

# Press release: Sellafield's 'locked vault' ready to be emptied

Engineering teams have installed equipment to scoop up and remove material from Sellafield's Pile Fuel Cladding Silo.

Safely decommissioning the 70-year-old facility is one of the highest priorities for Sellafield Ltd and the Nuclear Decommissioning Authority.

The building was originally designed to be permanently sealed, meaning innovative ways of accessing and removing its inventory have had to be developed.

The retrievals equipment is contained in 9 huge modules.

It has been lifted into place on top of a modern 'superstructure' built on the side of the building.

Waste retrieval trials are expected to begin later this year, moving into larger scale waste removal in 2020.

Kevin Brown, Head of the Pile Fuel Cladding Silo programme at Sellafield Ltd, said:

The teams are incredibly proud to have completed one of the most complex challenges in the site's history.

We have opened up a building designed to be sealed forever and engineered a way for getting the waste out.

After years of intensive planning, preparation and investment, seeing the retrievals modules in place next to the Pile Fuel Cladding Silo is a huge moment for those involved.

It has been a real example of collaboration, working together with Bechtel Cavendish Nuclear Solutions to take us one step closer to significantly reducing the UK's nuclear hazard.

The nuclear site is moving into a 100-year programme of environmental remediation, which means speeding up the decommissioning of old facilities and moving the waste into safe containment for centuries to come.

The Pile Fuel Cladding Silo was built in the 1950s when the site's purpose was to make material for nuclear weapons.

In 2016, six holes were cut into the side of the silo, the first breaking of the structure since it was built.

Six giant steel doors were then installed to provide a safe barrier between

the outside world and the waste inside the silo, until it starts to be removed by the 'grabbing' machine.

To remove the waste, a crane will extend through the hole in the side of the silo, a grabber will be lowered to scoop the waste up, the grabber then lifts and retreats back through the hole before depositing the waste in a specially-designed metal box, for safe and secure storage in a modern facility which is currently being built at the site.

The work is being carried out in collaboration with Bechtel Cavendish Nuclear Solutions, a US-UK joint venture appointed by Sellafield Ltd to help design, manufacture, test and install the machinery needed to empty the silo.

The equipment has been trialled at Rosyth, Scotland at a mock-up model of the silo. It took 18 months to design and 18 months to manufacture, test and commission – an incredibly tight timescale for a nuclear process.

Paul Smith, managing director of nuclear services at Cavendish Nuclear said:

Cavendish Nuclear is committed to driving down the cost of decommissioning by delivering innovative nuclear clean-up solutions that are faster, safer and more economical.

Our collaboration with Bechtel and Sellafield Ltd on a project of a strategic national importance is set to give Sellafield the tools it needs to accelerate hazard reduction at the site.