

NUCLEAR ADVISORY COUNCIL MEETING

Gressette Building, Room #207

January, 2016

1:00 pm - 4:00 pm

Call to Order – Approval of Minutes Karen Patterson, Chair

Attendees: Steve Byrne, Claude Cross, Carolyn Hudson, James Little, Karen Patterson, Tom Young, and Don Wells

The July minutes were approved. {NOTE: There are no October minutes due to meeting cancellation caused by the October flood.}

Ms. Patterson thanked everyone in attendance and stated it could take up to three (3) months of meetings to get back on schedule following the October flood in South Carolina.

Update of NAC activities

Ms. Patterson stated NAC has had a quiet quarter only reporting one comment provided at NNSA's request on some unidentified gap plutonium. NNSA has written an EA that is a companion document to previous plutonium dispositions EIS's on transporting it – receiving it here – and storing it at the Savannah River Site. The comments submitted expressed no concern with the NEPA aspect; only the lack of funding to disposition the plutonium once it arrives. Ms. Patterson then introduced the first presenter.

K-12 Nuclear Education Activities Mindy Mets, Program Manager, SRS CRO and Don Bridges, Vice-Chair, CNTA

(slides available here <http://admin.sc.gov/node/1543>)

Questions from Council:

Dr. Hudson: Are you reaching out in any special way to “at risk” students such as minorities or women to get them involved?

Ms. Mets: All of the Answer Grant Programs (college programs) are targeted toward non-traditional students and designed to meet their needs. In many cases, those students need hybrid courses, on-line or night classes. Often scholarships make the difference in program completion due to juggling their work demands. With regard to the K-12 Program, some of those programs were geared toward a portion of the population unfamiliar with the opportunities and in many cases those are “at risk” students.

Ms. Patterson: As understood, the DOE funding is for the gap technologies and skills; what is the other funding source and how much does it cost annually to run the program?

Ms. Mets: I am not positive on the annual cost but the funding source is through the SRS CRO Organization. Some of that funding comes through the asset transition program which is part of the economic development piece as far as the CRO's focus and that is related to the excess properties at SRS that are then made available to the community for economic development purposes, and if not, they are sold. When that happens that money goes back in to the community.

Ms. Patterson: Are the other CRO's doing similar education programs?

Ms. Mets: There are eight (8) other CRO's and they all operate very differently. We have partnered with some that are operating similar programs to the Answer Grant but ours is mostly unique.

Representative Wells: Thank you Mindy for a great presentation and good information. It is interesting that 85 percent of folks that have come through the program are employed. Could I find out where they are employed and in what field?

Ms. Mets: Certainly, I can provide that information as records reflect a large percentage that are employed in the nuclear industry and in addition to that I can forward you that information. I will say it is very hard for colleges to track where their students go in many cases so what we have is predominately because of relationships between students and their professors but I will be happy to share that information with you.

Mr. Cross: A lot of what you do is geared toward students. Is there anything that you do or that other people do in this volunteer business to reach the adult population and organizations since they probably know the least about nuclear power?

Mr. Bridges: Thank you for the question. At our "Up & at Atom" breakfast series we typically host 80 to 100 individuals where we educate in that setting. Two months ago we spoke about medical isotopes. We also have a number of presentations by individual requests. We also have a mixer every year with the Aiken Young Professionals.

Ms. Patterson: Do you give the instructors a lesson plan to follow and how do you measure the effectiveness of the teacher workshops?

Mr. Bridges: The instructors are asked to self evaluate, provided with lesson materials, a CD, along with a text book. Over the last year there is an American Nuclear Society teacher book that is also provided that includes lesson plans that go along with those activities.

Mr. Byrne: We participate with an initiative called "High School Blitz". Do you participate in that?

Mr. Bridges: Not that I am aware.

Mr. Byrne: You might want to look into this if that portion of the state is absent in the "High School Blitz" because in one day we get in front of thousands of high school students.

Mr. Bridges: Where do you do this?

Mr. Byrne: Just gauging a list of high schools, it looks like mostly upstate and the midlands. We don't coordinate it but we do provide the volunteers. We have provided approximately 30 volunteers so

about 150 or so go to the local high schools and it has been an effective way to get in front of a lot of students for one to two hours at a time.

Mr. Bridges: We will look into this.

Mr. Byrne: I see you are mostly focused on the Aiken-Augusta area which is understandable given your group's charter but has there been any outreach to the Governor's School for Science and Math? My guess is there are a lot of students at that school in Hartsville that come from the Aiken-Augusta area so I wonder if it would be a good idea to reach out to that school?

Mr. Bridges: That's another one we probably need to look at. As a practical matter, it is hard for us to go beyond the geographical bounds. Occasionally, we come to Columbia or go to the upstate but we will certainly look at that school.

SCDHEC Shelly Wilson, Permitting and Federal Facilities Liaison, SC Department of Health & Environmental Control
(slides available here <http://admin.sc.gov/node/1543>)

Questions from Council:

Ms. Patterson: Thank you Shelly.

Consultation is Complete; Monitoring Continues Chris McKenney, Chief, Performance Assessment Branch and Shaun Anderson, Acting Chief, Low-Level Waste Branch, NRC
(slides available here <http://admin.sc.gov/node/1543>)

Questions from Council:

Ms. Patterson: I want to congratulate all three (3) agencies (DHEC, DOE and NRC) for putting all of this together and making it run smoothly in the end – I appreciate that. I am confused about the term monitoring. Are you monitoring Savannah River's monitoring? Monitoring to me means taking and analyzing samples. Are you analyzing samples? Is NRC analyzing samples? Or are they reviewing the results of Savannah River's sampling program. Also, can you explain when you say you only come here when something is happening.

Mr. McKenney: We serve in a monitoring arena to mean looking through their performance assessments and special analysis to determine if there is adequate support. We are not putting in our own wells or having split samples. Since most of this is so far in the future in terms of low level waste analysis, we are mostly relying on the evaluation of the forms assessment in looking at the research that is ongoing. Our discussions are mostly reviewing the technical information and those activities done by DOE.

Ms. Patterson: For example, when performance assessment is updated, you will review the update, correct?

Mr. McKenney: Right, that is part of our monitoring activity. For example, if they are grouting, we check to see they are being consistent with their disposal operations. We ask questions such as, are you

turning away trucks? What were your batch tickets like? We do spot checks. We ask if they have had any problems since last time we were here. We ask the standard operational questions.

Ms. Patterson: So you develop an administrative record of what all you do?

Mr. McKenney: Right, exactly.

Ms. Patterson: So my question would be when the public had opportunities to provide input or to come behind NRC when you are doing your performance, how does the public get your assessments of DOE's performance monitoring program?

Mr. McKenney: On our website we have a whole list of everything we do and all of our reports go on our website. We maintain that website to ensure current information with snippets of the current status of each of the sites on the website.

Ms. Patterson: So if a member of the public wants to know something, they can refer to your website for other public meetings?

Mr. McKenney: Very rarely are there additional public meetings.

Mr. Byrnes: Beyond the aspects of monitoring and consultation, do you have any other statutory authority over DOE?

Mr. McKenney: No.

Mr. Byrnes: What if DOE decides they disagree with one of your recommendations in the consultation portion of it – does it get resolved by the Secretary of the DOE?

Mr. McKenney: Yes. They can choose to go a different way.

Ms. Patterson: Thank you very much. Let's now take a ten minute break.

SRNS Updates and Challenges Dave Eyer, SRNS Vice President
(slides available here <http://admin.sc.gov/node/1543>)

Questions from Council:

Ms. Patterson: With regard to great lessons learned and tight budgets, attrition and the drop in employees, are you comfortable with the training that you give people and the continuous training like the nukes do? Do we need to figure out a way to improve training?

Mr. Eyer: Yes, that is one of the actions coming out of our training processes to include scenario based training and small group training. We are currently doing a resource analysis to examine support procedures before training and a few other areas. We are close to making some determinations on additional resources we should have and what changes we need to make in that regard.

Ms. Patterson: We will be interested to hear about the results of that. My next question is about something I've read recently on the fence border being worried about the emergency preparedness, SRNS and SRR and how to address it. Is there actually a second SOC?

Mr. Eyer: Yes. So what you have is a primary EOC and that's in "A" area and you have to have an alternate in the event you have an event that makes that at risk. So yes, there is an alternate. We have always had one. We used to use a conference room in the DOE office building and it wasn't all that greatly functional so we created a dedicated space across the street and so that is where it is.

Ms. Patterson: So it is onsite? It is dedicated and has phones, monitors and all?

Mr. Eyer: Yes.

Ms. Patterson: My last question would be is it SRNS or SRNL that is opening an office in Hanford?

Mr. Eyer: Lab. We operate the lab. It is there to provide expertise to help with the missions in Hanford. We have had people out there for the past two (2) years.

DWPF Update Stuart MacVean, SRR President and Project Manager, and Jim Folk, Assistant Manager, Waste Management, DOE

(slides available here <http://admin.sc.gov/node/1543>)

Questions from Council:

Ms. Patterson: Did I understand you to say you will eventually double stack both glass waste storage buildings?

Mr. MacVean: So we are still looking at whether we can do glass waste storage building number two. It's actually a little bit shorter structurally so we need to take a good hard look at that – I'm just not sure if we can do that. The double capacity in one is equivalent to three full up glass waste storage facilities so that would take us out to the 2026 time frame so it gives us a lots of time to figure out if we are going to go beyond the capacity of those three to determine the next step. I think a lot of us would prefer to start us down the path of some kind of casting arrangement to be more ready for shipment to a repository in the future.

Ms. Patterson: I know that we have not produced as many canisters as we could for years but I just looked at the slide that said we did thirty (30) in one quarter which is one every three days; by slowing the canister production down, what does that do to the operation of DWPF? Do you have to turn the melter off and start it back up?

Mr. MacVean: Once you turn on a melter, it is on until it dies.

Ms. Patterson: So between the slow moving canisters, when the system operates, there is just no waste going through it?

Mr. MacVean: So here is what we did - we have turned off the boilers so we are about full capacity – just shy of full capacity at 150 without running the boilers. So what that does is makes the melter

critical path and you can make up all of your chemicals ahead of time. Upstream of that is when you want to go back in to high level production we turn the boilers back on and the chemical processing system can keep up.

Ms. Patterson: So you can just pace the facility. I am cautiously optimistic – more than I have been in a long time. {Laugh}

Mr. MacVean: Sometimes timing is everything. Everything is aligned at the moment so we are feeling pretty good. Enjoy the sunlight! {Laugh}

German Fuel Processing Update Maxine Maxted, Spent Nuclear Fuel Program Manager, DOE
(slides available here <http://admin.sc.gov/node/1543>)

Questions from Council:

Ms. Patterson: Do you have a ball park date?

Ms. Maxted: I know that the technology maturation is scheduled and if everything goes as planned we would not have it completed until sometime in the middle to late FY17.

Captain Cross: I see that HEU was provided by the US, where were the pellets made?

Ms. Maxted: I am not sure if they were made at General Atomics or if they were made in Germany. I am not sure where they were made. Do you mean the fuel kernels? Or the actual spheres?

Captain Cross: The fuel – the fuel itself.

Ms. Maxted: The fuel is here and it was provided by General Atomics. Now whether they did the actual spheres I do not know. I know they did the actual fuel kernels.

Captain Cross: Do we have any other fuel in this country?

Ms. Maxted: Not in the same form. We do have graphite fuel at Fort St. Vrain, but it is in hexavalent form – about 3' x 4' configurations.

Captain Cross: Where in our facility would this chemical analysis be done?

Ms. Maxted: We are looking at H Canyon – actually cell five. We would not have to use the whole canyon facility because of the new process. We think we can contain it within what they call a frame. It is something they have used in the past where you build your frame outside - test it outside - bring it in to the cell and we could contain it all within that one cell. We would have to use the crane so we would have to work out the logistics of the crane and what it is needed for in other missions as well.

Captain Cross: So the basis of H Canyon is it can still be used for something else at the same time.

Ms. Maxted: Yes sir.

Captain Cross: What is the plan for bringing the fuel in to the United States?

Ms. Maxted: The German fuel?

Captain Cross: Yeah.

Ms. Maxted: There would be no decision on its acceptance until after that technology maturation which would be in the middle to late FY17.

Captain Cross: So it would not be brought in to the country until it was ready to be processed? Is that correct?

Ms. Maxted: It would not be brought in until we knew we could actually process it.

Captain Cross: You mean we would bring it in before we were able to process it?

Ms. Maxted: Yes sir. We would bring it in and store it but we would already know and have the process developed.

Captain Cross: Sounds like {brief pause} it does not sound right to me.

Ms. Patterson: Germany has to pay for it. Thank you Maxine.

SRS 2016 Budget Update Thomas Johnson, DOE
(slides available here <http://admin.sc.gov/node/1543>)

Questions from Council:

Ms. Patterson: I do not have a question but I do have a comment which is I am glad to see we are going in the right direction which is up and the Council and a whole bunch of other people around here stand ready to help wrest some more money out of government if we need to do that for the 2017 budget. I just want to let you know.

Mr. Johnson: Thank you.

Mr. Little: One clarification I have is OMB kind of put restrictions that you cannot move money around from PBS to PBS.

Mr. Johnson: Right. What I have tried to show is these are the actual control accounts so this is not how the money comes in to the site. We cannot move it across.

Mr. Little: You actually saved money in this PBS.

Public Comments

Public comments available at <http://admin.sc.gov/node/1543>.

The next meeting of the Nuclear Advisory Council will be held on April 14, 2016.

The following meetings will be July 14, 2016, and October 13, 2016.

Meeting adjourned.