

U.S. NUCLEAR EXPORT CONTROLS UPDATE



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Agenda

• A look back.

Good news and bad news (mostly bad news)

Overview of the new USG China nuclear trade policy

A look forward.

Look-Back = Good News

UK 123 – will be in place prior to any Brexit

- Congressional Legislation effect on 10 CFR Part 810
 - NDAA of 2019
 - Authorized DOE Secy to delegate
 - Does not apply to "specific authorizations" for Russia, China, and sensitive nuclear technologies.

Look-Back = Good News

- DOE updated its Part 810 guidance
- Issued model training for industry on "continuing Part 810 obligations after employment."
- Updated its Part 810 FAQs
 - clarify expectations about self-reporting Part 810 violations
 - mitigation of penalties
 - "DOE strongly encourages prompt self-reporting of actual or potential violations of the Part 810 regulations."

Look-Back = Bad News

Legislation –

- NDAA of 2019 DOE can impose civil \$\$ penalties for Part 810 violations.
- Congress added CFIUS review for foreign investments in "critical technology" "emerging and foundational technologies"

Courts

 Ching Guey – former TVA employee – second person sentenced under a criminal indictment.

Look-Back = Bad News

Agency Action

- Whistleblowers alleging fr Part 810 violations
- More on-site visits by NNSA
- Oct 11 Policy Framework on China

New China Policy

• [Rhonda, please insert a picture of someone with their thumbs down, or boo-ing]

Background

Long-term U.S. concern over China's stance on technology transfers

- Diversion to military
- Retransfer without permission
- U.S. economic disadvantage

Increased criminal enforcement against Chinese nationals and entities

- Cyber intrusions against nuclear companies
- Alleged trade secret theft
- Conspiracy to acquire nuclear technology without authorization

"The United States cannot ignore the national security implications of China's efforts to obtain nuclear technology outside of established processes of U.S.-China civil nuclear cooperation" -- Secretary of Energy Rick Perry.

New Policy

Issued October 11, 2018

Does not change laws or regulations

Mentions only DOE and NRC, but also applies to DOC.

So far, limited to exports requiring prior USG approval.

Does not affect non-technical cooperation.

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New Policy

Policy bifurcates action on internal agency review

- Presumption of Approval
 - Contingent on non-derogatory end-user checks.
- Presumption of Denial
 - The standard to overcome presumption of denial not defined.
- Applied to existing and pending applications.
- Will apply to all new applications.

New Policy - DOE

Presumption of Approval

- Amendments/extensions for existing authorizations for tech transferred prior to Jan 1, 2018 (Does not apply to light water SMRs and non-light water advanced reactors)
- New technology transfers for "operational safety"
- New technology transfers required to support sale of an item that is commercially available.



New Policy - DOE

Presumption of Denial

- Exports related to light water SMRs;
- Non-light water advanced reactors;
- Includes associated fuel cycle facilities, such as fuel fabrication.
- New technology transfers after January 1, 2018
- Any exports to China General Nuclear (CGN), affiliates, and related entities.

New Policy - DOE

Applies to deemed exports to Chinese Foreign Nationals

Consistent with existing policy (i.e., no change):

- No export of source codes.
- No export of certain engineering and manufacturing techniques

New Policy - NRC

Presumption of <u>approval</u> for <u>equipment and components</u>:

- Supporting continued projects AP-1000, CAP-1000, and major <u>identical</u> components supporting CAP-1400 reactors (i.e., those that are similar in type and technology level to those commonly available);
- Pressurized light water SMR or non-light water advanced reactors, with technology transfer <u>only for installation and</u> <u>operation</u>; and

New Policy - NRC

Presumption of denial for equipment and components

- Related to direct economic competition with the United States, such as the Hualong One;
 - "such as" language suggests other reactor types anticipated to be covered
- Unique U.S. components supporting CAP-1400 reactors; and
 - "especially prepared for"
- Any exports to China General Nuclear (CGN), affiliates, and related entities.

New Policy - NRC

Presumption of approval for material

 New license applications and amendments or extensions to existing authorizations.

Presumption of denial for material

Any exports to CGN, affiliates, and related entities.



New Policy - DOC

Presumption of denial for any export license required under the EAR to:

• CGN, affiliates, and related entities.



Impact of New Policy

DOE acknowledges there was an immediate impact:

"Strike an appropriate balance between the long-term risk to U.S. national security and economic interests, as well as the *immediate impact to the U.S. nuclear industrial base.*" – DOE Oct. 11 *Press Release*.

DOE/NRC quickly contacted affected U.S companies.

Existing Authorizations

- Many revoked/terminated.
- Collaboration with Chinese entities on advanced technologies terminated/presumption of denial going forward.
- No compensation to affected companies.

Looking Ahead - Glass Half Empty

Legislative Changes

None expected

Regulation Changes

 Definitions of "critical technology" and "emerging and foundational technology"

Enforcement

- Whistleblowers
- Additional criminal enforcement
- Increased audits

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Looking Ahead – Glass Half Full

Opportunity for DOE to re-interpret existing regulations.

Opportunity for companies to re-categorize technologies.

USG willingness to better support advanced reactors in the U.S.

Looking Ahead

QUESTIONS?