

ARC/NRC-PM-005

June 23, 2023

Project No. 99902103

US Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

Subject: ARC Clean Technology
White Paper on Spent Fuel Storage inside the Reactor Vessel - Rev 0.0

As committed during the meeting of April 12, 2023, ARC Clean Technology, Inc. (ARC) is submitting the enclosed Revision 0.0 of the subject white paper to the NRC Licensing Project Manager. The white paper is titled, "Spent Fuel Storage Inside the Reactor Vessel". This white paper contains commercially sensitive, proprietary information, as well as export-controlled Information. Therefore, we are requesting that this information be withheld from public disclosure in accordance with 10 CFR 2.390, "Public inspections, exemptions, requests for withholding," paragraph (a)(4). Also included in this submission is a formal affidavit in support of this request.

A redacted version of this white paper, for public distribution, is under development and will be submitted to the NRC shortly.

For additional information, please contact me at riotti@arc-cleantech.com or (732) 890-3602; or Raymond Burski, ARC 100 Licensing Director, at rburski@arc-cleantech.com or (504) 909-6436.

Sincerely,



Robert Iotti

ARC 100 Project Manager
ARC Clean Technology

ARC-100 Spent Fuel Storage Inside the Reactor Vessel White Paper
Enclosure 1– Proprietary Version
Enclosure 2 – Affidavit
Enclosure 3 – Redacted Public Version

cc (w/ enclosures):

Stephanie Delvin-Gill, Senior Project Manager, NRR/DANU/UAR1
Donna Williams, Senior Project Manager, NRR/DANU/UAR1
William Jessup, Chief, NRR/DANU/UAR1
Andrew Proffitt, Acting Chief, NRR/DANU/UAL1
Kaatrin Abbott, DOE Program & Project Manager

ARC Clean Technology (ARC)

Affidavit and Request for Withholding from Public Disclosure (10 CFR 2.390)

1. I, Robert Iotti, Project Manager at ARC Clean Technology (ARC), have been authorized by ARC to review information sought to be withheld from public disclosure in connection with the development, testing, licensing, and deployment of the ARC-100 reactor and its associated structures, systems, and components, and to apply for its withholding from public disclosure on behalf of ARC.
2. The information sought to be withheld, in its entirety, is contained in ARC's enclosure to this letter. The enclosure is titled, "Spent Fuel Storage Inside the Reactor Vessel".
3. I am making this request for withholding, and executing this affidavit in support thereof, pursuant to the provisions of 10 CFR 2.390(b)(1).
4. I have personal knowledge of the criteria and procedures utilized by ARC in designating information as a trade secret, privileged, confidential commercial or financial, or as Export Controlled. Some examples of information ARC considers eligible for withholding under §2.390(a)(4) include:
 - a. Information which discloses process, method, or apparatus, including supporting data and analyses, where prevention of its use by ARC competitors without license or contract from ARC constitutes a competitive economic advantage over other companies in the industry;
 - b. Information, which if used by a competitor, would reduce its expenditure of resources or improve its competitive position in design, manufacture, shipment, installation, assurance of quality;
 - c. Information which reveals cost or price, production capacities, budget levels, or commercial strategies of ARC Clean Technology, its customers, its partners, or its suppliers;
 - d. Information which reveals aspects of past, present, or future ARC-100 or customer funded development plans or programs, of potential commercial value to ARC;
 - e. Information which discloses patentable subject matter for which it may be desirable to obtain patent protection; and/or
 - f. Information obtained through ARC-20 project actions which could reveal additional insights into reactor system development, testing, qualification processes, and/or regulatory proceedings, and which are not otherwise readily obtainable by a competitor.
 - g. Information that is clearly marked as "Export Controlled" by ARC and/or its partners supplying such information to ARC under an appropriate Non-Disclosure Agreement (NDA).

5. ARC information contained in the enclosure to this letter contains details of design elements, and safety approach, for an ARC sodium-cooled, metal-fueled fast reactor. These details could provide a competitor with a commercial advantage if the information were to be revealed publicly.
6. Pursuant to the provisions of §2.390(b)(4), the following is furnished for consideration by the Commission in determining whether the information sought to be withheld from public disclosure should be withheld:
 - a. The information sought to be withheld from public disclosure is owned and has been held in confidence by ARC.
 - b. The information is of a type customarily held in confidence by ARC and not customarily disclosed to the public. ARC has a rational basis for determining the types of information customarily held in confidence by it and, in that connection, utilizes a system to determine when and whether to hold certain types of information in confidence. The application of that system and the substance of that system constitute ARC policy and provide the rational basis required.
 - c. The information is being transmitted to the Commission in confidence and, under the provisions of 10 CFR 2.390, it is to be received in confidence by the Commission.
 - d. This information is not readily available in public sources.
 - e. Public disclosure of this proprietary information is likely to cause substantial harm to the competitive position of ARC Clean Technology, because it would enhance the ability of competitors to provide similar products and services by reducing their expenditure of resources using similar project methods, equipment, testing approach, contractors, or licensing approaches. This information is the result of considerable expense to ARC Clean Technology and has great value in that it will assist ARC Clean Technology in providing products and services to new, expanding markets not currently served by the company.
 - f. The information could reveal or could be used to infer price information, cost information, budget levels, or commercial strategies of ARC.
 - g. Each component of proprietary information pertinent to a particular competitive advantage is potentially as valuable as the total competitive advantage. If competitors acquire components of proprietary information, any one component may be the key to the entire puzzle, thereby depriving ARC of a competitive advantage.
 - h. Unrestricted disclosure would jeopardize the position of ARC in the world market, and thereby give a market advantage to the competition in those countries.
 - i. Any unauthorized disclosure of Export Controlled information would be in direct violation of U.S. Department of Energy (DOE) 10 CFR Part 810.
7. A redacted version of the enclosure, for public distribution, is under development and will be submitted to the NRC shortly.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on June 23, 2023.

Robert Iotti

Robert Iotti,
Project Manager
ARDP/ARC-20 Project Manager
ARC Clean Technology, Inc.