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1	UNITED STATES OF AMERICA
2	NUCLEAR REGULATORY COMMISSION
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4	PUBLIC MEETING TO DISCUSS
5	THE ENVIRONMENTAL SCOPING PROCESS FOR
6	GRAND GULF NUCLEAR STATION, UNIT 3
7	COMBINED LICENSE APPLICATION
8	UNITED STATES NUCLEAR REGULATORY COMMISSION
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10	EVENING SESSION
11	THURSDAY, JUNE 19, 2008
12	7:00 PM
13	City of Port Gibson City Hall
14	1005 College Street
15	Port Gibson, Mississippi 39150
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19	FACILITATOR: CHIP CAMERON
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22	SPEAKERS: RICHARD RAIONE
23	TAMSEN DOZIER
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P-R-O-C-E-E-D-I-N-G-S

(7:00 p.m.)

MR. CAMERON: Good evening, everyone. My name is Chip Cameron, and I work for the Executive Director for Operations for the Nuclear Regulatory Commission, which we will call the NRC tonight.

And I just wanted to welcome you to this evening's meeting. And what we want to focus on tonight is the NRC's review and evaluation process for an application that we received from the Entergy Company to build and operate a new reactor at the Grand Gulf site.

And it's my pleasure to serve as your facilitator for tonight's meeting. And in that role I'll try to help all of you to have a productive meeting tonight. I just want to spend a few minutes on meeting process issues so that you'll understand what we're going to be doing tonight. And I want to tell you about the format for the meeting, some very simple ground rules and introduce the NRC speakers to you.

We're going to start off tonight's meeting with two fairly brief NRC presentations, presentations by the NRC Staff that will give you an overview of the types of things that the NRC looks at when they're

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deciding whether to grant a license application such as the one we received from Entergy.

And after that we'll have time for a few questions about the process. We'll go out to you for those questions. And then we're going to go to the most important part of the meeting which is to hear from you, to give you an opportunity to talk to us about any advice, recommendations, concerns that you might have on what the NRC should look at when we do our Environmental Review.

And indeed the focus of tonight's meeting is on the Environmental Review that the NRC does. But we're going to give you an overview of the entire process and how you can participate in that process if you want to.

So when we get to the comment part of the meeting if you want to talk, please fill out a yellow card for us so that we'll just know who wants to speak and how many people want to talk tonight. We already have several people signed up.

The NRC Staff is going to tell you that we're also taking written comments on these issues. And by these issues we're looking at what should be the scope of the NRC's Environmental Review, what types of issues should we look at, what types of

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alternatives. And the NRC Staff will tell you a little bit more about that.

But we wanted to be here with you personally tonight and anything that is said tonight will have the same weight as written comments. And you're also free -- if you speak tonight, feel free to expand on those comments in writing to us.

In terms of ground rules, they're very, very simple ground rules. When we get to the questions, I would just ask you to hold your questions until both of the NRC speakers are done.

When we get to the question period, if you have a question, just signal me. And I'll bring you this cordless microphone. And if you could please introduce yourself to us, and then we'll try to answer your question.

And I would ask that only one person speak at a time so that we can give them our full attention and also so that we could get a clean transcript. We are taking a transcript. Stephen Anderson is here. His grandson is also with us again tonight. And that will be our record of the meeting and your record of the meeting. It will be publicly available in about three weeks from today.

So I would also ask you to be concise in

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your comments. So we want to make sure we hear from everybody tonight and we do have a number of speakers. So I would ask you to be as brief as possible. I'm going to set a three to five-minute guideline. It's not a strict rule, but three to five-minute guideline for when we come up to talk to us tonight. And at some point I'll just have to ask you to somehow if we're going outside of that.

And please extend courtesy to everybody here. You may hear opinions that differ from your own tonight. And just please respect the person who is giving that comment.

And I would just thank you for all being here to help the NRC with this decision that it's making on license application.

And I'm going to introduce our speakers now. First of all, we're going to have Richard Raione, who is the Chief of the Environmental Projects Branch in the Division of Site and Environmental Review in our Office of New Reactors at NRC Headquarters in Washington, D.C. And he's going to tell you a little bit about the NRC.

And then we're going to go to our main speaker who is Tamsen Dozier, who is the Project Manager for the Environmental Review on the Entergy

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license application. And Richard is going to give her a fuller introduction.

We also brought a number of people from Headquarters so that we could make sure that we can answer your questions. And they'll also be here after the meeting to talk with you. And we have a representative from our Regional Office, Region IV in Arlington, Texas. Victor Dricks is Public Affairs Officer back there. Someone from the Office of General Counsel, Renee Holmes, who is here. have some Senior Environmental Specialists with us tonight. Richard Emch is here. Andy Kugler, Dan Mussatti is here. We have an emergency planning expert, Ron Schmitt, with us if you have questions or concerns about that. There's Andy Kugler right there.

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Oh, Eric Oesterle is the Project Manager for this license application on the Safety Review side. And Darby is our expert consultant from the Pacific Northwest Lab. He is the Team Leader of our group of experts who's looking at environmental issues.

And it's Darby Stapp? Okay, great.

Who have I missed? Oh, we have some new people with us. Alicia and -- you can't see these

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people, but they're also environmental project:
Alicia, Jessie, and Adrienne, who is helping us with
logistics tonight, and Terri from Pacific Northwest
Lab. Just wanted you to know who was here from the
NRC and what they do.

Let me give Richard Raione a broader introduction than that. As I mentioned, he is the Branch Chief of the Environmental Projects Branch. He is from the South. He has degrees in biology and geology from the University of Tennessee. He's got a Master's in Geology from the University of Kentucky. He's a Licensed Professional Geologist in 19 states, including Mississippi. He is a Certified Groundwater Professional by the Association of Groundwater Scientists and Engineers.

He's worked for Department of Energy,
Department of Interior, as well as the NRC. And he
has 25 years in the environmental consulting field,
both with federal agencies and with private consulting
sector.

And with that I'm going to turn it over to Richard.

MR. RAIONE: Well, good evening. Can you all hear me? Good evening, everybody. Thank you all for coming out this evening.

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I'm going to do something a little bit different for this meeting than what I normally do. I'm going to start this thing out with a quote. So bear with me. There is a point I'm trying to make. So here's the quote: "I am he as you are he as you are me and we are all together. See how they run like pigs from a gun. See how they fly. I'm crying. Goo Goo G'joob"

Now some of you all may recognize this as John Lennon's lyrics from the song, "I Am the Walrus," from the Beatles' Magical Mystery Tour album released way back in 1967. The real meaning of this song still escapes me, assuming it even had a meaning to begin with.

But the reason I bring this up is that we in the Federal Government have invented a language with a lot of acronyms, a lot of phrases. Our Agency is especially very technically oriented. And we want to make sure that we're communicating correctly with the public. So if you've heard something from our Open House, if you see something in our literature, if you hear something from the meeting tonight that kind of sounds English like the example I gave, but it doesn't quite sink in, just let us know. We want to make sure that we do a good job communicating with

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everybody.

I'm going to talk a little bit about the NRC in general before I get specific about what we do in the Environmental Projects Branches. The NRC manages the civilian use of radioactive materials. Examples include over 100 nuclear power plants and approximately 4,500 medical, industrial, government, and academic materials licensees. These of course include the use of radio pharmaceuticals which we use to fight cancer with.

We are an independent agency within the federal civil service. We are governed by five Commissioners. Right now we have four. They happen to be three Republicans and one Democrat. These folks are appointed by the President of the United States and they must be approved by Congress. We're going to be getting one more Commissioner here soon.

The reason for this, this kind of tries -this is an attempt by Congress to try to keep politics
out of our Agency as much as possible. We don't have
a Secretary of the Interior. We don't have a
Secretary of Defense. These high-level managers when
a a new administration comes in typically have to
leave their jobs. So the advantage that we can have
is that we have more continuity within our Agency.

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And the inference there of course is that we perhaps have more accountability. So those are positive things.

Another thing I'd like to point out is that NRC has been voted the best place to work in the Federal Government. This is quite an accomplishment when you consider there's over 280 federal agencies within the Fed. That number still astounds me, so I'm sure you're kind of shocked as well. But at any rate that is an accomplishment.

And the reason I mention it is I wanted to indicate that our staff if highly motivated. They're enthusiastic, and they're very competent. With all the challenges and potential threats facing our country today, this is especially important because this helps us recruit and keep the best and brightest to the government's service.

We're headquartered in Rockville, Maryland, which is just north of the District of Columbia. We also have regional offices in Atlanta, Philadelphia, Chicago, and Arlington, Texas.

I'll tell you a little bit more about what we do at my specific branch. The Environmental Projects Branch II is one of two Environmental Projects Branches within the Agency. We manage the

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License environmental aspects of New Reactor Applications. We review the Environmental Report, which is part of the application package. And we called an produce what is Environmental Impact Statement. You've probably seen this abbreviated a million times by other agencies as EIS.

My staff consists of scientists and engineers who are assigned as the Environmental Project Managers for a particular application. In my branch we currently have four applications in-house: Calvert Cliffs, Maryland; Virginia; Duke in Cherokee County, South Carolina; and Grand Gulf. These are all in various stages of review at this point.

Within the next five months or so, we're going to be getting another five applications. We're talking about Levy County, Florida, outside of Crystal River; River Bend, Louisiana; Fermi, Michigan; Victoria County in Texas; and Nine Mile Point up there in New York.

My branch interacts closely with other branches within my division such as the Hydrology Branch. These are all the water folks. The Environmental Technical Support Branch, these are folks that have technical disciplines such as ecology, socio-economics, health physics, etcetera. And there

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are several other folks both within and with outside our division that get involved in our work.

We also rely upon the technical expertise provided by our nation's National Laboratories like the program headed up by Pacific Northwest Lab of Richland, Washington. I should mention Dr. Darby Stapp. He has a staff of around 12 people in the lab at Richland that are assisting us. We also use other National Laboratories, including Brookhaven National Lab in New York and Oak Ridge National Laboratory in Oak Ridge, Tennessee.

We also use the services of five separate consulting companies. All of this brain power is collectively used to produce the EIS in roughly two years time frame.

So what are we really doing here tonight?

Well, the main purpose for us being here is to solicit information or data from you as members of the public as part of the process which is called scoping.

This scoping process helps us as a federal agency meet the intent behind what is referred to as the National Environmental Policy Act, otherwise known as NEPA.

Now let's go back in time to the mid and late 1960s, when we had a different type of music.

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There was a general realization in our country that our environmental practices could not continue as they had over the previous 100 years. We started recognizing we could not pollute at will. We had an increase in our population that we couldn't necessarily dump waste in a river when you had a downstream user.

So I think perhaps the final straw was the fact that the Cuyahoga -- if I'm pronouncing that right -- River, which means Crooked River in the Iroquois language, in Cleveland, Ohio actually caught on fire because it was so polluted. Those folks even had a River Fire Department charged with putting out the fires on the river. These happened several times. I'm still amazed by that as I'm you all are especially that were living through this time.

To the credit of the Nixon administration and Congress at the time, they passed NEPA, the National Environmental Policy Act, in 1969 with the expressed goal of protecting human health and the environment. This goal is shared by the Nuclear Regulatory Commission as is evidenced by our public strategic objective statement which says in part that we will conduct our mission in a manner that protects public health and safety and the environment.

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As I mentioned, we are here tonight to solicit information from you relevant to the environmental aspects of this proposed project.

So what am I talking about here? Well, some examples, I'll give you a few. Some examples may be that you may have had a relative that used to go hiking in the area around the plant 40, 50 years ago. And you remember as a little boy or girl that he used to talk about this old graveyard. It was all grown over, a bunch of vines and everything. But he thought it was from the Civil War. So you want to bring something like this to our attention because, hey, this is an historic resource. You want to make sure it is protected.

Another example could be you've got a good friend of yours that he's been fishing since the age of six. He knows where all the good fishing spots around within the next 100 miles. And he went fishing the other day and brought back this really wild looking fish. And no one could identify it.

So you're kind of scratching your head,
"Hey, this could be an example of a rare and
threatened species So you want to bring this to our
attention. "Hey, we found this funky little fish in a
watershed 10 miles out of town. I think you guys

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should take a look at it."

When we think environmental, we all think of air, soil, and water, and all the disciplines that go along with that. But I wanted to mention there are other aspects as well that we have to look at within our Environmental Impact Statement.

For example, in the area of socioeconomics one thing that you may have been thinking
about is like what if this plant is actually licensed
and built, what's going to happen to local schools and
roads if, say, two or three thousand construction
folks and their families move to the area. So these
are examples of some of the kinds of input that we're
hoping to get tonight.

But I do want to emphasize right here that if you are interested in participating in our process you don't really have to speak tonight if you don't want to. What you really need to know is who to contact, how to contact us: e-mail, phone, you could use the old fashioned U.S. Postal Service to mail us a letter. Or don't forget the old fashioned way. You can always come to Rockville and meet with us face-to-face. And while you're there, you can check out some stuff in D.C. It's a fantastic place if you like museums and things like that and the history. And we

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also want to indicate like anybody else we do have schedules and especially with this schedules and deadlines also.

Our Environmental Project Manager for Grand Gulf is Mrs. Tamsen Dozier. She is going to be providing more information that relates to this slide shortly and she is going to talk in more details about our licensing methods, our schedule, and how the public can participate in our process.

Okay, let me show this slide which illustrates the participants in our process is the Stakeholder column, the middle column. This slide indicates that we as an Agency do not make decisions in a vacuum. There are many players in this process which is designed so that people who have a stake in the proposed project are given a chance to participate and be heard. Hence the name stakeholder.

So what we are saying about here is that you as the folks who live and work here are stakeholders in this process. And this is how it should be. After all this is your community and your home. If this project proceeds, we recognize that this activity will have more of an impact here locally than on other folks living further away. By the same token, you folks that live and work here are also the

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best to solicit any environmental information from since you are the source for localized site specific information.

This slide also indicates that public interest groups, other federal agencies such as the U.S. Army Corps of Engineers, the National Park Service, the Environmental Protection Agency, Tribal Nations, state agencies, such as the Mississippi National Heritage Program, the Mississippi Department of Archives and History to list a few, are also involved and utilized.

So with this being said, I appreciate your time, interest, and input here tonight.

And I'd like to ask our Environmental Project Manager, Mrs. Tamsen Dozier, to come up. Tammy used to live in Vicksburg, Mississippi. She's got a Master's degree in Civil Engineering from Mississippi State University. She previously worked with the Waterways Experimental Station. And she's headquartered now with -- she lives in Rockville, Maryland with the NRC. And we're glad to have her on board.

MRS. DOZIER: Hello, everyone. As Richard said -- can you hear me? As Richard said, my name is Tamsen Dozier and I am also with the Division of Site

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and Environmental Review with the NRC's Office of New Reactors. And I am the Environmental Project Manager for the Grand Gulf Unit 3 COL Application.

And before I begin, I would like to say, as Richard said, I am from Mississippi. I have a lot of fond memories from here, especially of the people.

And I would like to thank the people of Port Gibson and the surrounding communities who've been so gracious and hospitable to us as we've been planning this meeting tonight. And I'd especially like to thank the Mayor and his staff for allowing us the use of this beautiful building. We normally don't have such beautiful surroundings when we have these meetings.

So let's go ahead and get started. So what is a combined license? Or as we commonly refer to it -- you might hear me use the acronym and refer to it as a COL. I'll try not to use acronyms, but unfortunately it's a habit most of us get into after a while. As we see here, a combined license is an authorization from the Nuclear Regulatory Commission to construct and operate a new nuclear power plant in accordance with laws and regulations.

Now Entergy submitted an application on February the 27th of this year for a Combined License

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for a new nuclear facility at the Grand Gulf site adjacent to Unit 1. Now to avoid confusion, let me explain that there is still only one currently operating reactor at Grand Gulf. Entergy has decided to designate the plan to the new unit as Unit 3 to differentiate it from old plans that had been underway some time ago for a Unit 2.

NRC Review of a Combined License Application is rigorous process. There a are currently three separate reviews occurring simultaneously on the Grand Gulf application. first two are related to the safety of the Plant. The one discussed in the top line here is that of the design of the Plant. That is the design of the Plant that Entergy plans to use, and that is called the Now the ESBWR is a design that is currently being reviewed under a public rule-making process to determine if it is appropriate for certification.

The second review is the site specific safety review. And the third review that occurs simultaneously with the previous two is that of the environmental effects associated with construction and operation of that design at the Grand Gulf site.

Now here we see an overview of the combined license review process. The safety review

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shown along the top row of the diagram which you remember represents both the review of the design and the site specific safety review.

And along the bottom portion of the diagram we have the environmental review process. And then in the middle we have the hearing process, which I'm going to be describing a bit later.

And then the final step is the Commission's decision on whether to not to grant the license.

Now even though the primary purpose of this meeting is to discuss the Environmental Scoping portion of the Grand Gulf Review and to hear your comments, I will briefly present a list of some of the areas of the Site Safety Review.

Now as Mr. Oesterle said -- I mean, I'm sorry -- as Mr. Cameron said, the Safety Project Manager -- we have one of them here tonight for the Grand Gulf Combined License is Mr. Eric Oesterle and then the other Mr. Mark Tonacci. And as we can see from the slide here, Mr. Oesterle and Mr. Tonacci and their team are quite busy.

I won't read all the points outlined here.

But if you have any questions on these or other

matters concerning the safety review, please see Mr.

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Oesterle after the meeting and he'll be happy to help you.

And I would also encourage everyone to take a look at the vast array of literature and booklets we have available in the outer hallway. We probably have a booklet to address most of the general concerns that you might have.

Now many of you may remember that the NRC was here a couple of years ago holding meetings and doing reviews. And that was for the early site permit. A few utilities have elected the licensing option of seeking approval of the site prior to applying for their combined license, and Entergy was one of these. And their early site permit was granted by the Commission in April of 2007.

Now as Richard explained earlier, the environmental review, which is the subject of today's meeting, is guided by the National Environmental Policy Act of 1969, or NEPA.

NEPA is the federal statute which requires that all federal agencies evaluate the impacts of a proposed action and to use a systematic approach in doing so. Now for major federal actions which have the potential to significantly affect the human environment, the preparation of an Environmental

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Impact Statement is required by this law.

Now I'm going to refer to it, but I'm going to be referring to the word Environmental Impact Statement a lot, so we refer to that as an EIS. So if you'll bear with me, you probably will hear me saying the term EIS and just know I'm talking about that document that we produce.

Now the NRC has determined that issuing a combined license for a new nuclear facility is a major federal action. And so as I said, the Staff develops an Environmental Impact Statement before the Commission takes final action on any Combined License Application.

Now many of the environmental effects related to the construction and operation of an additional unit at the Grand Gulf site were analyzed and resolved during the early site permit review. And an Environmental Impact Statement was prepared and issued in April of 2006. And we have several copies out in the lobby if you'd like to take a look at those.

Now as part of the combined license review process, the staff will prepare a supplement to that Environmental Impact Statement from the early site permit review. The process of incorporating the

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analyses previously conducted into a supplemental document is known as tiering.

For the Grand Gulf COL environmental review, the NRC staff will tier off or incorporate by reference the Early Site Permit EIS analysis into the Supplemental Impact Statement.

Now the scope of this Supplemental EIS will focus on the environmental issues that are not analyzed or resolved. An example of an environmental issue that was not analyzed or resolved in the Early Site Permit EIS is a need for power. A need for power analysis was not conducted for the Grand Gulf early site permit review because NRC regulations do not require that type of analysis at that stage. But we will be conducting this analysis as part of our current COL Review.

Now for issues that were evaluated and resolved in the Early Site Permit EIS, the staff looks at those issues to make certain that nothing has changed that could call into question the conclusions that were previously reached in the early site review.

Now here we see a presentation of the detailed steps that we will take for the environmental review. As I said, Entergy submitted their Environmental Report as part of their application to

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the Agency on February the 27th of this year. And we evaluated the application to ensure that it met our technical sufficiency guidance and it was accepted for docketing by the Agency.

Once this decision was made by the NRC, we issued a Notice of Intent -- this was a few weeks ago on May 30th -- to notify the public of the Agency's intention to develop a supplement to the previous Site EIS and to conduct scoping.

Scoping is the process of providing all stakeholders outside the NRC an opportunity to provide information regarding issues that the NRC should consider during its NEPA Review. So the scoping comment period for Grand Gulf began on May 30th and it ends on July 29th. This public meeting also serves as an opportunity to provide comments because it is being transcribed.

Now another step of the environmental review is the environmental site visit or audit. This week members of the NRC Environmental Team have been at both the Grand Gulf site and at Entergy Headquarters in Jackson to conduct an independent evaluation of the information that was provided by the applicant in their Environmental Report that's part of their application. And when I say applicant, I'm

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talking about Entergy. I'm sorry.

We do further information gathering in the coming weeks. We ask questions of the applicant through a process called Request for Additional Information. And then we investigate comments from the public and from other state and federal agencies.

Now after analyzing all the information we obtain during all of this, the NRC will then develop its Draft Environmental Impact Statement, the Draft Supplemental EIS. Now we call this document a draft not because it is incomplete, but because the public has not yet had a chance to comment upon it.

With the publication of the Draft Supplemental EIS, this initiates another comment period. During this period we will come back -- we, the NRC, will come back to Port Gibson and we will hold another public meeting, explaining the results of our Review and to collect comments on our document.

Now after we evaluate the comments on the Draft Supplemental EIS, we may then decide to modify it. Once we complete that action, we issue the Supplemental EIS as a final document. That document will be used as one of several different inputs into the formal hearing process which I will be providing more detail in just a minute.

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Then as we said earlier, the result of the combined license process a decision by the Commission on the application.

Now period the scoping is big information gathering time for us. Now this slide shows some of the various sources that we use. key point that I want to make is that the Staff Supplemental EIS is an independent evaluation. although starting with applicant's we are the Environmental Report and with the early site permit, investigating information we're from many other sources.

conduct the combined WOMto license environmental review, we have assembled a team with backgrounds in the necessary scientific and technical disciplines. And as Richard talked about earlier, the NRC has contracted with the Pacific Northwest National Laboratory to assist us in preparing the Supplemental EIS. The NRC team along with the Pacific Northwest National Lab contractors is comprised of experts on wide ranging topics related to environmental issues and nuclear power plants. This slide gives you an idea of some of the areas we will consider during our review.

Now this slide shows where we are in the

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environmental review. We go down the slide to No. 3, that's where we are today. We are currently in the early weeks of the scoping public comment period and it is scheduled to end on July 29th. We plan to issue the Draft Supplemental EIS in May of 2009. We will then come back, present our results, and take comments on the draft in a public meeting tentatively planned for June of 2009. And finally we plan to issue a final Environmental Impact Statement around May 2010.

Now there are several ways you can provide comments. You can provide comments tonight during the comment period of this meeting. You can send your comments via regular mail, or perhaps you might prefer to send us your comments to the e-mail address that we specifically have set up for the Grand Environmental Review, which is GrandGulf.COLAEIS@nrc.gov. And to help you remember Combined License -- A stands COLA, that's Application -- EIS. You can also submit comments in person at the NRC Headquarters in Rockville, Maryland.

And all comments received, including the ones received tonight during the meeting, will be included in the Scoping Summary Report and will all carry the same weight.

Now NRC Regulations require a hearing for

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any New Reactor Licensing Application. The results of the Combined License process is a decision by the -- as we have said, is a decision by the Commission on the application. An opportunity for public involvement is available in the hearing process.

The public has 60 days after the date of the Notice of Opportunity to participate and this Notice will be filed soon. The Petition to Intervene must be filed electronically and you must obtain a Digital Certificate of Approval in advance or a waiver from the electronic filing. Please allow a minimum of 10 business days to receive the Digital Certificate or the waiver. Detailed instructions for e-filing are on the NRC website listed on the slide and will be described in the Hearing Notice.

Now I'd like to take this time to recap some of the very important public involvement information. As I said before, the scoping public comment period ends on July 29th of this year. After the Draft Supplemental EIS is complete, the public meeting on the draft will be held again here in Port Gibson sometime near June 2009.

The opportunity for Petition to Intervene in the hearing process will soon be announced. Please keep in mind that you must receive a Digital

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Certificate of Approval before you can file a petition. And the hearing covers both safety and environmental issues.

Now this slide identifies me as your primary point of contact at the NRC for the Grand Gulf combined license environmental review. It also has the contact information for Mr. Oesterle and Mr. Tonacci, the Safety Licensing Project Managers. Next it identifies where documents related to the Grand Gulf environmental review may be found in the local area, which for Port Gibson is the Harriette Person Memorial Library.

Now I'll close the presentation by saying, if you wish to be on our environmental review mailing list, please fill out and turn in one of the blue cards at the registration desk out front or just make sure that your name and mailing address or e-mail address is provided to one of the NRC Staff at the table out front. This is one way of ensuring that you will be notified of upcoming meetings and that you will get copies of the Draft and Final Supplemental EIS.

And with that I would like to thank everyone for coming out tonight. And I will turn the meeting back over to Mr. Cameron.

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MR. CAMERON: Thank you very much, Tamsen. Thank you, Richard.

We have some time for questions about the process. Make sure that we've given you clear information on this before we go to comments.

Questions on process?

Yes, sir.

Let me get you -- we need to have you on the mic so that we can get it on the transcript. If you could just introduce yourself?

MR. PULLEN: My name is Tom Pullen from Hinds County, Mississippi. My question has to do with the safety review and the certification of the reactor design. Neither of those processes are going to be completed for a couple of years. And I would like to know how it is possible to prepare an EIS Supplement until both of those processes have been completed because it seems to me like that is going to affect the analysis of the environmental impact.

MR. CAMERON: Thank you. Who's going to address that in terms of we have a design that's not yet certified and how can an Environmental Impact Statement be prepared on a design that's not been certified is one aspect of the question.

MR. EMCH: My name is Rich Emch. I'm

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Senior Health Physicist for the Nuclear Regulatory Commission. I understand your question. We have the documents that tell us what the design, what the description of the design is that's being reviewed on the safety side. And we're using that description as our information for the environmental review.

Now clearly if something changes, if there's additional changes in the design or something like that, it could affect our review. But basically with the belief that in the end this design will go through the completion of the review process, we know what the description is right now and that's what we're using for the Environmental Impact Statement.

MR. CAMERON: Tom, does that answer your question, or do you want to follow up on that at all?

MR. PULLEN: It simply seems to me that there is a flaw in your process. Until you have done the safety review and until you have decided what the reactor design is going to be, I fail to see how you can do an adequate job of adequately evaluating the environmental impact.

MR. CAMERON: And I guess that -- well, Eric, go ahead.

MR. OESTERLE: I understand the question,

I think -- and that's a good one. The original intent

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for the process that we're licensing these new plants under did not envision this parallel type review. But we have worked out a process within the Agency and we called it Design Center Review Approach.

What we do is as Entergy has referenced the General Electric ESBWR design, the staff is reviewing that design. And that review of a design and certification of that design must be complete in order to demonstrate that that design meets all the NRC's Regulations before we can issue a license to the applicant.

MR. CAMERON: And that design is available for people to look at and, as Eric said, the staff knows what site impacts to look for. But because the design has not yet been certified, the license applicant is somewhat at risk because there is no guarantee that the design as referenced is going to be the final design that is approved.

And let's go to Paul. And then we'll come back to you.

Paul.

MR. GUNTER: Thank you, Chip. My name is Paul Gunter. I'm with Beyond Nuclear. It's a Nuclear Policy Research Institute in Tacoma Park, Maryland. And I think we all know that the devil is in the

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details. And what is of most concern is that the
opportunity for the public to review, challenge and
intervene not only on the safety issues but also on
the environmental impacts, that opportunity comes and
goes before we even get a chance to know what the
design is and what the environmental impact your
final actually even your Draft Environmental Impact
Statement comes after our opportunity to file a
challenge. So I think that the concern remains that
this whole process is front loaded to exclude a
meaningful public challenge.
And I would just I don't know if this
part is being transcribed. But I'm going to comment

on the -- so this piece is being transcribed. That it is to the benefit of all concerns that the public be included in a meaningful process that enhances safety, that bolsters environmental protections, rather than have them excluded.

CAMERON: Okay, thanks, thank you, Paul. And I think there's some of the questions inherent --

MR. GUNTER: Could I just ask a follow-up real quick?

> MR. CAMERON: Sure.

MR. GUNTER: Could you just state how long

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it's going to take to complete the design certification for the ESBWR?

MR. OESTERLE: Sure, I can give you some more information about that. The design certification for the ESBWR was submitted to the NRC back in August of 2005. And we accepted it for Review in December of 2005. And we've been reviewing it since that time. We're currently at Revision 5 of that design.

And we had a schedule to complete the review, which I think took us out to close to the end of 2009, maybe beyond into 2010. But now that we've got Revision 5 in-house -- and this just occurred last month -- we have to reevaluate that review schedule. So there is no schedule that has been issued at this time based on the current revision of that design control document.

MR. CAMERON: But it would at least in terms of giving some pointers on this, it would -- since it's a new revision, it would at least be out beyond 2010?

MR. OESTERLE: It could extend to the end of 2010. I'm not 100 percent sure. We have staff back at Headquarters that are looking at that in detail. And I can't predict what that schedule will be at this time because we just got it in a few weeks

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ago. So we're still assessing the impact on the review schedule of those changes to the design.

But let me make a comment about this review process. It's certainly not without its challenges. But the review process for certification of designs also includes public participation. The meetings that we have with the reactor vendor are public meetings and they occur frequently.

After we review that design and prepare our Final Safety Evaluation Report, it goes into a rule-making process. And that is also a public process in which the public can provide comments on. Either prior to that the staff Review of that design gets an independent review by the Advisory Committee on Reactor Safeguards, which is an independent body that reports to the Commission.

All of the staff meetings with that Advisory Committee are also public meetings. So there are numerous opportunities for public participation in the review process.

MR. CAMERON: And how does the -- could just you tell us a little bit about how the design is certified and how the public participates ultimately in that process? I don't know if you mentioned the rule-making business.

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MR. OESTERLE: Yes, after we finalize our
Safety Evaluation Report, that gets issued along with
a Notice of Rule-Making. And along with that Notice
of Rule-Making, there is an opportunity for public
participation in the form of being able to review the
Final Safety Evaluation Report and to provide public
comments on the rule.
MR. CAMERON: And those public comments
will be evaluated before the design is certified?
MR. OESTERLE: Yeah, actually what gets
issued is a Draft Rule-Making. And the public has the
ability and opportunity to comment on that Draft Rule-
Making. And the staff looks at those comments and
incorporates those as necessary to make a final rule.
MR. CAMERON: Okay, thanks, Eric.
Yes, ma'am.
MS. PULLEN: My name is Ruth Pullen. And
I live in the Byram area, which could be affected by
an accident at the plant. I'm a little confused and
concerned about the time frame of all this.
Are you saying you're saying that the
design review may not be completed until 2010.
And I just want to make sure that the
Environmental Impact Statement then will not be

completed until the design review is completed; is

that correct?

MRS. DOZIER: The Final Environmental Impact Statement will come out about May of 2010. But it's actually a year after that -- correct, Eric -- that the DCD is going to be -- is scheduled -- the review is scheduled to end?

MR. OESTERLE: That was before the --

MRS. DOZIER: That was before the -- now what happens is, though, all the information right now on the design is available right now. I mean people can take a look at that. The staff has not completed their review. But all the information on the ESBWR design -- of course there are the possibilities of revisions. But basically the design is there now for people to comment on. And certainly we would accept comments on that tonight.

MS. PULLEN: Okay, the way I understand it is the ESP has been for 20 years. The COL is good for 40 years; is that right? Okay.

Then, say, Entergy decides in 20 years that it wants to build this plant. Does there have to be another environmental review?

Because the Environmental Protection

Agency recommends that an EIS be updated every five

years. And we're talking basically about giving them

a license to build this plant 40 years down the road.

MR. KUGLER: My name is Andy Kugler. I'll try and answer that question. Although the license is for 40 years, that's the license to build and to operate. So if they waited 20 years to build the plant, first of all that would only leave them 20 years to operate under that license. The expectation will be that if somebody applies for a Combined Licence and receives that license, that they will probably build in the near term.

But let's say they didn't do that. Let's say they did wait. The example I'll use is a plant in, I believe, Tennessee -- Watts Barr, Unit 1. They started construction, I think, in the very early `80s ceased construction at some point because of rising costs. But in the late `80s or early `90s, they decided they wanted to finish the plant and put it online.

At that point what the staff -- and the staff had done an environmental review for the initial licensing. What we did was we went back and reviewed that Environmental Impact Statement, updated it, and we issued a Supplement to that Environmental Impact Statement because of the period of time that had

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So if somebody waited 20 years, yes, my expectation would be that we would do a further environmental review to refresh the information in the Environmental Impact Statement. Some things may have changed. Some things may have not changed. We would look at that at that point.

MS. PULLEN: Is that required? Or is that at your --

MR. KUGLER: I don't think there's anything actually written in the laws or regulations that says you have to. As you indicated, the Environmental Protection Agency generally considers an Environmental Impact Statement that's more than three or so years old to at least require a look to see if it needs to be updated. So I don't think there's anything legally binding. But it would be what I would expect us to do.

MS. PULLEN: Well, I don't know if I'm asking a separate question. And if I'm taking too much time, if I am, tell me. But I wanted to ask. read the entire Draft Environmental Impact Statement. did not read the entire Environmental Statement. But I do know in the draft it says repeatedly that the staff was unable make to

MR. CAMERON: And that's a good question, Ruth. And it goes to the heart, I think, of the relationship between the ESP and what's going to happen now.

this EIS can be granted.

And I think, Andy, do you know what Ruth's

MR. KUGLER: Right. I understand the question. That is a very good question. It's basically the relationship between an Early Site Permit and Combined Licensing.

At the end of the review for the Early Site Permit, when we issued our Environmental Impact Statement, there were a number of issues that we resolved. There were a number of issues that we

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didn't resolve. And we really have to kind of treat those two types of issues differently in the Review that we're performing now.

Let me first talk about issues that we did not resolve. So the things you were talking about where we said, "Hey, we don't have enough information at this point to deal with the issue." Those issues we now have to review and resolve. It's basically as if the early site permit had not happened because we did not resolve the issue at that time. So those issues are going to be reviewed just like we would for any application -- an application that didn't have an early site permit. So that's what happens for those issues. That's fairly straightforward.

For issues that we did resolve, the applicant is required to have gone through a process to look for information that is new and significant in relation to that issue. In other words, has something changed significantly in such a way that it could have affected the outcome of our review of that issue? And they perform that review.

Then we go in behind them. We take a look at what they did. We also do independent work to reach a conclusion on our part as to whether there's new and significant information on an issue. If we

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determine that there is no new and significant information, then the issue remains resolved. What we concluded at the early site permit, we basically determine that's still a good conclusion.

If we find that there is information that's both new and significant, then we're going to review that new information and determine what effect, if any, it has on the outcome. It may in the end not change our conclusion, but we won't know that until we finish our review. So that's how we handle the issues that were resolved previously.

MR. CAMERON: And inherent in Paul's question or comment on the fact that everything is front loaded. When we come out with conclusions on new and significant or on the issues that have not been resolved, that's later on in the process after the initial hearing, contentions are required.

But do people still have the ability to submit contentions on those issues?

MR. OESTERLE: Well, there are provisions in the Regulations to file contentions at a later date if there is new information that was not available at the time of the original opportunity to intervene. And I don't know if we want to talk to our attorney who is here about that. But there is a method to do

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If people want more detail on it, Ms. Holmes that. 2 would probably be the right person for that. MR. CAMERON: Do you want to add anything Or do you want to have people to talk to you now? later? MS. HOLMES: Talk to me later. MR. CAMERON: Okay. All right. Is there 8 another question before we go to comments? 9 Okay, let's go over here. Yes. I'm Jan Hillegas from 10 MS. HILLEGAS: 11 Jackson. I'm just wondering if someone could give us a quick overview of what -- for one thing how many 12 13 people are involved more or less full time in an 14 environmental review? And just day-by- day 15 overview of what they do for three to five years? 16 MR. CAMERON: I think we can answer the 17 first question. I mean I note that I couldn't answer 18 the question for myself. 19 But can you talk a little bit about the 20 number of resources that go into the environmental 21 review? Because I think that's a legitimate piece of 22 information. 23 MRS. DOZIER: Okay. Well, we have several -- I'm going to start down a list I guess and I'll ask 24 25 Staff to help me. But we have hydrologists. So as I've explained before, we have people from the Pacific Northwest National Laboratory. And we have a full time hydrologist who is designated to work on the Grand Gulf Project.

We have health people, two or three of those. I'm sorry, just one of those.

Let's see. I know a quick way to answer this. We just had our Site Audit. And we brought our team down. And we brought a team of 28 people. That's a lot faster than sitting here mentally trying to go through the disciplines. So 28 people were involved in our Site Audit this week.

So does that answer your question about the number of people?

MR. CAMERON: I think it maybe the question was also not how many people were involved but, for example, are they working pretty -- are they working in a concerted pace over then next --

MRS. DOZIER: What happens is it does ebb and flow. For right now for about the next couple of months, we're going to be pretty busy. Then we sort of -- we're gathering scoping comments as you guys will be providing comments to us. Our staff will be reading those comments, taking a look at that. We're also out talking to state agencies. We'll be looking

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at the documents analyzing all those things that we looked at.

We'll be doing some more looking at what Andy was talking about the new and significant information, making phone calls, looking at maps, all those different things for a pretty intense period for the next couple of weeks.

Then we sort of take a little bit of a break while we wait for other staff then to kind of gather up the scoping comments. We put out a report.

And we start back again doing what we call a writing session. And so that's -- we'll be writing the document, checking over, making sure other people agreed with -- making sure we didn't miss anything.

So it's kind of an ebb and flow kind of thing. Other people will be reviewing the document.

So it's off and on.

MR. CAMERON: And, Andy, we do have this information available because we need to budget.

MR. KUGLER: Right. I was going to say it's difficult to answer that question because there's an ebb and flow in the review process. At times an individual may not be very busy. And at other times they are extremely busy. Maybe the best way I can answer is we talked about there's a fairly large

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number of people.

But in terms of the effort involved over the course of the Environmental Review, we expect to expend between 15,000 and 20,000 Staff hours on the reviews. So try and put that in context. That's a person working full time for 15 to 20 years in that range. I'm sorry, about 10 to 13 years. So it's an enormous amount of effort that is put into this review to try and -- we're covering a lot of disciplines, a lot of areas of review. So it is a very detailed and in-depth review.

MR. CAMERON: Renee, did you want to one thing?

MS. HOLMES: In addition to all the reviews they're doing, they have to -- a lot of the things that they do come through the Legal Department.

And some of them will probably tell you we may take longer than they would prefer to do it.

But seriously sometimes they find out that they need more information from either the applicant or from other sources. They ask questions, technical questions, a lot of them have to go through the Legal Department. There are time frames built in.

And we have -- in the Legal Department I can honestly say we are changing, not changing

priorities but regulatory deadlines or statutory ones.

And at the same time we might be responding to motions to intervene in our licensing process. So there's a lot of other ones in addition to all the technical staff that do a great job. They also have to also interact and to participate in the process.

MR. CAMERON: Thank you, Rob -- Renee, also for reminding the Staff of how painful the Office of General Counsel Review can be.

We're going to go to -- we're going to go

We're going to go to -- we're going to go out to all of you for comments now. And we're going to start with Dr. George Ross, who is the President of Alcorn University; is that correct?

DR. ROSS: Alcorn.

MR. CAMERON: I'm never going to forget that now, believe me, Alcorn.

Yes, please.

DR. ROSS: Thank you. Good evening. I am the President of Alcorn State University. I'm also a resident of Claiborne County, Mississippi. And I'm here this evening to speak as the President and remind all of you I live and work in Claiborne County.

Alcorn State University was created by an act of the Mississippi State Legislature on May the 13th, 1871. The institution was created and I quote,

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"As a seminary of learning;" and was originally named Alcorn University of Mississippi in honor of Governor James Alcorn, who was then the Governor of the State of Mississippi.

Alcorn State University is the oldest land grant university in the State of Mississippi. Let me repeat that. Alcorn State University is the oldest land grant university in the State of Mississippi and the oldest historically black land grant institution in the United States. It was established in 1871 with funds provided through the first real Land Grant Act of 1862.

The University is committed to the posture and practice of equal opportunity, access to all qualified students, excellence in all programs and services, and to the success of its students. It strives to maintain a community of learners.

The institution perceives itself as an academically strong institution that is community centered and that conducts basic and applied research in public service to meet the needs of the students and other clients, especially the residents of Southwest Mississippi.

Alcorn State University is proud of its tradition as the preeminent four-year institution of

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higher learning in Southwest Mississippi, providing access to higher educational opportunities to the residents of Mississippi, Northeast Louisiana, the nation, and the global community.

Alcorn is also pleased to be in Entergy's service area and to a collaborative partner and neighbor of the Grand Gulf Nuclear Power Plant.

Contrary to the comments written in the June 12, 2000 issue of the Port Gibson Reveille, we at Alcorn State University of necessity see ourselves as a fit into the Grand Gulf situation. Our commitment is to have our mutual staff involved and engaged in education, training, research, and economic ventures that will support the nuclear industry and the University's mission.

It is our sincere hope that the statement attributed to Mr. James Randy Douet, Vice President of Operations, suggesting and I quote, "There was no mandate including Alcorn State University," incorrect and/or taken out of context. We've had a collaborative strong and mutually beneficial relationship with Grand Gulf Nuclear Power through the placement of faculty and students in internships and joint research initiatives.

With the growth potential of the nuclear

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industry and the likelihood of building a new high temperature gas-coal reactor adjacent to the existing Grand Gulf Nuclear Power Plant, it is imperative that Alcorn State University strengthens its partnership with Entergy Nuclear by assisting in the recruitment and training of the human capital and serving as a pipeline for trained technical subject area experts to contribute to the production, research, and development of the next generation of nuclear power.

There are about 104 commercial nuclear power generating units in operation in the United contributing 2,0 percent States, of the total electricity produced. The nuclear industry has demonstrated a record of reliability and safety. There has not been one death that has been attributed to a commercial nuclear generator. Therefore, the State of Mississippi and Claiborne County are glad to host nuclear generating stations.

When Grand Gulf Nuclear Station was first proposed for Claiborne County, the community was promised a great deal of prosperity and economic development. After over 25 years of operation and being in the community, the nuclear station remains a high tech oasis within a social economically disadvantaged community with a limited number of

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tangible benefits accruing to this community.

even more pronounced than it has been so far in the surrounding communities. Geographically Alcorn State University is located 12 miles southwest of the Grand Gulf nuclear site. Given the national sense of urgency and emergency preparedness following 9/11, having one of the largest nuclear power facilities as a neighbor demands that we are not only -- that we not only consider safeguarding our community from the remote potential of an accidental nuclear-related event, but also threats of terrorist attacks which is a Homeland Security issue.

August of 2005, Hurricane Katrina In demonstrated devastating impact of a natural disaster Gulf communities. in Coast Thus feel we responsibility at Alcorn to have in place appropriate facilities, trained personnel, mass notification systems to secure and protect our on and off campus constituencies if an emergency occurs.

While we at Alcorn and the community at large realize and appreciate the good neighbor relationship we have with Entergy Nuclear, we are not without concerns as to the long-term economic, educational, and health benefits and risks of this

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proposed facility. However, it is our position as the regional public university located in Southwest Mississippi to be engaged in the research development, planning and implementation culturally sensitive and community focused solution to actual and perceived problems.

Thus we at Alcorn propose that Alcorn State University will seek assistance from Entergy Nuclear to build an infrastructure to expand its educational training opportunities and strengthen its services and outreach capacities to the Claiborne County community.

To accomplish these goals, the University will need financial resources in the following areas: developing initiative and initiating degree in programs in nuclear engineering technology, radiation science and technology, and masters and bachelors degrees in emergency management; establishment and management of a Grand Gulf Nuclear Site 3, near site nuclear research center; creation of endowment for fellowship and professorships for research in chemistry and physics; and the development of a workforce training facility at the ASU campus.

We seek assistance from Entergy to build and manage a local Emergency Preparedness and Homeland

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Security Center in which we would house an emergency shelter in place, state of the art emergency management training, mass notification systems, and of transportation systems in case an emergency; assistance in creating a Regional Economic Development Partnership; and finally to perform an in-depth database study for the factors that affect socioeconomic and housing decision οf residents in relocating and living in communities surrounding the Grand Gulf.

The anticipated cost of implementing these goals and associated strategies will be approximately \$200 million over a three-year period. This figure request of funding represents a . to meet educational, research, emergency preparedness, community and economic development needs University and the Southwest Mississippi region. Funding to the University will be leveraged with additional state dollars, federal dollars, and private sources for a greater impact and sustained development in our region.

I thank you.

MR. CAMERON: Thank you. Thank you, Dr. Ross.

We're going to go to Mitch Monsour.

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Mitch.

MR. MONSOUR: Good evening. My name is Mitch Monsour. I'm the Hospital Administrator in Claiborne County Hospital. I have a Master's degree in Hospital Administration from George Washington University. I've been a Hospital Administrator for 35 years. And the past two years I've been the Administrator here and have become acclimated to many things here in Claiborne County.

I'd like to start off with I want to say I'm very bullish on nuclear energy. So I'm just going to talk about healthcare. And the words of Dr. Ross, here, I'm not nearly as prepared as the beautiful statements he was able to make tonight.

But first and foremost, I'd say that nuclear energy in this Grand Gulf is, should be and can be a very positive community partner here in Claiborne County. It's here for economic development. But for my perspective here, it's for the healthcare needs of the people here in Claiborne County.

If you do an environmental impact study, we have to be very aware of the Claiborne demographics. I believe that there's one basic fact that Claiborne County has a larger percentage of minorities or African Americans than any other county

in the United States. And with that goes some of the highest instances and prevalence of chronic disease, be that heart disease, stroke, cancer, arthritis, and diabetes. It has one of the highest obesity rates here in the United States of any county in the United States. And with that comes other problems with our youth, with our prenatal problems and indicators.

And all of these things tie in to our income here. It really hasn't benefitted from -- average income really hasn't benefitted from Grand Gulf over the last 25 years. Unemployment rates are probably 40 percent higher than the rest of the State of Mississippi. Keep in mind that the average income is probably only about 65 to 70 percent of the average of Mississippi which is way down of course near the bottom of the United States. So again healthcare is a very, very important aspect about this.

And when you start talking about 2010 for the approval on something like this and the time of construction, I'm making a very valid argument that again you need to start planning for this infrastructure today. What's going on here today in the environment is a prelude for what's going on in the future.

Generally you can say for this little --

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small little hospital that's 50 years old, totally antiquated, out of date. But again its role and mission is it's not like a tertiary care facility. This hospital is here for primary care for the people, for preventative care for the residents of Claiborne County, emergency care, disasters like what you all might be touching on tonight. And at the end of the day that creates jobs. Patient care creates jobs, and good-paying jobs. And that again is related to the healthcare program at Alcorn State University.

We want to have an environment and a location that when the children of Alcorn graduate in healthcare specialties that they have a job to come back to in Claiborne County. And this is not low-paying jobs. This is \$20, \$25 on average jobs with nurses and skilled health staff.

So again I propose environmentally that there be a very, very strong partnership between Entergy, Alcorn State University, Claiborne County, and the Claiborne County Hospital. They all are very, very synonymous to the needs of the community.

As we go in these things and again what's the little hospital role? The hospital's role is again going to the emergency site that is some kind of disaster preparedness as well as true healthcare

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partner to the needs of Claiborne County.

So again let's be -- if you're thinking about a two-year approval or the construction starts with all these hundreds of thousands of people that might come down here, this preplanning needs to start today because the infrastructure in healthcare that we have today in Claiborne County is totally inadequate. It's inadequate. And so if you start planning and do what can be done in this little hospital today, the preplanning that would be infrastructure again in that partnership that I described needs to occur today so that by the time that you have construction started for these people again the basics are in place.

And I promise you when you see that you're going to see that environmental impact so far as the community impact and the jobs and the preparedness and true emergency preparedness for the disasters that you all might start talking about insofar as your overall impact study and preparedness.

So I'm here to advocate the valiant role that healthcare plays along with education. And again the time to start planning and openly discussing that and making it happen is today.

Thank you very much.

MR. CAMERON: Thank you, Mr. Monsour.

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COURT REPORTERS AND TRANSCRIBERS 1323 RHODE ISLAND AVE., N.W. WASHINGTON, D.C. 20005-3701 We're next going to go to A.C. Garner, then to Evan Doss, Jr. and then to Paul Gunter.

A.C.?

MR. GARNER: Yes. Good evening. I spoke earlier today in the first session. I wasn't planning on speaking twice. But I do see some new faces that's here. And I think that this is an opportunity for people who make residence in Claiborne County to start speaking out. We do understand that at some point in time in our recent history it was a thing where that speaking out didn't come very often.

Anyway, to introduce myself, I'm A.C. Garner, retired citizen in Claiborne County. I'm a life-long resident of this county. I'm also a property owner. And just by incident, I do own property about one mile from Grand Gulf Nuclear Station.

I have been here, as I stated, most of my life. I don't plan to leave now. I have children here and grandchildren. And I'm not going to advise them to leave.

I may just also state that I am a graduate of Alcorn State University and proud of that institution.

I have been proud of Grand Gulf Nuclear

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Station and Unit 1. But a few years ago, I started gaining mixed feelings about this. At one time Claiborne County seemed to be on a progressive path, but there was something that took place. Mississippi Power and Light Company and the State of Mississippi decided to split up the tax monies that were rightfully Claiborne County's and sent them to 45 other counties in the State of Mississippi.

I must also say that I was Director of Emergency Management here around Grand Gulf Nuclear Station for 15 years and was the Director at the time that the Plant went online. At that time preparedness was firsthand. There were things that could be done whereas that the community could feel safe.

Right now it's a question mark. And one of the reasons why it is a question mark is when you see departments and agencies in this county who have the responsibility of first respondence does not have the funds to pay their employees and to get the necessary equipment and what-have-you to operate successful in this county.

To give you an example, at this particular time Claiborne County does not have an adequate Emergency Operations Center. They operate out of a fabricated building that is too small for the

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department and agencies to come together.

I think that someone -- and I think it could start with the Nuclear Regulatory Commission. It could also go to FEMA, Federal Emergency Management Agency, because they're charged with the responsibility of looking at departments and agencies in states and counties and municipalities that is around a nuclear station. I don't think that this has taken place. Someone has dropped the ball along the way.

I can also talk about departments here that don't have the personnel that they need to have for responding to emergencies. Take, for example, the Fire Department at one time had five fire stations that operated 24 hours per day. Now they only have one. If it was needed back in the late `80s after the plant came on line, it's also needed today.

In my studies and what-have-you, I have been told that an incident or an accident would probably happen after the plant became older rather than new. And that's understandable because I'm sure that each of you have seen things that were new and grow older. I am very concerned about what takes place here in Claiborne County around Grand Gulf Nuclear Station.

So at this time what I would like to do is call upon the Nuclear Regulatory Commission, Federal Emergency Management, Mississippi Emergency Management, the State of Mississippi, and by all means the Mississippi Legislature to start doing something to return the tax money to Claiborne County and at the same time make sure that the citizens here in Claiborne County have the protection they need.

Thank you.

MR. CAMERON: Thank you, Mr. Garner.

We're going to go to Mr. Doss at this point.

DOSS: MR. Thank you very much. Good evening to all. My name is Evan Doss, Jr., and I'm a lifelong resident of Claiborne County, Mississippi. And I just want to take about my three to five minutes to just challenge a couple of things that within the final report of the Environmental Impact Statement. It's shocking, it's disturbing to us as residents of Claiborne County. If this is environmental justice then I would hate to think what environmental injustice would be like for us as residents here in Claiborne County.

I just want to read a couple of quotes here, and I want to only stress about three areas of

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concern here that's going to affect. By building the Nuclear Power Plant Unit 3, it's going to have a drastic effect upon low income people here within Claiborne County.

And this is within the Impact Statement the NRC based upon in giving an Early Site Permit. It says that socio-economic impacts could range from lost benefits to moderate, adverse because local tax burden as assessed to public service of Claiborne County could either greatly improve or significantly deteriorate depending on the level of public service obligations imposed by new residents at a level of tax revenues provided by the new unit.

I'm going to go to one with education. It says that the impact could be considerable in Port Gibson, which could experience an increase of 460 children, 230 households times two per household in a district that has only 2,011 total.

I want to go to the housing situation. All of this is effective -- has a drastic effect on local low income people. It says that construction workers would need 230 local housing units here. And then it says here that after the number of housing units required to support the expected permanent workforce migrating into the area would be 508, half

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of the 1,160 new employees that will be working in the new nuclear power plant.

I want to read what it says about the hospital. In an emergency the Claiborne County Hospital has the space, equipment, and staff to help about three to four casualties at a time. It has one Decontamination Room 14 years old that is not located with the Emergency Room. Claiborne County officials - and I guess they're talking about the Board of Supervisors -- are concerned this is not sufficient should there be an emergency at the Grand Gulf ESP facility.

We intend to file whatever petition that it would take in order to correct this environmental injustice that's going to tremendous affect low income people. If you talk about the crisis of the housing that we already have here and bring in a third nuclear — bring in Grand Gulf 3 to this community, it's going to have a drastic impact on those individual residents that are already living here.

The other thing is that we begin to see in the social services area here individuals who are migrating here who don't have houses, who don't have food, but anticipate on getting jobs in this area here who are now filling up our shelters here within the

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community that we no longer have the room or the capacity to take care of some of the local individuals that we have.

These things are going to cost a tremendous amount of money if, in fact, Grand Gulf 3 gets built here in this community. That's going to have a drastic effect on -- and therefore, a condition needs to be put on Grand Gulf 3 is that if the local community don't have the money, somebody has got to pay for these kinds of things.

And one of the things that we challenge the NRC to add is that this needs to be resolved in terms of the education system, in the case of the housing system, and the hospital system, and for social service programs here that's drastically that's going to effect low income people.

MR. CAMERON: Thank you, thank you, Mr. Doss.

And we're next going to go to Paul Gunter from Beyond Nuclear.

MR. GUNTER: Thank you. My name is Paul Gunter. I'm with Beyond Nuclear at the Nuclear Policy Research Institute just outside of Washington, D.C. I was involved in the Early Site Permit and the Employee Atomic Safety and Licensing Board.

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And clearly one of the issues that's not resolved is the issue of how the current tax structure impacts versus the plan. And so the -- and I think clear that if you take а tour οf infrastructure here in Claiborne County, if you go out to the hospital, if you observe the closed fire stations, if you contemplate what it's like to have one police officer on duty at night for an area the size of Washington, D.C., you begin to understand that this application is deficient in that the -- a new reactor adds a burden to this community that if not picked up will just be unresolved. And so I think it's that kind of burden that not only addresses the concerns of the safety and the public health of this community, but is very clearly also a security issue.

The Environmental Impact Statement in that context what we feel necessary is that the -- you know, I think it's inappropriate to proceed with this EIS without a certified design. And I'm going to give one specific example in how proceeding in such a way puts this community and national security at real risk.

Right now if you go look at Argonne National Labs, they did a study which shows that Grand Gulf Unit 1 was never designed or constructed to take

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an aircraft impact. So there's a concern with regard to the viability and the security of that Plant.

Now you're going to talk about adding another unit, this unit as we understand it is a result of a rule-making that was initiated in December -- I guess closed in December of 2007. They are through supposed to go and the Agency is developing an aircraft impact hazards analysis. So they're going to look at what are the criteria that should go into helping make these reactors aircraft penetration resistant.

But we're now talking about proceeding with an Environmental Impact Statement without a certified design and in the absence of any conclusions as to what that criteria is. So I think that places this community, as it does communities around the country, at a real disadvantage in terms of why this is on such a fast track, why the public is left in the lurch without addressing these very fundamental safety and security issues. And it will only work against us in terms of what real security, what real safety should be.

And so at minimum the Environmental Impact Statement should look at a couple of things. First of all, that we think that you should include the impact

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of an aircraft or a security event at Grand Gulf 1 and how it relates to the safe operations of this new unit. So you know because they're co-located, because they're in the same spot, and because Grand Gulf Unit 1 was never designed or constructed, according to Argonne National Laboratory, to take an aircraft impact, you need to look at that in that context.

And more importantly we would agree with all the speakers that have addressed the environmental justice issue up here today that you need to address this community is disadvantaged by discriminatory undermines tax code that the infrastructure for the Emergency Plan for Grand Gulf Unit 1 as well as this proposed Grand Gulf 3.

Thank you.

MR. CAMERON: Thank you, Mr. Gunter.

Our next speaker is Clarence Scutter. And after Mr. Scutter we're going to see whether Avery Rollins and Jackie Rollins want to speak.

And this is Mr. Scutter.

MR. SCUTTER: Good evening. My name, as you say, is Clarence Scutter. I'm with the Citizens for Better Government Consulting Group. Job creation and health care are major priorities here in Claiborne County. Our unemployment rate here is 12.8 percent.

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Poverty leads to crime, drugs, alcohol, violence, and mental health problems, among other things.

Our unemployment rate is twice that of the national level. Health studies show over 20 years we have major increases in cancer, heart diseases, strokes, diabetes, and obesity. We must have a new hospital with modern technology to provide the services to the citizens of this community. Our hospital is over 50 years old.

We are one of the poorest counties in the State of Mississippi. We ask Entergy's help in locating two industries that can provide jobs in this area.

Our senior citizens and children are suffering for the necessities to survive day-to-day. We are also providing for the record some recommendations and letters from Entergy to enhance this community.

Thank you sincerely, Clarence Scutter,
A.C. Garner, Joseph Davis, Sr., J.B. Davis, and Ellis
Neal, Sr.

Some of the recommendations that we're talking about are continue to support and upgrade our public education system; continue to upgrade the Sheriff's Department; continue to upgrade the county

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Department; utilization of Fire Alcorn University, Hinds Community College, and local schools workforce training for programs and technical assistance; develop a comprehensive plan to address the needs of senior citizens; our develop а comprehensive recreational program; upgrade the infrastructure of water, sewage and roads; adequate housing program; establish drug and alcohol and mental health program.

And finally I'd like to leave you with a letter I received from Carolyn Shanks, President and Chief Executive Officer of Entergy Mississippi, Inc. I'm just going to read a paragraph of this letter. "Dear C.E. Scutter, It's deeply concerning to know that in the State of Mississippi, one out of seven elderly and disabled people live at or below poverty level. This means many of these folks are trying to get by with just \$400 to \$500 a month to spend on all of their living expenses. For a moment, can you imagine trying to pay expenses for housing, food, health care, transportation, utilities, other basic necessities on such a limited budget. Unfortunately, hard choices have to be made and, truthfully, sometimes no amount of budgeting will handle the crisis. These seniors have worked hard all

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their lives only to find that now, with low or fixed incomes, sometimes they simply cannot make ends meet."

Thank you very much.

MR. CAMERON: Thank you, Mr. Scutter.

Avery, this is Avery Rollins.

MR. ROLLINS: My name is Avery Rollins. I am from Madison, Mississippi. I've lived in Mississippi for 58 years. I spoke previously at the last Public Scoping Meeting.

By way of background I'm a retired former FBI Agent. I concentrated during most of my career in international terrorism. I'm a graduate of the Huntsville, Alabama Anti-Terrorist Devices School. I was a bomb technician for the FBI for 19 years.

At the previous scoping meeting, I expressed my concerns about the fact that as a private public citizen now I have no way of examining the emergency plans or emergency response in the event of a terrorist incident at Grand Gulf 1 or possibly Grand Gulf 2. I re-express those concerns.

Since that meeting I've become aware of certain things that have been expressed here tonight. The fact that it does not appear that your normal emergency preparedness is presently operational in the sense that it should be to respond not to Grand Gulf

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2 accident. 3 The comments made by apparently knowledgeable officials or former officials here 5 tonight would seem to indicate that a closer study needs to be made of emergency preparedness presently in Claiborne County to see if the NRC would not be putting all the residents here and those of us who 8 9 live within 75 miles of Grand Gulf 3 -- if you would 10 not be putting us at additional personal risk by 11 continuing to operate Grand Gulf 1 and establishing 12 and operating Grand Gulf 3 where the county does not 13 have the appropriate emergency response preparedness 14 that would be necessary. 15 Thank you. 16 Thank you very much, MR. CAMERON: Rollins. 17 18 And Jackie Rollins. 19 MS. ROLLINS: My name is Jackie Rollins. 20 I live in Madison County and I work with various 21 individuals and other groups around the state on clean 22 water, clean air, and a healthy environment for all 23 people. Several of my concerns have already been voiced. 24 25 I came down for this afternoon and met

to respond to a Grand Gulf

with several residents of Claiborne County and did a very short tour of some of the facilities here in Claiborne County, including the hospital.

And I'd just like to say very briefly some of the concerns that I have, one of which is as a taxpayer, I have been and all of us have been funding this industry with our tax dollars. The Entergy stockholders do not have as vested an interest in this industry as far as dollars put in than the taxpayer has. The taxpayer has funded research. Liability issues come back to the taxpayer. And I am concerned about the cozy relationship between the regulatory industry and Entergy, the utility companies.

So that would be -- I don't think we get objective figures when we look at estimates of final costs. I've read some objective, unconnected reviews of these costs and many of them say they're just ridiculously low. They're not even in the ballpark. Unless you believe in unicorns, these figures are just impossible to believe. So the cost is a big issue.

The health issues is another issue. I went by the hospital and Entergy -- the best predictor of future behavior, many of us would say, would be past behavior. And Entergy has been a member of this community with Grand Gulf 1. They have been

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contributing a very, very small amount of money to the hospital.

And there is a room over at the hospital which I would suggest that you go over and look at. It can only be described as a large closet. It has one set of shelves around one wall. Now this is the room that the hospital has designated for emergencies. So if anyone is in an accident and is affected by radiation, they come into the main door of the hospital, contaminate everything that they come in contact with, and then they're ushered into this little room with really nothing there. There's a window and, you know, a door, and two other walls. That's it.

So where is the emergency preparedness to handle a crisis, or will this be similar to Katrina or forest fires in the West or flooding that we're seeing now in the upper Mississippi River? I mean is it going to be an after-the-fact review and sudden change in looking at what we should have done beforehand, not after-the-fact?

I'm going to submit some comments in writing, but I just think we need more review before we complete this EIS. We need to know what the final project plan is going to be before we go any further.

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Thank you.

MR. CAMERON: Thank you very much.

We're going to go to Ruth Pullen and then Tom Pullen.

MS. PULLEN: My name is Ruth Pullen. I live in Byram, Mississippi, and I would be affected by an accident at the Plant. And that's one of my major concerns.

First, I do want to say that we've heard a lot of comments about preparedness. And I just want to say I think it is outrageous that there is even a consideration of putting another nuclear power plant in this area when they do not have adequate safety measures, adequate infrastructure to protect them in the case of an accident at the already existing Plant. And I don't even think another Plant should be considered until those measures, those needs are taken care of.

One of the things that I do want to address that I feel is real lack in the EIS was the effect of a catastrophic accident in this area. This is a source of power so potentially dangerous it's the only one that has to have evacuation routes, has to have trained emergency personnel specifically trained for this kind of accident. And I also want to point

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out now the NRC decided not to address this issue, I believe, because the risk was not considered high enough, the likelihood was not considered high enough.

Anyway I want to point out that I don't know how many of you are aware of the Price Anderson This was an Act enacted by Congress in the `50s, I believe, because the utility and the insurance companies felt that the liability in the case of a nuclear accident at a power plant was so high that they would not even consider building a plant. government came up with the Price Anderson Act, which is essentially a subsidy which limits the liability of the nuclear power industry in the event catastrophic accident. So now here the Congress feels that this is an issue important enough that they're passing legislation. That act has been renewed numerous times.

And yet the NRC in its Environmental Impact Statement is not really addressing in detail what would happen if there was a catastrophic accident at this plant. And I think that is a real lack in the EIS and I think it needs to be addressed.

I also want to point out that if you're looking at socioeconomic issues, the socioeconomic issues -- excuse me -- the effects of a catastrophic

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accident at this plant are just incredible, not only for Claiborne County. But you're talking about a facility that's two miles from the Mississippi River, one of the main thoroughfares, shipping thoroughfares, in the country which carries what drinking water and water down to the Gulf of Mexico. So a catastrophic accident at this plant would not only affect the economy of Claiborne County but would affect the economy of states all through the Gulf and the health of people along the Mississippi River.

Now I don't know if you're aware, just for an example, there's a dead zone in the Gulf of Mexico that stretches from Louisiana to Texas. result of agricultural chemicals coming down the Mississippi River from the Midwest. It has tremendous economic impacts on the fisheries and other aspects of income down in the Gulf. And an accident at this plant could have the same kind of effect, if not worse because it would affect the tourist industry. Ιt would just have a lot more effect. So I think that that's something that needs to be addressed in this EIS.

I also want to address just briefly terrorism. Now the Atomic Safety and Licensing Board here, I submitted a document from United Nations

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Disarmament Forum written by an expert on nuclear issues and terrorism. And in that document he said that he did not believe there was any way to make a nuclear reactor safe from an aerial attack.

I just want to read briefly. "The severity of an aircraft crash might drive through and render ineffective the normally accepted physical systems that serve to limit the consequences, such as safe shut down, continued availability of utilities, adequate containment integrity, and on and off site emergency preparedness."

So I think that the terrorism issue does need to be addressed. We not only have to worry about the air, we have to worry about land and water attacks. And I just think -- assuming that the facility is safe, you've got one nuclear -- you've got Grand Gulf 1 now. You've got 20 years of nuclear waste stored above ground, making Port Gibson essentially a nuclear waste dump for the state of Mississippi. All these and then you're talking about putting another reactor there.

All these given the effects that it would have on the Mississippi River and the economy in the Gulf of Mexico really increase the risk of a terrorist attack at this facility because the effects would be

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devastating. So I think that all these issues need to be addressed in more depth.

The other thing that I feel is a real lack in the former EIS -- and I want to say I appreciate all the work that the NRC Staff put into this. I've spoken to several EIS Staff members and I know they're very dedicated and believe in what they're doing. But the treatment of alternatives was absolutely inadequate. Ι think lot а the information was based on something that Entergy has provided which of course is a real conflict of interest in my opinion.

For example, it was talking about Port Gibson as a site for providing solar power. Well, the fact is that one of the benefits of solar power and other alternatives is that they do not have to be site-specific. They can be dispersed. So for example, you don't have to put all your solar panels in Port Gibson.

First of all, it should look at the entire service area and what facilities it could provide. You've got wind power. There's just tremendous opportunities in the alternative energy market that really make nuclear power at this time because of so many of the problems associated with it just

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unacceptable.

I want to read just briefly something from an MIT study entitled The Future of Nuclear Energy. What they conclude is, "The prospects for nuclear energy as an option are limited by many unresolved problems of which high relative costs is only one."

And if you get out and read, you'll see the costs for nuclear energy are just ridiculous and they keep escalating. They keep increasing and increasing.

Others include environment safety and health issues, nuclear proliferation concerns, and the challenge of long term waste management. Now several of these issues should be addressed in an EIS. They're related to this facility. They're related if you add another facility. And they should be addressed.

Well, I think I will leave it at that except for one thing. We're talking about socio-economics. The Mississippi Legislature just passed a bill that would allow Entergy to increase rates to pay for building this facility whether it's ever put into production. They would never have to return the money to rate payers. For people that are economically challenged now, that is going to put an additional

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burden on them if their energy rates are increased. So that is something else that needs to be considered in your socio-economic analysis.

Thank you.

MR. CAMERON: Thank you very much.

We're going to go to Tom Pullen at this point. And then to Phil Segrest.

MR. PULLEN: Thank you. I'd like to just say a few additional words about the cost issue. As Ruth pointed out, nuclear energy is not a cost effective way of producing energy. If you look at the situation across the spectrum, costs continue to escalate year by year. Every year it's worse.

If you look at the cost for alternative energy sources, such as solar or wind and other, they continue to go down year by year by year. And I think this is an important thing. And I would urge the NRC to look very carefully at that issue in the EIS Supplement that's being prepared.

This relates very much, I think, to the issue of emergency preparedness. We've heard a number of people here tonight talk about how unprepared this area is in case of an emergency, and of the need for a great deal of infrastructure improvement, etcetera. If we proceed here and begin building Unit 3 and the

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costs continue to escalate as they most certainly will, where is the money going to come from to address these needs?

As Ruth also pointed out, some people have tried through the Mississippi Legislature to put this all on the rate payer. Did you think the money was going to come from Entergy? Are they going to help you build a new hospital if the cost for their Unit 3 escalates? Are they going to stick it on the rate payer? Are they going to ask for an additional increase in rates?

We've got a problem here. We're going down a road that in the long run is not going to help any of us. So your Supplemental EIS in my opinion should direct a great deal of attention to this issue of alternatives to a nuclear power plant. There are a lot of options that should be explored.

And to put all your eggs in the basket of an additional unit at Grand Gulf Unit 3 is in my opinion a mistake. And that needs to be very carefully analyzed in the Supplemental EIS. So I would leave with that.

MR. CAMERON: Thank you very much.

Now we have Phil Segrest.

MR. SEGREST: I'm Phil Segrest and I am

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resident of Claiborne County, fifth generation in the area here, Claiborne and Jefferson Counties that we all called Pickering at one time.

I don't know of anyone in this room that's in Claiborne County -- I'm going to address the Legislature problem -- that doesn't have friends in Jefferson County. I've got a number of friends down there. I've got a piece of property that borders into the two counties.

Taxes are a lot higher down there than they are up here. Services are a lot lower. Unemployment is higher down there. Grand Gulf is our difference.

Now some people got up and talked about the lack of infrastructure which is due primarily to the tax problem. The tax problem came about -- and there's a gentleman in this room I'm going to call to speak about that some in more depth than I can -- but it came about by the Mississippi Legislature taking the money away, not Grand Gulf, not the Nuclear Regulatory Commission, not the local officials.

The State Legislature took that money away from us. And, yes, it hurt. And, yes, they didn't do right. They don't do that to any other big industries in the state. They didn't do it to the Nissan Plant

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in Madison County. They don't do it to the gambling facilities that are in the area that citizens from Claiborne County participate in. So that was a definite problem.

There are a few other things I'd like to about talk and maybe someone from the Nuclear Regulatory Commission could add something about that. We haven't built a nuclear power plant in this country in quite a number of years. But that doesn't mean that the nuclear industry has stood still. flourishing industry has been in countries. Europe, where the population density is a lot heavier than it is in any part of the United States except some of the large metropolitan areas, is heavily involved in that.

And I'd like to know if this new design that's being studied in places by the NRC now is closely kin to any of that ongoing nuclear work that's been going on in the other countries.

I got a comment to one thing, and not trying to pick on the individual that said it. But I'd like to know what in this country is designed to take an aircraft impact. I mean 9/11 pretty much showed you that buildings like the Pentagon, building like the Trade Centers that were, I believe, built in

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pretty much the same time frame that Grand Gulf was built certainly couldn't take it. There are buildings around here that couldn't take the impact of a gasoline tanker, let alone an aircraft or an aircraft tanker.

People have talked about alternate types of energy. Mississippi can't support wind energy. If they could, you would have seen a lot of windmills used on farms to pump water back before they had electricity in the rural areas. There's just not the wind, sustainable winds, here to take care of that, let alone produce power. A lot of places where they can produce it -- I think it was Connecticut or Massachusetts coast -- I read two to three, four weeks back -- don't want the wind turbines in their area.

I mean it's always easy to be negative. Negative is probably the easiest thing to be. Let's look at the positive things that Grand Gulf has brought to us. Let's look at the positive things that another unit at Grand Gulf can bring to us, especially if we can get the Legislature to be fair with the county.

Dr. Sheppard back here has had a lot more experience with the Legislature than I have and might could speak better to that than I have.

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1	Shake your head, Charles. I don't know
2	what you don't want to speak about it or not. But
3	I mean am I wrong?
4	I mean it wasn't the Nuclear Regulatory
5	Commission; it was the Legislature that took those tax
6	dollars and redistributed them.
7	DR. SHEPPARD: Correct.
8	MR. CAMERON: Okay, Phil, can you just
9	continue on?
10	MR. SEGREST: That's it. That's really
11	all I've got to say.
12	MR. CAMERON: Thank you very much.
13	And when we do close out the formal part
14	of the meeting and if any of the NRC Staff has
15	information on the design relative to what's happening
16	in other countries if you could just talk to Mr.
17	Segrest about that.
18	That's our final speaker that we had
19	signed up for tonight. You've given the NRC a lot to
20	think about with all your comments.
21	And there's someone flashing their hand
22	and it looks like it's Ruth Pullen. Ruth, what
23	MS. PULLEN: And I don't know maybe this
24	is relative to
25	MR. CAMERON: Well, I think we need to

stop now at this point because I think we will just get into an endless round on that. But thank you.

And, Norris, you want to be the final speaker for us?

This is Norris McDonald.

MR. MCDONALD: My name is Norris McDonald.

I represent the Center for Environment, Commerce, and
Energy. We're based in Fort Washington, Maryland,
just outside of Washington, D.C.

Does NRC consider the jobs that would be created at Unit 3 to be green jobs? And we would like to recommend that NRC consider jobs that would be created at Unit 3 to be green jobs. To consider the possibility of describing those jobs in the EIS as green jobs.

Now the Energy Information and Security Act of 2007 that was passed just last year included \$125 million and created 30,000 training positions. So if nuclear is included in the green jobs area -- and that's the new sexy area that's coming down now in additional to environmental justice -- then possibly it could help with the economic development items many people have discussed here today.

Now we support green jobs. But wind and solar provide less than one percent of the electricity

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in the United States, whereas nuclear provides 20 percent. So when I'm talking about this to people, I say, well, you should go get the bang for the buck.

Now if the Energy Bill that was signed created 30,000 jobs for \$125 million, I believe that this will be revisited. I'd love to see some training jobs in Port Gibson. Maybe legislation could even be considered in that direction. Instead of 30,000 positions, maybe just 3,000 training positions here paying them \$30,000 each.

what they would like to try to do. I think it would help their position. And also he mentioned a high temperature reactor. Well, that's some interesting new research. That's a new type of reactor. I happened to have visited that type of reactor outside of Beijing. We talked after he spoke. And that's the sort of thing we can talk about.

But considering of Unit 3 jobs as green jobs, then the possibility would be that it could be added to the wind and solar green jobs movement because the Green Jobs Act of 2007 that created what I just described \$125 million for 30,000 jobs -- it was part of that larger Energy Bill, the Energy and Information Security Act. So just consider that.

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Thank you very much.

MR. CAMERON: Thank you, Norris.

I'm going to ask our Senior NRC Manager, Richard Raione to close the meeting out for us. And we'll be available to talk after that.

MR. RAIONE: Good evening, everybody. You all have been a great audience tonight. And on behalf of the NRC I applaud your interest, your intellect, your communication, and your involvement skills here. We're heard a lot of good comments and discussion here tonight. We have a lot to take back with us in going back to Rockville, Maryland.

I'd like to thank our Court Reporter for his fine work and to all of you for coming out and participating in our meeting here tonight. I'd also like to thank the City of Port Gibson and the Mayor for letting us use this wonderful building.

There are a few of us that during the break from the earlier meeting got a chance to walk downtown and it's really nice to look at the architecture and soak in the history. Fantastic neighborhood.

Rockville, Maryland -- I'm a Geologist by training as you all have heard. I'm still curious why they call it Rockville. There's too many buildings

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and pavement there. So maybe at one time there were rocks, but not any more.

Remember what I said earlier about who to contact, how to contact us, when to contact us, etcetera. We're easy to find at www.nrc.gov. We look

contact, how to contact us, when to contact us, etcetera. We're easy to find at www.nrc.gov. We look forward to receiving any additional comments. And by all means come on up to Rockville in person this summer or this fall if you can.

And while you're there, make sure you check out our capital. Lots of stuff to do there and lots of museums. Definitely recommend it if you can.

I'd ask for you to keep our nation's veterans in your thoughts and prayers. Let's don't forget these folks. Just let them know that you appreciate their service when you see them. We see a lot of them on these -- we have to do a lot of traveling on our branch. And they definitely appreciate a pat on the back.

Be safe on the way home this evening.

I declare this meeting to now be officially over. And good evening.

Our staff will be here for a few minutes later tonight to answer additional questions. Thank you.

(Whereupon, this meeting was concluded at 9:17 p.m.)

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Written Comments Submitted During Evening Session of

June 19 Grand Gulf Scoping Meeting

1) George E. Ross, Ph.D., President of Alcorn State

- 1) George E. Ross, Ph.D., President of Alcorn State University - Testimony on the Environmental Impact of Grand Gulf Nuclear Station, Unit 3
- 2) A.C. Garner, Chairman of the Political Action

 Committee of the Claiborne County NAACP
 testimony
- 3) Clarence Scutter, Citizens for Better Government Consulting Group - Letter dated June 19, 2008 to the NRC with following 2 attachments: March 11, 2008 letter from Carolyn Shanks of Entergy Mississippi, Scutter; Inc to Mr. and Recommendations by Citizens for Better Government Group to Claiborne County Board of Supervisors
- 4) Ruth Pullen Essay titled "Nuclear Bomb" by Joseph Romm

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Nuclear Regulatory Commission

Testimony on the Environmental Impact of
Grand Gulf Nuclear Station, Unit 3

Port Gibson, MS

By

George E. Ross, Ph.D., President Alcorn State University June 19, 2008

Alcorn State University was created by an act of the Mississippi State Legislature on May 13, 1871. The institution was created as a "seminary of learning" and was originally named Alcorn University of Mississippi in honor of Governor James L. Alcorn who was then governor of the State of Mississippi.

Alcorn State University is the oldest land-grant university in Mississippi and the oldest historically black land-grant institution in the United States. It was established in 1871 with funds provided through the First Morrill Land-Grant Act of 1862. The university is committed to the posture and practice of equal opportunity, access to all qualified students, excellence in all programs and services, and to the success of its students. It strives to maintain a community of learners. The institution perceives itself as an academically strong institution that is community-oriented and that conducts basic and applied research and public service to meet the needs of students and other clients, especially residents of southwest Mississippi.

Alcorn State University is proud of its tradition as the preeminent four-year institution of higher learning in southwest Mississippi providing access to higher educational opportunities to residents of Mississippi, northeast Louisiana, the nation, and the global community. Alcorn is also pleased to be in Entergy's service area and to a collaborative partner and neighbor of the Grand Gulf Nuclear Power Plant.

Contrary to the comments written in the June 12, 2008 issue of the *Port Gibson Reveille*, we at Alcorn State University, of necessity see ourselves as a "fit into the Grand Gulf situation." Our commitment is to have our mutual staff involved and engaged in education, training, research and economic ventures that will support the nuclear industry and the university's mission. It is our sincere hope that the statement attributed to Mr. James Randy Douet, Vice President of Operations, suggesting that "there was no mandate including ASU" is incorrect and/or taken out of context.

We have had a long collaborative and mutually beneficial relationship with Grand Gulf Nuclear Power Plant through the placement of faculty and students in internships and joint research initiatives. With the growth potential of the nuclear industry, and the likelihood of building a new high temperature gas-cooled reactor adjacent to the existing Grand Gulf Nuclear Power Plant, it is imperative that Alcorn State University strengthen its partnership with Entergy Nuclear by assisting in the recruitment and training of the human capital and serving as a pipeline for trained technical subject area experts to contribute to the production, research, and development of the next generation of nuclear power.

There are about 104 commercial nuclear generating units in operation in the United States contributing 20 percent of the total electricity produced. The nuclear industry has a demonstrated record of reliability and safety. There has not been one death that has been attributed to commercial nuclear generators. Therefore, the State of Mississippi and Claiborne County are glad to host nuclear generating stations.

When GGNS was first proposed for Claiborne County, the community was promised a great deal of prosperity and economic development. After over 25 years of operation and being in the community, the Nuclear Station remains a high tech oasis within a socioeconomically disadvantaged community, with a limited number of tangible benefits accruing to the community. Entergy is capable of making its presence more pronounced than it has been so far in the surrounding communities.

Geographically, Alcorn State University is located 12 miles south wind of the Grand Gulf Nuclear site. Given the national sense of urgency in emergency preparedness following 9/11, having one of the largest nuclear power facilities as a neighbor, demands that we not only consider safeguarding our community from the remote potential of an accidental nuclear related event, but also threats of terrorist attacks, which is a homeland security issue. In August, 2005, Hurricane Katrina demonstrated the devastating impact of a natural disaster in Gulf Coastal communities. Thus, we feel a responsibility, at Alcorn, to have in place the appropriate facilities, trained personnel and mass notification systems to secure and protect our on and off campus constituencies if an emergency occurs.

While we at Alcorn, and the community at-large, recognize and appreciate the "good neighbor" relationship we have with Entergy Nuclear, we are not without concerns as to the long term economic, educational and health benefits, and risks of the proposed facility. However, it is our position as the regional, public university, located in southwest Mississippi, to be engaged in the research and development, planning and implementation of culturally sensitive and community-focused solutions to actual and perceived problems. Thus, we propose that Alcorn State University will seek assistance from Entergy Nuclear to build its infrastructures, expand its

educational and training opportunities, and strengthen its services and outreach capacities. To accomplish these goals, the University will need financial resources to:

- 1. Develop and initiate degree programs
 - BS Nuclear Engineering Technology
 - BS Radiation Science and Technology
 - BS and MS degree in Emergency Management
- 2. Establish and manage a GGNS 3 near site Nuclear Training/Research Center
- 3. Create two Endowed Professorships in the School of Arts and Sciences
 - Chemistry
 - Physics
- 4. Develop and operate a Workforce Development Training Facility on the ASU Campus
- 5. Build and manage a Local Emergency Preparedness and Homeland Security Center
 - Emergency Shelter in Place
 - State of the Art Emergency Management Training
 - Mass Notification Systems
 - Transportation
- 6. Create a Regional Economic Development Partnership
- 7. Perform an in-depth data-based study of the factors that affect socioeconomic and housing decisions of residents in relocating and living in communities surrounding Grand Gulf.

The anticipated costs of implementing these goals and associated strategies will be approximately \$200 million over a three-year period. This figure represents a request of funding to meet the educational, research, emergency preparedness, community and economic development needs of the university and the southwest Mississippi region. Funding to the university will be leveraged with resources from state, federal, and private sources for greater impact and sustained development in the region.

JUNE 19, 2008 U.S. NUCLEAR REGULARTORY COMMISSION MEETING PUBLIC SCOPINIG MEETING

I am A.C. Garner, retired citizen of Claiborne County. I am a life long resident of this county; I also own property here, matter of fact some property about one mile from Grand Gulf Nuclear Station. I served as Director of the Emergency Management Center for about fifteen years; I was there when the plant went on line some twenty-three years ago. I have watched things in this county and around Grand Gulf Nuclear Station deteriorate for several years.

It all started when M.P & .L. and the State of Mississippi decided to split tax money that was rightfully Claiborne County's money. The money was sent to some forty-five other counties, at that time Claiborne County received about 16 million each year. All monies were placed in an escrow account and when the bill was passed by the Mississippi Legislature, the money remained in the hands of the State of Mississippi. Since that time I have watched the first respondent, department and agencies not have what they need to respond in case of an accident or an incident around Grand Gulf Nuclear Station.

In 1986 Claiborne County received 16 million from Grand Gulf now the county only received only 8 million each year. Now Claiborne County can not afford to do upkeep on its Emergency Operation Center, they are presently operating out of a fabricated building. The only hospital in this county is in need of emergency repairs. At first we had five fire stations opened in this county operating 24 hours per day, now we can only afford one, also law enforcement is short at all times; one of the reasons is because money is not available to pay decent salaries.

We have concerns about something that is taking place around Grand Gulf; we have questions about Emergency Response in protecting the citizens and their properties. We call on you, the Nuclear Regulatory Commission Federal Emergency Management, The State of Mississippi, by all means the Mississippi Legislature to do something about returning the tax dollars to Claiborne County.

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Political Action Committee of the Claiborne County NAACP

A.C. Garner, Chairman

Citizens For Better Government Consulting Group Post Office Box 401 Port Gibson, Mississippi 39150 (601) 218-1164

June 19, 2008

Nuclear Regulatory Commission Public Scoping

Dear Commissioners,

Job creation and Health-Care are major priorities in Claiborne County. Our unemployment rate here is 12.8%. Poverty leads to crime, drugs, alcohol, violence and mental problems, among other things.

Health studies shows over 20 years we have major increases in cancer, heart diseases, strokes, diabetes and obesity.

We must have a new hospital with modern technology to provide the services to the citizens of this community.

We are one of the poorest counties in the State of Mississippi.

We ask Entergy's help locate two (2) industries that might locate in Claiborne County that can provide jobs in this area.

Our senior citizens and children are suffering for the necessities to survive day to day. We are also providing, for the record, some recommendations and letter from Entergy to enhance this community.

Thank you.

Sincerely,

A.C. Garner COLD Joseph Davis, Sr. JCD J.B. Davis

Ellis Neal, Sr. 6 1



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33200-A-0-108-28232

March 11, 2008

C. E. Scutter PO Box 401 Port Gibson, MS 39150-0401

Dear C. E. Scutter,

It's deeply concerning to know that, in the state of Mississippi, 1 out of 7 elderly and disabled people live at or below the poverty level. This means many of these folks are trying to get by with just \$400 to \$500 a north to spend on all of their living expenses. For a moment, can you imagine trying to pay expenses for housing, food, health care, transportation, utilities and other basic necessities on such a limited budget! Unfortunately, hard choices have to be made and, truthfully, sometimes no amount of budgeting will handle the crisis. These seniors have worked hard all of their lives only to find that now, with low or fixed incomes, sometimes they simply cannot make ends meet.

With your generous support, the Entergy Senior Assistance Fund can make a big difference in the lives of some of our neighbors who are in desperate need. Basically stated, <u>our purpose is to help low-income</u> seniors and the disabled pay their utility bills during emergency financial situations. In this difficult economy, many are struggling, but the challenges facing our elderly and vulnerable citizens in our communities are particularly daunting.

Also, please know that the need is growing. Unfortunately, last year requests for assistance increased. More aid is critically necessary. We all need to do more. Can you help as well?

Please support the Entergy Senior Assistance Fund today. Your gift will enable Entergy to continue to ofter relief to those who are struggling. Through Energy Concern, your tax-deductible contribution is distributed by The Salvation Army to help low-income elderly and disabled individuals facing emergency financial situations. And, because we have seen first hand the difference that this program makes, once again, Entergy stockholders will match your contribution, dollar-for-dollar, up to \$500,000. For example, if you donate \$25 to the fund, Entergy will donate \$25. Every penny (100%) of funds received will provide direct support to those who need it most.

Please help create hope for your elderly and disabled neighbors living in poverty. Our ability to assist them greatly depends on your support. Please take a moment right now to send a contribution today. Your gift means so much to those who have so little.

Sincerely,

Carolyn Shanks

President and Chief Executive Officer

Entergy Mississippi, Inc.

P.S. Entergy will match your support dollar-for-dollar. Won't you please join us in helping your neighbors in need? Your concern and compassion for those living in poverty is greatly admired and appreciated.

THE FOLLOWING RECOMMENTATIONS ARE BEING PRESENTED TO THE CLAIBORNE COUNTY BOARD OF SUPERVISORS BY THE "CITIZENS FOR BETTER GOVERNMENT GROUP"

2008 - 2012 AGENDA

SHORT-RANGE PLANS

- CREATION OF JOBS
- CONTINUE TO SUPPORT PUBLIC EDUCATION
- 24 HOUR MASS TRANSIT PROGRAM
- CONTINUE TO UPGRADE THE SHERIFF DEPARTMENT
- CONTINUE TO UPGRADE THE COUNTY FIRE DEPARTMENTS
- RECRUIT MORE DOCTORS TO OUR AREA
- UTILIZATION OF ALCORN STATE UNIVERSITY, HINDS COMMUNITY COLLEGE AND LOCAL PUBLIC SCHOOLS FOR WORKFORCE TRAINING PROGRAMS AND TECHINAL ASSISTANCE
- DEVELOP A COMPREHENSIVE PLAN TO ADDRESS THE NEEDS OF SENIOR CITIZENS
- DEVELOP A COMPREHENSIVE RECREATION PROGRAM.
- ESTABLISH A MINORITY ENTERPRENEUR FUND
- YOUTH DEVELOPMENT PROGRAM (EDUCATION, JOBS, RECREATION & LEADERSHIP)
- COMPLETION OF HIGHWAY 61 BY-PASS
- ABOLISH THE PORT COMMISSION AND ESTABLISH A 5-MEMBER ECONOMIC DEVELOPMENT BOARD AND EMPLOY A PROFESSIONAL ECONOMIC DEVELOPER
- WORK WITH ENTERGY TO SECURE NEW INDUSTRIES
- PROVIDE AN INCENTIVE PROGRAM FOR COUNTY AND CITY EMPLOYEES BETTER WORKING CONDITIONS PAY INCREASES
- CLEAN-UP AND RESTORE THE GOLDEN WEST CEMETARY
- RESOURCE CENTER

LONG-RANGE PLANS

- NEW HOSPITAL
- UPGRADE INFRASTRUCTURE (WATER AND SEWAGE)
- ADEQUATE HOUSING PROGRAMS
- ESTABLISH A DRUG & ALCOHOL AND MENTAL HEALTH PROGRAM
- FOUR-LANE HIGHWAY 18
- FOUR-LANE HIGHWAY 547
- RESTORE RAIL SERVICE
- DEVELOP A SMALL AIR STRIP
- DEVELOP LITTLE BAYOU PIERRE

Salon.com
RUTH

Search on price of Muclear power

Nuclear bomb RUTH PULLEN

Nuclear energy, the sequel, is opening to raves by everybody from John McCain to a Greenpeace co-founder. Don't be fooled. It's the "Ishtar" of power generation.

By Joseph Romm

June 2, 2008 | No nuclear power plants have been ordered in this country for three decades. Once touted as "too cheap to meter," nuclear power simply became "too costly to matter," as the Economist put it back in May 2001.

Yet growing concern over greenhouse gas emissions from fossil fuel plants has created a surge of new interest in nuclear. Wired magazine just proclaimed "Go nuclear" on its cover. Environmentalists like Stewart Brand and James Lovelock have begun embracing nukes as a core climate solution. And GOP presidential nominee John McCain, who has called for building hundreds of new nuclear plants in this country, recently announced he won't bother showing up to vote on his friend Joe Lieberman's climate bill because of insufficient subsidies (read "pork") for nuclear power.

What do they know that scores of utility executives and the Economist don't? Nothing. actually. Nuclear power still has so many problems that unless the federal government shovels tens of billions of dollars more in subsidies to the industry, and then shoves it down the throat of U.S. utilities and the public with mandates, it is unlikely to see a significant renaissance in this country. Nor is nuclear power likely to make up even 10 percent of the solution to the climate problem globally.

Why? In a word, cost. Many other technologies can deliver more low-carbon power at far. less cost. As a 2003 MIT study, "The Future of Nuclear Energy," concluded: "The prospects for nuclear energy as an option are limited" by many "unresolved problems," of which "high relative cost" is only one. Others include environment, safety and health issues, nuclear proliferation concerns, and the challenge of long-term waste management.

Since new nuclear power now costs more than double what the MIT report assumed -three times what the Economist called "too costly to matter" -- let me focus solely on the unresolved problem of cost. While safety, proliferation and waste issues get most of the publicity, nuclear plants have become so expensive that cost overwhelms the other problems.

Already nuclear energy, the sequel, is a source of major confusion in the popular press. Consider this recent interview between Newsweek's Fareed Zakaria and Patrick Moore, one of the co-founders of Greenpeace, who is now a strong advocate for nuclear power. Zakaria asks, "A number of analyses say that nuclear power isn't cost competitive, and that without government subsidies, there's no real market for it." Moore replies:

That's simply not true. Where the massive government subsidies are is in wind and solar ... I know that the cost of production of electricity among the 104 nuclear plants operating in the United States is 1.68 cents per kilowatt-hour. That's not including the capital costs, but the cost of production of electricity from nuclear is very low, and competitive with dirty coal. Gas costs three times as much as nuclear, at least. Wind costs five times as much, and solar costs 10 times as much.

In short: That's absurd. Nuclear power, a mature industry providing 20 percent of U.S. power, has received some \$100 billion in U.S. subsidies -- more than three times the subsidies of wind and solar, even though they are both emerging industries. And how can one possibly ignore the capital costs of arguably the most capital-intensive form of energy? Moore's statement is like saying "My house is incredibly cheap to live in, if I don't include the mortgage."

Furthermore, after capital costs, wind power and solar power are pretty much free -nobody charges for the breeze and the sun. Operation is also cheap, compared with
nukes, which run on expensive uranium and must be monitored minute by minute so they
don't melt down. Moore is talking about old nuclear plants, which have been paid off. But
the price of new nuclear power has risen faster than any other form of power, as a
detailed study of coal, gas, wind and nuclear power capital costs by Cambridge Energy
Research Associates concluded.

In fact, from 2000 through October 2007, nuclear power plant construction costs -- mainly materials, labor and engineering -- have gone up 185 percent! That means a nuclear power plant that would have cost \$4 billion to build in 2000 would have cost more than \$11 billion to build last October.

You know an industry is starting to price itself out of business when one of its trade magazines, <u>Nuclear Engineering International</u>, headlines a recent article "How Much? For Some Utilities, the Capital Costs of a New Nuclear Power Plant Are Prohibitive."

As the article related, in 2005, the U.S. Energy Information Administration projected about \$2,000 per kilowatt for a nuclear plant's "overnight capital costs" -- the industry's rosy-eyed terminology for the cost of the plant if it could be built overnight, absent interest and financing costs, and assuming no construction cost overruns. At the time, Marvin Fertel, the chief nuclear officer at the Nuclear Energy Institute (NEI), told the Senate that the assumptions made on new nuclear plant construction were "unrealistically high and inflated."

But by mid-2007, a <u>Keystone report</u>, funded in part by the nuclear industry and NEI, estimated overnight costs at \$3,000 per kilowatt, which, with interest, equals \$3,600 to \$4,000 per kilowatt. The report notes, "The power isn't cheap: 8.3 to 11.1 cents per kilowatt hour." That's not cheap, when you consider that in December 2007, retail prices in this country averaged 8.9 cents per kilowatt-hour.

Mid-2007 had already become the good old days for affordable nuclear power. Jim Harding, who was on the Keystone Center panel and was responsible for its economic analysis, e-mailed me in May that his current "reasonable estimate for levelized cost range ... is 12 to 17 cents per kilowatt hour lifetime, and 1.7 times that number [20 to 29 cents per kilowatt-hour] in first year of commercial operation."

At the end of August 2007, American Electric Power CEO Michael Morris said that because of construction delays and high costs, the company wasn't planning to build any new nuclear plants. Also, builders would have to queue for certain parts and face "realistic" costs of about \$4,000 a kilowatt. "I'm not convinced we'll see a new nuclear station before probably the 2020 timeline," Morris said.

So much for being a near-term, cost-effective solution to our climate problem. But if \$4,000 per kilowatt was starting to price nuclear out of the marketplace, imagine what prices 50 percent to 100 percent higher will do.

In October 2007, Florida Power and Light (FPL), "a leader in nuclear power generation," presented its <u>detailed cost estimate</u> for new nukes to the Florida Public Service Commission. It concluded that two units totaling 2,200 megawatts would cost from \$5,500 to \$8,100 per kilowatt -- \$12 billion to \$18 billion total!

Lew Hay, chairman and CEO of FPL, said, "If our cost estimates are even close to being right, the cost of a two-unit plant will be on the order of magnitude of \$13 to \$14 billion. That's bigger than the total market capitalization of many companies in the U.S. utility industry and 50 percent or more of the market capitalization of all companies in our industry with the exception of Exelon." This, he said, "is a huge bet for any CEO to take to his or her board."

In January, MidAmerican Nuclear Energy Co. said prices were so high it was ending its pursuit of a nuclear power plant in Payette County, Idaho, after spending \$13 million researching its economic feasibility. Company president Bill Fehrman said, "Consumers expect reasonably priced energy, and the company's due diligence process has led to the conclusion that it does not make economic sense to pursue the project at this time."

MidAmerican is owned by famed investor Warren Buffett. When Buffett pulls the plug on a potential investment after spending \$13 million analyzing the deal, that should give everyone pause.

How expensive have nuclear plants become? So expensive that Duke Power has been refusing to reveal cost estimates for a nuclear plant for the Carolinas, saying it would reveal trade secrets. I kid you not. The <u>Charlotte News & Observer</u> reported in April, "'If Duke is requested to disclose the cost today, it will undermine the company's ability to get the lowest cost for its customers,' said Duke attorney Lawrence Somers. 'In light of the testimony today, the public advocacy groups want the cost of this plant to go up."

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Yes, those annoying public advocacy groups want to know the cost to the public of the plants before supporting them. The company actually testified that if everyone knew the plant's cost, that would "give tactical advantage to vendors and contractors during sensitive negotiations." What Duke seems to be saying is that if suppliers knew just how incredibly expensive the plant is, they would want a bigger piece of the pie. Such is the state of our free-market energy economy today.

Amazingly, North Carolina regulators agreed with Duke that the estimated cost is a "trade secret" under state law. South Carolina's consumer advocate, C. Dukes Scott, took a stance that was once called common sense in this country: "If you want the ratepayers to pay for something, are you going to tell them it's none of their business?"

In fact, back in February, Duke Energy CEO Jim Rogers told state regulators the plant would cost \$6 billion to \$8 billion, but a mere two months later said that estimate was "dated and inaccurate." Scott wondered, "If the cost wasn't confidential in February, how is it confidential in April?"

Let's take a look at one more example. Earlier this year, Progress Energy informed state regulators that the twin 1,100-megawatt plants it intends to build in Florida would cost \$14 billion, which "triples estimates the utility offered little more than a year ago." That would be more than \$6,400 a kilowatt. But wait, that's not all. As reported by the <u>St. Petersburg Times</u>, "The utility said its 200 mile, 10-county transmission project will cost \$3-billion more." If we factor that cost in, the price would be \$7,700 a kilowatt.

Amazingly, the utility won't even stand behind the exorbitant tripled cost for the plant. In its filing with state regulators, Progress Energy warned that its new \$17 billion estimate for its planned nuclear facility is "nonbinding" and "subject to change over time."

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And it gets even better (by I which I mean, worse) for Florida ratepayers. Florida passed a law that allows utilities to recoup some costs while a nuclear plant is under construction. How much? About \$9 a month starting as early as next year! Yes, the lucky customers of Progress Energy get to each pay more than \$100 a year for years and years and years before they even get one kilowatt-hour from these plants.

This would seem to be the exact opposite of the old claim for the nuclear industry, "Too cheap to meter." Now it's so expensive the company raises your rates before the power even gets to the meter!

How the renewable industry would love to charge people before they built their plants. Even without that benefit, Jigar Shah, chief strategy officer of SunEdison, explained to me that he could guarantee delivery to Florida of more kilowatt-hours of power with solar photovoltaics -- including energy storage so the power was not intermittent -- for less money than the nuke plants cost.

Many other forms of carbon-free power are already cheaper than nuclear today, including wind power, concentrated solar thermal power and, of course, the cheapest of all, energy

efficiency. Over the past three decades, California efficiency programs have cut total electricity demand by about 40,000 gigawatt hours for an average 2 to 3 cents per kilowatt-hour. A May presentation of <u>modeling results</u> by the California Public Utilities Commission shows that it could more than double those savings by 2020.

If California's effort were reproduced nationwide, efficiency would deliver 130 gigawatts by 2020, which is more than enough energy savings to avoid the need to build any new power plants through 2020 (and beyond). And that means any new renewable plants built could displace existing fossil fuel plants and begin to reduce U.S. carbon dioxide emissions from the utility sector.

A May report by the Bush Energy Department concluded that Americans could get 300 gigawatts of wind by 2030 at a cost of 6 to 8.5 cents per kilowatt-hour, including the cost of transmission to access existing power lines. And the cost of integrating the variable wind power into the U.S. grid would be under 0.5 cents per kilowatt-hour. (Wind turbines provide energy on average 35 percent of the time. Nukes average 90 percent availability. That means it takes 300 gigawatts of wind capacity to deliver as much electricity as about 120 gigawatts of nuclear.)

Finally we have the reemergence of concentrated <u>solar thermal power</u> (also known as concentrated solar power, or CSP). Utilities in the Southwest are already contracting for power at 14 to 15 cents per kilowatt-hour. The modeling for the California Public Utilities Commission puts solar thermal at around 13 cents per kilowatt-hour. Because CSP has large cost-reduction opportunities from economies of scale and the manufacturing learning curve, the modeling foresees the possibility that CSP costs could drop an additional 20 percent by 2020. And those prices include six hours of storage capacity, which allows CSP to follow the electric load, and that is even better than nuclear power, which is constant around the clock.

All of these sources of electricity are considerably cheaper than the electricity that would be generated by new nuclear plants, which the commission estimates costs more than 15 cents per kilowatt-hour before transmission and delivery costs. This entire discussion doesn't even consider the issue of uranium supply, whose price has risen sharply in recent years. A big shift toward nuclear power would no doubt further increase prices. If, as many advocates want, we ultimately go toward reprocessing of spent fuel, that would add an additional 1.5 to 3 cents per kilowatt-hour to the cost of nuclear power.

Sen. McCain keeps saying, "If France can produce 80 percent of its electricity with nuclear power, why can't we?" Wrong question, Senator. The right question is: Why would we? Energy efficiency and renewables are the key to affordable, carbon-free electricity. They should be a focus of national energy and climate policy. Not nukes.

Visit <u>Climate Progress</u> to read "The Self-Limiting Future of Nuclear Power," Joseph Romm's extended analysis of nuclear energy. The report will available June 2 at 10 a.m. ET.