



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

November 9, 2023

The Honorable Edward J. Markey
Chairman, Subcommittee on Clean Air, Climate
Climate, and Nuclear Safety
Committee on Environment and Public Works
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

On behalf of the U.S. Nuclear Regulatory Commission (NRC), I am submitting the "Semiannual Status Report on the Licensing Activities and Regulatory Duties of the U.S. Nuclear Regulatory Commission." The enclosed report covers NRC activities from April 1, 2023, through September 30, 2023, and includes a list of rulemaking activities, their priority and schedule, and actions taken to adhere to the backfit rule, as directed in House Report 117-394 accompanying the Consolidated Appropriations Act, 2023.

During this reporting period, the NRC completed three major regulatory milestones. In June 2023, the NRC completed its detailed technical review of the safety of the Kairos Hermes 1 advanced reactor design and issued the final safety evaluation ([ML23158A265](#)). In July 2023, the NRC issued the 10 CFR 52.103(g) finding that all acceptance criteria in the combined license are met for Vogtle Unit 4 ([ML22348A093](#)), which allowed the licensee to begin plant operation. In August 2023, the NRC issued the final environmental impact statement for the Hermes 1 application ([ML23214A269](#)).

President Biden declared that the COVID-19 public health emergency ended effective May 11, 2023. On April 21, 2023, the NRC canceled a November 2, 2021, memorandum providing supplemental guidance on implementation of inspection programs during the pandemic ([ML21295A302](#)). The NRC returned to implementation of the inspection programs in accordance with the inspection manual and procedures effective May 11, 2023 ([ML23082A106](#)). The NRC continues to implement precautionary measures, as needed, in response to COVID-19 to help protect the health and safety of our workforce consistent with guidance provided by the Federal Government, including the Centers for Disease Control and Prevention, as well as considerations of State and local conditions around NRC facilities.

Other Noteworthy Activities in the Past 6 Months

The NRC continues to focus on its strategic goal to attract, develop, and maintain a high-performing, diverse, engaged, and flexible workforce with the skills needed to carry out the NRC's mission now and in the future. Through expansion of recruitment and targeted outreach efforts to address current and anticipated vacancies, 172 new external hires have been onboarded during this reporting period for a total of 279 new hires for fiscal year 2023.

In May 2023, in support of NRC's aggressive hiring initiative, the NRC conducted a highly successful in-person Career Expo for pre-screened applicants, as well as a session open

to members of the public. The purpose of the Expo was to maximize the opportunity to match skilled candidates with NRC hiring managers. Targeted career disciplines included engineering and physical science, inspection, health physics, project management, financial management, information technology, acquisition, and administrative support.

In July 2023, Kairos submitted a second construction permit application for a two-unit test reactor facility (Hermes 2) that would be located on the same site as the proposed Hermes 1 test reactor ([ML23195A121](#)). The Hermes 2 test reactors would use the same fluoride salt-cooled, high-temperature reactor technology as the Hermes 1 reactor but would incorporate some additional features such as intermediate salt loops and a shared turbine generator set. The NRC staff accepted the Hermes 2 construction permit application for review on September 11, 2023 ([ML23233A167](#)).

On July 28, 2023, at the culmination of years of NRC oversight and regulatory support, Southern Nuclear Company announced that all startup testing was successfully completed on Vogtle Unit 3 and publicly declared the start of commercial operation on July 31, 2023.

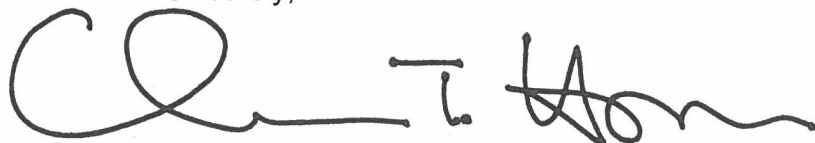
In September 2023, the NRC authorized American Centrifuge Operating LLC to proceed with a planned demonstration project to produce high-assay low-enriched uranium (HALEU) under its contract with the Department of Energy. The HALEU Demonstration Cascade module will produce category II quantities of special nuclear material and is the first category II facility licensed by the NRC.

In September 2023, NRC staff initiated a first-of-a-kind licensing review process in response to a request from Holtec Decommissioning International, LLC (Holtec) for an exemption from the requirements of 10 CFR 50.82(a)(2) as part of its proposed regulatory path to restart Palisades Nuclear Plant ([ML23271A140](#)).

From April 2023 through September 2023, the NRC held 492 public meetings to address a wide range of NRC issues. Also, during this time, the NRC received 153 new Freedom of Information Act requests and closed 135 such requests.

During this reporting period, the NRC staff conducted 132 security inspections at commercial nuclear power plants and Category I fuel cycle facilities. As detailed in the enclosed report, this included a total of ten full scope force-on-force inspections involving simulated attacks on the selected facility to test the effectiveness of the licensee's physical security program. Please feel free to contact me or have your staff contact Eugene Dacus, Director of the Office of Congressional Affairs, at 301-415-1776, if you have any questions or need additional information.

Sincerely,

A handwritten signature in black ink, appearing to read "Christopher T. Hanson". The signature is fluid and cursive, with a large initial "C" and a distinct "H".

Christopher T. Hanson

Enclosures:
As stated

cc: Senator Pete Ricketts

Identical letter sent to:

The Honorable Edward J. Markey
Chairman, Subcommittee on Clean Air,
Climate, and Nuclear Safety
Committee on Environment and Public Works
United States Senate
Washington, DC 20510
cc: Senator Pete Ricketts

The Honorable Thomas R. Carper
Chairman, Committee on Environment
and Public Works
United States Senate
Washington, DC 20510
cc: Senator Shelley Moore Capito

The Honorable Cathy McMorris Rodgers
Chair, Committee on Energy
and Commerce
United States House of Representatives
Washington, DC 20515
cc: Representative Frank J. Pallone, Jr.

The Honorable Jeff Duncan
Chairman, Subcommittee on Energy,
Climate, and Grid Security
Committee on Energy and Commerce
United States House of Representatives
Washington, DC 20515
cc: Representative Diana DeGette

The Honorable Bill Johnson
Chairman, Subcommittee on Environment,
Manufacturing, and Critical Materials
Committee on Energy and Commerce
United States House of Representatives
Washington, DC 20515
cc: Representative Paul Tonko

The Honorable Chuck Fleischmann
Chairman, Subcommittee on Energy
and Water Development
Committee on Appropriations
United States House of Representatives
Washington, DC 20515
cc: Representative Marcy Kaptur

The Honorable Patty Murray
Chair, Subcommittee on Energy
and Water Development
Committee on Appropriations
United States Senate
Washington, DC 20510
cc: Senator John Kennedy