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ENVIRONMENTAL Science & Technology

February 18, 2014
Volume 48
Number 4
pubs.acs.org/est

THE
GROWING
PROBLEM OF
STRANDED USED
NUCLEAR FUEL



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ON THE COVER: Within a few decades, used nuclear fuel likely will be stranded indefinitely at more than 70 shutdown nuclear reactor sites across the U.S. This issue's Feature article compares onsite storage, interim storage, and a geologic repository. Recognition of the long-term risks of stranded used nuclear fuel could lead to greater societal awareness of the need for a geologic repository.

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dx.doi.org/10.1021/es405114h

The Growing Problem of Stranded Used Nuclear Fuel

William M. Alley* and Rosemarie Alley

By 2050, almost all U.S. nuclear reactors will have reached their 60 year maximum expected life. Many will shut down sooner. With no assurance that the current approach for finding a geologic repository or interim storage sites will succeed, used nuclear fuel could be stranded indefinitely at more than 70 sites in 35 states. Societal discussions about the future of nuclear waste should be framed in terms of the relative risks of all alternatives. We review and compare onsite storage, interim storage, and a geologic repository, as well as how these alternatives are presented to the public. By 2050, almost all U.S. nuclear reactors will have reached their 60 year maximum expected life. Many will shut down sooner. With no assurance that the current approach for finding a geologic repository or interim storage sites will succeed, used nuclear fuel could be stranded indefinitely at more than 70 sites in 35 states. Societal discussions about the future of nuclear waste should be framed in terms of the relative risks of all alternatives. We review and compare onsite storage, interim storage, and a geologic repository, as well as how these alternatives are presented to the public.

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dx.doi.org/10.1021/es5002105

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dx.doi.org/10.1021/es405606t

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[dx.doi.org/10.1021/es500384y](https://doi.org/10.1021/es500384y)

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