



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

October 5, 2020

MEMORANDUM TO:

Joseph E. Donoghue, Director
Division of Safety Systems
Office of Nuclear Reactor Regulation

Michael X. Franovich, Director
Division of Risk Assessment
Office of Nuclear Reactor Regulation

FROM:

Michael J. Case, Director
Division of Systems Analysis
Office of Nuclear Regulatory Research

A handwritten signature in blue ink, appearing to read "Michael J. Case".

Signed by Case, Michael
on 10/05/20

SUBJECT:

MEETING SUMMARY OF THE FIRST ACCIDENT
TOLERANT FUEL SEVERE ACCIDENT PIRT PANEL

Consistent with the Office of Nuclear Reactor Regulation (NRR) User Need Request (UNRs), NRR-2019-0010, "Regulatory Research Supporting Licensing of Near-Term Accident Tolerant Fuel (ATF)", (ADAMS Accession Number ML19171A381), staff from the Office of Research are currently coordinating a Phenomena Identification Ranking Table (PIRT) exercise for severe accidents. This PIRT exercise consists of a panel of international experts in severe accident and nuclear fuels behavior that are collaborating to address the significant issues impacting core degradation and radiological releases under severe accident conditions for various ATF designs. The scope of the PIRT exercise also includes the impact of higher burnup and higher enrichment fuels. Once complete, the PIRT exercise will help the NRC identify how ATF concepts impact severe accident progression and will provide information to improve the agency's severe accident computer code MELCOR, which is used by NRC for source term analysis.

The purpose of this memorandum is to provide the meeting summary of the first meeting of the PIRT panelists that took place on September 9-11, 2020. The objectives of this meeting were for the panelists to share information, discuss severe accident issues for ATF, and establish common definitions for developing the PIRT. The meeting was attended by 48 individuals from the NRC, industry, national labs and international partners who all greatly contributed to the meeting's success.

Enclosure:

"Meeting Summary of the First Accident Tolerant Fuel Severe Accident PIRT Panel"

CONTACT: Shawn Campbell, RES/DSA/FSCB
301-415-0244

MEETING SUMMARY OF THE FIRST ACCIDENT TOLERANT FUEL SEVERE ACCIDENT PIRT PANEL
 DATE October 5, 2020

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| OFFICE | RES/DSA/FSCB | RES/DSA/FSCB | RES/DSA | |
| NAME | SCampbell | SCRLee | RLMCase | MC |
| DATE | Sep 28, 2020 | Sep 29, 2020 | Oct 5, 2020 | |

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