

Research Project

Best Practices for Decommissioning of Nuclear Power Plants: How to ensure efficient plant decommissioning under different regulatory schemes

Third-party funded project

Project title Best Practices for Decommissioning of Nuclear Power Plants: How to ensure efficient plant decommissioning under different regulatory schemes

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Organisation / Research unit

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Department

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Status Completed

When nuclear power plants were built, focus was placed on constructing, licensing, and operating instead of on decommissioning. Rather, decommissioning was seen as a distant problem that was discounted away. This failure to plan properly has led to poor outcomes for the few decommissioning cases already conducted. Nevertheless, hundreds of plants around the world must be decommissioned in the coming decades, many without adequate planning, experience, capacity, or funding. Globally, the decommissioning market has an estimated value of \$1,000 billion USD through 2050.

This is the context for the project. We aim to identify the best practices to achieve a timely, safe, and cost-efficient decommissioning of nuclear power plants globally. First, a timely decommissioning is crucial as the decommissioning process spans several decades and extensive delay would overburden future generations with financial, technical, and safety challenges. Second, a safe decommissioning process reduces safety risks to human health and the environment should nuclear material be released or an accident occur. Finally, a cost-efficient process will help reduce the high cost uncertainties, potential fund inadequacies, and avoid forcing taxpayers to assume the financial responsibility in case of bankruptcies.

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