

DEPARTMENT OF ENERGY

PUBLIC HEARING

NOTICE OF AVAILABILITY OF DRAFT GLOBAL NUCLEAR ENERGY  
PARTNERSHIP PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT

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***DEPARTMENT OF ENERGY PUBLIC HEARING***

Notice of Availability of Draft Global Nuclear Energy  
Partnership Programmatic Environmental Impact Statement

Before Laurie M. Hannon-Stair, Certified Court Reporter

At Aiken Technical College, Building 700, Amphitheater

2276 Jefferson Davis Highway, Aiken, South Carolina

On December 4 2008, Commencing at 7:01 p.m.

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APPEARANCES

Mr. Barry Lawson - Moderator

Mr. Dan Stout - Presenter

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Attached as Exhibits are the Letters and Written Comments from the Attendees.

DOE PUBLIC HEARING

Notice of Availability for the GNEP PEIS

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MR. LAWSON: Well, good evening and welcome to this public hearing on the Draft Programmatic Environmental Impact Statement for the Global Nuclear Energy Partnership. The National Environmental Policy Act requires the preparation of an environmental impact statement for this project by the Department of Energy's Office of Nuclear Energy. Although the initial 2007 scoping process in the meeting held here at that time in South Carolina had specific aspects related to potential facilities and actual candidate sites this draft PEIS is only looking at seven options related to close or open systems as general approaches without particular projects or sites. If site-specific proposals are subsequently considered, there will be separate EISs for those proposals. My name is Barry Lawson and it's my pleasure tonight to serve as the moderator for this hearing. My role is to ensure that

the hearing runs on schedule and that everyone who wishes to speak has an opportunity to do so. I am not an employee of the Department of Energy nor am I an advocate for any party or position, but I do ask for your cooperation in making this a fair and respectful session. I trust that you have had an opportunity to look over the displays during the open house just completed. At the registration table you should have received a hard copy of the presentation of what's going to be given this evening and you'll find that it is a convenient place to take notes during that briefing that will follow in a few minutes.

There are three purposes for tonight's meeting and hearing. The first is to provide information on the content of the Draft Programmatic Environmental Impact Statement or PEIS and on the National Environmental Policy Act or NEPA which governs that process. The second is to answer the questions that you had or may have on the proposed PEIS and NEPA and the third, perhaps most importantly, is to receive and to record your comments on the draft PEIS. The agenda for tonight's hearing reflects these purposes.

We will begin with a presentation by Daniel Stout regarding the Draft Programmatic Environmental Impact Statement. Mr. Stout is the Director of Nuclear Fuel Recycling in the Office of Nuclear Energy. To answer

your questions beforehand and at recess or afterward, project staff will continue to be available throughout the hearing at the display tables. They can discuss the contents of the printed materials on display and of Mr. Stout's presentation. Following his presentation we will recess for a very short period of time so that we can set up for taking your comments. And during that time you may pursue further questions with the staff if you choose. For those of you who are not familiar with this wonderful facility, the restrooms are located outside this door to my right and turn right and both the ladies and the men's room is located there. Once we reconvene for your comments I would ask you to please turn off your cell phones and pagers. Actually it's a good time to do it now. The court reporter will be taking comments at that time and we want to make sure that there is no interruption and we get as accurate a record of your comments as possible.

And of course all of your comments will be transcribed and made part of the permanent record.

Okay. I am please now to introduce Dan Stout and he will give a background to the project and the purpose and the basic elements of the draft PEIS document. Mr. Stout.

[Presentation by Mr. Stout.]

MR. LAWSON: Thank you, Mr. Stout. As I announced

earlier, we will take a brief--very brief break now to get set up for the--for taking your comments in the official public hearing portion. I would ask you to--you can certainly stretch and talk to your neighbor. That's fine. It's going to take me just a couple minutes to get everything straight and then we'll--we'll move right along. I would want to tell you, however, a couple of things. First is if you have not already signed up to speak I would urge you--and if you'd like to speak I would urge you to go to the registration table up at the top of the auditorium here and sign in so that you can be on the official list. And also before we start, I realize that we have a fairly large number of people speaking tonight so I--I ask you to try to keep your comments to four minutes if you would. So anyway we'll take a brief recess now and come back in about five or six minutes. Thanks.

[Recess from 7:29 p.m. to 7:37 p.m.]

MR. LAWSON: Okay. I'd like to get started, please. For those of you who came in after we began, my name is Barry Lawson and I'm the neutral moderator for this evening. It is now time to receive your formal comments on the proposed PEIS. This is your opportunity to let the Department of Energy know what you would like to see addressed in the draft document that has not or any other comments that you might have

regarding that--that document. The court reporter will transcribe your statement and our reporter tonight is Laurie Stair who is over here to the left.

Let me review a few of the ground rules for formal comments. These were listed on a sheet that was available to you when you came in this evening and they're also displayed on the board up by the registration table in this room. I would ask you to please step to this microphone off to my left and to your right when your name is called, introduce yourself providing an organizational affiliation where you feel it is appropriate. If you have a written version of your statement please provide a copy to either the court reporter or to me after you have completed your remarks. Also, please give us any additional attachments to your statement that you wish entered into the transcript. Each will be labeled and submitted for inclusion in the formal record. I will call two or three names at a time, the first of the speaker who is up and the two other people who are on deck. As I mentioned, in view of the number of people that have expressed an interest in speaking already I'm going to ask you to limit your comments to four minutes. If you have reached the four-minute mark I will give you a verbal signal and ask you to complete

your remarks as quickly but yet as gracefully as possible. I will let you know, as I say, when you have about a minute left. As your time expires I would just say that if you feel that you would like to add more comments and they're significant and you would like to do them orally, I would invite you to come back after everyone else has had their first opportunity to speak and we'll take you after that period of time. Some people would prefer after they've spoken if they have additional comments to submit them in written form and you're certainly welcome to do that as well. Mr. Stout will be serving as the hearing officer for the Department of Energy during this comment period. He will not be responding to questions or comments made during this session. It is within my discretion to call for recesses as appropriate. And I would just tell you right now that with the number of people that we have I'm going to announce ahead of time that after the fifteenth speaker that I have on my list we will take at least a five, perhaps a ten-minute, break to give everyone an opportunity to stretch and to give our court reporter a breather. And then we'll take on from there. Also, as we will be taking a recess, at least one recess during the evening, I have talked to Ms. Stair and she is willing to take private testimony from people who would prefer not to speak in the lodge of

public arena but would like to give testimony nevertheless. During the recess she'll be glad to take your comments privately. So with that I am ready to go and the first person that I have on my list is Susan Winsor. And Ms. Winsor will be followed by Bill Robinson and Rick McLeod.

MS. WINSOR: Good evening. I am Susan Winsor and I am president here at Aiken Technical College, and off the record I'll welcome you to the college and hope that you find the facilities comfortable. I'll abbreviate my comments for the purpose of time and submit my written comments. Dear Mr. Schwartz, I agree with DOE's preference to close the nuclear fuel cycle.

Closing the fuel cycle can potentially solve two problems long associated with nuclear power, the sustainability of nuclear waste management strategies and the risk of proliferation. Reprocessing used fuels and recycling is a part of a closed cycle have the potential to reduce the volume of waste requiring geologic disposal by reducing the thermal output and/or radiotoxicity of waste. Those opposed to reprocessing and in many cases also a geologic repository say we should leave the waste where it currently is. But at best that is a temporary solution and simply passes the responsibility of what to do to the next generations. Nuclear power is currently the only technologically

mature non-emitting generation technology that is proven and already deployed on a large scale. In conclusion closing the nuclear fuel cycle will support domestic and international expansion of nuclear energy production, reduce nuclear proliferation risks and reduce the volume, thermal output, and radiotoxicity of used or spent nuclear fuel or other radioactive waste requiring disposal in a geologic repository. Thank you.

MR. LAWSON: Thank you very much. And our next speaker is Bill Robinson. Mr. Robinson will be followed by Rick McLeod and Richard Smalley.

MR. ROBINSON: Good evening. I am Bill Robinson, chairman of Allendale County Council. I'd like to acknowledge three letters in support of DOE draft PEIS in support of the closed fuel cycle system. My first letter is from Ann Rice who is director of the University of South Carolina Salkehatchie Leadership Center. And the letters in essence support also the closed fuel cycle system for the draft PEIS. I also have a letter from the Allendale County Council which also support the closed fuel cycle system for the draft PEIS. And finally we have a letter from the Allendale County Chamber of Commerce also supporting the closed fuel cycle system for the draft PEIS. We urge DOE to consider our state for the location of the GNEP

project. Thank you.

MR. LAWSON: Thank you, Mr. Robinson. Our next speaker is Rick McLeod and he will be followed by Richard Smalley and James Latham.

MR. MCLEOD: I'm Rick McLeod, executive director of the SRS Community Reuse Organization. I'd like to read a letter from our chairman and also an email received. On behalf of the SRS Community Reuse Organization I am pleased to submit this letter in support of the closed fuel cycle alternatives outlined in the draft GNEP PEIS. We understand that no specific site or site-specific proposals are being made at this time. However, we would like to note that the SRS region has two viable alternatives interested in hosting GNEP facilities. Each of these sites resides in our SRSCRO stakeholder area. Recycling of spent fuel is something that must be done if we are to balance the needs of a growing economy with environmental reality. GNEP is but one piece of a complex puzzle to address our energy needs. As the GNEP PEIS analysis indicates the closed fuel cycle alternatives offer a greater opportunity relative to the open fuel cycle alternatives to reduce the capacity requirements for a future geologic repository and to reduce the hazards associated with the disposal of

spent fuel or high level radioactive waste. We understand the closed fuel cycle could increase the disposal capacity of other radioactive waste and transportation and associated health impacts could be generally higher during the operational period of those from the open cycle. However, we believe these shortcomings can be overcome and the advantages of the closed fuel cycle alternatives offset these drawbacks.

Thank you allowing our voice to be heard and to participate in the meeting. Sincerely, William R. Toole, Chairman of the SRSCRO. Then also an email received: although unable to attend Thursday's hearing at Aiken Technical College, I feel it's vital to world economics and environmental harmony to support GNEP and their nuclear charter. With a global dependence on a limited supply of fossil fuels sooner or later there will be a breaking point. For some time nuclear energy has represented a viable alternative to the world's increasing demand providing a cost effective substitute. Being able to recycle fuel as opposed to a repository site is a much cleaner, safer, and green-friendly option. In fact, the ability to keep everything in the same geographical region is much more efficient in itself. This is an email from Mark Caliva.

MR. LAWSON: Thank you very much. Our next

speaker is Richard Smalley. Mr. Smalley will be followed by James Latham and Billy Morrison.

MR. SMALLEY: Thank you. My name is Richard Smalley. I work for Energy Solutions and I'm the site characterization manager for the South Carolina Advanced Technology Park Candidate Site in Barnwell. This site was assessed according to the sixteen criteria that were set forth in DOE's specification for that program element. In the sake of--interest of time I've summarized those into five topical areas and I'd like to summarize for you the results of our study for this candidate site at Barnwell. The work there was performed by two independent consultants, ERM for environmental management and nuclear safety. The primary conclusions were as follows. The site location was viewed as favorable in terms of available land, comparable land use and low population density, and these are complimented by a favorable transportation infrastructure by both roadway and rail and a workforce with the needed skill base for the facilities that would be needed. In terms of natural resources, the sites located in the Atlantic coastal plain of South Carolina, a region of abundant natural resources specifically water. The study looked at water supply

in terms of the ability of the area to provide sustained yields of the magnitude that would be needed to supply water to the facility and found that the assessment to this level was adequate but the detailed site report notes that additional water resource engineering studies and engineering work would have to be done to support the specific plant design. With respect to air quality the Advanced Technology Park is not in any non-attainment area for any criteria pollutant and there wouldn't be permanent restrictions regarding those issues. The ecological work focused obviously on the federally and state listed threatened or endangered species. Species of concern were proposed candidate species and the proposed development would have no impact on those. And in addition, the development was not perceived to have any impact on critical or important terrestrial habitats that they would use. The study did identify two wetlands within the study area, one in a set aside area for the facility, the second in adjacent property, Craig's Pond, which is part of the set aside heritage area a mile distant which is not anticipated to be affected by the development. The site characteristics focused on those characteristics of the area related to the nuclear safety analysis specifically the geology, the weather, and hydrology of the region. The region is in

the coastal plain. There are geologic faults that have been identified in the area. These have been traced. They've been found that they do not reach land surface meaning that the most recent stratigraphy is not displaced. The detailed studies that followed up with those determined that those faults are not capable as defined in 10CFR100. We did specific tests for this facility, boring tests, and they determined the strata underlying the site there are acceptable for development of nuclear facilities. And in addition, because of the substantial history in the area, there is significant protocol for the future development of the engineering analysis that will be needed to assure safety from the standpoint of seismic risk for a facility in the area. In terms of weather there are, as we know, severe events in the Southeast but the setback for the Barnwell site from the coast and areas where they're normally focused makes these events both rare and of lower magnitude than more highly publicized coastal events. As far as flood, the design basis is a 10,000-year flood and the analysis determined that for floods up to and including the 10,000-year magnitude flood there would not be flood related events that would impact development--preclude impact of development of a nuclear facility in the area. The final area was regulatory considerations and

the facility interrelationship with other commercial enterprises. There are no state or local legislative or regulatory prohibitions that would prevent development in the Central Savannah River area. The--the study did identify obviously that since suspension of regulatory activities related to recycling in 1976 there are potential regulatory uncertainties that could arise in moving forward in the process. The location of the proposed site in proximity to the former allied general nuclear facility that had a NRC preliminary approval for its operations would minimize that risk to the project.

MR. LAWSON: One minute, please.

MR. SMALLEY: Okay. Thank you very much. Impacts from other facilities are viewed as minimal. There's a small community airport and the disposal facility at Barnwell that would fall in that category. The Savannah River Site is listed on the national priorities list, but the assessment team viewed their ongoing response actions there to have no impact on the development of this site. So in summary, the site has many features that are favorable for development of the--of it for this application. There were no--no features that were sought that were identified that would preclude that. And most importantly, for the Central Savannah River Area this is supported by an

extensive technical basis of knowledge, decades of nuclear facility design and operation experience in the nation's most extensive ecological study record at Savannah River Site's National Environmental Research Park. Thank you.

MR. LAWSON: Thank you, sir. Our next speaker is James Latham. Mr. Latham will be followed by Billy Morrison and Clint Wolfe.

MR. LATHAM: My name is James Latham. I'm employed by Energy Solutions. GNEP a significant initiative both globally and nationally. The construction and operation of the facilities that would be required to implement GNEP also give strong local components to the program. As manager of Energy Solutions' nuclear facilities in Barnwell, South Carolina, I'm providing comments from my experience with both the location for GNEP and local citizens working in the nuclear industry. I live and work in Barnwell County and based on my personal experience I know there is strong support from our local community for the GNEP concept. The proposed site in Barnwell County is in the South Carolina Advanced Technology Park operated by the Southern Carolina Regional Economic Development Alliance. The Advanced Technology

Park is located between Savannah River Site and Energy Solutions facilities which underscores its geographic and demographic suitability for GNEP in terms of several factors included. The Technology Park is surrounded by similar-use nuclear facilities. The Advanced Technology Park includes the site of the former allied general nuclear services facility. That was a facility that was previously licensed by the NRC for reprocessing nuclear fuel. Advanced Technology Park has multiple avenues of road and rail transportation of significant capacity leading to the proposed GNEP location. Both local citizens and community leadership have expressed strong support for the GNEP initiative. The citizen base has decades of experience as hosts for and neighbors of nuclear facility operations and transportation. Many area residents have worked at these nuclear facilities and have firsthand knowledge of the processes that occur and the safety and security requirements associated with them and the extensive safety and security measures in place to achieve safe, secure operations. Especially considering the rural setting, we have a citizen base that is supportive of the GNEP concept and more importantly supportive with in-depth knowledge of the nuclear industry. This public support translates into the positions of elected officials in the area

whose support is documented in public statements favorable to the GNEP concept in this location at Barnwell. The Barnwell location is a balanced location for the GNEP facilities in terms of both demographics and logistics. The area is immediately surrounding the Advanced Technology Park, are rural, and have low population densities which will be a positive feature in terms of land availability, setbacks and transportation volume. Despite its rural location Advanced Technology Park has both rail service and multiple highway routes that connect in relatively short distances to the interstate highway system. Energy Solutions currently operates transportation services from Barnwell so the logistics of transportation has a successful track record there. In summary, closing the fuel cycle is the right thing to do and Barnwell provides an ideal, suitable location for the community supportive of the GNEP concept. Moving forward with this program will reduce long-term hazards of high-level waste, reduce our dependency on foreign energy supplies and meet proliferation resistance requirements. GNEP is clearly in the best interest of us all in this region and the citizens throughout the United States. Thank you.

MR. LAWSON: Thank you, sir. Our next speaker is Billy Morrison and he'll be followed by Clint Wolfe and

Nicholas Kuehn.

MR. MORRISON: Good evening. As told, my name is Billy Morrison and as you can see I'm here with a few others from Energy Solutions. Allen Dobson is our Energy Solutions GNEP program manager and he sends his regrets. He's in the UK so he couldn't make it tonight. But I'm here tonight to make a statement in support of closing the fuel cycle because it's the right solution for energy security, non-proliferation and environmental stewardship. For context let me set the framework of nuclear energy as I see it. Globally the decision is not if nuclear power will be pursued but under what process, what strategy and what proliferation controls. If you look at France and Japan currently they rely largely on nuclear based energy and economy. Other countries, most notably China and India, are rapidly expanding their nuclear base. Earlier this year the United Arab Emirates awarded a contract with the goal of developing many new nuclear plants over the next twenty years. So from a global perspective others are heading there and that's where we need to go. As for the technical viability and approach for GNEP, recycling light water reactor spent fuel can be accomplished today on a commercial

using advanced aqueous processes in commercially proven equipment without requiring government appropriations to fund the construction or the operation of those facilities. From a nuclear non-proliferation and environmental stewardship standpoint, the initial light water reactor recycling mixed oxide fuel fabrication and waste treatment facilities will substantially meet all the goals of GNEP. It will significantly reduce the amount and long-term radio toxicity of high level waste requiring disposal and therefore greatly improve repository utilization. It will provide energy security by recycling valuable nuclear materials and reducing the dependency on foreign supplies. It will meet proliferation resistance requirements both intrinsically and extrinsically and be fully capable of satisfying IAEA safeguard requirements. And most importantly, no pure plutonium will be separated or produced. It will be co-extracted with either uranium or neptunium or both. As for its economic viability, support exists in from the US nuclear utility community today to establish a non-government entity and to implement light water reactor spent fuel recycling as soon as possible. Moreover, a number of utilities have acknowledged and accept that an increase in the nuclear waste fund fee is required to help generate the funding required. The necessary increase in waste fee will be

about one-tenth to two-tenths cent per kilowatt hour. This amounts to about twenty to forty cents per month on the average electric utility bill. From an energy security perspective, GNEP provides a more complete use of fuel to satisfy the increase in electrical power consumption which is expected to increase by 1.1 to 1.5 percent per annum over the next century. Recovered plutonium will be used as mixed oxide fuel for burning and light water reactors, recovered uranium will be used for the use in fuel fabrication for the CANDU fuel assemblies. And after the advanced recycle reactors are operational they will be the primary consumers of transuranics to be burned as fuel. The multiple fuel stream strategy reduces fuel cycle waste, reduces disposal requirements both radiologically and volumetrically and reduces the risk of proliferation, again because no pure plutonium will be separated or produced. In closing, in the global context the United States must determine what its approach will take either as reacting to actions of others or with a strategic proliferation resistant energy security oriented approach. Regardless of one's perspective on the role of nuclear sources of energy the issue that DOE sets forth in the programmatic EIS open versus closed fuel cycle is fundamental. It is a comprehensive strategy for related issues such as

energy security, proliferation, nuclear waste management, environmental stewardship and safety. So those are the benefits that lead me to support a closed fuel cycle and the global nuclear energy partnership as cornerstones for American leadership in the global nuclear renaissance.

MR. LAWSON: Thank you, Mr. Morrison. Okay. Our next speaker is Clint Wolfe. Mr. Wolfe will be followed by Nicholas Kuehn and Tom Clements.

MR. WOLFE: Good evening. My name is Clint Wolfe. And in keeping with the tenor of the meeting so far about site specific selection. I just wanted to add a few things about why it ought to be in South Carolina.

I am the executive director of the Citizens for Nuclear Technology Awareness or CNTA. Our organization fully supports the quest to find the best alternatives for closing the fuel cycle. South Carolina can lay claim to several solid reasons for consideration as the focal point for these initiatives. Unique facilities, a uniquely qualified workforce, educational institutions focused on nuclear topics and a very supportive citizenry make this area the logical epicenter for the closing of the fuel cycle. No matter the stage of development research and development prototyping scale up or full production, South Carolina is the place to do this job. Our organization believes

this country must turn to the nuclear option if we are to be successful in saving our planet from the ravages of fossil fuel pollution. In order to manage that option responsibly we must deal effectively with closing the nuclear fuel cycle. We urge you to expedite the processes necessary to arrive at a successful resolution of that challenge. Thank you for the opportunity to comment.

MR. LAWSON: Thank you, sir. Nicholas Kuehn. Now, I'm going out on a limb and assuming that's Kuehn.

MR. KUEHN: Kuehn is the--

MR. LAWSON: Kuehn, okay. Well, sometimes it's Kuehn [different pronunciation].

MR. KUEHN: That was close enough.

MR. LAWSON: All right. And he'll be followed by Tom Clements and Leslie Miner.

MR. KUEHN: My name is Nick Kuehn. I'm presently serving as the chairman of the SRS Retiree Association.

I have a letter that we are going to submit here and I'd like to read this evening. Dear Mr. Schwartz, the Savannah River Site Retiree Association, which has over 1040 dues-paying members, supports DOE's vision for the future of nuclear power as described in the draft Global Nuclear Energy Partnership and Programmatic Environmental Impact Statement. We believe that nuclear power must be an important part of the mix in

producing energy for the future. This is essential both for our national security, to reduce our dependence on foreign oil and for protection of the environment by reducing greenhouse gases. We think that evolving to a closed fuel cycle as proposed by the Department of Energy is the correct plan. This will conserve a precious fuel resource and offers a potential to reduce long-term storage requirements for spent fuel and radioactive waste. The potential for nuclear proliferation is a legitimate concern. Adequate controls and security for the recycled fuel are essential and should be part of an international effort as proposed in the Global Nuclear Energy Partnership. We support the Advanced Fuel Cycle Initiative. Long term it will be very important for the United States to take the lead in the development of advanced reactors and separation processes. In the near term we strongly support immediately starting work on a large scale demonstration fuel reprocessing plant. It will probably take decades to bring a large scale plant on line. We are already many years behind the rest of the world and cannot afford to fall even further behind. Although this environmental impact statement does not address site-specific programs we also want to express our support for building the demonstration plant at Savannah River Site. SRS would

be an ideal location for a commercial nuclear fuel recycling plant. The site has over fifty years of experience reprocessing radiated nuclear fuel and target assemblies in a national laboratory that has developed large number of chemical processes for separating actinides and fission products. The site also has the necessary exclusion area and some of the required infrastructure. Thank you for your consideration. Respectfully submitted.

MR. LAWSON: Thank you. Our next speaker is Tom Clements. Mr. Clements will be followed by Leslie Miner and Sara Tansey.

MR. CLEMENTS: Thank you very much for this opportunity to speak. My name is Tom Clements and I am the Southeastern Nuclear Campaign Coordinator for the environmental organization, Friends of the Earth. And I live in Columbia, South Carolina. I'm a native of Georgia and have been commenting at EIS meetings like this for about thirty years so I'm quite familiar with the exercise. I have been outside a number of the reprocessing plants worldwide and actually been in the control room of the Russian breeder reactor and have been tracking reprocessing issues for more years than I want to count. Before I say a few comments--and I

haven't written anything but I will submit written comments later for the record and I do understand that the comment period will be extended. I know one senator had requested that, at least a number of organizations around the country. I want to debunk just a second for those of you who are familiar with reprocessing worldwide. This is a technology which is going down worldwide and let me just call to your attention a couple of things. The French company AREVA which owns reprocessing plants, in France in its report at the end of 2007 reported that 99.8 percent of the fuel at the site was French owned. Foreign reprocessing in France is virtually over. In the filing with the International Atomic Energy Agency by Belgium--I don't have the date--no. September 25th, the Belgians said due to shrinking reprocessing, especially in the European Union, and then they went on, there's less need for mox fuel. In the annual report by the UK's Nuclear Decommissioning Authority issued about a month ago the Sellafield, which is their reprocessing plant, experienced continued problems with prolonged closure. Operational performance was below expectations. They went on to say the prolonged outage would not cover 341 million pounds in the fixed asset value of Thorpe, the reprocessing plant. It's a myth that this--this is sweeping the world. This is a

technology that's on its way out. And I'm going to debunk that every time I hear it and if anybody can present facts that reprocessing is booming in other countries I'd like to hear about it. Japan has not been able to start up their factory yet to a commercial level. This process started off with high expectations by narrow special interests. But as we've heard, the DOE has backed away from the goal of naming both the technology and a site. There was high expectation by-- by the narrow interests that Savannah River Site or perhaps another site would be named. So what we have seen in large part because of public pressure in Washington is a huge retreat from what the earlier intention of this document was going to be. And I view this as a great victory for the public interests, for the taxpayer, for the environmentalists and for fiscal conservatives around the country. Redistribution of our wealth to narrow special interests has been stopped and I think this is going to continue to happen. This draft Programmatic Environmental Impact Statement because it's backed so far away from its original intentions is--is really a skeleton. It's a ghost of what the original intention was. If you take what's of value out of this document, which attempts to throw everything else against the wall and hope something sticks, there's not much left. In fact this is one of

the worst environmental impact statements I've seen in my career and I know that people inside DOE who feel that way as well. But I would suggest if you don't have one that you pick up one of these documents because it makes an excellent doorstop. That's about what it's worth unfortunately. There's been a lot of money wasted on this. This is quite a confused document. As I said, it's a hodgepodge of potential technologies most of which don't even exist and would require massive input from public funds. It's confused about the words reprocessing and recycling and open fuel cycle and closed fuel cycle. Reprocessing spent fuel, which is the main focus of this, creates huge waste streams. As anybody in South Carolina knows when you look at the 35 million gallons of high level waste as a byproduct of military reprocessing from plutonium. And in fact this really has nothing to do with nuclear power at all. This was a program put forth by DOE to serve, as I said before, narrow special interests and it's not really to boost nuclear power in any sense. So--

MR. LAWSON: One minute, please.

MR. CLEMENTS: --what are the results of such a confused program? And I like to make predictions at these things. This draft environmental impact statement is dead on arrival. It's a dead duck from a

lame duck administration. The dream by special interests for reprocessing to rush along have now hit the wall. Some reprocessing research may continue but the GNEP program, as I'm hearing, reprocessing is going to be stripped out of it because there may be some good things left in GNEP. But reprocessing has been an albatross around the program's neck as DOE officials have told me in Washington. Therefore, in conclusion, the record decision which would have been due around January 16th will either come out the door in a whimper right before January 20th or most likely it will come out after--no, after January 20th no record decision on this document because it's so sloppy is going to be issued. Therefore we're not going to come back any time soon to comment on either technology-specific or site-specific environmental impact statements. I predict that, but I will pledge one thing to you. We here in South Carolina who live in the other part of the state particularly, we're not going to let our state become a nuclear waste dumping ground. We've seen that too long with Barnwell and we're not going to let the nation's spent nuclear fuel wind up here with a stew in a bunch of tanks that are going to leak. I pledge to you that I will fight this with every bit of my being over the next years if it does advance. But as I said, the value of this is really for a doorstop.

Pick one up. Thank you.

MR. LAWSON: Thank you, sir. Our next speaker is Leslie Miner and then Sara Tansey and Natalie Mudd.

MS. MINER: I'm going to have to get a doorstop. Okay. He's a hard act to follow. All right. I was wondering when did the DOE start calling reprocessing recycling. Breaking open spent nuclear fuel rods to extract uranium and plutonium and living behind a bunch of waste from the said fuel rod is not a form of recycling. I know that at the fore-existing reprocessing plants in the world there's about 250 tons of orphan plutonium sitting around along with all the other radioactive waste that's sitting there. So I was thinking you guys need to come up with a new name and--well, my first request is to stop the Orwellian double speak and call a spade a spade and please let's go back--reprocessing, that's a really benign word. Can you guys at least go back to reprocessing? It's not recycling. Okay. And I just want to say that the reason you guys are here in South Carolina is really because I--I feel is because Yucca Mountain has stalled probably permanently. Senator Harry Reid from Nevada doesn't want Yucca Mountain. The citizens of Nevada don't want Yucca Mountain. Is there something they

know we don't know? It's funny if you talk to South Carolinians they know what Yucca Mountain is but they have no idea that there's this little plan to maybe turn South Carolina into Yucca Mountain. If you told them that they are just like huh. And I want to go back to that. There is a language in congress, which I know I've mentioned before, that says that if a state or a site signs on the dotted line and says yes we want reprocessing that the language says we will start trucking to you now the waste from the 103 nuclear power plants in this country. If you never build the thing, if we never stick a spade in the ground and start shoveling for construction you signed on the line, buddy. I think that's something to be really concerned about. I'm trying my notes. I can hardly read them. All right. I would also like to know where is all the money gonna to come from to build all these--yeah, these pie-in-the-sky technologies that I've never heard of some of these things, and who's going to pay for this. I'd like to remind the DOE that we're in a recession. It could turn into a depression. In 1930 1 percent of the population earned 20 percent of the wealth. Well, guess what, we are back to 1930. The train robbers--well, they're--they're--the robbers, the corporate robbers and their CEOs have fleeced us and we are tired of being fleeced. And I

noticed here on page 19 it says DOE's decision could affect the US utility industry which would ultimately determine how to implement any fuel cycle. For example, DOE decisions could lead to proposals for grants, contracts or for nonfinancial arrangements. That means taxpayer dollars. So, you know, get in line behind GM and all these other failed industries that have been using really bad ideas and bad technologies and bringing this country down to its knees. And this is just another part of it. I'm told that the nuclear industry is a fifty-year-old mature industry. Well, if this is so I say let it stand on its own two feet. No more financial bailouts. Let's get rid of the Price-Anderson Act. Buy your own insurance policy. Let's get rid of the Waste Policy Act of 1982 so that that waste doesn't belong to me. What other industry does the waste belong to the citizens of the country once it leaves the site? That is crazy. If this thing is so safe and financially sound you guys sit on it. What utilities are lined up to take this pretend or whatever this fantasy fuel that you guys are talking about, what utilities are putting money into this? You can't even get them to take the mox fuel. They've been begging utilities. I don't even think Duke wants that anymore. And then you're going to come up with this stuff. And I did--okay. So in--in light of our

financial situation in this country the proliferation risks--you know, before when the Shah of Iran was in power we were all wound up to give them nuclear reactors and now we are telling them do--you know, don't do as I do, do as I say. I mean we can't keep doing this unilateral stuff.

MR. LAWSON: One minute, please.

MS. MINERD: Okay. I'm almost done. And in light of the proliferation risks, reprocessing was illegal during the Ford and Carter for a good reason. And now we--you know, the world is much less safe than it was then and we want to go ahead and spread the--back to the 250 tons of plutonium that's just sitting around. Let's just make some more. And also, in considering the risk of turning South Carolina into Yucca Mountain because of these things I am voting for door number one, the no-action alternative. How about you guys using your brains and--because I know there's some smart people out there. How do you keep zeroing out vitrification? Let's come up with a way to deal with the waste. We still have the waste from the 1950s. Let's--let's figure out how to deal with that before we make a whole other pile of waste from reprocessing. And if you guys really need to rename--you know, I understand wanting to come up with snappy names and stuff and I guess reprocessing is kind of old and

recycling--it's not recycling and you can't call it fuel sprinkling with fairy dust. I was thinking about re-mixing like a re-mix tape--have you ever heard the Elvis re-mix, a little--little more--little less talk, little more action or something. Let's see some action in cleaning up. Okay. Thank you.

MR. LAWSON: Thank you. Our next speaker is Sara Tansey and following Ms. Tansey will be Natalie Mudd and Ernest Chaput.

MS. TANSEY: Good evening. My name is Sara Tansey. This is my second DOE hearing. I was in North Augusta during the scoping hearings two years ago. I was a freshman at the University of South Carolina. And on that night I sat and I listened. I didn't get up and speak. I didn't know that much about the issues and I took it all in and I'm here today to stand up. I would urge the Department of Energy to end the fuel cycle. Don't close it. End it. This is my future we're talking about, the future citizens today that will have to deal with the waste tomorrow and years and years from now. It was discouraging in the presentation earlier that the first purpose for this Programmatic Environmental Impact Statement and the first purpose for GNEP was to expand the nuclear energy industry when the following two purposes were to--were addressing issues that are caused by the nuclear energy

industry. If the Department of Energy wants to be a leader for our country and internationally, instead of relying on fixing a broken technology--because that's what we're doing. We have this massive waste problem and so we have to deal with it. But instead of creating more waste, instead of trying to fix what we've created, stop creating it. There's so many other alternatives that we could, you know, push forward and I just think it's really discouraging that we're--we're falling back and reacting when we could rely on so many other sources of energy. So I'm just here urging the Department of Energy to actually take proactive--a proactive approach to our energy infrastructure here in the United States and to really step it up because I--I don't want to have to deal with the waste. I don't want to have to deal with the dangerous waste streams. I don't want to have to live in a South Carolina that takes all of our country's nuclear waste, reprocesses it and then is left with it. Thank you so much for letting me speak tonight.

MR. LAWSON: Thank you very much. Okay. Our next speaker is Natalie Mudd and then Ernest Chaput and Mike French.

MS. MUDD: Hi. My name is Natalie Mudd and thank you for having us here today to speak. I'm speaking as

a United States citizen and a South Carolina citizen, resident and business owner, a mother and a very concerned citizen because I believe that although you have proposed different alternatives you're not really proposing any alternatives at all. I do agree that the nuclear--nuclear fuel cycle has some pretty severe problems, number one being that there's nuclear waste.

I don't know if anybody has noticed, but every single alternative that's been proposed there's still nuclear waste. There's still a lot of different kind of waste.

You can split it up into different types of waste. You can supposedly--theoretically you can use the plutonium and uranium again. It's a very untried, untested and very expensive process. And I have noticed as far as the expensive part, the idea of--of closing the fuel cycle doesn't really close it at all.

It just continues it on. And there are a lot of people here that are really wanting not only for the alternatives that are being proposed to happen, not only happen but happen into South Carolina. Every single person that's in support of the--the--what we're calling the closed fuel cycle has direct financial gain and that's the reason they want it. They're going to make money off of it so heck, yeah they want it. Guess what? I'm not gonna make any money on it and I'm not interested a bit. It's dangerous. It's going to take

public funds. There's a lot more transportation and handling of the waste and that's--we're talking not just nationally but internationally transporting waste and the waste that comes from splitting the waste. And I just don't believe that this is a very good idea. You know, if I could make a lot of money off of this I still wouldn't think it's very good idea. So if you really want alternatives there are energy alternatives out there and these are not good ones. So I'm definitely--if this is my only list of alternatives I'm going to say to keep the fuel cycle open and just hard-store the nuclear waste that we have now. Maybe someday there will be technologies maybe similar to these that actually have been tried and tested and work. And maybe at that time we can take those spent fuel rods out of hard storage and do something with them, but until that day comes let's just leave them where they are. Thank you.

MR. LAWSON: Thank you. Okay. Our next speaker is Ernest Chaput, then Mike French and Scott MacGregor.

MR. CHAPUT: I have a slight problem, Mr. Moderator. I have two letters from elected officials in addition to my own statement and I'd ask for a little relief from the time limit so I can get all three in.

MR. LAWSON: Okay. Go ahead.

MR. CHAPUT: Okay. Let me read the two letters from the elected officials first. The first letter is from Senator Shane Massey of Senate District 25, State of South Carolina. A letter to Mr. Schwartz, I write to express my strong support for DOE's Proposed Programmatic Environmental Impact Statement for GNEP. South Carolinians have long realized that our state and nation require additional energy supplies to maintain our current standard of living and to support economic development. Although nearly all of us agree that the United States should invest in the research and development of alternative energy sources and pursue energy conservation we also know these strategies will not satisfy future demand by themselves. As a state that has long benefitted from the reliable, cost efficient and environmentally safe use of nuclear power South Carolina and Aiken in particular has been a leader in promoting nuclear energy. I understand the current level of concern regarding the disposition of spent nuclear fuel. I also understand the concerns of burying this waste at Yucca Mountain or other sites across the country. Thus, I fully support the GNEP efforts to recycle spent nuclear fuel and using that fuel in an efficient and environmentally safe manner. I am confident of the program's success because our experience in Aiken shows we can do it safely and

efficiently. Additionally, in pursuing these goals GNEP will help keep the cost of nuclear energy low and affordable. I firmly believe that South Carolina is the right location for future GNEP activity. With the strong technical base and specialized facilities provided by the Savannah River Site and local commercial utilities, Aiken is a great location for the GNEP program. We enjoy strong public support for nuclear activities and we have two sites that have been evaluated and found to be satisfactory for large nuclear activities. Therefore, not only do I support DOE's proposed PEIS, I look forward to Aiken continuing its tradition of supporting our nation's nuclear technology as a location for the GNEP program. If you have any questions please do not hesitate to contact me. Sincerely, A. Shane Massey.

The second letter is from House of Representatives member Jim Stewart, District 86, Aiken County. Dear Mr. Schwartz, I am writing to support the major conclusions contained in the Department of Energy's draft GNEP PEIS. I strongly believe that nuclear energy must be an increasingly important part of our nation's energy portfolio, and the policy initiatives addressed in the GNEP/PEIS will facilitate the safe, secure and sustainable expansion of this important

energy source. A large, reliable and cost-effective source of electrical energy is needed to support the nation's economic security and sustain our standard of living. Only nuclear energy can provide the large amounts of cost effective base-load electrical generating capacity in an environmentally acceptable manner. Closing the nuclear fuel cycle is an important and logical action. When compared to the current policy of direct burial of spent nuclear fuel the GNEP initiative to recycle offers many advantages, including significantly reducing the amount of long-lived radioactive materials which must be buried in deep geologic disposal locations and recovers and reuses the unburned fuel materials in spent nuclear fuel thereby conserving an important primary energy source. In addition, GNEP's initiative to provide reliable nuclear fuel services to other nations will support international efforts to reduce the proliferation of weapons-capable nuclear materials. For many years South Carolina has been host to energy and defense nuclear facilities and we know firsthand that nuclear programs are conducted in a safe and environmentally responsible manner. Our citizens have also benefitted from a reliable source of cost effective and environmentally-friendly electrical energy. It is for all these reasons that South Carolina actively supports

the GNEP program, and has offered two sites for location of GNEP facilities. The large technical and intellectual base in South Carolina and our location in the Southeast's fast growing area of electric demand makes South Carolina DOE's best partner as you proceed with the GNEP initiatives. Thank you for the opportunity to comment on your draft GNEP/PEIS.

Sincerely, Representative Jim Stewart.

As some of you know, I'm Ernie Chaput. I'm with the Economic Development Partnership of Aiken and Edgefield County, South Carolina. The EDP is pleased to support the Department of Energy in its proposed initiatives to facilitate the role of nuclear power in meeting the energy needs of our nation and the planet.

We have long followed the development of the GNEP program and participated with the department in preparing a site evaluation study for the location of GNEP facilities in an energy park on the Savannah River Site. Recent events have dramatically illustrated the role of energy in achieving sovereign economic development and individual standard of living. Just look at China and India as they transformed themselves from underdeveloped nations to economic powerhouses, and look at our personal pain caused by the runup in gasoline prices. Adequate and reliable supplies of domestically produced and cost effective energy are

critical to our nation's future economic and national security. Nuclear energy is one of two critical keys to solving our nation's and the world's energy future with the other critical need is a need to find a substitute for gasoline as the transportation fuel. Nuclear is the only existing energy source capable of meeting our country's and the world's increasing demands for base-load electrical energy in a cost effective, reliable and environmentally friendly manner. Nuclear can also have an important role in producing the replacement for gasoline. Therefore, it is appropriate and imperative that our government and industry team together to create the policy and regulatory framework and technology options to allow nuclear power to meet its full potential.

MR. LAWSON: One minute, please.

MR. CHAPUT: I go through and I talk about the comparison of the GNEP initiatives to close the fuel cycle versus the once-through. I also note the need to--for future expenses Yucca Mountains will be minimized. We support the GNEP as a international-- We have two comments--additional comments. One is we know firsthand that nuclear activities can and are conducted to the highest safety and environmental standards based upon the many nuclear installations in South Carolina. And we know of the benefits to our

citizens and we continue to remind DOE that South Carolina is your best choice when you seek locations. We support your GNEP initiatives and recommend they be initiated at the earliest possible time. And thank you for the opportunity to comment on your EIS.

MR. LAWSON: Thank you. Would you please leave those documents with our court reporter?

MR. CHAPUT: I will.

MR. LAWSON: Great. All right. Thank you very much.

MR. CHAPUT: And I have one more later.

MR. LAWSON: Oh, you do. Okay. Our next speaker is Mike French. Mr. French will followed by Mr. MacGregor, Scott MacGregor. Mr. MacGregor will be followed by a short recess.

MR. FRENCH: Thank you, Mr. Chairman. I'm Mike French. I'm vice chairman of the SRS Retiree Association and as you've heard already we have over 1,000 members and many of them are very supportive of the development of nuclear processes. I've got a letter I'm going to be sending up. Let me briefly go through what--what I have here. The GNEP strongly supports DOE's vision of the future for nuclear power.

The program is part of the President's Advanced Energy Initiative and is intended to support a safe, secure and sustainable expansion of nuclear energy both

domestically and internationally. With demand for energy doubling within a few decades, expansion of nuclear power across the globe is essential. Nuclear power is the only non-fossil fuel currently available to provide large-scale base-load power. Without a large expansion of nuclear power demand for fuels will drive prices to economically crippling levels and the additional greenhouse gasses will be environmentally untenable. Conservation and renewables are essential components of future energy strategy but cannot provide substantial base-load capacity. Therefore, we believe that nuclear power must be an important part of the mix in producing energy in our country. We strongly believe that the nuclear fuel cycle will evolve to a closed fuel cycle, as proposed by DOE, and is the correct planned approach. Recovery and reusable constituents are advantageous and reprocessing enables improved management of waste. Global cooperation is essential and international agreements and assured fuel supply are necessary to ensure cooperation. We support the Advanced Fuel Cycle Initiative, AFCI. The work has shown that advanced technologies can improve waste forms and reduce the toxicity of nuclear waste. Thank you, Mr. Chairman.

MR. LAWSON: Thank you. Our next speaker and the last speaker before a brief recess is Scott MacGregor.

MR. MACGREGOR: Again, my name is Scott MacGregor and I'm speaking on behalf of the Augusta Metro Chamber of Commerce. As noted in the draft Programmatic Environmental Impact Statement, the need for electricity is expected to continue to rise in the future. It is clear to the Augusta Metro Chamber of Commerce that a key component to meeting the future need for electricity is the use of nuclear power generation. This is evidenced in our community by the planned expansion of Plant Vogtle in Burke County, Georgia. Nuclear power creates needed electricity in a cost effective, dependable manner without impacting air quality. The record of nuclear power generation in our community is long and has proven to be extremely safe.

The Global Nuclear Energy Partnership program builds on these strengths by closing the fuel cycle. By reprocessing and reusing nuclear fuel we will further decrease our need for resources required to produce electricity while reducing the need for storage of spent fuel. The benefits of GNEP also include the reduced risk of nuclear proliferation, a serious concern in today's unsettled world. These benefits are significant and are noted in the draft PEIS. The Augusta-Aiken area has long been the home of much of our nation's nuclear activity. The community support for projects to further develop our capabilities has

been unwavering. The draft Programmatic Environmental Impact Statement illustrates that the Global Nuclear Energy Partnership has many benefits to our nation and our world. As the Department of Energy continues to evaluate the benefits of GNEP our community is prepared to continue to be a partner in this process.

MR. LAWSON: Thank you, Mr. MacGregor. Okay. As I announced earlier we will take a short break but before we do I want to say a couple of things. First of all, we have at least this many more speakers to go after this break and so I would like to keep the break as--as short as possible but yet allow for some of us to sit and some of you to stretch. Is there anybody now who knows that they would like to give private testimony during the recess to the court reporter?

[No response.]

If not then I would say I'm only going--I'm going to limit the--the break to five or six minutes. Also, unfortunately some people use recess as a time to go and you're certainly welcome to do that. I'm not trying to shame you here, but we hope that you'll--you'll stay and we encourage you to do it. This is a great opportunity to ask questions if you--if you care to. We have some technical people out by the--out by the displays. If you do leave I want to thank you very much for taking your time to come this evening. And

for those of you who have spoken and who are leaving, again thank you very much for the time and effort that you've put into making your presentations and preparing them. We will now take a six or seven-minute break. Thank you.

[Recess from 8:39 p.m. to 8:51 p.m.]

MR. LAWSON: Take your seats, please, so we can begin. Okay. I want to start, and if you need to talk I'd ask you to--to go out in the outside area, please.

Okay. Please, if any conversations, please have them outside so we can get started. Okay. Our first speaker after the break is Bob Alvarez. He'll be followed by Becky Beyer and Danny Black.

MR. ALVAREZ: Thank you very much. My name is Bob Alvarez with the--senior scholar with the Institute for Policy Studies. And I appreciate your patience in what I am going to have to say. I think if you look at reprocessing and nuclear recycling and you apply the standard for recycling to this that the--that it does not add to our pollution burden. It's economic and it leaves the world to a safer place. On all three accounts nuclear recycling fails the test. A

reprocessing plant currently operating for those at--in England and France typically release somewhere on the order of 15,000 times more radioactivity to the environment than nuclear reactors. The large amounts of very long-lived radionuclides are released from reprocessing plants because the economics of containment, storage and disposal of these materials. The amounts of iodine 129 that have washed up on the shores of Denmark and Norway are approximately a thousand times greater than weapons fallout and the amounts of Sezium 137 and other actinides, plutonium have also washed up on the shores of Ireland, have prompted all three of these nations to protest the continued operation of the reprocessing plants in Europe. These are not clean, emission-free operations.

I think that the--if you look at the--the GNEP proposal which is--in this EIS kind of reflects, I think, a--a moving target and muddled thinking on part of the leadership of the Department of Energy because of the buffeting it's received, what it's trying to do.

One of the central premises, of course, of GNEP is to reduce the amount of radioactive waste that go into a repository. And because the--one of--one of the--perhaps the greatest controlling factor affecting geologic disposal is decay heat, and that decay heat can affect the integrity of the waste containers, the

entire geological stability of the site itself and which in turn affects whether or not nuclear waste will migrate at levels that are unacceptable. To deal with this problem the GNEP proposal involves moving a great deal of decay heat radionuclides from reprocessing, principally cesium and strontium, and leaving this stuff on the surface for storage and ultimate disposal.

This particular proposal has been rejected by the--the corporate entities that have replied to the notice of--of expression of interest to the DOE, AREVA, GE, Hitachi. I don't remember all the--the corporate entities. And because no nation outside the United States has even proposed taking out the cesium and strontium and leaving it more or less indefinitely in the surface because we don't know what's going to happen 300 years from now. And we're looking at concentrations that will require at least 600 to 1,000 years of safeguarding. So, you know, so much for this plan of reducing decay heat. The other implication of doing this, if you do this at Savannah River and you do, you know, somehow manage to stir up a 3,000-ton per year operation that has been proposed and you go take--basically run through the inventory of spent fuel that's in the United States alone, you know, we're talking about billions of curies of material which we haven't a clue about how to store much less what waste

form they'll be in. And not only that, over a long period of time you've got a--a problem with cesium 135 which has a half life of 2.3 million years. Now, we have no idea what that will mean for the environmental integrity and the health environment of the people over this--over a time period. But the National Academy of Sciences has informed the Department of Energy about the cesium 135 inventories in its high-level waste and has pointed out that the--that this would dominate the human doses in about 600 years and that the amount of cesium 135 that's present there is unacceptable in terms of being disposed of in the environment and must be removed. I must add as a cautionary note that the Savannah River Site has had a fifteen-year multimillion dollar failure in trying to pre-treat and decontaminate the--the liquid phase or salt phase of their waste which is where this cesium resides and now has to proceed much more carefully, and I think responsibly at this time in a cautiously in a planned approach. But this has setback our ability and we need to pay attention to what we've got in our backyards right now and whether we're on top of these problems and make sure we clean them up. The technological hurdles associated with GNEP are not insignificant. The testing of the UREX-Plus technology is at one one-millionth of a commercial size right now. The only

other technologies that are out there are those that have already been in use which is Purex technologies which will not really make any significant impact on the disposal of these wastes because if you look carefully at the disposal problem volume and weight are really not the controlling factors, it's decay heat and toxicity. The--and from the point of view of disposal, the decay heat is perhaps the most important. Purex does not significantly change the--the requirements. I mean if you look at the--for--for every cubic foot of--of this material you're probably going to need about 2,000/2,500 cubic feet of storage space and ventilation just because of the decay heat coming off these glass logs from spent fuel. This is not insignificant. The capture and storage and disposal of krypton 85 and iodine 121 are not insignificant challenges. The EPA has imposed a standard to require that the--or that limits these emissions. Those who are proposing to build reprocessing plants in this country are trying to undermine this particular standard because it is extremely expensive to--to deal with these materials.

MR. LAWSON: One minute, please.

MR. ALVAREZ: Finally, there is the issue of cost. I mean there's been lots mentioned about--well, I just want to mention a little bit about--about fast

reactors. I mean the entire--the GNEP project is part of a fifty-year vision that was in place many years ago and it was presumed that the world was going to run out of uranium by the turn of the 20th century. That's proven to be false. And over the last fifty years at least fifteen fast reactors have been closed due to cost and accidents to the United States, France, Germany, Japan. There have been two reactor melts or core melts of fast reactors in the United States. This is not an insignificant problem. Russia has the only operating fast reactor but it's operating--but it has experienced about fifteen sodium fires in the last twenty-three years. This has created a large and untenable plutonium legacy. We have about 250 tons of plutonium that have accumulated at reprocessing plants from power reactor spent fuel. Britain has about 105 metric tons and is now at a quandary and has made it a major issue of what to do with this material. And they are even considering diluting this and disposing it as garbage because of the problems associated with having this much plutonium around. As for recycling of uranium, which makes up 95 percent of the spent fuel by weight, right now France is recycling--has cumulatively recycled about 2 percent of uranium that it has generated from reprocessing. And there are huge problems associated with recycling this material, not

the least of which is the buildup of undesirable isotopes that can contaminate other facilities and--and the added costs of re-enrichment. Right now there's about 2 percent of--of uranium that's actually recycled compared to the amount that's used. As for costs, in 1996 a panel of National Academy of Sciences looked at the suite of technological options that make up the elements in the--in the GNEP EIS and looked at what it would take and reported that it would cost about 700 billion dollars in 2008 dollars. It was 500 billion back then. And take 150 years to accomplish the transmutation. In 2007 the Academy tossed cold water on this again and said that the nuclear recycling effort by the Bush administration--and concluded, quote, there is no economic justification for going forward with this program of anything approaching a commercial scale. I think that we need to step back. I think the United States should reestablish it's policy of discouraging reprocessing largely to stem operation risks. Spent fuel can be safely stored in dry hard storage for at least 100 years. That much we do know.

MR. LAWSON: Mr. Alvarez, I'm sorry--

MR. ALVAREZ: Anyway, and that concludes my comments. Thank you very much.

MR. LAWSON: Okay. Thank you. I mean I'm in a

tough position here. I don't like to cut people off but--and I know if people have a lot to say and it's technically valuable I don't want to cut them off. But at the same time I have to make sure that other people have an opportunity to speak. Hence I urge people who have more information to please make sure that it gets entered into the record. That can be done either tonight or at a later date and remember that written comments have exactly the same weight as oral comments. Okay. Our next speaker is Becky Beyer and she'll be followed by Danny Black and Carl Cliche.

MS. BEYER: Good evening. My name is Becky Beyer and I'm a resident of Barnwell. I have a letter I'd like to submit. I would like to state my full support of the Department of Energy's recommended action to close the nuclear fuel cycle. I would also like to state my support of locating GNEP's nuclear reprocessing facilities at the South Carolina Advanced Technology Park in South Carolina. Our residents welcome the economic stimulation a project of this magnitude will bring to our communities and our citizens will appreciate the job creation. We are qualified to fill those jobs and our businesses will provide a support network for the nuclear industry and the families involved in the GNEP mission. We believe that this program will be cost effective in producing

energy and we believe it's critical to our country's growth. Our country will be proud of the GNEP program here in South Carolina and in South Carolina we are proud to fulfill that mission. Thank you.

MR. LAWSON: Thank you, ma'am. Danny Black.

MR. BLACK: Yes, sir.

MR. LAWSON: He'll be followed by Carl Cliche. I hope I've pronounced that relatively accurately. And then Sarah Taylor.

MR. BLACK: Mr. Chairman, I have a problem as Mr. Chaput did. I have ninety-seven letters. I was going to read each one individually if that's okay.

MR. LAWSON: We actually only have time for ninety-five.

MR. BLACK: First, let me say my name is Danny Black and I'm the President of the Southern Carolina Alliance that represents Barnwell, Allendale, Bamberg and Hampton Counties. And in my hands I do have resolutions from Barnwell County Council. I have resolutions from Bamberg county Council and a support letter from Hampton County. We also have support letters from the Board of Southern Carolina that represents or is comprised I should say by thirty members as well as sixteen advisors, support letters from the Barnwell County Development Commission, support letters from Barnwell--I mean, I'm sorry,

support letters from the University of South Carolina Allendale Campus Dean and fifteen additional businesses within the area. Instead of making a statement I'd like to just read this one resolution from Bamberg County if I could.

MR. LAWSON: Okay.

MR. BLACK: Whereas the GNEP PEIS analysis recommends changing the U. S. Nuclear Energy Fuel Cycle from a once-through fuel cycle to a closed cycle in which spent nuclear fuel will be recycled to recover energy-bearing components for use in new nuclear fuel and whereas Bamberg County is concerned about the future of our country's economy, energy demands and ability to compete internationally and whereas Bamberg County views the GNEP program as a safe, secure and sustainable expansion of nuclear energy as a viable alternative to current energy sources and whereas this program will provide a viable choice for our local and national economies creating jobs and providing a cleaner, safer choice for energy generation while reducing capacity requirements for future geological repository. Now, therefore be it resolved that Bamberg County Council supports the GNEP program and offers their full support of the PEIS recommendations. Adopted at regular meeting at a Bamberg County council on December 2nd, 2008. Signed by the Chairman, Chris

Wilson. And I'll submit that in writing.

MR. LAWSON: All right. Thank you, Mr. Black.  
The next speaker is Carl Cliche and he'll be followed  
by Sarah Taylor and Kell Anderson.

MR. CLICHE: I'm not sure--

MR. LAWSON: Did you sign that?

MR. CLICHE: I signed it but I signed it--I'll  
gladly state a few words. I've been in the nuclear  
business probably longer than some of the speakers  
tonight and have dealt with mocks, foreign fuels,  
foreign reprocessing, U.S. reprocessing, work at  
Savannah River Site, weapons programs, commercial  
programs. I can say that--and I've worked on failed  
fuels in the commercial side. A lot of the concerns  
are founded on a lot of scare because we lack  
understanding. But I can say that when you get the  
understanding and you get the real facts and you  
understand what the technology is--though some people  
may disagree with Senator McCain's comments we've been  
running a Navy for sixty-plus years, reprocessing,  
making fuel and doing it safely. We have been doing  
the same thing, Savannah River, Hanford. It's been  
done safely in the U.S. We know how to do it. Are  
there problems; sure. But we know how to solve them.

The only reason we don't do reprocessing in this country is for one reason, politics. We didn't do politics under Jimmy Carter. I was involved in mocks in those days. He says, well, it doesn't work. Well, at the time it was working in Europe and in the U.S. The two programs were successful. We have irradiated mox fuel in this country, Big Rock Point, successfully.

We have done it in Europe in 45 percent of the reactors in Europe. In France they do mox. They do up to third cycle. Okay. That means at least six years of cycling. So if--when you get the facts, when you take the time to understand and you put the emotion away you will find that the people who are trying to make these issues come through and come to bear are in your favor. They're not working against you. And the GNEP program whether--in my view it's an overkill. To keep the plutonium out of it--the rest of the world works with plutonium directly. This is--that's the strange part, why we want to go to that level for proliferation. It's not necessary. You want to talk about proliferation, hey, let's go to Pakistan, let's go to India, let's go to North Korea. They can get it from us yet we're penalizing ourselves. What delusion.

Let's get GNEP done. Let's take the spent fuel that exists in this country--I live just north of here. I am retired from Savannah River. I live 3 miles from

the world's largest site for stored, spent fuel outside, no problems and I'd lived there any day. I've worked close to these facilities. I've handled the material, no problem. Let's put our emotions away, start becoming part of the solution rather than ponder the problem for solving these things. I know there are people here--I don't see Tom Clements, but hey, I can remember back in the Carter days when the anti's came, we're going to bury you in your waste. That was the strategy. What a waste for this country, 700 billion overseas for energy so you can drive to work when we could solve a good portion of our energy independence requirements. What is wrong with this? Become part of the solution. Don't stay part of the problem. Let's get GNEP done.

MR. LAWSON: Thank you, sir. Our next speaker is Sarah Taylor and following Ms. Taylor will be Kell Anderson and then Nina deCordova.

MS. TAYLOR: Thank your for allowing me to speak. I'm a private citizen. I live in Aiken. I've lived in Aiken ten years. I have no background in nuclear energy. I'm trying to understand and not be emotional about this issue but to be informed as a citizen so that's why I'm here tonight. I'd like to just read a couple questions. How can our U.S. government ensure

the sharing or sale of reprocessed fuel, what we're talking about with GNEP, to foreign countries? What will happen with that? Will--will it not result in development of weapons-grade materials? It has been reported and we've heard it on the news that Pakistan was able to develop its weapons-grade materials from reprocessed fuel. This is a different world we live in. We have to be non-emotional, true, but we also have to really be in this 21st century. This is a whole different ball game. It is unclear whether this global partnership program will be a federal program controlled by federal employees or controlled by government contractors, we know that story from Iraq, or controlled by commercial entities. What's the ultimate government oversight on this program or any of the other programs that we're going to be attending meetings on in the next ten years? We need to really know those issues. Finally, there are inherent hazards to human health and safety. We're talking toxic issues here, are we not, by which--to human health and safety which must receive the highest priorities in order for this global partnership. Now, we're not talking just Aiken, South Carolina. We're talking global closed cycle programs. One of the boards out there in your presentation there's a question, it says why is the government interested in closing the nuclear fuel

cycle. Number one was support expansion of domestic and international electrical products. That says to me you're going to sell these products. We're not--I'm not interested in selling these products. I'm interested in the safety issues in living on this planet and living here in Aiken, South Carolina. This is a beautiful place. We don't want to wreck it. None of us do. Let's think this through. Number 2 was reduce the risks of nuclear proliferation. Here we go with Pakistan and India. They've been in the news lately. I think you've all heard that. Reduce--number three was reduce impacts with disposal. And under disposal you have volume. What are the volumes are we talking about here? Are we getting this toxic stuff from all over the world? Are they shipping it in here or are we shipping it just across the country? Inform us. You know, maybe I'm misinformed but I'm--I'm just learning here. I'm just trying to get all the information. The other--was that coming from the radiotoxicity part from Europe? What are the programs there? Do they have a really good history? I'm not sure. How much information do we not know? I think there's a lot of questions in this GNEP program that we don't--we're not answering. We're just giving lip service to it. The thermal heat load, what's that going to do for Barnwell County, for Aiken County? I

mean get real here. Okay. The fourth one was the--the proponent for this was the government liked the idea that nuclear reactors produce no less carbon CO2 emissions. That's a good thing. Yeah, I'm all for that, but there's a lot going on with this. We need to really think this through. And y'all are--we all have the smarts to do that. I mean we all have to work together. I'm all for that, but there's a lot of unanswered questions that seem to be looming especially in this economy and with a lot of unknowns in the world economy. Thank you.

MR. LAWSON: Thank you, ma'am. Next speaker is Kell Anderson and Mr. Anderson will be followed by Nina deCordova and then I. Lehr Brisbin.

MR. ANDERSON: Good evening. I'm Kell Anderson and I'm here tonight representing the Bamberg County Economic Development Commission. And I'm here to express our support of the GNEP project and the facilities and urge the Department of Energy to locate this facility within the--within our region. The people of Bamberg have worked on DOE missions for generations and we have cultivated a workforce that is both appreciative of and skilled in the nuclear industry and all of its support services. For many years of local economy in Bamberg flourished under the impact of having the DOE facility right next door in

Barnwell County. And we have suffered in recent years with the downsizing of the Savannah River Site as DOE missions were diminished. But what has not diminished in Bamberg County is our support of the DOE as well as the closed nuclear cycle. Our citizens both need and want the GNEP project and we stand ready to carry out its mission. So again we ask the Department of Energy to give--to give our region its full consideration for this project. Thank you. Letters to follow.

MR. LAWSON: Thank you, sir. Our next speaker, Nina deCordova, then Lehr Brisbin and Diane Crowley.

MS. DECORDOVA: Good evening. I'm Nina de Cordova. I'm here tonight to represent the South Carolina Coastal Conservation League. The Conservation League has more than 4,000 members, nearly thirty staff, three offices on the coast of South Carolina and also an office in Columbia. Perhaps the most important comment that I want to make this evening is that in South Carolina many people who do not oppose nuclear power do oppose nuclear reprocessing. It's clear that in the absence of a permanent site for nuclear waste disposal in the U.S. a commercial reprocessing complex at the Savannah River Site would quickly become the

nation's defacto nuclear waste dump. That's why Governor Sanford's diverse energy Climate Energy and Commerce Advisory Committee otherwise known as CECAC unanimously recommended that support for reprocessing quote be contingent on the shipment of the waste out of state to an operating facility that is actively receiving nuclear waste for long-term disposal unquote.

In other words, the governor's extremely diverse panel on energy and climate change unanimously recommended that our state not become involved in nuclear reprocessing as long as the nation's waste would stay here indefinitely afterwards. As other speakers have commented tonight, reprocessing is dirty. And I'll say a little bit more about that later. Reprocessing is dangerous. I'll talk about that as well. And reprocessing is also unjustifiably expensive. Mr. Alvarez mentioned the 700-billion-dollar tab to construct both reprocessing facilities and a new generation of nuclear reactors that can actually make use of reprocessed fuel. I also want to note that nowhere, anywhere have we seen yet a real cost benefit analysis that shows why scarce federal dollars should be committed to reprocessing as opposed to other alternatives for generating power and conserving energy. Despite these three profound drawbacks there are many well intentioned people in our state who

welcome reprocessing. Very often they rely on inaccurate claims about the quote unquote success of reprocessing in other countries and so I'm going to devote the rest of my comments to what's happening with reprocessing internationally. In other countries reprocessing is again dirty, dangerous and expensive. The radiological impact also mentioned by Mr. Alvarez-- an average processing plant releases about 15,000 more times radioactivity to the atmosphere than a nuclear reactor. There was a report in 2001 that was prepared for the European Parliament that said that reprocessing accounts for 80 percent of the collective dose impact of the French nuclear industry, 90 percent of the radioactive emissions and discharges from the British nuclear industry. Nuclear reprocessing is not the same as a simple nuclear reactor. According to this same report for the European Parliament radioactive releases from French and British reprocessing plants are equivalent to one large-scale nuclear accident each year. Not surprisingly, as Mr. Alvarez mentioned, other countries surrounding France and England have sought to close these reprocessing plants and significant, excess childhood cancers have been found around these plants as well. At the same time reprocessing, particularly in France, has reduced neither the volume of nuclear waste nor the size of the

repository area. In other words, French nuclear reprocessing hasn't really made a dent in the problem of what to do with nuclear waste. Beyond these radiological impacts reprocessing in other countries is also dangerous in that it creates large quantities of weapons-grade plutonium in a form that's relatively easy for terrorists to steal. The worldwide stockpile of separated plutonium is currently enough to create 40,000 nuclear weapons, and if we reprocessed all the U.S. spent fuel that we've got accumulated to date, we'd triple that. Finally, reprocessing in other countries is unnecessarily expensive, in fact it's significantly inflating the price of electricity in both France and Japan. In--this is a report that was commissioned by the French Prime Minister in the year 2000 that said that fuel--spent fuel and waste management costs were increased 85 percent by the use of reprocessing and the cost of electricity increased about 6 percent. In Japan another report by the Japanese Atomic Energy Commission said that reprocessing would increase the price of electricity 16 percent.

MR. LAWSON: One minute, please.

MS. TAYLOR: Thank you. At the same time either France or Japan can offset the cost of reprocessing by selling or using fuel made from separated plutonium.

That's because it will take decades more until fuel that results from reprocessing can actually be used cost effectively. In fact, the usefulness of the product from reprocessing is so speculative that since 1995 the French utility, EDF, has assigned a zero value to its stocks of separated plutonium. In sum, it would be hard to consider reprocessing as a success in other countries unless your goals were to spread dangerous radioactivity around the globe without making a dent in the problem with what to do with nuclear waste. Stockpiled weapons-grade plutonium in a form that's particularly vulnerable to theft significantly increased the price of electricity and produced fuel that can't cost effectively be used now or in the foreseeable future. In conclusion I'd submit that the supposed success of reprocessing in France, Japan and elsewhere is not something that we should be eager to emulate in the United States and that the Savannah River Site with its high water table, high annual rainfall, proximity to the Savannah river, etcetera, etcetera, etcetera is one of the most environmentally hazardous places in the country to ship the nation's nuclear waste. So let's do everything in our power to prevent the Savannah River Site from becoming, and I quote here from Mr. Alvarez and our audience, a dump for the largest most lethal source of high heat

radioactivity in the United States. Thank you.

MR. LAWSON: Thank you. Our next speaker is Lehr Brisbin and he'll be followed by Diane Crowley and Elaine Cooper.

MR. BRISBIN: My name is I. Lehr Brisbin. I retired in October of 2005 after spending forty years of my professional life studying the fate and effect of radioactive contaminants on the fish and wildlife and plants of the Savannah River Site. I did this as a staff member of the University of Georgia's Savannah River Ecology Laboratory and I am still a member as an emeritus senior research scientist of the Savannah River Ecology Lab. That means I have access to my office, to some of our graduate students, a pickup truck and whatever else we need to continue to collect the data out there in a field called radio ecology. Unfortunately the Department of Energy slashed the budget of the Savannah River Ecology Lab and we no longer have a program in radio ecology. I am not here to take sides, closed fuel cycle, open fuel cycle, no fuel cycle. What I am here to advocate is whatever fuel cycle or no fuel cycle we continue to develop the field of radio-ecology and turn out the professionals and the educators we need in this field. To me it's like a medical school debating what kind of heart

bypass surgery it should emphasize in its teaching and practice while closing its department of cardiology. It doesn't make sense. Finally, we have these questions that we still need answers to. Why does radio cesium in the deer of Savannah River not decrease at the rate at which it would be expected to by the biological factors that you would normally expect? Why does radio cesium not bio-magnify up the food chain in the aquatic reservoirs of the Savannah River Site? We don't have these answers and unless we get some funding we're never going to get these answers. Our last radio ecologist, Dr. Tom Hinden [phonetic] left for a job in France several months ago. Last point, radio ecologists, and there were only two places it used to be taught, Colorado State and the University of Georgia, needs a place, a protected outdoor field laboratory. The last one in the United States is the Savannah River Site National Environmental Research Park. You heard people earlier tonight say we are a national environmental research park. Unfortunately that's simply an agency designation and it carries no legal mandate with it. I would suggest that an important activity for the new administration is to look to Congressional action to legally designate and have the President sign an order making the Savannah River Site a national environmental research park where

radio-ecology can be practiced and taught and gather the kind of data so that we can make the decisions on these kinds of questions. Thank you.

MR. LAWSON: Thank you, sir. The next speaker is Diane Crowley and following Ms. Crowley will be Elaine Cooper and Darci Rodenhi.

MS. CROWLEY: Hi, I'm Diane Crowley and I'm a local resident. And I'm sorry today that we have not see more members of the public here. And I don't know if this is the fault of the public's interest or DOE or whatever but one of the purposes of today's gathering is to review the Environmental Impact Statement. I have looked at this Environmental Impact Statement and the purpose of these statements as originally conceived but obviously not being implemented was to provide input and discussion for agency policy makers, scientists and the public. This document as conceived is boilerplate. It is nonspecific. It was written by one consulting firm obviously and I really think that DOE has done a disservice in submitting this document be it programmatic or site specific. Section J, which is the Barnwell, should be reviewed by the public and comments should be submitted. There's discussions about water pollution which are just referred to in passing. There's no baseline study submitted which should be included. And as far as--to my mind it's a

wholly inadequate document. Thank you.

MR. LAWSON: Thank you, ma'am. Our next speaker is Elaine Cooper, then Darci Rodenhi and Betsy Rivard.

MS. COOPER: Hello. My name is Elaine Cooper and I'm a South Carolina citizen of thirty years so excuse my accent. I am an unpaid citizen, one of the few in the room, who stands not to make a dollar. It's not motivated by money or profit as far as this is concerned and I did look around the room and wonder about why there weren't more regular folks such as this last lady and me. And I guess it's because people are confused about these times due to the hard economic situation we're going through. So I would suggest that you delay for quite a long while until you do see more of the public come forth. But with that said, I would encourage and insist that DOE consider a PEIS statement with a no-action alternative. And I bet Bob Alvarez has already said these statements plus other people, but I figured it would bear being repeated. And these are the reasons why and they're based on what Bob has written. Number one, any reprocessing facility would become a dump for the largest, most lethal source of high heat radioactivity in the United States and possibly the world. Two, reprocessing does not significantly reduce the amount of radioactive waste that has to be buried. Three, the cost of nuclear

recycling rivals the recent bailout of Wall Street investment banks. Those are three reasons that are good enough for me and should be for others to--to come forth. Thanks for listening to me.

MR. LAWSON: Thank you, ma'am. Our next speaker is Darci Rodenhi, then Betsy Rivard and Diann Valentin.

MS. RODENHI: Thank you. This is only my second Department of Energy meeting so I'm still feeling a little green. But I just wanted to stand up and say that I'm against GNEP for several reasons. I guess I first want to say that we're talking about the end--changing the end of the fuel cycle. And it seems like it's pretty urgent right now. We're talking a lot about this being the solution to climate crisis. I just want to first say since we're going to talk about the end of the fuel cycle I think we can talk about the beginning of the fuel cycle and talk about uranium mining and just the fact that we say that this is a low carbon emission source of power and it's not. In the beginning of the--the fuel cycle the uranium mining is extremely carbon intensive so there are coal--coal mines that are built--that are put up right to--to process this--this--to just mine the uranium. So I just wanted to say that since we're having a sort of

advance conversation about--about nuclear which can be a little confusing for me, too. But what I've heard tonight and I think it bears repeating is the reprocessing in the GNEP program would not reduce the waste. It is not recycling it. It is not decreasing it in any way. And in fact, you know, it's creating something that's hotter, that's more radioactive in the end. So it would--it would require the same amount of space. It's extremely expensive. I know we're all feeling the economic crisis right now, I know I am, and the cost would just be phenomenal. So, you know, if South Carolina--I'm--I'm a resident of Georgia. So the river flows right between us so it affects me in terms of leaking from these--from this site because this--the site will become, like Bob said, the dump for all of the radioactive waste that--that is now being housed at the--at the plants. And I just--I just am really against this. I think that this isn't--this isn't the way for us to go. And just one more thing about the--about the consumption, and we--we--we seem to feel like we're in this--we need more power and for the future we need more power and the gentleman earlier was talking about what happens with Plant Vogtle in--in Georgia and so I wanted to speak to that saying that--that they're going to license two new towers there. Well, this is against what the population in that county wants.

And--and, you know, in fact, the Wall Street Journal had an article on the 21st of November that--that said there was a drop in the power usage and that the utilities companies are going to really have to adjust their--their outlook on this. And I think we just need to keep that in mind as we're talking about putting at risk this community and for something that's not-- that's not recycling, it's not reducing anything. Thank you.

MR. LAWSON: Thank you. Next speaker is Betsy Rivard, then Diann Valentin and Bobbie Paul.

MS. RIVARD: I'm Betsy Rivard. I'm actually reading a statement that was written by Glenn Carroll. I'm going to have to try to channel her. I don't think I can do her justice but--and I didn't know that I could have read two statements but I'm not going to do that tonight. I'll have to turn in my own statement separately. So this is part of Nuclear Watch Stop, that's Glenn Carroll's and my organization. I'm on the board. Comments on Global Nuclear Energy Partnership, as the world anxiously watches the U.S. economy crumble it is a shame to have to be here today to comment on the colossal waste of the public's time and resources which were squandered to compile an environmental

impact statement which looks in the complete wrong direction for solutions to the global nuclear power waste problem. To be sure the nuclear waste logjam contributes significantly to the steady downward trend in nuclear power. Making serious advancements in nuclear waste management is the direction the industry must look for its future. But rather than shuttling the world's inventory of radioactive nuclear power waste to South Carolina and the Savannah River watershed the nuclear industry must step up and embrace nuclear waste as a world-class problem which merits genuine long-term solutions. GNEP's publicity materials state its vision baldly, the clean, safe, secure expansion of nuclear power. And yet interestingly the EIS serves an indictment against the world's current fleet of uranium fueled nuclear power, making a great case against the dangers of uranium mining and milling, and highlighting the dangers of light water reactor operations and emissions. We commend chapter 4 of the EIS to nuclear opponents as a good resource for studying the dangers of the uranium nuclear fuel cycle. DOE even used a photo of open-pit uranium mine destruction from the famous anti-nuclear organization, WISE, on page 4-7. It's a really a pretty shocking, yucky picture. Anyway, the Institute for Energy and Environmental Research's 1999 report on

reprocessing states reprocessing is probably the dirtiest operation in the nuclear fuel cycle. If there's a dirtier step it's the initial mining and milling of uranium which has scarred the landscape of affected areas with millions of tons of dangerous dirt called tailings and large amounts of low-grade ore. In South Carolina alone reprocessing is responsible for creating the most radioactive waste in the country, over 30 million gallons of high-level liquid waste containing chemicals used in the separation process combined with a long list of radioactive elements created inside the reactors. Reprocessing has also generated tens of thousands of containers of solid radioactive waste which is buried just a few miles from the Savannah River. Already some of that waste has moved into soils and groundwater at SRS while some liquid low-level radioactive waste from reprocessing began seeping into creeks at SRS years ago. It will cost U.S. taxpayers tens of billions of dollars to contain the waste from past reprocessing. There are no plans to ever completely clean it up. No one yet knows how to do so safely even if there was money to try. Sadly, these words were from ten years ago. They remain true today. In fact, the situation has gotten worse. While the GNEP EIS demonizes the uranium fuel cycle at length, it assesses the plutonium fuel cycle

with rose-colored glasses though it does acknowledge in chapter 4 that the health effects from the most serious reprocessing accident analyzed, an explosion and fire involving nitric acids and plutonium, would exceed the EPA hazardous materials regulatory limit by a factor of close to 1,000. That is a public health risk which is simply unacceptable. GNEP rests on a fantasy of imaginary advanced plutonium-fueled reactors which do not exist even on the drawing board. It imagines 300-year institutional control for cesium and strontium-laced tank waste though its flight of imagination concludes with more sober-minded speculation about whether a future administration will agree to reclassify the hot gamma-emitting waste to low level even after 300 years of radioactive decay. Then there's our real-life experience with reprocessing at West Valley in New York. After six years of reprocessing we still fret over the contamination and hem and haw about what to do about it. A 160-page report commissioned by the State of New York was released earlier this week, *The Real Costs of Cleaning Up Nuclear Waste, A full cost Accounting of Cleanup Options for the West Valley Nuclear Waste*. This report must be taken as a reference in the final GNEP EIS.

MR. LAWSON: One minute, please.

MS. RIVARD: Presidents Jimmy Carter, Gerald Ford

and even George H.W. Bush set a course for the nation and the world that rejected reprocessing. This is a line that must be held on a planet bristling with hundreds of tons of plutonium when only 15 pounds of plutonium can make a bomb like the bomb that--which devastated the Japanese city of Nagasaki. South Carolina and Georgia wake up. We still have the same 35 million gallons of untreated waste languishing in 50-year-old underground tanks, leftovers from the Cold War. Programs to treat the waste have repeatedly failed and stalled out. Do you really want to take your chances with the world's spent nuclear fuel for 300 years or 1,000 years and beyond? We are recommending again that the attached Principles for Safeguarding Nuclear Waste at Reactors be reconsidered as the cornerstone of nuclear waste management in the U.S. The GENP EIS does give a fair assessment of impacts for interim at-reactor spent fuel storage in dry casks in chapter 4. Stronger safeguards standards against environmental releases of irradiated nuclear flue including from acts of sabotage or terrorism must be contemplated, developed and weighted heavily in deciding global policies for our nuclear waste problem.

Thank your for heeding our comments.

MR. LAWSON: Thank you. Is it possible you could leave that statement with us?

MS. RIVARD: Yes.

MR. LAWSON: Thank you. All right. Thank you very much. Our next speaker is Diann or Diann--

MS. VALENTIN: Diann.

MR. LAWSON: Diann Valentin, and she'll be followed by Bobbie Paul and Elizabeth Baldwin.

MS. VALENTIN: Greetings. My name is Diann Valentin. I bid you peace and blessings. I am a citizen of the United States and I wholeheartedly oppose the GNEP process. I always plan to speak on certain issues but I hear comments and I want to address a few of them. Are you the gentleman from Department of Energy?

MR. STOUT: Yes.

MS. VALENTIN: Okay. I think that it is not mutually exclusive to be technically astute and emotional. I think that we as human beings full of our own humanity are capable of being intellectually curious, well trained, well versed and emotionally connected to our fellow human beings. There are people in this community and other communities who do suffer from the impacts of having this much radioactive material in their communities. There are families in these communities who are riddled with cancers from toxic emissions and waste from these facilities that

are here. And they are dying but they're also living with these cancers. And sometimes they can speak for themselves, sometimes they can't, but please don't assume that because there are people in this community who tend to be emotional about this issue that they are not well versed in the technology of this issue. Earlier this year colleagues of mine and myself met with the Department of Energy's head of fissile materials. The people who were in that room with us were of the top ranks of the Department of Energy and we had a really good meeting. We were informed of a lot of things. We shared a lot of information. And we do engage on those levels so we know the things that we're talking about. Now, the GNEP disposal plan leaves the hottest waste on the surface, storage and disposal. Strontium, that's another thing. A lot of times we're talking about greenhouse gasses and CO2. There are so many toxic emissions from this process, not just greenhouse gasses although they are bad enough. And I think that the fact that the Department of Energy has allowed this whole conversation to be formulated in a way that uses terms like closed fuel cycle and you know, you know that there is still additional hotter, dirtier waste that's left behind. It is not a closed cycle. And it bothers me in a way that as a--as an agency that is supposed to be in place

to protect me and my countrymen that you have gone so far and I don't want to say fallen so far because there are a lot of good hard-working people in that agency that you have allowed--and collectively, not you as a person, but have allowed this agency to get to the place where you know the science, you know the technology, you know that this is a dinosaur that we met, took control of, dissected, analyzed and realized that we could not control all aspects of it. And instead of--because it's a money maker, instead of setting it aside and moving on to things that benefitted us more and protected us more and did not harm us, the Department of Energy has chosen to pursue this ad nauseam almost. And people are suffering from the beginning of the fuel cycle to beyond the end of the fuel cycle. And I say beyond the end of the fuel cycle because these toxins will be with us for millions of years in one form or another.

MR. LAWSON: One minute, please.

MS. VALENTIN: Thank you. So I really want to say one more thing. GNEP will likely worsen the radioactive waste disposal problem and make the U.S. the dumping ground for nuclear waste from other participating nations. Regarding liquid waste and pollution, the liquid used to dissolve the irradiated fuel is intensely radioactive, toxic, thermally hot and

difficult to contain. At Savannah River Site billions of gallons of liquid reprocessing waste was routed to seepage ponds. Contamination moved from the seepage ponds to ground water. The ground water outcrops to local streams then eventually flow into the Savannah River. Now, there are people who are here because of economic issues and that to me is one of the most egregious things that could happen. The fact that you picked the possibility of a community serving financially against people who have less of a voice surviving physically. And I really think that is not your job. That's not what you're here for. Thank you.

MR. LAWSON: Thank you very much. Our next speaker is Bobbie Paul, then Elizabeth Baldwin and Elizabeth Dalbee.

MS. PAUL: Welcome. My name is Bobbie Paul. I guess it's my third time to make comments on the gargantuan nuclear expansion project commonly known as GNEP. And it's late and we've been here a long time. I just would like to remind us all of something I heard earlier tonight that you probably all had a mom who said, before you go into your next project, clean up your mess. And--and I think it's time that with all the new bells and whistles and the promise, kind of

like the cosmetic industry, that's going to suddenly make me young again that--that we realize that we have an enormous waste problem in this country and it's really time that we tackled it head on and that GNEP and reprocessing falsely dubbed recycling as Dennis Spurgeon [phonetic] said in the meeting passed just think of it as safe as recycling your newspapers. I take great offense at that because we are talking about peoples--people whose lives are harmed by these radionuclides. I head up a women's organization called WAND, Women's Action for New Directions. Several of our members are here. Nine or ten of us came over from Georgia. Three other Georgians met us here, people who live in the shadow of--of the nuclear towers. And as people said, reprocessing is--should really be kept to reprocessing and not talking about nuclear energy. But I've heard tonight so many people singing the praises of nuclear energy and all this stuff about it's this and it's that and that. And someone said--I think it was Darci, in--in this year nuclear energy is down. The usage of nuclear energy is down. So this whole thing about running out of energy and this and that, we're selling power in Georgia to Florida. And renewable energy accounted in our country for 10.8 percent of all the energy used, renewable, truly renewable not nuclear energy dubbed as renewable, which

I know has been tried in South Carolina and in Florida. So I'm very passionate about this. We do know lots of people that are dying. We need more studies. We need ecology. We need all of that. We don't need to be going down the same path that we've tried before that's been suddenly reborn in 2006 under this administration. To me this is the last gasp of this administration I hope and I hope that our congress and our president and everyone says no to this scheme. And that doesn't mean I don't love Georgia and South Carolina and the jobs. I'm saying clean jobs that we feel good about ourselves, that are renewable, that don't have the same risks. This is a risky business. I don't care how safe it is. It's risky. It's risky and people do die from whether it's nuclear power or the effects of all this waste coming up. And one of the things, Bob Alvarez came down from Washington to help instruct us today. We held an open house in the Aiken Public Library. We--it was in the paper. We tried to get people to come. It's about education about this. It's not to pit one side against the other. It's to find out the knowledge and we appreciate that. This is a DOE employee who has spent years studying, knowing reprocessing. We should be--we should be putting him up on a pedestal and listening to his experience because I truly believe that he has the safety and a--

future generations at heart. And one of the things he wrote in a--something that was in the Augusta Chronicle, which hasn't been read along with everything that he has said, was that the first major problem with reprocessing is that it doesn't come close to solving the real challenge of nuclear waste. In fact, as a reprocessing facility chops and dissolves used fuel rods, these 10-foot long, half-inch round, hot rods, it releases thousands of times more radioactivity into the environment than nuclear power reactors and generates several dangerous waste streams. I got to thinking about that and I was thinking about when I pick up an onion in my kitchen and it's fine and I take it down and take the skin off and I get my sharpest knife out and I start, you know, chopping it and then doing it, and pretty soon, I'm sure you can feel it, you know, you're just crying all over the place and you go and stick a piece of bread in your mouth and you--and--and it's that visual image of okay, it's chopping up, and I thought but I can stand this, I can cook and I can eat and it's good for me, some of it. And--but I think about we haven't--we don't have enough images of what actually this whole process is about. We talk about closed cycle, this cycle. This is emission of deadly things that stay around for a long time.

MR. LAWSON: One minute, please.

MS. PAUL: And as my mom said, we need to clean up the mess we made before we start down a new pike. Thanks.

MR. LAWSON: All right. Thank you. Our next speaker is Elizabeth Baldwin to be followed by Elizabeth Dalbee and Susan Corbett.

MS. BALDWIN: Thank you for the chance to speak. I'm Elizabeth Baldwin and I'll be short. I've lived a lot of my life in Hiroshima, Japan. I've been translator for hundreds of A-bomb survivors. They're all different like any other group of people, but the thing that unites them all is intense frustration that they can't communicate what they experienced, what they saw. They all say that nuclear bombing defies the power of words and that it must not happen to anyone ever anywhere even their worst enemy. They said that if everybody understood a nuclear attack we would move quickly to ban these weapons. And I'm here to talk tonight because I believe that reprocessing will only increase our vulnerability to the weapons that we're trying to evolve enough to ban. I've inherited the desire of the survivors and that's why I came. The GNEP advocates claim that reprocessing allows you to use fuel twice while reducing the proliferation dangers. Unfortunately that's not true as many people here have pointed out. The risks of threat--the risk

of theft grows and you need--we're going to need guns, gigs and guards more and more of these, to keep hundreds of tons of plutonium in control. I also understand that reprocessing processes are so complicated that it's difficult to keep track of every pound of plutonium along the way and it only took 13 pounds to kill over 70,000 people in Nagasaki.

President Ford understood the danger of reprocessing when he suspended it in 1976. President Carter understood when he banned it in 1977. If we imagine that we can pile up evermore plutonium in various facilities, move it around from place to place, carry it across the ocean, how safe is that? We're dreaming.

So Mr. Representative of DOE I ask you to be a change agent to go back to your department and get them to move out of the past, bite the bullet and throw your weight into the technologies of the future. Thank you.

MR. LAWSON: Thank you very much. Okay. Our next speaker is Elizabeth Dalbee and Ms. Dalbee will be followed by Susan Corbett and then Ernie Chaput.

MS. DALBEE: Hello, I'm Elizabeth Dalbee and I live in South Carolina and I've lived here all my life.

I've been sitting here listening to all the--the information that's just been fed out there. And I'm very concerned about some of the issues that many of

you have brought up and the questions that you have brought up. It appears that this closed fuel cycle program does not solve the nuclear waste problem which is what I thought it was supposed to solve. It appears that it raises more problems and more issues. It continues to create a bigger waste problem. It appears this nuclear waste does not go away, y'all. And whether we call it reprocessing it's--it's just moving it from one place to another. It doesn't solve the waste problem. What is used--is reused is very small and the rest is again more radioactive waste. So we create more radioactive waste. This closed fuel cycle program doesn't eliminate the nuclear waste. It's still there. There is no permanent disposal solution it appears from what I've heard tonight. Where is the permanent disposal solution? That's what I thought the reprocessing was supposed to be but after listening it isn't. And I urge that you personally, not collectively but personally, and professionally represent these statements back to DOE and I hope you act and the whole department acts with integrity to solve the waste problem because that's what we're talking about, the waste--the nuclear waste problem. The reprocessing does not solve it. So we need to come up with a plan that does solve it and we are, as other people have said, smart enough, intelligent enough. We

can solve all these problems but we don't need to continue to create more waste. We need to solve what we've got. We've got to figure out what we're going to do. In conclusion, I just want to say I've lived in South Carolina all my life. It is a beautiful state. I love it. It's my home. I have children, grandchildren. You are all people, you're just like me. You have families, too. We love South Carolina. We don't want to be a dump site. We don't want to be faced with--with all the unknowns. We really don't. Thank you very much.

MR. LAWSON: Thank you very much, Ms. Dalbee. Our next speaker is Susan Corbett and then Ernie Chaput.

MS. CORBETT: Okay. I guess we're about finished. I don't know about y'all but I've got to drive back to West Columbia. And I guess most of y'all live around here. Some of us--some of us came down from Columba. I live about 50 miles from here as the wind blows and I am not paid to do this. I'm a stay-at-home mom, home schooling mom. This has been kind of an issue with me for a long time because it's concerned me ever since they first started splitting the atom and I joined the

Sierra Club to--to work on the issue for the club. But I don't get compensated in any way to do that. And my--my children always ask me when I'm going, are you getting paid for this, mommy, no, I'm sorry, I'm not. But a lot of people have already articulated a lot of the issues that I would have raised. So I'm just going to say a few things here. First of all I'd like to say that, you know, I think the people that stand to benefit economically from this--their job I think those are the people that have emotions invested and that really can't be objective. If it was my job I couldn't be objective about it. Of course I would be emotional.

So I think you really have to leave it to the people that are objective, that don't have an invested monetary reward or potential benefit from this to have a better view of the situation. If it was going to be my job I couldn't be objective about it so I kind of take issue with people who say we should pull the emotion out of it. So--I got really upset about this about--I went to the first GNEP scoping--there were some scoping meetings about eighteen months ago. And they did one in Columbia and I went to that one. I think Ernie was there. Where's Ernie? I think he was there. And, you know, I--they did this beautiful presentation, you know, and they always--they have these most pristine slides and they just make

everything so pretty and it just looks so clean and-- and I remembered--I had heard that reprocessing created a liquid waste stream. And so I asked the AREVA guy-- the AREVA guy was there and he did a presentation. And I--he put up a big thing about the--the plant in LaHaye, France and he showed how it worked and everything. And I asked him, I said, well, where does the liquid waste go. And he said there is no liquid waste. And I asked him again and I looked at him. I said there is no liquid waste. And he said no, there's no liquid waste. Well, I think that's wrong because I have been doing some digging around and from what I have been able to find out the LaHaye reprocessing plant has annually discharged a hundred million gallons of radioactive liquid waste into the English Channel via an underwater pipeline. The sediments at the foot of this pipe would be considered intermediate level radioactive waste. Now, see over there they have three levels. They don't have just high level and low level. They have actually an intermediate level, right. It would be considered intermediate level waste and would require deep geologic disposal. But despite this they are allowed to remain on the sea floor eroding and carried with the ocean's currents and nearby beaches have been closed to the public due to radioactive contamination. Well, I guess we're going to have to

close the beach at Hilton Head because when they start dumping a hundred million gallons of radioactive water into the Savannah River I guess all those rich people that live in Hilton Head are just going to have to stop swimming. Crazy. Elevated rates of leukemia have been detected in neighborhood--neighboring populations. Radioactivity from LaHaye has been detected as far as away as waters in the Canadian Arctic. So--well, I guess they--that there is--somebody is not telling us the true story here because they said there was no liquid waste and then I'm hearing that there is. So we--where are they going to put that? They're going to dump it in the Savannah River. That's the only place they can. And I heard, you know, this very bad reports on the current status of the Savannah River Basin. We're in a terrible drought which means that anything you put in there is going to be at a higher concentration because it's less water to--to dissolve it. AREVA--and then they didn't say this either. Radioactive gasses discharge into the atmosphere even larger than the liquid waste releases. They release krypton-85 and carbon-14 which has a 5,000 year half life. These are carcinogenic radioactive gasses. You know, just little things they forget to tell you in these really slick presentations where you go and you--and you believe them and they don't tell you this

stuff. And then, of course, I, you know, a thousand pounds of plutonium into the Irish Sea. I mean, this is crazy. This is insane. We are smarter than this. This is a new--this is a new millennium. This is old--this is going to go the way of coal and oil. We have got to go away from this. We have got to go to things that do not leave a legacy of toxins and pollutions for our children, my grandchildren. James Hansen was just here in South Carolina talking about CO2 releases and--and global warming. And the reason he came out of retirement is he has grandchildren now and he feels guilty because they come to him and say, well, Papa, Opa, you knew that there was global warming because of CO2, what did you do about it. And I feel the same way. My children are going to come to me, Nana, what did you do about that radioactive waste. Well, I want to be able to look up and say, I worked my tail off to try to--to stop it. And I'm going to leave you with a quote. Somebody sent me this today on my Blackberry. I just thought it was really nice. I love these things. No degree of prosperity could justify the accumulation of large amounts of highly toxic substances which nobody knows how to make safe and which remain an incalculable danger to the whole of creation for historical or even geological ages. To do such a thing is a transgression against life itself, a

transgression infinitely more serious than any crime perpetrated by man. The idea that a civilization could sustain itself on such a transgression is an ethical spiritual and metaphysical monstrosity. It means conducting the economical affairs of man as if people did not matter at all, E.F. Shumacher [phonetic].  
Thank you.

MR. LAWSON: Thank you. Next speaker is Ernie Chaput.

MR. CHAPUT: Can we sign up again?

MR. LAWSON: I made an announcement at the beginning of the meeting that if people had more to say than their original five minutes they could come back after everyone else had spoken for more time.

MR. CHAPUT: And--and what I have is another letter than I was asked to read into the record from Dr. Tom Hallman, chancellor, University of South Carolina, Aiken. I'll be just very brief and just hit the parts that have--he wants--he's unable to attend the hearing, wants to go on record as supporting the program. He does say to do this we must find ways to close the nuclear fuel site and GNEP represents a grand opportunity to explore practical and implementable solutions, supports the broad concepts of the local initiatives and encourages DOE to act swiftly on the key policy decisions. Thank you.

MR. LAWSON: Thank you. Okay. Well, thank you all very much. I appreciate your--your patience. In a second I will adjourn this meeting. First, I want to just remind you--just--just hang on one second, please.

I just want to remind you that the--the closing date for comments is December 16th but we suspect that that's going to be extended at least another thirty days and you're urged to get other comments in as quickly as possible. And I think that the--the GNEP website will have the revised end date soon. I want to thank our court reporter, Laurie Stair, for her work tonight. We really appreciate that and thank you again very much for your attendance and participation and certainly for the thoughtful comments that were made. This meeting is now adjourned.

[Hearing concludes at 10:09 p.m.]

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## CERTIFICATE OF COURT REPORTER

I hereby certify that the foregoing transcript consisting of pages numbered 3 through 98 is a true and correct transcript of the proceeding held before me; that said hearing was reported by the method of Stenomask.

I further certify that I am not kin or counsel to the parties in the case, am not in the regular employ of counsel or said parties, nor am I otherwise interested in the result of said case.

This the 22nd day of December, 2008.

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LAURIE M. HANNON-STAIR, CCR, CVR  
CERTIFIED COURT REPORTER  
GEORGIA CERTIFICATE # B-2199