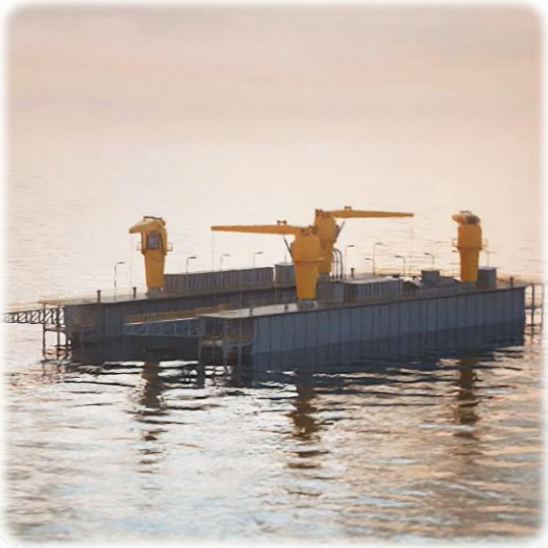
Version 1.0 | July 2025

Case Study 03

Programme Euston

Project Background



Programme Euston is a strategic initiative aimed at procuring and safely integrating up to four floating docks, along with the necessary shore-side infrastructure, to support the Additional Fleet-Time Docking Capability (AFTDC) at His Majesty's Naval Base (HMNB) Clyde. This capability is vital for maintaining Continuous At-Sea Deterrence (CASD) and ensuring that the UK's nuclear-powered fleet submarines (SSNs) remain at high readiness. The programme addresses a critical limitation in the availability of docking facilities, which directly affects platform readiness.

The programme's objectives include delivering a comprehensive safety and environmental case, for nuclear docking facilities, to demonstrate regulatory compliance to the Defence Nuclear Safety Regulator (DNSR), the Office for Nuclear Regulation (ONR) and other relevant regulators.

Naval Solutions Ltd were engaged to support the development of the safety case, which integrates both the floating dock and shore-side infrastructure elements. Their work involved supporting Hazard Identification (HAZID), safety assessments, derivation of Safety Functional Requirements (SFRs) and preparing the preliminary safety case report. They also authored the project's Safety and Environmental Management Plans (SEMP) and supported fortnightly Safety and Environmental Working Groups (SEWGs).

Approach

A key feature of Naval Solutions' approach was the use of a Claim-Argument-Evidence (CAE) methodology to structure the safety case, ensuring traceability and regulatory compliance. Our task-based delivery model allowed for precise tracking of progress and resource allocation, with tasks categorised as completed, partially complete or deferred. This modular approach provided the flexibility to adapt to any programme delays whilst maintaining momentum. Regular engagement with MOD and contractors ensured alignment and transparency throughout the project.

Scope and Contributions

Naval Solutions

Naval Solutions Ltd is a trusted engineering consultancy at the forefront of marine innovation. We deliver high-impact engineering and technology solutions that shape the future of defence, nuclear and commercial maritime sectors.

We offer a full suite of consultancy and engineering services tailored to the complex demands of modern maritime operations. With a relentless commitment to excellence, paired with a deep understanding of our clients' operational environments, our solutions enhance capability, ensure safety and drive operational success at sea and beyond.

We brought significant technical expertise to the project, with team members who have direct experience in nuclear submarine operations, nuclear docking infrastructure and nuclear safety. Our deliverables, including a SEMP (incorporating safety justification plan aspects), reviews of documentation and CAE structures (including Goal-Structured Notation), were well received by stakeholders.

Our secretariat support to the SEWGs formed a crucial part of day-to-day governance of the programme, enabling a forum of common understanding across the key stakeholders.

The team required minimal onboarding due to their familiarity with operations at HMNB Clyde and prior experience with other naval nuclear infrastructure.

Outcomes

Naval Solutions' involvement in Programme Euston delivered significant value by de-risking the integration of critical infrastructure and accelerating progress toward regulatory approval. The structured safety case approach enabled early identification and mitigation of hazards, while the CAE framework ensured clarity and traceability for regulators. The project enhanced the UK's ability to maintain at CASD by addressing a key bottleneck in submarine maintenance. Additionally, the embedded safety culture and knowledge-sharing practices strengthened collaboration across MOD and industry, setting a benchmark for future high-hazard infrastructure projects.

Contact:

enquiries@navalsolutions.co.uk

+44(0) 117 244 1913

Bristol & Bath Science Park, Dirac Crescent, Bristol BS16 7FR, UK