

Holtec's SMR-300 completes Generic Design Assessment

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GDA process enables regulators to assess new nuclear power station designs at an early stage of the regulatory process

The Environment Agency, Office for Nuclear Regulation (ONR), and Natural Resources Wales (NRW) can confirm that the Holtec SMR-300 nuclear reactor design has successfully completed Step 2 of the Generic Design Assessment (GDA).

Step 2 began in August 2024 and involved a comprehensive and rigorous regulatory assessment examining the fundamental adequacy of the reactor design and its safety, security, safeguards and environmental protection documentation.

The assessment has concluded with the issuing of two GDA statements setting out the regulators' conclusions on the Holtec SMR-300 and its supporting documentation.

Regulators have confirmed that their assessments have identified no fundamental safety, security, safeguards or environmental protection shortfalls with the design that would prevent its deployment in England and Wales

Saffron Price-Finnerty, the Environment Agency's New Reactors Programme Manager, said:

This is an important milestone for the Holtec SMR-300 project and is a great demonstration of the effective collaboration between Holtec and the regulators.

Based on our assessment across all topic areas, we have found no fundamental environmental protection shortfalls at this stage in the development of the SMR-300, that could prevent the design from being acceptable for future deployment in England or Wales.

As the environmental regulator of nuclear sites and radioactive substances in England, the Environment Agency ensures that nuclear companies and the sites they operate meet high standards of environmental protection throughout the stages of design, construction, operation and decommissioning.

Tim Parkes, ONR's Head of the Holtec SMR-300 GDA, said:

Our assessment covered 21 technical topic areas, and we have not identified any fundamental shortfalls.

Throughout the GDA process, Holtec has demonstrated an open-minded and constructive approach that has been instrumental in enabling us to complete our assessment across all areas. Where aspects of the design, safety case, and methodologies require further development, these have been captured in 14 regulatory observations.

Holtec has engaged positively with each of these observations, demonstrating a clear commitment to resolution. We are confident that their resolution plans, if implemented effectively, will address these observations and support a future design and safety case.

Paul Gibson, Natural Resources Wales Nuclear Team Leader, said:

Throughout Step 2 we have worked closely with the Environment Agency and Office for Nuclear Regulation towards the fundamental assessment of the Holtec International - SMR-300, resulting in the successful delivery of this two-step GDA.

In September 2025 Holtec, in partnership with EDF Energy and Tritax, announced plans to construct the SMR-300 at Cottam in Nottinghamshire. At present Holtec and its partners have not asked us to carry out Step 3 of GDA. Should construction plans progress, the regulators will continue to engage with Holtec and its partners, as they prepare the design, safety, security & safeguards and environment safety case, site licence application, and environmental permit applications.

Before the Holtec SMR-300 can be deployed in England and Wales, the regulators will need to undertake a further period of detailed assessment before safety-significant construction can begin and environmental permits be issued.

The GDA process enables regulators to assess new nuclear power station designs at an early stage of the regulatory process and to provide confidence that these new designs can be constructed, operated, and decommissioned in England and Wales.

Read the reports and find out more about the GDA process.

<https://www.gov.uk/government/news/holtecs-smr-300-completes-generic-design-assessment>