POLICY BRIEF

Industry Supports Integrated Used Fuel Management Strategy

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■ The nuclear energy industry supports a three-pronged, integrated used fuel management strategy:

1) Interim storage of used fuel at centralized, volunteer locations.
2) Research, development and demonstration of advanced fuel utilization and recycling technologies.
3) Development of a permanent disposal facility.

■ Used fuel storage at nuclear plant sites is safe and secure. However, interim storage sites at centralized volunteer locations will enable the movement of used fuel from both decommissioned and operating plants before recycling facilities or a repository begin operating.

■ A research and development program should be implemented for advanced nuclear fuel utilization and recycling technologies, including a commercial demonstration plant. The objectives of reprocessing and recycling uranium fuel are to reclaim a significant amount of energy that remains in the fuel and to reduce the volume, heat and toxicity of byproducts placed in the repository.

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Goals of an Integrated Strategy

An integrated used fuel management program includes key elements phased in during the short, medium and long terms.

Short-term goals include:

- Continuing the U.S. Nuclear Regulatory Commission's endorsement of waste confidence.
- Signing of standard contracts between the U.S. Department of Energy and energy companies for managing used fuel at new nuclear plants (which was accomplished in 2008).
- Adequately funding the repository licensing process, including the NRC's review of DOE's Yucca Mountain repository construction application. The Obama administration has announced its intent to terminate this project and withdraw DOE's license application with prejudice, signaling that it does not intend to resubmit the application. DOE has established the Blue Ribbon Commission on America's Nuclear Future to recommend strategies for used fuel management. The industry believes the Yucca Mountain licensing process should continue. Ultimately, a geologic repository will be needed somewhere. Even if a facility is not built at Yucca Mountain, completion of the licensing process will yield vital lessons that will inform the commission's deliberations and facilitate completion of a facility when a new site is selected. However, if the administration halts the licensing process, the industry believes it should be done in a manner that would facilitate resuming the process at a later date should that be warranted.
- Establishing a research and development program for advanced fuel utilization and recycling technologies, including government partnerships with industry.

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- Identifying and developing volunteer sites for interim storage and advanced fuel utilization and recycling development facilities.

Medium-term goals include:

- Moving used fuel to interim storage sites, ideally at advanced fuel utilization and recycling development sites.
- Continuing research, development and demonstration of advanced fuel utilization, recycling and fuel fabrication technologies to make them more cost effective and efficient.
- Licensing a repository.

Long-term goals include:

- Commercial advanced fuel utilization and/or recycling.
- Operating the repository.

View this policy brief online at http://www.nei.org/keyissues/nuclearwastedisposal/policybriefs/integratedusedfuelmanagementstrategy/.