

**From:** [Lee Blackburn](#)  
**To:** [Trefethen, Jean](#)  
**Subject:** [External\_Sender] Centrus High-Assay Low-Enriched Uranium Demonstration Program  
**Date:** Saturday, March 27, 2021 7:29:56 PM

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Ms. Trefethen,

On March 6, 2021, Mr. Tom Clements of Savannah River Site Watch wrote you about the Centrus Energy Corp. (Centrus) High-Assay Low-Enriched Uranium (HALEU) Demonstration Program and the License Amendment Request (LAR) for license SNM-2011 being considered by the U.S. Nuclear Regulatory Commission (NRC) and the draft environmental assessment (EA) that was prepared (ML21076A430).

In your response to Mr. Clements, on March 21, 2021, you made a number of statements for which I would very much appreciate further clarification. In your second paragraph, you state: "If the LAR is approved, ACO (American Centrifuge Operating, LLC) will be allowed to enrich small amounts of uranium up to 25% to factor in process fluctuations." As you indicated previously in paragraph two, the initial 3-year demonstration program would entail the use of only 16 centrifuges but you then say in paragraph three: "At full capacity, the commercial ACP (American Centrifuge Plant) would utilize about 11,500 centrifuges." Based on a "...ratio of LEU (Low Enriched Uranium) cascades to HALEU cascades...of...approximately 6 to 1." (Proposed Changes for LA-3605-0001, License Application for the American Centrifuge Plant, ML20301A438, pg. 1-31), Centrus would definitely not be enriching small amounts of HALEU. Centrus goes on to say: "As the final commercial ACP phase, the Licensee (ACO) plans to construct the plant and install centrifuges in increments until the ACP reaches a capacity of up to 3.8 million SWU (Separative Work Units) production annually." (ML20301A438, pg. 1-67). So it would appear the LAR is for much more than just 16 centrifuges. Please clarify.

In paragraph three, you state: "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 (Lead Cascade Facility) 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." You then state in paragraph seven: "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." At 25%, the enrichment level is significantly higher and calls into question issues of safety and criticality, yet I see no discussion of that in your response. Please clarify.

You also state in paragraph five: "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." Centrus however, states: "The ACP uses portions of the Portsmouth Gaseous Diffusion Plant (GDP) and the former DOE Gas Centrifuge Enrichment Plant (GCEP) along with eight new facilities...for feed, withdrawal, sampling and blending/transfer operations." (ML20301A438 pg. 1-2). Please clarify.

In addition, in paragraph six, you state: "The 16- centrifuge ACP HALEU demonstration would produce enriched product at the upper end of the low-enriched uranium (LEU) scale...", yet 25% enrichment is clearly outside "...the upper end of the low-enriched uranium (LEU) scale..." Please clarify.

Finally, I should think the public would want to know that as part of the HALEU demonstration program, the U.S. Department of Energy (DOE) modified the GCEP Lease Agreement to: "...assume(s) all liability for the decontamination and decommissioning of such facilities and equipment installed, and any worked performed, under the Demonstration Contract with the Department including any materials or environmental hazards on the site." (ML20301A438 pgs. 1-70 & 71).

Your clarifications would be appreciated. Please add my email address  
Lee