

It's Not Just a Technical Problem: Human and Ethical Considerations in Radioactive Waste Management

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Why do people oppose radioactive waste management facilities for their states and what can managers do to both improve public understanding and reduce the intensity of opposition to radioactive waste management facilities? I will focus on causes and consequences of credibility and acceptance based on research funded by the US Department of Energy and other agencies.

Why People are Unlikely to Embrace Radioactive Waste Facilities

The psychometric paradigm identifies aspects of threats that lead people to perceive potential threats as more or less dangerous and acceptable. These factors include:

- Catastrophic potential
- Imaginable
- Level of personal control
- Origin (human or otherwise)
- Victim status (risk imposed by others or self-selected)
- Level of societal benefit

Radioactive waste facilities fall on the unpleasant side of all of these factors.

Four non-psychometric factors make the task of siting radioactive facilities difficult:

- Fairness beliefs
 - People that benefit from an activity should clean up their own waste.
 - People should not leave their waste to future generations to clean up.
- Questions of managerial competence and trust
- "Dump it and Leave" plan not reassuring
- Probabilistic risk assessment may be problematic

Toward an End to Impasse

- Plan on continuous monitoring forever.
- Monitor in conjunction with local and state officials and other stakeholders.
- Do not try to assign specific probabilities to extremely rare events. Use Bayesian and related statistical methods for modeling the facility over different time frames. View all decisions as reversible.
- Create centers for research on the management of used nuclear fuel at sites.
- Increase efforts to educate the public on the benefits of nuclear power, an environmental energy alternative that we need to achieve a sustainable planet.

The American people will support technically sound policies to manage used nuclear fuel so long as the policies seem effective and just.