

AWE job vacancies related to AF&F

Warhead Electrical Engineer-

“To support the approval programme for the introduction of the Mk4A AF&F System into UK Trident”

“You will be responsible for maintaining the Design Authority design record for the Mk4A AF&F System and be responsible for preparing Mk4A trials requirements and trials specification”

“You will participate in Mk4A electrical trials in the UK and Mk4A functional trials in the US and be responsible for preparing trials evaluation reports for Mk4A trials as well as preparing technical assessments based on UK and US qualifications evidence”

“You will review formal US analysis and design evidence to support approval submissions and undertake modifications to UK Trident design package”.

“You must be willing to travel to MoD establishments, design and test facilities in the USA ..”
Advertised June 2006

Warhead Electrical Engineer –

“Prepare and maintain design documentation for the Trident Arming, Fuzing & Firing (AF&F) system components.”

Advertised June 2009

Warhead Electronics Design Engineer -

“the development and maintenance of demonstrable capability to develop nuclear warhead arming and firing control systems”

“Liaise with US colleagues ... may involve travel overseas, particularly the USA”

Senior Electrical Engineer –

“To support the trials and qualification approval programmes for the introduction of new electrical components into existing designs”

“participate in electrical system testing at AWE and in the USA”

“technical support for the acquisition of electrical test equipment from the USA”.

“Willing to travel to design and test facilities in the UK and USA”

Graduate Formal Methods Developer:

“member of a team involved in the design and development of Warhead Electrical Systems”.

“.. in particular High integrated software development with formal methods”.

Warhead Electrical Systems Engineering Technician

Warhead Electrical Systems Formal Methods Hardware Developer –
WES hardware

Senior Systems Engineer (Aldermaston)

“through life integration activities for electro-mechanical systems”

“define WES activities, structure and subsequent tasks”

“deputize for WES Integration Team Leader as required”.

Systems Engineer (Burghfield)

“through life integration activities for electro-mechanical systems”

Electrical Design Engineer

“To undertake practical work on small, electrical devices capable of generating extra high voltages”

Warhead Electronics Design Engineer (Graduate Trainee) –

“Development of control systems using microprocessors and digital electronic design techniques”

“may involve travel overseas, in particular travel to the USA”

“Knowledge of current nuclear weapon arming system philosophies ... desirable”

Electrical Characterisation Physicist –

“The characterisation of the electrical properties of the ceramic components within the power supply through to the testing of the fully functional unit”.

“To participate in US/UK technical exchanges”

Support Engineer –

“Mechanical engineering design in support of the design, development and evaluation of initiation systems”

Firing Unit Specialist –

“member of a small team concerned with the research and development of Firing Unit technologies, including the engineering and integration of these important warhead subsystems”.

“These include highly specialised components such as rapid discharge capacitors and triggered vacuum switches in addition to specialised low inductance circuits and high voltage generation techniques”

“.. include collaborative programmes with US counterparts”.

Warhead Analogue System Developer

“member of a team building capability in the design and development of control systems Warhead Electrical Systems (WES). .. particular responsibility for the design, development and validation of analogue sub-systems. ... This capability is required to assist the In-Service Support team, and would also be required in the event of any requirement for a successor.”

“Engage in collaborative activities with US labs ..”

Warhead Electrical System Digital Hardware Specialist –

“To build capability in the area of Arming Fuzing and Firing systems and their integration into Warhead systems. This is required to provide capability for any possible future successor systems and assistance to the In Service Support teams. The role will concentrate on the application of commercial technologies to robust microprocessor systems”

“Lead the hardware development of COTS based digital hardware systems”

“Engage in collaborative activity with US labs ..”

Embedded Electronic Engineer (similar to above)

“build capability in the area of Arming Fuzing and Firing systems and their integration into Warhead systems. The role will concentrate on the application of commercial technologies to robust microprocessor systems.”

Software Modelling Engineer

“member of the Control Systems emerging technologies team”

“development and maintenance of demonstrable capability to develop nuclear warhead arming and firing control systems”.

“Liaise with US colleagues ..”

Control Systems Graduate –

“member of the Control Systems Emerging Technologies team”

“development and maintenance of demonstrable capability to develop nuclear warhead arming and firing control systems”.

“Liaise with US colleagues with respect to information interchange on system requirements, design methodologies and techniques”

Direct Optical Initiation Specialist -

“keep abreast of scientific and commercial literature of relevance to Direct Optical Initiation (DOI), including US information, and assess this data for its suitability in the nuclear Firing Unit (FU) scenario”

+ Opto Mechanical Design Engineer

Lightning Protection Materials Specialist –

R&D into Lightning Arrestor Connectors (LACs) suitable for use in nuclear weapon systems

Firing Unit / High Voltage Cable Systems Specialist

Member of small team concerned with R&D of “Firing Unit technologies, including the engineering and integration of these important warhead subsystems”

“responsibility for the Stripline Cable System integration into the Firing Unit and Weapon systems”

“Liaise with other warhead and electrical system departments, including integration teams. Assist the Firing Unit Technical Leader in defining and managing technical requirements and interfaces”

“collaborative programmes with US counterparts”

High Voltage Components Technical Leader –

Lead team of 4 in R&D of specialised high voltage component technologies and to oversee the engineering and integration of these important warhead components.

“Become a technical authority in the high voltage (HV) component technologies associated with firing unit subsystems ..” “These include highly specialised components such as rapid discharge capacitors, trigger vacuum switches and ultra-low inductance bulkhead connectors.”

“collaborative programmes with US counterparts”

Systems Engineer (Validation)

“To be part of a small validation team that will be tasked with providing evidence that an engineering modification meets the customer Performance Technical Requirement”.

Warhead High Consequence Systems Analyst

Member of a team building capability in the R&D of High Integrity Software (HIS) and Hardware (HIH) for Warhead Electrical Systems (WES) and their integration into warhead systems”

“Build and enhance United States collaboration in the area of formal verification”

Refurbishment Qualification Engineer – Lead –

“To manage the Warhead Modification Qualification Programme from conception through to completion”

“represent as the interface with external agencies (MoD, US and UK contractors) on all matters regarding environmental test specification and evaluation”

High Voltage Components Test Technician / Engineer

Member of a small team R&D of specialised high voltage component technologies .

This post concentrates on the test and assessment of specialised firing unit components, particularly Triggered Vacuum Gaps (TVGs) and high voltage reliability capacitors.

Shock Wave Modeller –

“To provide a modelling capability for a variety of explosively driven shock induced high voltage phenomena”

CAD Modelling Engineer – Sub System Integration Electro Mechanical Specialist

“develop and analyse 3D Electro-mechanical packaging concepts for electrical Warhead sub systems”

Warhead Electrical Systems Engineering Technician

“Layout and construction of electronics hardware for use in Warhead Electrical System (WES) sub-assemblies / related items and provision of design support”.

“Design and procure printed circuit boards (PCBs) for use within WES assemblies.

Deputy Team Leader of Weapon Integration-

“Manage a UK based System Integration Team and co-ordinate activities with a complementary team based overseas”

“Implement a strategy to transfer systems integration capability from the overseas team to the core UK programme (through a portfolio of assignments)

“Act as System Manager for classified stand alone computer systems

“Manage a resource group of UK and overseas based staff on short term assignments

“Direct a small AWE based team to manage an **overseas contract system engineering contract**

Jobs related to Stronglinks

Reliability and test engineer –

Key member of a team responsible for research, design and delivery of electro-mechanical devices. Contribute to development and delivery of demonstrable capability in nuclear warhead safety and security system design.

Systems Engineer

Key member of a team responsible for research, design and delivery of electro-mechanical devices. Contribute to development and delivery of demonstrable capability in nuclear warhead safety and security system design.

Development of surety systems

Electro-Mechanical Devise Analyst

Key member of the research and design team working on strong link safety barriers

Electro-Mechanical Engineer

(As reliability and test engineer)

“variety of functions ranging from concept development and modelling through to product design and qualification”.

Electromagnetics Engineer (as above)

Electrical Engineer – Graduate Trainee (as above)

Trainee Technician – member of small group, R&D into Strong Link Safety Barriers

Design Support Engineer –

member of small group, R&D into Strong Link Safety Barriers

support Technical Leader/Task Manager progress internal and external stronglink programmes

Mechanical Designer –

Design engineer working on the development of Strong Link Safety Barriers (SLSBs)

Manufacturing Engineer

Member of small group concerned with the build, test and analysis of small mechanical systems which are the main safety components in Nuclear Weapon Arming, Fuzing and Firing systems. Develop and maintain a detailed knowledge of UK industrial capability for providing these specialist processes. Place and manage external contracts aimed at providing AWE with an assured source of these critical manufacturing processes.

Coordinate all manufacturing operations for AWE stronglink designs through the prototype, full development and final production stages of manufacture and assembly.

Liase with internal groups, including the other design teams and the AF&F integration team, to establish component synergies ...