



Asset management of Electronic Personal Dosimeters at Cavendish Nuclear's repair facility.



PEOPLE
WHO
MAINTAIN

PRODUCTS AND SERVICES:

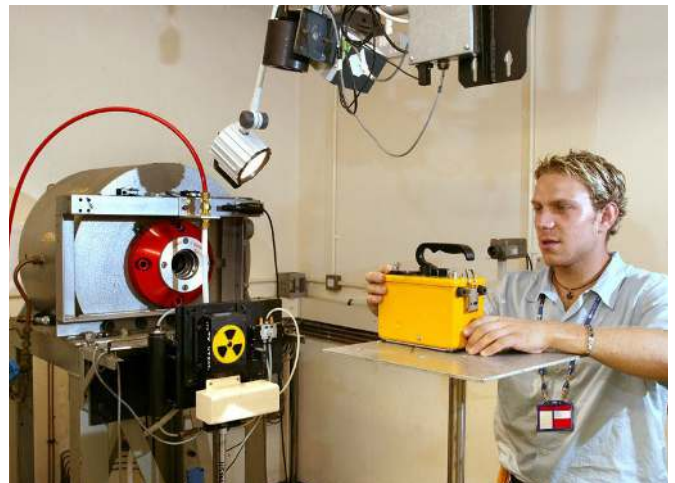
Radiometric Instrument Maintenance

OVERVIEW

Cavendish Nuclear provides a comprehensive high quality support service for all types of radiometric, radiological and radiation protection instrumentation. This service encompasses repair, maintenance, calibration, obsolescence management, spares and asset management, system modifications and upgrades.

KEY SERVICES

- Radiological Protection Instrument Services
- Nuclear Materials Assay Instrument Services
- Gas Sampler Services
- Calibration of Measurement and Test Equipment (non nucleonic)
- Repair and Maintenance of Radiological Instrumentation
- Calibration
- Worldwide Support



Calibration of gamma dose meter.

OUR SERVICE IN DETAIL

Radiological Protection Instrument Services

Cavendish Nuclear has specialist teams delivering comprehensive repair, maintenance and calibration services for Installed and Portable Radiation Protection Instruments to support customers in meeting the requirements of the Ionising Radiations Regulations, 2017.

The installed instruments include change room contamination monitors such as whole body monitors, contamination frisk probes and hand and foot monitors.

In addition area radiometric instruments, such as activity in air monitors, gamma monitors and criticality incident detection alarm systems are maintained.

The portable instruments are mainly health physics instruments used for dose rate and contamination surveys and checks.

Nuclear Materials Assay Instrument Services

Cavendish Nuclear offers a full service comprising specialist instrument operation, routine and breakdown maintenance, instrument and spares management (including repair, replacement, obsolescence & asset management) for nuclear material assay systems.

These systems are used to support operations, production and decommissioning projects and employ radiometric techniques. Cavendish Nuclear offers a highly proficient and comprehensive support for standard and bespoke nuclear assay instruments, including safety significant Programmable Electronic Systems.

Gas Sampler Services

Cavendish Nuclear offers an in-house calibration service for air samplers, tritium monitors (UKAS accredited) and carbon dioxide meters.

Calibration of Measurement and Test Equipment (Non-Nucleonic)

Cavendish Nuclear offers an in-house Measurement and Test Equipment calibration service, enhanced with the external capability of the leading independent UK supplier of MTE Calibration and repair services.

Repair and Maintenance of Radiological Instrumentation

This responsive, cost effective and flexible capability is delivered by fully trained engineers from extensive workshops and laboratory facilities at Sellafield and Berkeley.

Staffed by skilled and experienced engineers and technicians, the Cavendish Nuclear service ensures that instrumentation supports compliance with the legal obligations, plant and process requirements and best practice concerning radiological protection and discharges to the environment.

Comprehensive repairs are undertaken down to component level and in addition Cavendish Nuclear undertakes type testing of instruments for particular applications to confirm their fitness for purpose and to ensure their compliance with appropriate standards and approvals.

Calibration

Calibrations are performed on over 40 different instrument types using either a dedicated radiation test cell or source test rigs. The calibration service includes the maintenance of the lifetime records of the instrument calibration and the issuing of calibration certificates.

Cavendish Nuclear's in-house facilities include shielded cells for gamma, X-Ray and neutron using sources that are traceable to national and international standards:

- Radiation Protection Instrumentation Calibration (portable & semi-portable):
 - Radiation Monitors
 - Contamination Monitors
 - Personal Electronic Dosimeters
 - Neutron Monitors
 - Sealed sources

- Radiation Protection Instrumentation Calibration (installed):
 - Hand & Foot & Whole Body Monitors
 - Activity in Frisk Probes and Air and Gamma Monitors
 - Small Article Monitors
- Nuclear Material Assay Instruments Calibration:
 - Cavendish Nuclear supplied systems e.g. DrumScan® waste monitors
 - Systems supplied by others
 - Process plant systems
- Gas Monitor Calibration:
 - Air Samplers and Bubblers
 - Carbon dioxide monitors
 - Tritium monitors

NMA Services Worldwide

Specialist teams perform both proactive and reactive maintenance on NMA systems, in addition to investigations, fault diagnosis, resets and standard repairs. When on-plant instruments require modification or enhancements to their operation, a dedicated team of support engineers is employed to design, test and implement the changes required to the hardware and software. This work is appropriately managed under a set of approved quality assurance procedures and all software and associated documentation is controlled by means of a configuration management process.

Due to the number and diversity of the systems, the hardware and software encompasses a wide range of platforms, operating systems and languages.

Other Related Services;

- Instrument Type Testing Services
- Test Before First Use Services
- Management of Instrument Pool
- Consultancy & Advisory Service

Key Customers

- EDF (British Energy)
- Sellafield Ltd
- Magnox Ltd
- Low Level Waste Repository (LLWR) Ltd
- Japan Nuclear Fuel Ltd
- International Atomic Energy Agency (IAEA)
- National Nuclear Laboratory (NNL)



FOR MORE INFORMATION, CONTACT:

Jonathan Britton - Product & Services Manager, Cavendish Nuclear,
106 Dalton Avenue, Birchwood, Warrington, Cheshire WA3 6YD
+44 (0)1925 377800 instrumentervices@cavendishnuclear.com