

Emails between Tom Clements (Savannah River Site Watch, Columbia, SC, <https://srswatch.org/>) and the US Nuclear Regulatory Commission about the Centrus High-Assay Low-Enriched Uranium Demonstration Project, March 2021

-----Original Message-----

From: Trefethen, Jean <Jean.Trefethen@nrc.gov>

To: Tom Clements <tomclements329@cs.com>; Quintero, Jessie <Jessie.Quintero@nrc.gov>

Cc: Coflin, Monika <Monika.Coflin@nrc.gov>

Sent: Fri, Mar 19, 2021 4:52 pm

Subject: RE: Re: Request for Public Comment Period on Draft EA on the Centrus High-Assay Low-Enriched Uranium Demonstration Project.

Mr. Clements,

Thank you for your email regarding the Centrus Energy Corp. (Centrus) American Centrifuge Plant (ACP) high-assay low-enriched uranium (HALEU) demonstration program license amendment review that the U.S. Nuclear Regulatory Commission (NRC) is currently undertaking. The NRC is considering a license amendment request (LAR) for license SNM-2011, which was submitted on April 22, 2020, and May 7, 2020, and is publicly available at [ADAMS ML20139A109](#).

SNM-2011 was initially approved and issued in 2007 for the commercial ACP located on the U.S. Department of Energy (DOE) reservation in Piketon, Ohio. The licensee, American Centrifuge Operating (ACO), is a wholly owned, indirect subsidiary of Centrus with a 3-year contract with the Department of Energy to demonstrate production of HALEU at the Piketon facility. The term of the contract expires on May 31, 2022. As part of this contract, ACO is requesting authorization to produce low-enriched uranium product up to 20%, referred to as HALEU, using 16 centrifuges. HALEU fuel will be used for many advanced reactor designs. If the LAR is approved, ACO will be allowed to enrich small amounts of uranium up to 25% to factor in process fluctuations. As part of its review of the LAR, the NRC evaluates the potential environmental impacts of the proposed action and the no-action alternative.

The NRC prepared an environmental assessment (EA) for a license in 2004 to construct and operate the demonstration Lead Cascade Facility (LCF) (ML040210751) at the Piketon facility. The purpose of the LCF, which involved operation of up to 240 centrifuges between 2007 and 2016, was to demonstrate enrichment of uranium up to 10% uranium-235 using centrifuge technology. In 2007, the NRC issued a 30-year license, SNM-2011, to USEC (currently maintained by ACO) to construct and operate the commercial ACP using the same gas centrifuge technology as the LCF for enrichment of uranium up to 10% uranium-235. The NRC issued an environmental impact statement (EIS) for the commercial ACP license in 2006 (ML061250131, ML061250101), which included a public comment and review period. Since it was licensed, no significant construction activities have taken place for the commercial ACP. At full capacity, the commercial ACP would utilize about 11,500 centrifuges.

The NRC does not typically issue draft EAs for public review and comment. The NRC's regulations at [10 CFR 51.33\(b\)](#) outline the circumstances for which the NRC would publish a draft Finding of No Significant Impact (FONSI) and draft EA for public comment: (1) a FONSI appears warranted for the proposed action but the proposed action is (i) closely similar to one which normally requires the preparation of an EIS, or (ii) without precedent; and (2) the appropriate NRC staff director determines that preparation of a draft FONSI will further the purposes of NEPA [National Environmental Policy Act].

The NRC staff determined that the Centrus LAR to operate the HALEU cascade did not meet the criteria in 10 CFR 51.33(b). After analyzing the environmental impacts of the HALEU LAR, NRC staff determined that a FONSI appears to be warranted. Because the HALEU LAR activities would take place in a small portion of an existing building that housed the LCF, involve smaller quantities of material than the previously approved licensing actions, and will produce minimal waste, the environmental impacts of the HALEU cascade would be bounded by those considered in the LCF EA and the ACP EIS.

The proposed amendment is not similar to actions that normally require an EIS. The 16-centrifuge ACP HALEU demonstration would produce enriched product at the upper end of the low-enriched uranium (LEU) scale using a technology similar to the one approved for both the LCF and the ACP, but on a smaller scale. The staff determined the preparation of an EA was appropriate for the LCF because of the small scope of the proposed activities. The LCF application was for a demonstration facility utilizing up to 240 centrifuges for 5 years. In contrast, the staff determined an EIS was appropriate for the commercial ACP facility given the much larger scope of the proposed activities. The ACP application was for a commercial facility utilizing up to 11,500 centrifuges for 30 years. The NRC staff has determined the HALEU demonstration would be more similar in scope to the LCF licensing action because of the limited scope of operations, the small quantities of materials, and the minimal amount of waste generated.

In addition, the HALEU LAR currently being evaluated by the NRC is not without precedent. While the enrichment level is higher for the HALEU cascade, the technology and enrichment process are the same as those previously evaluated and approved for the LCF and ACP, in that uranium enrichment in the HALEU cascade will be conducted in similar centrifuges and piping.

The NRC staff has determined that issuance of a draft FONSI for public comment would not further the purposes of NEPA. This finding takes into consideration the staff's lengthy and comprehensive evaluation of the environmental impacts of this technology at the site of the proposed HALEU demonstration. Therefore, for the reasons discussed above, a draft EA will not be issued for public comment.

We will place your request into ADAMS and make it publicly available. Due to your interest in Centrus licensing actions, we have added your email address to the Centrus listserv so that you will receive Centrus LCF, ACP and HALEU demonstration-related updates in the

future. Documents related to this review can be found electronically by accessing the NRC website at the following address <https://www.nrc.gov/materials/fuel-cycle-fac/usecfacility.html>. Additionally, information can be found at the DOE website at the following address <https://www.energy.gov/ne/articles/department-energy-preps-fuel-advanced-reactors>. You will be emailed a link to an electronic version of the EA upon its issuance, so that you receive the final, publicly available version.

If you have any questions, please contact me by telephone at 301-415-0867 or via email at Jean.Trefethen@nrc.gov.

Jean Trefethen
NRC Environmental Project Manager
for Centrus

Two subsequent messages from the NRC's Jean Trefethen, March 19, 2021:

"After sending my response I realized the link to the license amendment request (LAR) I included below was not working. Below are three links that should provide you access to the Centrus LAR documents discussed in my response below."

[ML20139A100](#), [ML20139A098](#), [ML20139A097](#).

"Additionally here are the Active links to the May 7, 2020 submission."

[ML20125A103](#), [ML20125A105](#), [ML20125A108](#), [ML20125A116](#)

From: Tom Clements <tomclements329@cs.com>

Sent: Friday, March 19, 2021 2:27 PM

To: Quintero, Jessie <Jessie.Quintero@nrc.gov>; Trefethen, Jean <Jean.Trefethen@nrc.gov>

Cc: Coflin, Monika <Monika.Coflin@nrc.gov>

Subject: [External_Sender] Re: Request for Public Comment Period on Draft EA on the Centrus High-Assay Low-Enriched Uranium Demonstration Project.

Hello Ms. Quintero -

Thank you for your message of yesterday.

I see this in today's news briefs from World Nuclear News:

"US enriched uranium supplier Centrus Energy Corporation expects to begin demonstrating production of High-Assay, Low-Enriched Uranium by early next year, CEO Daniel Poneman said in the company's annual results yesterday. "Our sales team also secured over USD100 million in new commitments from November through the end of January," he added. Centrus recorded a

gross profit of USD97.6 million in 2020, compared with USD32.5 million in 2019."

I find it difficult to believe that the Centrus demonstration project would be done with no public input into an environmental review so anticipate your clarification on that point.

Sincerely,

Tom Clements
SRS Watch
Columbia, SC

-----Original Message-----

From: Quintero, Jessie <Jessie.Quintero@nrc.gov>
To: Tom Clements <tomclements329@cs.com>; Trefethen, Jean <Jean.Trefethen@nrc.gov>
Cc: Coflin, Monika <Monika.Coflin@nrc.gov>
Sent: Thu, Mar 18, 2021 9:27 am
Subject: RE: Request for Public Comment Period on Draft EA on the Centrus High-Assay Low-Enriched Uranium Demonstration Project.

Good morning, Mr. Clements.

We did receive your email requesting that we publish the draft EA for the Centrus HALEU project. We are working on the response and expect to get back to you tomorrow.

Thanks,
Jessie Muir Quintero

From: Tom Clements <tomclements329@cs.com>
Sent: Thursday, March 18, 2021 8:26 AM
To: Trefethen, Jean <Jean.Trefethen@nrc.gov>
Cc: Quintero, Jessie <Jessie.Quintero@nrc.gov>; Coflin, Monika <Monika.Coflin@nrc.gov>
Subject: [External_Sender] Request for Public Comment Period on Draft EA on the Centrus High-Assay Low-Enriched Uranium Demonstration Project.

My request below still stands and I still anticipate a response from the NRC about the status of the EA on Centrus High-Assay Low-Enriched Uranium Demonstration Project.

Thank you.

Tom Clements
SRS Watch
Columbia, SC

-----Original Message-----

From: Tom Clements <tomclements329@cs.com>
To: Jean.Trefethen@nrc.gov <Jean.Trefethen@nrc.gov>; Jessie.Quintero@nrc.gov

<Jessie.Quintero@nrc.gov>; Monika.Coflin@nrc.gov <Monika.Coflin@nrc.gov>

Sent: Sat, Mar 6, 2021 3:05 pm

Subject: Request for Public Comment Period on Draft EA on the Centrus High-Assay Low-Enriched Uranium Demonstration Project.

To: Jean Trefethen

Environmental Project Manager

U.S. Nuclear Regulatory Commission

From: Tom Clements

Savannah River Site Watch

Columbia, SC

<https://srswatch.org/>

I hereby request that the public be allowed to comment on the draft Environmental Assessment on the Centrus High-Assay Low-Enriched Uranium (HALEU) Demonstration Project in Piketon, Ohio.

The matter of HALEU production and use of HALEU is of such near-term and long-term importance that comments from the public must be solicited in developing HALEU-related projects.

As it appears that the draft EA has been prepared in secrecy, I also request that the NRC now make a statement as to the status of preparation of the draft EA on the Centrus High-Assay Low-Enriched Uranium Demonstration Project and explain why the document is being prepared, it appears, without public participation or knowledge.

If the draft document contains any form of proprietary or classified information, I request that a version without such information be released for comment.

If the document will not be released for public comment I request an explanation as to why that might be the case.

I further request that this request be made part of the draft EA record for the Centrus High-Assay Low-Enriched Uranium Demonstration Project.