



**UNITED STATES
NUCLEAR REGULATORY COMMISSION
ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
WASHINGTON, DC 20555 - 0001**

December 8, 2022

The Honorable Christopher T. Hanson
Chair
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

**SUBJECT: RESPONSE TO NRC STAFF LETTER ON ACRS LETTER REPORT, "DRAFT
SECY WHITE PAPER ON LICENSING AND REGULATING FUSION ENERGY
SYSTEMS"**

Dear Chair Hanson:

During the 701st meeting of the Advisory Committee on Reactor Safeguards (ACRS), November 29 – December 2, 2022, we discussed the staff response to our subject letter report on Licensing and Regulation of Fusion Energy Systems. We are encouraged to see the staff thinking about the need for decision criteria in developing a regulatory infrastructure for future fusion energy systems as discussed in our original letter and in the recent Commission meeting on the subject. The decision criteria should be based on the anticipated inventories of radioactive materials (activation products and active tritium) in the fusion energy facility, which are a function of power level and accumulated neutron fluence. Because of the wide range of hazards in anticipated fusion energy systems, establishing an upper hazardous inventory limit when the Title 10 of the *Code of Federal Regulations* (10 CFR) Part 30 framework would need to transition to a utilization framework tailored to the unique hazards of fusion is appropriate. We look forward to engaging with the staff on this subject going forward.

Sincerely,

A handwritten signature in black ink that reads "Joy Rempe".

Signed by Rempe, Joy
on 12/08/22

Joy Rempe
Chairman ACRS



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Sincerely,

Joy Rempe
Chairman ACRS

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Sensitive (Y/N): N

If Sensitive, which category?

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