something, this is not

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701



1       only something that we look for, but NRC staff looks  
2       for this, the applicant and their staff is constantly  
3       looking for new information, and that's one of the  
4       reasons and one of the things the we discussed at the  
5       scoping meeting is do you have new information that we  
6       should look at?

7               This is something we looked at with the  
8       state agencies and the federal agencies and said do  
9       you have new information? And one of the things that  
10      came up was the, that was brought up by the New York  
11      State Department of Environmental Conservation was the  
12      issues related to the revetment. If you remember that  
13      picture in the, of the shoreline, that shoreline is  
14      protected with riprap and stuff. Somebody at one of  
15      the meetings says well, is there a differential  
16      erosion of that shoreline beyond that revetment? Is  
17      there or could the revetment cause a change in the  
18      rate of erosion related to the areas that aren't  
19      protected and stuff?

20             Well, that sounded like new information.  
21      It sounded like something new and it could potentially  
22      effect the land use or aquatic environments,  
23      terrestrial environments. So we looked at that, the  
24      licensee looked at that, did a survey. We discussed  
25      this with the state agencies that brought this up and

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

1 we reviewed the information about the shoreline  
2 erosion and the design of the revetment at Ginna. And  
3 the staff preliminary concludes that the comments made  
4 by the New York State Department and Environmental  
5 Conservation do not represent information that would  
6 call into question the Commission's conclusion  
7 regarding GEIS category one issues and that the  
8 impacts on the aquatic and terrestrial resources and  
9 land use from the continued operation of GEIS are  
10 small and that additional plant specific mitigation  
11 measures are not warranted at this time.

12 So that's part of the process and one of  
13 the issues that we evaluated because of the comment  
14 meetings.

15 Next area of comments are the cumulative  
16 effects. One of the things that is required by NEPA,  
17 required by NRC and their guidance for doing impact  
18 statements is considering impacts of renewal in terms  
19 of past actions, present actions, and foreseeable,  
20 reasonably foreseeable future actions. This was also  
21 brought up at the scoping meeting. Somebody asked  
22 what are you going to do about cumulative impacts?

23 Well, we did and we documented that  
24 assessment in the draft SEIS and would like you to  
25 look at that. We had two concerns there. How do you

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

(202) 234-4433

(202) 234-4433

1 temporarily confine or bracket what you're going to  
2 look at -- not confine, but bracket? And we said  
3 we're going to start with when that site was changed,  
4 when the construction started, when the plant  
5 construction began. And then go 20 years beyond the  
6 license. That would be the foreseeable, the current  
7 is what's going on now and the foreseeable future.

8 Then we had to spatially define what we're  
9 looking at. It turns out that there wasn't one answer  
10 for that because for each one of these resources, it  
11 was different. For the aquatic resources we had the  
12 lake there. That's where the aquatic resources of the  
13 plant are associated with Lake Ontario. And we looked  
14 at that. For the terrestrial environment, we were  
15 very concerned about the transmission corridors and  
16 areas around that for threatened endangered species.

17 We looked at counties around the plant and  
18 whether or not any plants or animals occurred there or  
19 could possibly occur there in the foreseeable future.  
20 For the socio-economic stuff, we looked at the  
21 counties where the people live, that work there, the  
22 traffic patterns, you know where they drive their cars  
23 to and from work, where the taxes are paid to which  
24 counties, and stuff and looked at those cumulative  
25 effects.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

1           After we looked at all these things, we  
2           found no significant cumulative impacts and no need  
3           for any further mitigation related to that.

4           Next slide please.

5           (Slide change.)

6           MR. NEITZEL: Two other things we looked  
7           at were the uranium fuel cycle and solid waste  
8           management and decommissioning. Environmental issues  
9           associated with the fuel cycle and solid waste  
10          management were discussed in the generic environmental  
11          impact statement for license renewal. The staff did  
12          not identify any new information on this issue during  
13          its independent review of Ginna, the visit or the  
14          scoping process or for comments and for all of these  
15          issues related to the fuel cycle and waste management,  
16          the staff concluded that the impacts are small and  
17          that no new mitigation is required.

18          Decommissioning, again, the NRC has an  
19          impact statement related to decommissioning. We  
20          looked at that and how that relates specifically to  
21          Ginna. These are the impacts that may occur after the  
22          plant is shut down. And again, we saw no differences  
23          from that generic impact statement. There was no new  
24          information and nothing to change the impact  
25          statements that are in the GEIS.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

1 Next slide.

2 (Slide change.)

3 MR. NEITZEL: Second to the last slide in  
4 case you're wondering. One of the things that is  
5 required again by CQ, NEPA, and NRC is when you look  
6 at a proposed action, you have to look at  
7 alternatives. The most important one here is the no  
8 action. No action is defined by not renewing the  
9 license. That's what we looked at and then  
10 alternative energy sources. These are alternatives to  
11 the license renewal. We looked at new generation,  
12 purchases, oil, wind, solar generation, conservation,  
13 and then importantly combinations of those  
14 alternatives.

15 Again, for each one of these we review  
16 each of these issues in aquatic, terrestrial, socio-  
17 economic, went through that list each time and  
18 compared the proposed action and the alternatives to  
19 the no action to look at that.

20 Last slide

21 (Slide change.)

22 MR. NEITZEL: And the preliminary  
23 conclusions for the alternatives, the alternatives  
24 including the no action alternatives may have  
25 environmental effects in at least some impact

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

1 categories that reach moderate or large significance.  
2 And this is all compared across, and those comparisons  
3 in a table of each one of those is in the GEIS. So at  
4 this time, Chip, I've concluded.

5 MODERATOR CAMERON: Thank you, that was a  
6 great summary. Let's see if anybody has some  
7 questions for you on the preliminary conclusions, as  
8 you pointed out.

9 Any questions on the analysis that was on  
10 the draft environmental statement?

11 MR. NEITZEL: There's one there in the  
12 back, Chip.

13 MODERATOR CAMERON: Ah, good.

14 MR. NEITZEL: And one over here too.

15 MODERATOR CAMERON: Okay, let's go back  
16 here and then go over there. If you could just give  
17 us your name, sir?

18 DR. LOOMIS: Hi, I'm Dr. Norm Loomis, Town  
19 Health Officer, also live on the lake, used to live  
20 directly across from the plant. Similar studies were  
21 done prior to building the plant in 1969, when it  
22 opened in 1969 or 1970. Were there any changes from  
23 their conclusions to those at this time in your  
24 studies?

25 MODERATOR CAMERON: Thank you, Dr. Loomis.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

1 MR. NEITZEL: Yes, do you want to address  
2 that, Bob?

3 MR. SCHAAF: I think the answer there  
4 would be that yeah, there is a different in the  
5 conclusions. The original study looked at the impact  
6 of actually building a facility taking a greenfield,  
7 so you're going to have some impacts associated with  
8 that and then this study looks at the incremental  
9 impact of the additional term of operation. You've  
10 got this plant in place. It's operating. It's having  
11 whatever impacts the original study suggested it would  
12 have and what we're focusing on here is the  
13 incremental effect of allowing the plant to continue  
14 to operate versus ceasing operation at the end of its  
15 license term.

16 MODERATOR CAMERON: Does that get to your  
17 point, Dr. Loomis or would you like to clarify at all?

18 DR. LOOMIS: It gets to the end of it, but  
19 were there any surprises? Were there any changes in  
20 the environmental stuff relating to the lake and the  
21 surrounding area from that earlier study?

22 MODERATOR CAMERON: This is Mr. Mike  
23 Masnik from the NRC Staff.

24 MR. MASNIK: Mike Masnik. Much of the  
25 effort back then was predictive and it was based on

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

1 the environmental conditions at the time. As we all  
2 know, for example, the lake has changed, species,  
3 composition of fish and such, but overall the  
4 conclusions on impact to the environment that were  
5 predicted seemed to be borne out by the studies  
6 conducted since then and what we found in our  
7 evaluation last fall.

8 MODERATOR CAMERON: Okay, great. Thank  
9 you. Let's go over here to Mr. Tim Judson. And Tim,  
10 please introduce yourself to us.

11 MR. JUDSON: Yes, my name is Tim Judson.  
12 I'm with the Citizens Awareness Network in Central New  
13 York. I guess I have two questions. I guess I could  
14 ask them both at the same time. One has to do with  
15 this issue about the radiological impacts. And doing  
16 that evaluation, did the NRC actually look at public  
17 health data in terms of the level of disease in the  
18 communities that you know are in the effluent pathway  
19 of the reactor?

20 MODERATOR CAMERON: Did you have a second  
21 question too?

22 MR. JUDSON: The second question has to do  
23 with high level waste storage and whether the study  
24 actually looked at the incremental effect of  
25 generating I think it is up to 250 tons more high

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701



1 level radioactive waste spent fuel that would need to  
2 be stored in the community?

3 MR. NEITZEL: Okay, Rich, are you going to  
4 address the questions?

5 MODERATOR CAMERON: This is the first  
6 question that Tim raised relates to what I think are  
7 commonly referred to as epidemiology studies to see  
8 what types of health effects there are in a community,  
9 and Mr. Rich Emch is a health physicist with the NRC  
10 who perhaps can shed some light on that generally.  
11 And if we know anything specifically about what's been  
12 done in New York or this region that would be helpful.

13 Rich? All right. And then Tim may have  
14 a follow up on that after you get done.

15 MR. EMCH: As I understand it, well,  
16 actually, the most direct answer that there was no new  
17 examination of health studies in the area around Ginna  
18 as part of this review process. However, and as far  
19 as I know, that's true both for the state and for us.  
20 We didn't do any new studies. However, we do rely on  
21 there's some studies that's been done in the past and  
22 mainly though it is an issue of we did look at what  
23 kinds of effluence, what kinds of doses there might be  
24 from the -- am I still not close enough?

25 We did look at what kinds of effluence are

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

1 being released from the plant and what kinds of doses  
2 could be estimated from those releases, and those are  
3 very small. And from that, the inference is no, we  
4 did not need to go do or did not need to go examine  
5 additional health studies and sort of thing. The  
6 doses at which damage has been found, if you will,  
7 impacts have been found, they're in the range of say,  
8 10,000 millirem. I'm using that particular thing  
9 because I'm going to kind of walk our way down through  
10 here.

11 Studies like the Bier report,  
12 international studies have shown that there are  
13 impacts, health impacts, above say 10,000 millirem.

14 In fact, there's been many studies,  
15 literally thousands of studies of the impact of  
16 radiation on human health, and none of those studies  
17 have shown impacts at the lower doses, the kinds of  
18 doses we're going to be talking about here. As a  
19 member of the human race living on this planet, we all  
20 receive somewhere in the neighborhood of 300 millirem  
21 a year from various -- a naturally occurring  
22 radionuclides and things like that. So you know we're  
23 starting off with 10,000 is the place where impacts  
24 have been seen. Now we're done to what we all receive  
25 every year, which is the 300.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

1           The NRC's regulations for effluence from  
2           nuclear power plants allow doses in the range from 5  
3           to 10 millirem per year from operational plant. And  
4           in fact, after looking at the effluent data for this  
5           plant, the doses from gaseous and liquid effluence  
6           from this plant to the maximally exposed individual  
7           are well below one. They're in the range of a 10th of  
8           a millirem or less. So at those doses, there was no  
9           reason to believe that anything additional need to be  
10          looked at as far as health consequences. Does that  
11          answer your question?

12                 MR. JUDSON: Well, it does. I mean, my  
13           question was just whether you actually looked at the  
14           data on the levels of disease in the community, and it  
15           sounds like you didn't.

16                 MR. EMCH: That's correct.

17                 MODERATOR CAMERON: And the NRC, if there  
18           were studies that showed that there were increases in  
19           cancer or something like that in the community, that  
20           would be the type of information that you wouldn't  
21           want to know about.

22                 MR. EMCH: We were not made aware of  
23           anything like that. If there is such information, we,  
24           of course, would be very interested in seeing it, yes.

25                 MODERATOR CAMERON: And we did check with

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

1 the state, New York State Department who usually deals  
2 with that.

3 MR. EMCH: Yes, that's correct.

4 MODERATOR CAMERON: All right. Tim,  
5 before we go to the high level waste question, do you  
6 want to add anything on this? Okay.

7 Spent fuel storage, John Tappert?

8 MR. TAPPERT: The question I had was the  
9 additional waste only generated during the renewal  
10 period evaluated? And when Duane was going through  
11 the original structure of how we do these reviews, he  
12 talked about the generic environmental impact  
13 statement that looked at generic issues and then site  
14 specific issues. The waste that will be associated  
15 with an additional 20 years of operation is a generic  
16 issue. That will be similar impacts at all the  
17 operating power plants.

18 So in fact, it was evaluated, but it was  
19 evaluated in that generic environmental impact  
20 statement. And during our review, we did not identify  
21 any additional new and significant information that  
22 would challenge those earlier assessments.

23 Additionally, the Commission has made a  
24 judgment as codified in the regulations that waste can  
25 be safely stored at reactor sites for up to 30 years

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

1 beyond the expiration of the operating license. And  
2 that includes the renewal term. Those are the two  
3 elements that I think address your question.

4 MODERATOR CAMERON: Anything to add onto  
5 that one, Tim?

6 MR. JUDSON: It's curious that you say  
7 that that's a generic issue. Since the Department of  
8 Energy, in doing its own environmental impact  
9 statement about you know, sort of actually moving a  
10 lot of the waste out to Yucca Mountain found that if  
11 you assume that Ginna is going to be relicensed that  
12 in 40 years when Yucca is full and can't accept any  
13 more waste that there's still going to be 102 metric  
14 tons of high level waste sitting at that site. And  
15 you know, if you didn't do the license extension, that  
16 wouldn't be true.

17 Canada does not support Yucca Mountain.  
18 There's a lot of problems with that dump site, but  
19 given that the NRC seems to you know, take Yucca  
20 Mountain going forward into account of a lot of other  
21 things it does, it seems like a really relevant issue  
22 in terms of site-specific impact that if this license  
23 extension goes forward, there's probably going to be  
24 probably at least 100 tons of waste sitting here for  
25 an indeterminate period of time.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

1                   MR. TAPPERT:    Well, when we say it's  
2                   generic, it doesn't mean that's necessarily no impact.  
3                   It's just that the impacts associated with the  
4                   extension at Ginna would be somewhere similar to the  
5                   extension at any other nuclear power plant. And the  
6                   impacts associated with that were consistent and found  
7                   to be acceptable. Now the point that you're making  
8                   that Yucca Mountain that it is not licensed, which it  
9                   is not, but that's a national level decision and the  
10                  Department of Energy and the Congress and the NRC are  
11                  dealing with that.

12                 But the Commission has determined that the  
13                 waste is not in jeopardy right now. It can be safely  
14                 stored on site and that there will be a geological  
15                 repository, be it Yucca Mountain or some other place  
16                 within the first quarter of the century. So that's  
17                 where we are today.

18                 MODERATOR CAMERON: And I know that Tim  
19                 knows about this process that's going on now. But  
20                 perhaps other people might be interested in the fact  
21                 that the NRC is revisiting the generic environmental  
22                 impact statement on license renewal. And I take it  
23                 that Tim's point is that if there's extra spent fuel  
24                 generated because of license renewal, which just  
25                 exacerbates the high level waste problem. Now that's

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

1 the type of issue that this issue would probably be  
2 that you would refer over, also refer over to the  
3 people doing the regional, the revisit.

4 Is that correct, John?

5 MR. TAPPERT: Yes, Chip, and that's a good  
6 point which I should have raised earlier. The  
7 transportation and the fuel cycle issues are addressed  
8 in the generic environmental impact statement. Now as  
9 a policy matter, we're updating that on a 10-year  
10 basis. Now that 10 years is coming up, it expires in  
11 2006. So right now we're actually seeking public  
12 comment through September on issues that should be  
13 addressed in that generic, environmental impact  
14 statement. And there's a license renewal, there's a  
15 website to receive comments on that, and there's other  
16 addresses I can give you as well. So if you're  
17 interested in taking on this category one or generic  
18 issues, that will be the forum to do it.

19 MODERATOR CAMERON: Okay, thank you.  
20 Other questions on the preliminary conclusions in the  
21 draft environmental impact statement at this point?  
22 And again, we can go back after the formal comment and  
23 see if anybody has any other questions at that point.  
24 Why don't we go on to Mark Rubin, and thank you very  
25 much Duane. And Mark is going to talk about severe

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

1 accident mitigation alternatives, and then we'll go  
2 back out for questions and I think Bob Schaaf after  
3 that will tell people how to submit comments and then  
4 we'll go out to you for formal comments. Mark?

5 MR. RUBIN: Thank you, Chip. As Chip  
6 mentioned earlier, I am Section Chief in the  
7 Probabilistic Safety Assessment Branch, which is  
8 nuclear reactor regulation. The Commission has -- am  
9 I tuned in here? I'm a little short for this. As the  
10 Commission has determined that the environmental  
11 assessment for Ginna for all the license renewal  
12 plants, will include a plant specific assessment,  
13 severe accident mitigation alternatives, even though  
14 severe accident risks for all reactors have been shown  
15 to be quite small.

16 Now what's a severe accident? When the  
17 plants are -- and this is very different from the  
18 designed based accidents that the plants were  
19 originally licensed for. When the plants were  
20 originally licensed, they were assessed against  
21 designed basis accidents. They're prescribed sets of  
22 accidents -- they're very complete, very specific,  
23 involving such things as pipe breaks, normally called  
24 loss-of-coolant accidents, equipment failure, most  
25 conservative assumptions in the analysis. And the

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701



1 plants were shown to be very robust, have a lot of  
2 capabilities for surviving these accidents and meeting  
3 very prescriptive accident evaluation criteria.

4 Both the safety and the environmental  
5 impacts were shown to be very small during the  
6 original plant licensing. Since that time, additional  
7 techniques have been developed called the  
8 probabalistic risk assessment, severe accident  
9 assessment, that give us the ability to look at events  
10 that are more complex events that are of a very low  
11 probability. Very low frequency. These go beyond the  
12 types of accidents that were evaluated during the  
13 original plant licensing and the new tools we have  
14 available allow us to mathematically predict the  
15 likelihood, the probabilities and the consequences of  
16 accidents of this kind.

17 These severe accidents, as they're called,  
18 are hypothetical accidents of very low probability,  
19 that can result in rather large damage to the reactor  
20 core and some potential hypothetical off-site  
21 consequences to the public.

22 So how do we do these studies? Techniques  
23 called probabilistic risk assessment are used to model  
24 these hypothetical accidents using mathematical  
25 modeling, computer modeling, to look at very complex,

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

1 very long sequences of equipment failure, what we call  
2 accident initiators, that progress through a lot of  
3 failures to give severe damage to the reactor core.

4 And studies like these are used to  
5 evaluate the severe accident mitigation alternatives,  
6 which are ways to reduce the likelihood of the  
7 consequences of these beyond design basis severe  
8 accidents. If you go on to the next view graph, thank  
9 you.

10 (Slide change.)

11 MR. RUBIN: So how's all this done? How's  
12 this SAMA analysis conducted? Conceptually, it is  
13 rather simple, though the tools and techniques used  
14 are relatively complex. The first step of the process  
15 is to characterize the overall plant risk. What are  
16 the likelihood, what are the consequences of these  
17 severe accidents? And for that, as I've mentioned  
18 before, we used the technique called PRA,  
19 probabilistic risk assessment, which is essentially a  
20 model, an analytical, mathematical model of the plant,  
21 all of the important components, structures, with  
22 failure likelihoods, models, mathematical models of  
23 the success of these systems and how they have to  
24 respond to keep a severe accident from occurring.

25 And these studies will typically give you

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

1 frequencies of various types of severe accidents and  
2 also likelihoods of such things as containment failure  
3 and off-site consequences, as you carry them out to  
4 the extreme of those types of studies that can be done  
5 with our current analytical tools. That would be the  
6 first step in a SAMA analysis process, which is a good  
7 complete, plant specific, probabilistic risk  
8 assessment.

9 The next step in the SAMA analysis is to  
10 identify potential plant improvements based on the  
11 insights that you get from the PRA. And typically,  
12 the assessment that was done by Rochester Gas and  
13 Electric would look at such things as hardware  
14 modifications, procedure changes, training program  
15 improvements, a full spectrum of potential  
16 improvements to the plant and its operating process  
17 and procedures.

18 Typically, what we're looking for in our  
19 assessment of the SAMA process are changes,  
20 modifications, improvements, that would reduce the  
21 likelihood of core damage in a severe accident, or  
22 improve the response of the containment following a  
23 severe accident, so there would be no releases to the  
24 environment.

25 After you've identified the primary set of

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

1 potential improvements, then the real key in doing a  
2 SAMA analysis is to quantify the risk reduction  
3 potential and implementation cost.

4 Again, that's done using a multitude of  
5 analytical tools that attempt to predict and to model  
6 how these improvements will reduce the severe accident  
7 risk. Namely, it will look at the probabilities of  
8 these severe accidents, and there's a whole sequence  
9 of the scenarios that are involved. And these  
10 improvements will result in some, hopefully,  
11 potentially, result in some reduction in the  
12 probability of the severe accidents or their  
13 consequences or containment response.

14 At the same time, you look at the  
15 implementation cost of actually making the changes so  
16 that you can get a sense of what we call cost benefit  
17 assessment. Namely, are the benefits through the  
18 reduction in the severe accident likelihood or  
19 consequences more beneficial than the implementation  
20 costs of doing the improvement? After looking at the  
21 cost benefit results, both the benefits and the costs,  
22 at the end, we'll look at whether the potential  
23 improvements, if any of them are shown to be cost  
24 beneficial, are actually related to a license renewal  
25 type of issue. Namely, something that's an aging

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

1 related degradation type of issue.

2 Go onto the new view graph

3 (Slide change.)

4 MR. RUBIN: The evaluation and SAMA  
5 analysis initially looked at about 200 candidate  
6 improvements, and through a set of very screening  
7 evaluations, winnowed them down to a much more  
8 manageable level, ultimately eight ones that were  
9 given a detailed analysis.

10 Typically, when you do these types of  
11 evaluations, you start out doing a fairly conservative  
12 analysis. You look at what risk you can, residual  
13 risk that the plant has from the severe accident  
14 evaluations that are done. And you make very  
15 simplistic assumptions. If you can make all the risk  
16 in a certain area go away, then that's the maximum  
17 benefit you could get from a category of improvement.

18 So you make some rather simplifying  
19 assumptions when you start out to find out which  
20 candidates would potentially give you a reasonable  
21 amount of benefit. And as these went down a more  
22 complete evaluation process, there were a set of eight  
23 that were given a more detailed, both engineering and  
24 cost benefit evaluation to get a more complete  
25 analytical result, what the benefits were and what the

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

1 costs were.

2 When this was completed, two of the eight  
3 improvements that were subjected to the detailed study  
4 were found to be cost beneficial. Namely, the  
5 reduction in risk that you achieved from implementing  
6 those improvements were more than the cost of doing  
7 them. And what do we mean when we say the benefit?  
8 To calculate the benefit, the PRA model is used with  
9 some off-site dose-consequence models to look at the  
10 potential severe accident impact on both the external  
11 environment, as well as the plant itself.

12 So it is a fairly complete assessment of  
13 the total cost, averted cost is what we call it, of  
14 the severe accident being reduced in probability or  
15 consequences. Both the off-site health impact,  
16 off-site economic impact, and on-site impacts. And  
17 those are all compared with the cost of doing the  
18 improvement to see if it is cost beneficial. The two  
19 that were found to be cost beneficial following this  
20 evaluation was addition of a third diesel generator,  
21 which would be of assistance during what we call  
22 station blackout severe accidents. And that's the  
23 type of accident that postulates that all the multiple  
24 safety systems providing on-site AC emergency power  
25 were to fail and that this additional source of power

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

1 would provide AC power to keep maintaining core heat  
2 removal.

3 It was a fairly expensive improvement,  
4 about \$400,000 was the initial estimate. But it gave  
5 a reasonable risk reduction, and so in this case was  
6 found to be cost beneficial. Additionally, the cross  
7 connection revision to the procedures of repairing the  
8 charging pumps was also found to be cost beneficial.  
9 This would cross connect the B and C charging pumps to  
10 train A power source to essentially provide additional  
11 protection during severe accident fire scenario  
12 accidents.

13 Go on to the next view graph.

14 (Slide change.)

15 MR. RUBIN: Well, basically these two  
16 SAMAs were found to be cost beneficial using typical  
17 traditional cost benefit analysis. The risk for the  
18 plant, in general, was quite low and the benefits from  
19 these two improvements were reasonable. They weren't  
20 exceedingly large, but because of the costs and the  
21 benefits, they were shown to be cost beneficial.  
22 However, neither of these are an aging related  
23 degradation issue. And so they're not specifically  
24 related to the license renewal process itself.

25 Consequently, these improvements would not

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

1 be required as part of the license renewal process,  
2 but rather will be entered into the plant's  
3 prioritization scheme for planned upgrades, design  
4 enhancements, and, in fact, the staff will also follow  
5 up on this issue as part of putting it into our safety  
6 process to continue to follow the licensee's plans in  
7 this area.

8 That completes the SAMA evaluation and I'd  
9 be glad to answer any questions I could.

10 MODERATOR CAMERON: Thanks a lot, Mark.  
11 It was a good example, I think, of how things that are  
12 identified during license renewal but perhaps not  
13 implemented because it doesn't tie in or implement it  
14 through other NRC activities. But are there any  
15 questions on this? Yes, sir. And please tell us who  
16 you are.

17 MR. SANTIROCCO: I'm Raymond Santirocco,  
18 and for the reporter that's S-A-N-T-I-R-O-C-C-O. I am  
19 a member of the Monroe County Legislature. I'm the  
20 Chairman of the Public Safety Committee, and the issue  
21 of radiological safety comes under the purview of our  
22 committee. That's something I'm very interested in.  
23 In a prior life, I had also been public safety  
24 commissioner of the county back at the time we first  
25 started planning for accidents when NUREG 0654 was

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701



1 first issued.

2 So I've been following the history of this  
3 with some interest. And I have a question with  
4 respect to the cost benefit analysis of the SAMA  
5 process. And there's something that's troubled me  
6 about cost benefit analysis, in general, and maybe you  
7 have some thoughts on it. The cost associated with  
8 these improvements are generally costs that are going  
9 to be incurred by the operator. The example that you  
10 gave of these two, the costs incurred by the operator,  
11 yet the benefits or the avoided cost as you pointed  
12 out can occur, you know, anywhere. It can save some  
13 farmer 15 miles downwind some money.

14 Therefore, it has always seemed to me that  
15 you're comparing incomparable things, and you're  
16 comparing benefits that may accrue to certain people  
17 to costs that are incurred by other people. And can  
18 you equate those?

19 MR. RUBIN: It's a profound question, of  
20 course. I think we can compare them. We're looking  
21 at impacts on society as a whole. We're looking at  
22 the costs of implementing reductions in public impact,  
23 public risk. By the nature of the process, the cost  
24 to reduce public risk will come upon the utility if  
25 they're the operator of the plant.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

1           The methodology used is a relatively  
2 straightforward one that's pretty consistently used,  
3 certainly within the nuclear industry.

4           I believe it is also used throughout the  
5 government, in general, to try and get a handle on the  
6 relative benefits versus the relative costs. And in  
7 doing that, your choice of 50 miles was an interesting  
8 one, because indeed that's the distance that they met  
9 with the models, will typically produce the off-site  
10 consequences to generate the cost benefit numbers.

11          The calculation will look at both the  
12 salient impacts, but also the plant impacts. And in  
13 that typically there can be some very large impacts,  
14 the replacement cost for example, the real actual cost  
15 to the workers, is as complete a model as a decision  
16 maker from our perspective can make it.

17          If we were to leave out the, for example,  
18 the cost to the utility, that would tend to make the  
19 changes less beneficial and less attractive. So what  
20 we do is we try to include as many of the costs as  
21 possible in the analysis, because it tends to make  
22 things more attractive to implement, to correct, to  
23 fix, to reduce the risk from.

24          To look at the impact, that's the other  
25 side of the equation, the models we use and the

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

1 analytical methods are as complete as we can make  
2 them, looking at both the impact of the land  
3 contamination, the public health impacts, which are  
4 from the external side the most significant ones. But  
5 as I've said, we don't stop there, we also look at the  
6 on-site costs to make sure we have a more level  
7 playing field.

8 So there's not an absolutely correct  
9 answer to your question. But what we try to do is  
10 make the analysis process as complete as we can  
11 reasonably can make it so that we have a really well  
12 founded, analytical decision making framework to try  
13 to make appropriate decisions from. And if -- that's  
14 a good answer?

15 MODERATOR CAMERON: Let's get some input  
16 from Rich Emch and then we'll come back to Mr.  
17 Santirocco to see if he has anything else that wants  
18 to say.

19 Rich, do you have something to add on  
20 that?

21 MR. EMCH: In a way, your comment is along  
22 the lines of why does the guy who is living at 50  
23 miles care how much it costs this utility to put this  
24 thing in here that's going to help save his life?  
25 Right? Okay.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

1 I'm not sure if the 50 miles example is  
2 perfect, but let's remember that this power plant is  
3 producing electricity for the people in this region.  
4 I don't know about the guy 50 miles, but a lot of the  
5 people within 50 miles, and the costs ultimately of  
6 whatever they do here to operate this plant and to  
7 make changes to the plant, to make it safer, those  
8 costs get carried over to a least some degree in what  
9 that farmer whoever pays in terms of his electric  
10 bill.

11 So that makes it a little bit more of a  
12 you know, a cost and the benefit impact on that  
13 individual to some degree. I just thought I'd mention  
14 that.

15 MODERATOR CAMERON: Thank you, Rich.

16 Mr. Santirocco, do you want to add  
17 anything?

18 MR. SANTIROCCO: Well, I thank both  
19 gentlemen for very complete responses, and I think I'm  
20 convinced, well convinced, that the process of  
21 analysis identifies all of the factors to the extent  
22 that it is humanly possible to do so.

23 How you add them up and how you do the  
24 arithmetic when you get them all identified I guess we  
25 can occasionally disagree a little bit.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

1 MR. RUBIN: I can just reference you to  
2 the source document to the way the analysis is done,  
3 if that would be of any help to you. It is NUREG  
4 BR0184.

5 MODERATOR CAMERON: And what is the title  
6 of that?

7 MR. RUBIN: Unfortunately, I didn't jot it  
8 down.

9 MODERATOR CAMERON: All right. Well, if  
10 anybody needs, wants a copy or whatever we can  
11 obviously get that for you.

12 So are there other questions about the  
13 severe accident mitigation alternatives at this point?

14 All right, thank you very much, Mark.

15 And Bob is just going to give us a run  
16 down on how to submit comments and then we're going to  
17 go out to you for more formal comment.

18 MR. SCHAAF: Right, and we're running a  
19 little long so I'll try to move smartly through this  
20 so we can get to your comments. Turning to our  
21 overall preliminary conclusions, we found that the  
22 impacts of license renewal are small in all impact  
23 areas.

24 We also concluded that the alternative  
25 actions including the no action alternative may have

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

1 environmental effects in at least some impact  
2 categories that reach moderate or large significance.

3 Based on these results, our preliminary  
4 recommendation is that the adverse environmental  
5 impacts of license renewal for Ginna are not so great  
6 that preserving the option of license renewal for  
7 energy planning decision makers would be unreasonable.  
8 It's a wordy phrase. It's the way our regulation is  
9 written on license renewal.

10 (Slide change.)

11 MR. SCHAAF: This slide provides a quick  
12 recap of the current status of the review. We issued  
13 the draft environmental impact statement on June 25.  
14 We're currently in the middle of the public comment  
15 period, scheduled to close on September 16th, and our  
16 goal is to address public comments including any  
17 necessary changes to the draft and issue the final  
18 statement in February of next year.

19 We can mail a copy to anyone who is  
20 interested in receiving a copy, if you fill out one of  
21 the blue or yellow cards at our registration desk.  
22 After the document is issued, it will be reviewed by  
23 the EPA. They'll have 30 days in which to make a  
24 determination as to the acceptability of the final  
25 impact statement. After that point, it will be

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

1 available as providing part of the basis for the NRC's  
2 decision on the proposed license renewal.

3 The final statement along with the safety  
4 evaluation report, inspection reports, and ACRS report  
5 which Russ described earlier will be considered by the  
6 Director of Nuclear Reactor Regulation in making a  
7 final decision regarding whether to issue a new  
8 renewed license to Ginna.

9 The NRC staff and our lab personnel are  
10 here today to answer your questions. Feel free to  
11 talk to us after the meeting. If you have any  
12 questions after today, you can contact me directly at  
13 the phone number provided on the slide.

14 This slide also provides options for  
15 accessing the draft impact statement for your review  
16 and comment. We do have some copies available today  
17 at the back of the room. The Ontario and Rochester  
18 public libraries have copies available for review and  
19 the document is also available on the internet at the  
20 address shown on the slide.

21 Next slide, please.

22 (Slide change.)

23 MR. SCHAAF: This meeting is being  
24 transcribed, and the comments provided here will be  
25 considered in finalizing the draft environmental

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

1 impact statement. Outside of this meeting, there are,  
2 I believe, four ways to provide comments. We have the  
3 three options identified on the slide, which are you  
4 can mail us comments at the address shown. If you  
5 happen to be in Rockville, Maryland, feel free to stop  
6 into our office and provide written comments. Or they  
7 can be provided by e-mail to the address given here.

8 You may also provide comments through an  
9 on-line comment form which is available when you  
10 access the web copy of the Draft Impact Statement  
11 discussed on the previous slide.

12 All comments provided through all methods  
13 will be considered in preparing the final impact  
14 statement. That concludes my wrap up.

15 I'd like to thank the Ontario fire  
16 department for allowing us to use their hall today.  
17 I'd also like to thank you all for taking time to  
18 attend for your questions and I look forward to  
19 hearing your comments.

20 MODERATOR CAMERON: Thank you, Bob. If  
21 there are any questions about process after we get  
22 done with the comments, I think we'll have time to  
23 field them. But let's move on to the comments.

24 Do you have something else to say? Go  
25 ahead, Bob.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701



1 MR. SCHAAF: I also just wanted to point  
2 out anyone who hadn't caught it is we do have pitchers  
3 of water available over in the corner. I encourage  
4 you to avail yourselves of a cool drink.

5 MODERATOR CAMERON: Okay, thanks Bob.  
6 Let's go to Mr. Michael Havens first from the Central  
7 School District, in Wayne County, right?

8 MR. HAVENS: Wayne Central.

9 MODERATOR CAMERON: Wayne Central. Okay,  
10 thank you.

11 MR. HAVENS: Good afternoon. First I'd  
12 like to thank the NRC for coming out here to Ontario.  
13 You seemed to have chased the rain away and we  
14 appreciate that after about a week of unrelenting  
15 rain, and also for the opportunity for all of us to  
16 speak here about the relicensing of the Ginna Nuclear  
17 Power Plant.

18 As has been said, my name is Michael  
19 Havens. I'm the superintendent of the Wayne Central  
20 School District, located primarily here in the town of  
21 Ontario and also the town of Walmouth, although we are  
22 in parts of the town of Webster, parts of town of  
23 Merriam, Williamson, and Penfield.

24 The Ginna nuclear power plant is located  
25 within our school district. As a matter of fact, it

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

1 is approximately six miles from our high school, our  
2 middle school, and two of our three elementary  
3 schools. I say that and say that I'm here to support  
4 the relicensing of the Ginna nuclear power plant. And  
5 I say that primarily for three reasons.

6 First of all, the Ginna plant has been an  
7 excellent corporate neighbor. It also provides a  
8 great tax base for the school district, and lastly, it  
9 provides a good standard of living for the parents of  
10 our children that are here. And let me talk a little  
11 about the economic tax base, first of all. Over the  
12 last five years, the Ginna nuclear power plant has  
13 provided us with more than \$15 million worth of  
14 revenue.

15 And in fact, just this last year they  
16 provided more than \$3.1 million of tax revenue for  
17 our children. Now that represented about 21.9 percent  
18 of the tax revenue generated for our school district.  
19 That means that about one in every five dollars is  
20 spent from tax revenue for our children comes from  
21 that one plant.

22 Conversely, the loss of that would be  
23 disastrous both for our school children and also for  
24 the tax payers would have to make up the difference.

25 Secondly, in terms of being a good

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

1 corporate neighbor, while I must admit it is scary for  
2 all of us to think about an accident at the plant, and  
3 especially for me, who is responsible for about 2,900  
4 children, I also realize that the Ginna nuclear power  
5 plant is recognized nationally, is one of the best run  
6 plants.

7 Also, we are confident in plant manager  
8 Joe Widay and people like Rick Watts and the others  
9 who operate the plant. And in fact, particularly  
10 post-9/11, we feel very comfortable it's a secure site  
11 with the addition of the National Guardspeople.

12 We also run annual evacuation drills and  
13 feel we are prepared for an emergency should it  
14 happen.

15 Lastly is the standard of living that it  
16 provides my children. The Ginna nuclear power plant  
17 itself provides about 500 jobs. Additionally, there's  
18 about 300 related jobs through private companies.  
19 That provides a standard of living to the people who  
20 work there, most of which the people who live here in  
21 our community and provides decent houses, it provides  
22 middle class values and opportunities for our  
23 children.

24 In fact, I have to say that those of us  
25 that live here in Ontario would say that we kind of

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

1 have the best of both worlds. We live in a very rural  
2 atmosphere, yet we have the economic base of a more  
3 suburban area. So from my perspective, Ginna has been  
4 a good corporate neighbor. It provides a great  
5 economic tax base and it also provides a good standard  
6 of living for our children, and I wholeheartedly look  
7 forward to continue support of Ginna and hope that  
8 there's success with the relicensing. Thank you.

9 MODERATOR CAMERON: Thank you very much,  
10 Mr. Havens. We're going to go to Mr. Robert Mecredy  
11 next, who is the Vice President of Nuclear Operations  
12 for Rochester Gas and Electric to tell us a little bit  
13 about their vision and rationale for the license  
14 renewal application, and then we're going to go to Mr.  
15 Tim Judson from Citizen's Awareness Network.

16 Mr. Mecredy.

17 MR. MECREDY: Thanks, Chip. I am Bob  
18 Mecredy, Vice President of Nuclear Operations for RG&E  
19 and have responsibility for the operation of Ginna.  
20 I appreciate the opportunity to comment. RG&E  
21 submitted its application, our application, for a  
22 license renewal just about a year ago. We're seeking  
23 the license renewal in order to preserve the option to  
24 operate Ginna in the renewed period. And this  
25 recognizes the fact that Ginna and the electricity it

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

1 produces can be a valuable asset to the community and,  
2 in fact, to the state.

3 Because Ginna produces about half the  
4 electricity on an annual basis is that it is used in  
5 the RG&E service territory. So it's not an  
6 insignificant contribution to the local area.

7 The NRC is seeking comments here as part  
8 of the review, and this is but one step and once the  
9 safety review has been commented on will be  
10 forthcoming and we look forward to reviewing the NRC's  
11 safety review when it is issued here in the next  
12 several months.

13 RG&E and the employees of Ginna take  
14 seriously and always have our responsibility to  
15 operate safely and to minimize the impact of the plant  
16 and our operations on the environment. An early,  
17 relatively small, but yet very visible example of that  
18 intention that's paid to the environment is the  
19 attention paid to the aesthetics of the plant and the  
20 design provides that the plant blends into the  
21 environment. And we continue that attention not just  
22 to the aesthetics, but also to the overall  
23 environmental well being.

24 We continue to monitor our safety and the  
25 environmental performance. We learn from others. We

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

1 search for way to improve our performance. There also  
2 is ongoing independent oversight by the NRC and by  
3 others.

4 In our application, we did conduct an  
5 environmental review using our own experts and  
6 specialists and outside experts. And our conclusion  
7 was that operation in the extended period would be  
8 acceptable from an environmental standpoint.

9 As you've heard, the NRC's preliminary  
10 conclusion is that there's no reason from an  
11 environmental impact statement here not to renew the  
12 license. And we concur with that preliminary  
13 conclusion. It should be noted and it's important to  
14 note that as we continue to operate, we will continue  
15 to set as a priority safe and environmentally  
16 responsible operation. We'll continually monitor and  
17 measure our performance against standards, and we'll  
18 search out ways to improve our performance. Thank  
19 you.

20 MODERATOR CAMERON: Okay. Thank you, Bob.

21 Next we're going to hear from Tim Judson  
22 from Citizens Awareness Network.

23 MR. JUDSON: Thanks, Chip. We appreciate  
24 the opportunity to give comments. My name is Tim  
25 Judson. I'm with the Central New York chapter of the

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

1 Citizens Awareness Network. I actually live in  
2 Syracuse, New York. But I'm here today because of the  
3 sort of the regional concern about the impact of this  
4 relicensing decision. And it is actually going to be  
5 the first in a series of relicensing decisions that  
6 goes on in our area. The next ones to come up  
7 actually they're going to apply to relicense both the  
8 Nine-Mile Point reactors come October.

9 And you know, when I was here at the  
10 meeting in November, the first of these meetings about  
11 this environmental review. You know, seeing that  
12 there were a lot of sort of dead elephants sitting  
13 around the room that no one was really talking about.  
14 It is interesting that those dead elephants are still  
15 there and they're still not being talked about. As  
16 the NRC is sort of slicing and dicing its way through  
17 this decision, one of the things that have come that  
18 seems fundamental and we actually looked into this  
19 that there's actually in terms of the end of the  
20 regions energy needs, there's no need for Ginna for  
21 electricity.

22 In fact, there's an article that was  
23 published in the Syracuse Post Standard two years ago  
24 that laid out that Central and Western New York  
25 actually generate about 50 percent more power than we

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

1 ever need, even on the hottest day. And Ginna  
2 represents less than 10 percent of that surplus, and  
3 it is less than 3 percent of the total energy  
4 generation in the region. And it is really remarkable  
5 in looking at this whole issue of whether it makes  
6 sense to preserve this option, the NRC didn't even  
7 seem to take that into account that there's this  
8 massive surplus of energy in our area.

9 And what that means in a lot of ways is  
10 this whole question about trading benefits to the  
11 community versus risks is really sort of irrelevant in  
12 a lot of ways, because if you look at what's going to  
13 happen if Ginna is relicensed, and it is going to be  
14 sold. That's another one of the dead elephants in the  
15 room. Ginna is not going to owned by RG&E much longer  
16 if this license extension is granted.

17 The rate payers are going to end up paying  
18 about 3 billion dollars for electricity from this  
19 reactor over 20 years. You know, we can't actually  
20 improve our safety and our environment by shutting  
21 down this reactor and spending \$3 billion on other  
22 things. We can't conserve 3 percent of our energy in  
23 this region for the cost of \$3 billion in electricity?  
24 We can't afford to pay for a thorough and good clean  
25 up of the site from all the radioactive waste that's

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701



1       there? And we can't make up for the loss of property  
2       taxes to the school district with \$3 billion?

3               This really seems like the kind of  
4       questions that needs to be addressed. And maybe it is  
5       not the NRC that can do that. Maybe this is something  
6       that the community needs to do and that the region  
7       needs to do and actually needs to happen through the  
8       state. But these are fundamental issues to this whole  
9       question of whether to relicense. And when you weigh  
10      that against the risk of having this reactor operating  
11      in the community and generating more high level waste,  
12      it is sort of bizarre that the NRC treats safety and  
13      the creation of nuclear waste as having the same  
14      environmental impact as not doing it, which is  
15      essentially what comes out in the SEIS if you read it  
16      is that when evaluating the option of not relicensing  
17      and the reactor shutting down in 5 years, that the NRC  
18      says by the way there's a low environmental impact in  
19      that because it means it would all stop.

20             And then in looking at the risk of going  
21      forward in terms of having accidents, in terms of  
22      generating you know another 200 tons of high level  
23      radioactive waste that will be stored in the  
24      community, that's a low impact too. And so, of  
25      course, the NRC is going to go along with the

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

1 relicensing because, of course, you know they can't  
2 distinguish between operating a reactor and shutting  
3 it down.

4 So there's a lot of ways in which the  
5 supplemental environmental impact statement seems like  
6 it really misses the point.

7 And it is geared more to passing the buck  
8 on to the Public Service Commission, which is perhaps  
9 what needs to happen. But what is really essential at  
10 this point is that there be an evaluation of this and  
11 maybe it is the community that needs to do it. But  
12 we're all on this boat together and we all have to  
13 take it on.

14 MODERATOR CAMERON: Thank you, Tim.

15 Is there anybody else that wants to speak?  
16 Any other questions on issues that we didn't cover or  
17 anything that the NRC wants to add at this point for  
18 public information?

19 Okay, thank you all for coming out and  
20 being with us today. I'm going to ask John Tappert to  
21 close the meeting out for us real quickly.

22 John?

23 MR. TAPPERT: And I, too, would add my  
24 voice to thank you for coming out today and sharing  
25 your thoughts with us.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

1                   We have a number of staff and contractors  
2                   with us here today, so if you'd like to ask anyone a  
3                   question on a one to one basis we'll be staying after  
4                   the meeting. Thanks again.

5                   (Whereupon, at 3:15 p.m., the meeting was  
6                   the record.)