



Choose certainty.
Add value.

Nuclear waste management

Manage nuclear waste safely and efficiently throughout its lifecycle.

Your challenges

Suppliers and operators of nuclear power plants (NPP) and other nuclear facilities must safely manage radioactive material and waste throughout the entire plant lifecycle. This involves minimising all forms of radioactive waste, categorising it and determining appropriate disposal methods in line with Best Available Techniques (BAT). Beyond making financial provisions, suppliers and operators must prove compliance of their entire waste management process. Meanwhile, authorities will benefit from an experienced partner to support them in monitoring conditions throughout the nuclear waste management process, as NPP staff, the public and the environment need to be protected from radiation at all times.

How do nuclear waste management services benefit authorities, suppliers and operators?

TÜV SÜD supports authorities, suppliers and operators in all aspects of waste management including waste retrieval, waste processing and the transfer and transport of waste. These services ensure safe and effective waste

management in compliance with international standards. Optimising waste management from the early stages is key for an effective, cost-efficient process. We also help suppliers and operators to achieve the optimal design for any waste stream by applying integrated waste management strategies and plans. With our comprehensive understanding of costs and waste volumes, we support you to develop funded waste management plans and make financial provisions during the operation phase to fund end-of-life commissioning. Our experts also ensure that radioactive waste is in a safe condition for storage, transport, handling and potential disposal.

How can we help you?

TÜV SÜD has the technical expertise to support managing all aspects of waste throughout its lifecycle, from production or recovery through to disposal or safe storage. Our expertise covers strategic optioneering and feasibility studies, size reduction, decontamination, remote operations and waste handling techniques. By using the latest and most economical testing methods for



radiation protection, treatment and release of residual material, buildings and outdoor areas, we support both site licensed companies and regulatory bodies with consulting, assessment and supervision of the conditioning and packaging of waste to a passively safe condition suitable for final disposal.

Our services for nuclear waste management

■ Waste processing

TÜV SÜD provides support in strategy development, pre-treatment of waste and minimisation of waste (e.g. by vitrification). We offer waste package management for various waste forms that arise during decommissioning. An array of tools is used to better understand the entire waste cycle, such as “waste led” decommissioning diagrams based on IAEA guidelines.

■ Retrieval of waste

We support you in the areas of storage conditions, characterisation and design, and configuration of storage. Nuclear industry companies benefit from our knowledge of tools and techniques, tactics for decommissioning and retrieval, cost estimating, quantity surveying/assessment, option studies and BAT assessment, and development of concept processes.

■ Transfer and transport of waste

TÜV SÜD provides expertise in container types and radioactive waste transport licensing and regulations. We support you with waste process and throughput modelling as well as criticality and shielding assessment for transport safety cases.

■ Nature and quantity of wastes and wasteform assessments

We provide criticality assessment, radiation-shielding design, control of suitability for disposal and preparation of the regulatory documentation relating to the packaging. Our services cover waste ranging from exemption levels to spent fuel and High Level Waste.

■ Best Available Technique assessments

We provide assessments to ensure that your options meet criteria such as safety, environmental impact, practicability and cost.

Your business benefits

- **Minimise risk** – with our experience in identifying potential issues from the early planning stages.
- **Apply complete solutions** – with a single source for all aspects of decommissioning, waste management and conditioning, and disposal.
- **Choose an expert partner** – that offers international expertise, extensive experience and detailed knowledge of standards and regulations.
- **Benefit from global support** – with almost 1,000 nuclear experts worldwide, supporting you with in-depth local knowledge and saving you time to investigate potential risks.

Why choose TÜV SÜD?

TÜV SÜD is an independent third-party organisation that provides impartial and objective consulting on NPPs. We offer end-to-end nuclear energy consultancy that begins with licensing and continues through to nuclear waste disposal and decommissioning.

Our world-class expertise includes extensive knowledge of national and international standards and regulations. With our international reach, we draw upon global best practices whilst taking into consideration the special needs of your local area.

Choose certainty. Add value.

TÜV SÜD is a premium quality, safety and sustainability solutions provider that specialises in assessment, testing, inspection, auditing, certification, training and knowledge services. Represented in over 800 locations worldwide, we hold accreditations in Europe, the Americas, the Middle East, Asia and Africa. By delivering objective solutions to our customers, we add tangible value to businesses, consumers and the environment.

Related services

TÜV SÜD provides the following related services:

- Licensing for nuclear power plants
- Design and construction of nuclear power plants
- Nuclear power plant operation
- Safety assessment of nuclear installations
- Radiation protection
- Nuclear decommissioning