

Radioactive Waste Centralized Storage Facilities Safety Regulations

Nuclear Safety Commission

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1. Nuclear Waste Halfway Houses

The imperative issue of radioactive waste disposal confronts all countries using nuclear power now striving to implement final disposal plans. However, as final disposal facilities are NIMBY facilities, they remain subject to high uncertainty. Many countries face delays when implementing disposal plans, and thus promote a Centralized Interim Storage (CIS) in response. Taiwan Power Company (TPC) cannot smoothly implement its disposal plans, so it adopts international practices in plans to implement a Centralized Interim Storage project to provide interim storage for nuclear waste.

2. Advancing on the Learning Curve

Use of a Centralized Interim Storage (CIS) facility is not a recent management concept, as many nuclear energy countries have long integrated them as part of their systemic nuclear waste management. Each country, depending on their conditions, deploys different CIS facilities to store different types of nuclear energy production related waste.

The Netherlands government is of the opinion that long-term centralized storage strategies are helpful for the safe management of radioactive waste and are more acceptable to the public. In 1984 it adopted a radioactive waste policy, which stipulated that all radioactive waste will not be processed for 100 years and will be safely stored in centralized storage facilities. In 2000, it began using the COVRA centralized storage facilities. Switzerland stored radioactive waste produced by power plants temporarily at the plants themselves, and as it was difficult to find sites for disposal facilities, it started using ZZZ centralized storage facilities in 2001, to receive radioactive waste formerly stored in the nuclear power plants. Belgium, Canada and other countries have also installed centralized storage facilities, according to their respective needs.

In 2010 the Obama administration in the US terminated the Yucca Mountain spent fuel 2 disposal project, which had been in use for more than 20 years, and at the same time established a Blue Ribbon Committee (BRC), to review US spent nuclear fuel management policy. The committee suggested eight proposals, including using centralized storage facilities as alternatives.

3. To Actively Promote the Construction of the Centralized Storage Facility for Radioactive Waste and to Initiate Social Communication

Currently, the accumulated amount of low-level waste in Taiwan is about 230 thousand drums; roughly half stored at the nuclear plants, 44% at Lanyu, and about 6% at the National Atomic Research Institute (NARI). A law for siting a final disposal site was promulgated in 2006.

The Ministry of Economic Affairs (MOEA) selected two locations, Daren and Wuchiu Township, as Recommended Candidate Sites in 2012. A local referendum is required by law, but due to the lack of public consensus, it has not yet been held.

In 2019, the Executive Yuan Nuclear-Free Homeland Task Force Committee has requested Taipower to promote the construction of a centralized storage facility for radioactive waste and to initiate social communication.

The Executive Yuan Nuclear-Free Homeland Task Force Committee also has requested Taipower to establish site selection principals in 2020.