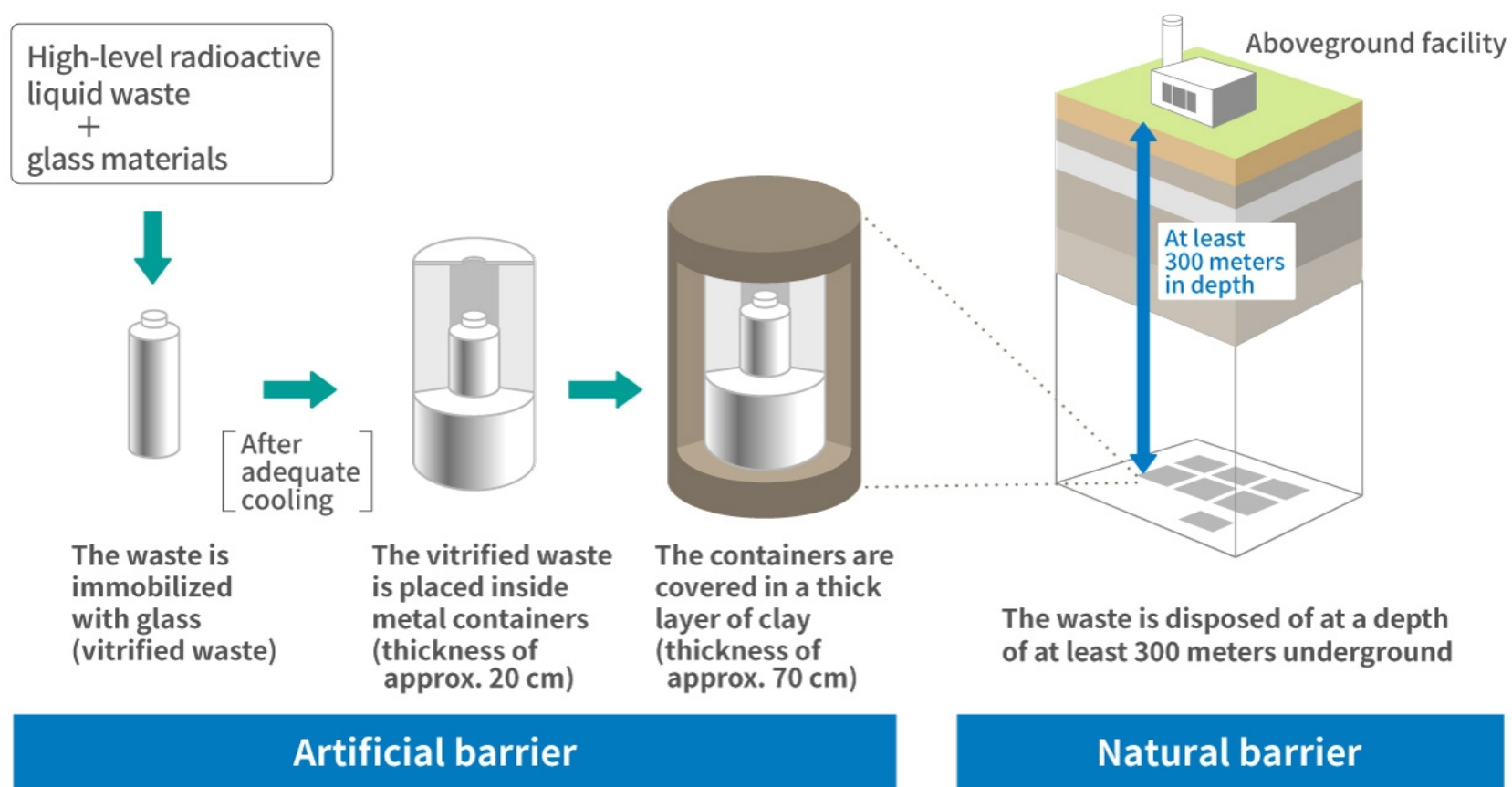


# Radioactive waste disposal



Source: Excerpt from “Understanding Through Comics: Do We Take Electricity For Granted? What Is High-level Radioactive Waste and How Is It Disposed Of?,” Agency for Natural Resources and Energy, Ministry of Economy, Trade and Industry

Spent nuclear fuel from nuclear power generation contains reusable uranium and plutonium, which will be recovered and reutilized throughout the nuclear fuel cycle in Japan. However, high-level radioactive waste which cannot be reused is also generated.

This high-level radioactive waste is immobilized together with molten glass, forming what is called “vitrified waste.” As glass is resistant to dissolving in water and is chemically stable, it is well suited to the long-term containment of radioactive material. However, as it takes a very long time for radioactive levels to decrease sufficiently, a solution known as geological disposal is employed, where the waste is contained deep underground in stable bedrock, isolated from the environments in which people live.

Where exactly is this radioactive waste buried? The vitrified waste is sealed in metal containers which, after being covered with clay, are buried in stable bedrock at a depth of more than 300 meters. The bedrock and clay form natural barriers, preventing the dispersion of radioactive materials. The construction of facilities for geological disposal is already underway in Finland and Sweden, and surveys are also being conducted to select appropriate final disposal sites in Japan.

## Related Link

[Decommissioning and Radioactive Waste Processing](#)