

News story: Sellafield decommissioning reaches new heights

A chimney on top of the oldest reprocessing plant on the nuclear site, will be crunched away at a rate of 1 metre a week.

The tower will be gone by 2020, resulting in a permanent change to the Sellafield skyline.

The stack sits on top of the First Generation Reprocessing Plant and provided ventilation to a fleet of reprocessing plants.

The 60 year old structure no longer meets modern construction standards, therefore must be removed as a priority.

What went up must come down

At 61 metres tall, on top of a 61 metre building, it was the tallest structure on the site, until a modern replacement was built.

It's position on one of the most congested nuclear sites in the world has made this a complicated and lengthy process.

Conventional demolition techniques like explosives and cranes can not be used in such a crowded, hazardous environment.

Stuart Latham is head of remediation at Sellafield Ltd, he said:

Cleaning up our legacy facilities safely, quickly and cost-effectively is our absolute priority, so are delighted to now see the stack coming down after 4 years of preparation.

Given the structural integrity of the stack, its location in the heart of the site and the fact that this new technique has never been used here before, the planning has been comprehensive. The project demonstrates the challenges of decommissioning the Sellafield site.

We couldn't move a crumb of this chimney without building a modern replacement first, so this has been a complicated project, made easier by working closely with our supply chain.

Safety is the number one priority, so thorough testing has helped us ensure everything works as it should.

Sellafield Ltd has worked with Nuvia Ltd and Delta International; who have brought specialist demolition expertise and innovative ideas to the project.

This work saw Nuvia win the Technology Innovation Implementation award at the

2017 NDA Estate Supply Chain Awards.

A self-climbing platform has been designed, engineered and installed to act as a podium so that workers can safely access the 650 tonne chimney.

Using hand held tools like drills, hydraulic breakers, concrete crunching jaws and plasma steel cutting torches, workers will remove each piece of concrete and steel from the stack by hand to a waiting waste skip.

The demolition started in October, with workers accessing it from the circular platform, which is held in place by friction, and moves up and down the barrel of the stack.

Mina Golshan, Director of ONR's Sellafield, Decommissioning, Fuel and Waste Division, said: "Starting demolition of this redundant stack is a key achievement by Sellafield and another important step towards reducing the risk and hazard posed by legacy facilities on site in order to further enhance safety. This is the focus of our regulatory strategy for the site.

"Our inspectors have engaged with Sellafield Ltd during the design, build, testing and commissioning phases and gathered evidence that assured us of the suitability of the proposed demolition activity and Sellafield's supporting safety case."