

**From:** Webb, Beth <BethWebb@gov.sc.gov>  
**To:** Danny Black <dblack@southerncarolina.org>  
**CC:** Soura, Christian <ChristianSoura@gov.sc.gov>  
**Date:** 6/2/2014 1:28:31 PM  
**Subject:** RE: SRS Stakeholder Update: German Research Reactor Pebble Bed Fuel EA NOI Signed Today

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Hi Danny,

Thanks so much for your message. I enjoyed being with you at the event Thursday night, and I know the Governor did too. It was a wonderful evening!

We will certainly find the right person to discuss ideas related to the DOE and the potential for help with technology in schools in your area. I may can be helpful in that arena as well, but I have copied Christian Soura, our Deputy Chief of Staff, to confirm.

Thanks again,  
Beth

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**From:** Danny Black [mailto:dblack@southerncarolina.org]  
**Sent:** Friday, May 30, 2014 12:20 PM  
**To:** Webb, Beth  
**Subject:** Fwd: SRS Stakeholder Update: German Research Reactor Pebble Bed Fuel EA NOI Signed Today

Good morning Beth

Thanks so much for coming to our event last night. I know everyone appreciated the guys attending, and of course the Governor's presence. She is adored in this area, and I hope she knows that. Tell her everyone was appreciative, and impressed!

On another subject, attached is an announcement put out yesterday concerning a coming agreement between DOE, and the German government, to have SRS process Germany's spent nuclear fuel through the Site.

I have been discussing potential ways for our region to benefit with DOE. Mainly along the lines of Economic Development.

However, reminded by the Governor's remarks concerning the lack of technology in our local schools, this maybe a way of eliminating that deficiency for our poorer schools in our region.

I would like to discuss some ideas along that line with the appropriate person at the office. Could you connect us with the right person to do this?

Thanks  
Danny

Sent from my iPad

Begin forwarded message:

**From:** <julie.petersen@srs.gov>  
**Date:** May 29, 2014 at 4:13:42 PM EDT  
**To:** undisclosed-recipients;;  
**Subject:** SRS Stakeholder Update: German Research Reactor Pebble Bed Fuel EA NOI Signed Today

May 29, 2014

## DOE-SR Update: German Spheres Notice of Intent (NOI)

### Update on German Research Reactor Pebble Bed Fuel

In our last stakeholder update, we mentioned our potential work with Germany and promised to keep you updated on this topic.

Today, the Department signed a Notice of Intent to prepare an environmental assessment (EA) to analyze the potential environmental impacts from a proposed project to accept used nuclear fuel from the Federal Republic of Germany at DOE's Savannah River Site (SRS) for processing and disposition. **A public scoping meeting will be held on June 24, 2014, at the North Augusta Community Center.**

DOE proposes to accept, process, and disposition used nuclear fuel from Germany containing approximately 900 kilograms (kg) of highly-enriched uranium (HEU) from the United States. The used nuclear fuel is composed of kernels containing thorium and U.S.-origin HEU embedded in thousands of small graphite spheres. DOE would install a capability in H-Canyon at SRS, which would chemically remove the graphite from the fuel kernels via a graphite digestion technology being developed by the Savannah River National Laboratory. The EA will analyze potential environmental impacts of transporting the fuel to SRS, storage and processing at SRS, and alternatives for disposition of the HEU that would be separated from the fuel kernels.

While no decision has been made to accept this fuel, the planned cooperation would support the United States' efforts to reduce and eventually eliminate HEU from civil commerce. By removing U.S.-origin HEU from Germany and returning it to the United States for safe disposition, DOE could render it unusable in a nuclear weapon or an improvised nuclear material dispersal device.

Under the signed Statement of Intent, DOE, the Federal Ministry of Education and Research of the Federal Republic of Germany and the Ministry for Innovation, Science and Research of the State of North Rhine-Westphalia (on behalf of the North Rhine-Westphalian State Government) would jointly work on activities to further support the scale-up of the graphite digestion technology while DOE prepares the environmental assessment of the proposed project. All work to support DOE's evaluation, including technology development, will be funded by the German government.

In December 2012, Savannah River National Laboratory (SRNL) signed a \$1.5 million "Work for Others Agreement" with the German entity currently managing the subject fuel, initiating the early development of the graphite digestion technology. SRNL has developed a method to digest the graphite while leaving the fuel kernels intact. The SRNL method does not generate graphite fines, typically seen with mechanical graphite removal methods. The technology has proven to be repeatable with 95 percent volume reduction. Research teams at SRNL and the Juelich Laboratory (FZJ) in Germany have independently confirmed results of SRNL's graphite dissolution chemistry on un-irradiated fuel and some sample size irradiated fuel. Continuation of this work is furthered by the recently signed \$8.5 million Work for Others Agreement.

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