

■ Factsheet – Managing Nuclear Materials

Why do you use nuclear materials?

Our submarines are powered by nuclear energy. Unlike engines using conventional fuels such as diesel, a nuclear reactor can operate for twenty or thirty years without refuelling. As these submarines can manufacture their own air, they do not need to surface during a patrol; and can stay underwater as long as required.

Where do you manage nuclear materials?

To install the nuclear reactor on the submarines, our Submarines business must manage nuclear materials at the site where they are built at Barrow-in-Furness in the UK.

Do you generate nuclear waste?

Before the Navy can accept delivery of a submarine, it must be demonstrated to be functioning as intended. Prior to the submarine leaving Barrow, the nuclear reactor is operated and tested, resulting in the production of a very small amount of nuclear waste. All potential radioactive waste is assessed and managed at a dedicated facility on the Barrow site.

Is it safe?

All operations undertaken at Barrow with nuclear materials are extremely low risk; in terms of the safety of our employees, the people using our products, the general public and the environment.

How do you manage risk?

Managing safety risks is an absolute priority. We have rigorous management processes, procedures and rules in place to ensure that our employees, the site, the public, the environment and our products are safe.

Nuclear operations and management of nuclear materials is controlled by a comprehensive set of regulation and laws and. Activities are governed through a range of licences, permits and authorisations granted by regulatory authorities in the UK; including the Office for Nuclear Regulations (ONR), the Defence Nuclear Safety Regulator (DNSR) and the Environment Agency (EA).

We must demonstrate to relevant regulatory authorities that we have adequate management arrangements to undertake nuclear operations safely, and ensure that any risks are minimised. This includes having rigorous procedures in place in the unlikely event of an emergency.

How do you check that procedures are followed correctly?

The management of nuclear material and nuclear operations is independently inspected throughout the year by our own internal team of specialist nuclear safety regulators and by external regulatory authorities, including inspections by the ONR, DNSR and EA. Senior management at both Submarines and BAE Systems frequently review nuclear safety performance, including extensive safety performance metrics, compliance reports, incident records and improvement plans.

Do you train employees to manage nuclear materials safely?

Ensuring our staff are well trained and suitably qualified is a key factor allowing the company to operate safely. We have a comprehensive programme established to ensure employees are trained to a level appropriate to their role, from basic induction training to nuclear specialist level. We regularly check that any employees who handle nuclear material have the most up-to-date knowledge of relevant procedures.