
Accelerating Deployment of Versatile, Advanced Nuclear for Clean Energy Act of 2024 (ADVANCE Act of 2024)

Section 401

Advanced Methods of Manufacturing and Construction for Nuclear Energy Projects

The public meeting will begin shortly.

Slides: ML24269A140

ADVANCE Act of 2024

Sec. 401 – Advance Methods of Manufacturing and Construction for Nuclear Energy Projects

September 30, 2024

Agenda

- Meeting Purpose
- Opening Remarks and Background
- Comment Gathering
 - Section 401(c)(1)(A)
 - Section 401(c)(1)(B)
 - Section 401(c)(1)(C)
 - Section 401(c)(1)(D)
 - Section 401(c)(1)(E)
 - Section 401(c)(1)(F)
- Closing Remarks

Meeting Purpose

- The NRC is actively soliciting comments to support the staff's development of the report to respond to Section 401
- No regulatory decisions will be made at today's meeting
- If you have not already, please register using the [link](#) in the public meeting notice

Opening Remarks and Background

By January 2025, the NRC will submit a report to Congress that will:

Examine:

- unique licensing issues or requirements relating to the use, for nuclear energy projects, of:
 - Advanced manufacturing process
 - Advanced construction techniques
 - Rapid improvement or iterative innovation process

Examine:

- Requirements for nuclear-grade components in manufacturing and construction
- Potential use of standard materials, parts, or components in manufacturing and construction
- Potential use of standard materials to support or encapsulate new materials not yet in codes
- Requirements related to the transportation of a fueled advanced nuclear reactor core

Identify:

- Safety aspects of advanced manufacturing processes and advanced construction techniques that are not addressed by existing codes and standards
- Based on the results of the NRC's examination:
 - Options for addressing the issues, requirements, and opportunities
 - How domestic nuclear manufacturing and construction developers are impacted
 - Extent to which Commission action is needed for implementation

Comment Gathering

- Raise your hand
 - MS Teams: “Raise my hand” button
 - On the phone: press “*5”
- You’ll still need to unmute
 - MS Teams: Unmute button
 - On the phone: press “*6”



Audio/Technical Issues

- Drop off and log back on
- Call into bridgeline:
 - 301-576-2978
 - Conference ID: 464 980 324#
- In Teams, check your device settings:
 - Click “More”
 - Choose “Settings”
 - Choose “Device Settings”

Section 401(c)(1)(A)

(A) examine any unique licensing issues or requirements relating to the use, for nuclear energy projects, of—

(i) advanced manufacturing processes;

(ii) advanced construction techniques; and

(iii) rapid improvement or iterative innovation processes

Section 401(c)(1)(B)

(B) examine—

- (i) the requirements for nuclear-grade components in manufacturing and construction for nuclear energy projects;
- (ii) opportunities to use standard materials, parts, or components in manufacturing and construction for nuclear energy projects;
- (iii) opportunities to use standard materials that are in compliance with existing codes and standards to provide acceptable approaches to support or encapsulate new materials that do not yet have applicable codes and standards; and
- (iv) requirements relating to the transport of a fueled advanced nuclear reactor core from a manufacturing licensee to a licensee that holds a license to construct and operate a facility at a particular site

Section 401(c)(1)(C)

(C) identify safety aspects of advanced manufacturing processes and advanced construction techniques that are not addressed by existing codes and standards, so that generic guidance may be updated or created, as necessary

Section 401(c)(1)(D)

(D) identify options for addressing the issues, requirements, and opportunities examined under subparagraphs (A) and (B)—

(i) within the existing regulatory framework; or

(ii) through a new rulemaking

Section 401(c)(1)(E)

(E) identify how addressing the issues, requirements, and opportunities examined under subparagraphs (A) and (B) will impact opportunities for domestic nuclear manufacturing and construction developers

Section 401(c)(1)(F)

(F) describe the extent to which Commission action is needed to implement any matter described in the report

Closing Remarks