

Industry / U.S. NRC Materials Programs Technical Information Exchange

ADVANCE Act, Section 401 Advanced Methods of Manufacturing and Construction for Nuclear Energy

Program Update

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Executive Summary

Enclosure (1) of the NRC report to Congress ([ML24292A171](#)) captures ongoing actions and further identifies potential future actions to address provisions/topics related to ADVANCE Act, Section 401. These tables are not intended to be exhaustive but highlight actions relevant to the report:

TABLE 2 – Ongoing NRC Program Actions

4 out of 5 Projects are Complete
1 out of 5 Projects is Paused

TABLE 3 – Potential New NRC Program Actions

3 out of 6 Projects are In-Progress
2 out of 6 Projects are Closed
1 out of 6 Projects is Paused

Due to the Agency Reorganization Plan, NRC Management is re-evaluating the scope, schedule, staffing, and budgets for the remaining NRC Program Actions; prioritization of associated activities will be contingent upon: (1) Stakeholder Interest, (2) Technology Development, and (3) NRC Regulatory Requirements.

ADVANCE Act, Section 401 sponsorship and program management has transferred from the Office of Nuclear Reactor Regulation (NRR) to the Office of Advanced Reactors (OAR). **MICHELE SAMPSON** (michele.sampson@nrc.gov), OAR Deputy Office Director, will remain the SES Sponsor; ensuring program actions are in accordance with the ADVANCE Act objectives, in compliance with Executive Orders, and consistent the NRC Mission & Organizational Values.

ENCLOSURE 1, TABLE 2 Ongoing NRC Program Actions	PROJECT PHASE	ACD ECD	RESPONSIBLE ORGANIZATION (OFFICE / DIVISION)	
			BEFORE RE-ORG	AFTER RE-ORG
DD6 Design Review Lessons Learned to Improve Review Process; Rapid Development and Iterative Innovation	Complete	Q2 FY 2026	NRR / DNRL BC: M. Jardaneh SES: M. Sampson	OAR / DARL POC: M. Jardaneh mahmoud.jardaneh@nrc.gov
DD7 Evaluating Options for Regulatory Flexibility in 10 CFR Part 52 During Construction & Operational Phases	Complete	Q3 FY 2025	NRR / DNRL BC: M. Jardaneh SES: M. Sampson	OAR / DARL POC: M. Jardaneh mahmoud.jardaneh@nrc.gov
DE2 Pre-Application Engagement on Revision to Approved Topical Report for Steel-Plate Composite Structures	Complete	Q4 FY 2026	NRR / DEX BC: I. Tseng SES: T. Martinez Navedo	OAR / DARL POC: M. Jardaneh mahmoud.jardaneh@nrc.gov
DE3 Seismic Design of Advanced Reactors	Paused	T.B.D.	RES / DE BC: L. Bauer SES: C. Araguas	OAR / T.B.D. POC: M. Sampson michele.sampson@nrc.gov
DI1 Advanced Reactor Construction Oversight Program (ARCOP)	Complete	Q2 FY 2026	NRR / DANU BC: M. Wentzel SES: J. Bowen	OAR / DARP POC: M. Wentzel michael.wentzel@nrc.gov

ENCLOSURE 1, TABLE 3 Potential New NRC Program Actions	PROJECT PHASE	ACD ECD	RESPONSIBLE ORGANIZATION (OFFICE / DIVISION)	
			BEFORE RE-ORG	AFTER RE-ORG
DD2 Risk-Informed & Performance-Based Structural & Mechanical Review of Components	Paused	T.B.D.	NRR / DANU BC: G. Oberson SES: J. Bowen	OAR / DARS POC: G. Oberson greg.oberson@nrc.gov
DD3 New Materials That Do Not Yet Have Applicable Codes & Standards	Closed	-	NRR / DNRL BC: A. Buford SES: M. Sampson	NRR / DE POC: A. Buford angela.buford@nrc.gov
DD4 Accelerated Material Qualification	Closed	-	RES / DE BC: R. Iyengar SES: C. Araguas	OAR / DARS POC: G. Oberson greg.oberson@nrc.gov
DD5 Examination of Novel Materials	In-Progress	Q1 FY 2028	NRR / DNRL BC: D. Widrevitz (Acting) SES: M. Sampson	NRR / DE POC: S. Cumblidge stephen.cumblidge@nrc.gov
DE1 Structural Monitoring of Designs Using Advanced Construction Techniques	In-Progress	Q1 FY 2028	NRR / DEX BC: I. Tseng SES: T. Martinez-Navedo	OAR / T.B.D. POC: M. Sampson michele.sampson@nrc.gov
N1 Transport-Related Use of New/Non-Nuclear Technologies and Provide Greater Manufacturing Flexibility in Package Designs	In-Progress	Q1 FY 2028	NMSS / DFM BC: J. Piotter SES: S. Helton	NMSS / DSFST POC: J. Piotter jason.piotter@nrc.gov

