

Nuclear Safety Engineer

The role of Nuclear Safety Engineering in Submarine Solutions is to ensure the safety of the nuclear reactor powered submarine, the workforce and the public during the build and commissioning of a nuclear powered submarine, and through the operational life of the vessel.

A Nuclear Safety Engineer, as part of a team, is responsible for the production of safety cases to prove that Submarine Solutions are capable of conducting nuclear operations in a safe manner and the product can be operated safely. Safety cases must ensure compliance with legislation and the requirements of regulators such as the Nuclear Installations Inspectorate. The Engineer would also be responsible for maintenance and implementation of the safety case.

Examples of activities that a Safety Engineer would undertake include hazard and operability studies, fault analysis, probability safety assessment and safety case production. This would be applicable at many different stages of the build extending to design, operating procedures, management arrangements, building and commissioning. Any design changes must also be assessed appropriately and approved. An Engineer can expect to be involved in performing calculations on designs, reviewing safety assessments and presentations.

Upon completion of the graduate scheme, a Nuclear Safety graduate could be expected to go into one of the following areas (but not limited to):

- Plant Safety
- Site Safety
- Nuclear Safety Regulation
- Operational Nuclear Safety.

The graduate would continue to be supported through the Engineering Developing You (EDY) framework used in BAE Systems, as well as receiving specialist nuclear training. If appropriate, further learning can also be undertaken.

For a graduate to consider working in Nuclear Safety, the graduate would have an engineering/science related degree with a minimum 2:1 result. Any nuclear specific training would be given on the job as appropriate.