

Teaching a new dog nuclear tricks

Spot the robot dog has been going through its paces at Sellafield as part of an active demonstration.

Sending robots into hazardous environments is nothing new at Sellafield.

A fleet of land, air, and underwater vehicles are already contributing to the site's decommissioning and clean-up mission.

Using robots for routine tasks in hazardous environments removes people from harm's way and frees them up for more urgent tasks.

But before technology can be deployed on the site it must be rigorously tested.

Spot underwent 3 days of trials at Calder Hall, the former nuclear power station which is now being decommissioned.

[VIDEO – Demonstrating quadrupedal robots for nuclear applications](#)

The demonstration was held in conjunction with US manufacturer Boston Dynamics, Cumbria-based engineering consultant Createc, and the UK Atomic Energy Authority (UKAEA)

Calder Hall's former turbine hall provided the perfect tricky terrain to test Spot's agility.

If successful, Spot could join Sellafield Ltd's fleet of robots, carrying out tasks like inspections and data capture across the site

Rav Chunilal, head of robotics and artificial intelligence for Sellafield Ltd, said:

Our mission is to create a clean and safe environment for future generations.

Robots like Spot are an integral part of our future.

They offer us a way of getting jobs done in hazardous environments while keeping people out of harm's way.

Robots are excellent at performing repetitive and time-consuming tasks. This allows us to free up our people to undertake more fulfilling work contributing to our purpose: creating a clean and safe environment for future generations.

Spot's active demonstration has given us great insight into its capabilities. We'll now study the findings before we take a decision on whether to deploy this technology at Sellafield.

Guy Burroughes, senior control systems engineer at UKAEA, said:

We've been using Spot for over a year in our work to develop robotics for challenging environments like nuclear facilities.

We were delighted to bring this experience to support the trials at Sellafield and hope it can lead to safer, more efficient decommissioning.

Will Newsom, head of nuclear at Createc, said:

Spot is the ideal tool to deploy equipment into industrial environments which have been designed for bipedal human exploration only.

It will be an important part of the toolset to add to Sellafield Ltd's remote-operations capability.

We are working with Boston Dynamics as their preferred partner for nuclear applications to deliver this cutting-edge technology and integrate new capabilities, making the solution business-as-usual for our customers.