



December 5, 2019
ACO 19-0030

ATTN: Document Control Desk
Mr. Jacob I. Zimmerman, Chief
Fuel Facility Licensing Branch
Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

American Centrifuge Plant
Docket Number 70-7004; License Number SNM-2011

Submittal of Nuclear Criticality Safety Code Validation for the American Centrifuge Plant

Dear Mr. Zimmerman:

The purpose of this letter is to provide an advance copy of an engineering evaluation EE-3101-0013, *NCS Code Validation of SCALE 6.2.3 and Cross Section Set v7-252 for keff Calculations*, Revision 0 (Enclosure 1) to allow the U.S. Nuclear Regulatory Commission (NRC) additional time for review prior to the receipt of the high-assay low enriched uranium (HALEU) Demonstration Program proposed license amendment request (LAR). The proposed LAR will be submitted to the NRC for prior review and approval in the second quarter of 2020. This code validation establishes the area of interest for the American Centrifuge Operating, LLC (ACO) HALEU process and evaluates benchmark experiments such that code system bias, bias uncertainty, and an upper subcritical limit can be established. This validation also provides the justification for using a minimum margin of subcriticality of 0.02 for the American Centrifuge Plant Upper Subcritical Limit determination.

After the NRC staff has had an opportunity to review the enclosed report, ACO is available to support a discussion with the NRC to address questions or clarify issues.

The enclosure contains Proprietary Information and in accordance with the guidance provided by the U.S. Department of Energy, also contains Official Use Only information. It is requested that the enclosure be withheld from public disclosure pursuant to 10 Code of Federal Regulations 2.390(d)(1)

~~Official Use Only and Proprietary Information~~

When separated from Enclosure 1, this cover letter is uncontrolled.

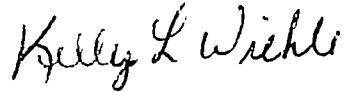
American Centrifuge Operating, LLC
3930 U.S. Route 23 South – P.O. Box 628
Piketon, OH 45661

NMSSD/
NMSS

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If you have any questions regarding this matter, please contact Jonathan Corrado at (740) 897-3285.

Sincerely,



Kelly L. Wiehle
Regulatory Manager

Enclosure: As stated

cc:

R. DeVault, DOE, NE-OR3, NE-ORSO
Y. Faraz, NRC HQ
L. Pitts, NRC Region II
D. Tiktinski, NRC HQ
R. Womack, NRC Region II