RADIOLOGICAL CALIBRATION SERVICE

jf nuclear

Specialist Engineering and Technical Services

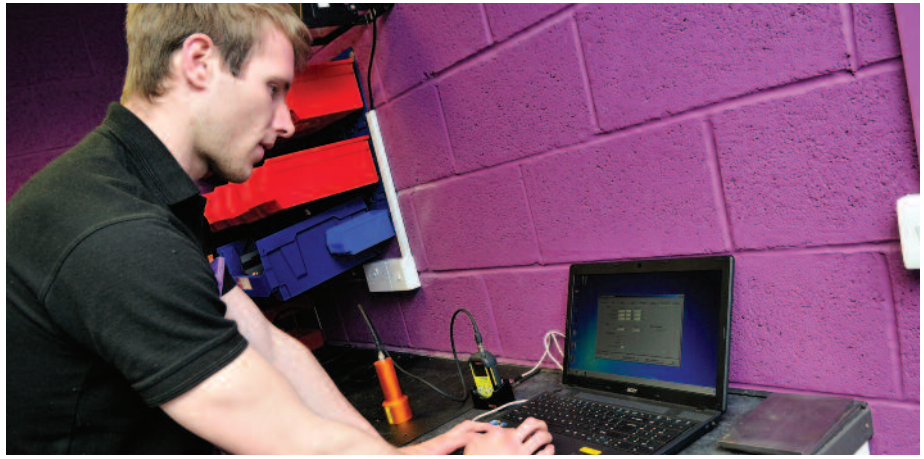
RADIOLOGICAL CALIBRATION SERVICE

The James Fisher Nuclear (JFN) Radiological Calibration Service (RCS) calibrates and repairs Radiation Protection Instrumentation (RPI) for customers across the UK. The service offers a prompt and reliable response with a rapid turn-round to all customers and complements our on-site calibration and maintenance service.

The service is backed up by a solid quality management system and uses sources traceable to national or international standards.
RCS is based at Deeside. Flintshire, with good links to the UK national road network. We can manage the transport of RPI to and from RCS.

- All work is performed by Suitably Qualified & Experienced Persons (SQEP) and calibration certificates are checked and verified by a team of experienced Qualified Persons (QPs). JFN meets the statutory requirements of the Ionising Radiation Regulations 1999 and follow the guidance given in National Measurement Good Practice Guide (GPG) No. 14; “The Examination, Testing, & Calibration of Portable Radiation Protection Instruments” (GPG14) and related GPGs.

- We deliver a cost-effective and comprehensive service including Periodic Tests, Tests before First Use, full instrumentation checks, repairs and adjustments and Retests after Repair, on instruments from all the major RPI suppliers to the UK nuclear industry. Repairs are only carried out after your acceptance of our written quotation.



- All work is carried out to a comprehensive set of maintenance and test procedures designed and approved by one the experienced QPs.

- Calibrations can be scheduled to ensure customers retain sufficient stock of RPI for on-going operations.

- All RCS activities meet the requirements of quality management system BS EN ISO 9001:2000

- The RCS is accredited to BS EN ISO 17025:2005 as UKAS calibration laboratory 4382.

GAMMA DOSE RATE

We can calibrate instruments against the operational quantities air kerma rate, ambient dose equivalent (H*(10)) and personal dose equivalent (Hp(10)). Instruments include installed and portable gamma dose rate meters and monitors, and personal electronic dosemeters (PEDs). The RCS facility has two purpose built radiation cells for the calibration of dose rate monitors; one of these cell is specifically designed to calibrate PEDs in accordance with the GPG No. 113, with the capacity to irradiate in excess of 70 dosemeters simultaneously.

SURFACE CONTAMINATION MONITORS

We have a range of large-area alpha, beta and photon emitting sources for the calibration of surface contamination monitors over a wide range of energies. The source surface emission rates or activities are traceable to national or international standards.
RCS also utilise their traceable sources to calibrate customer's calibration sources. We can calibrate both planar sources in terms of the quantity surface emission rate, and point sources in terms of Activity. In addition the point source can be used to test the identification capabilities of spectrometric instruments.

AIR SAMPLERS AND MONITORS

RCS will calibrate the flow meters on air samplers and air monitors against a flow rate standard, which is traceable to national standards. In addition RCS own a range of test sources which are suitable to calibrate the radiation detector in air monitors. All testing is undertaken in accordance with GPG No.82.

We also can calibrate gas monitors, such as CO2 in air monitors, over their full operational range.

REPAIR FACILITY

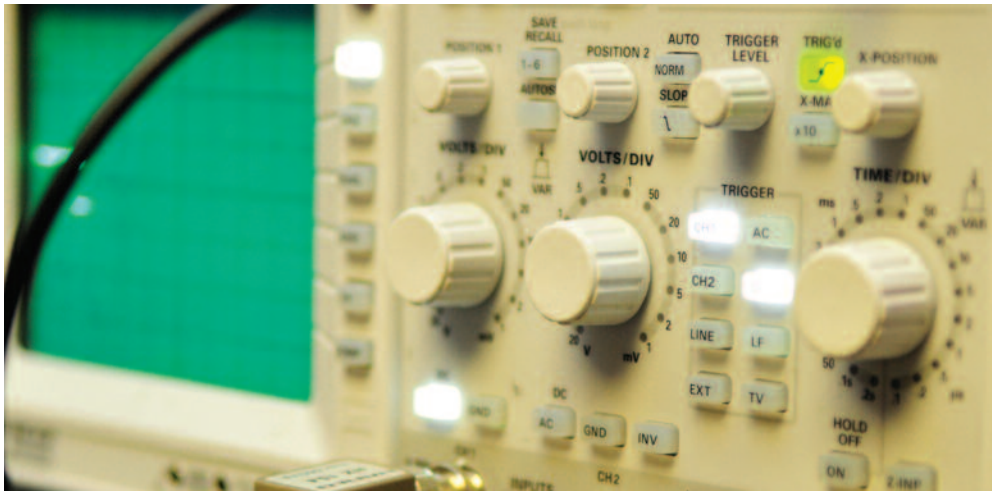
We have experienced staff and a well equipped repair workshop backed up with manuals and stock of key spares from all major UK suppliers of RPI to minimise turn-around times for faulty or damaged instruments. Repair work is only undertaken after you have accepted our written quotation. The instrument is then fully checked and calibrated prior to being returned for use.

SUPPLY OF CONSUMABLES

RCS can supply an extensive range of consumables for both portable and installed RPI. Most of these parts are held in stock, so will be despatched within days of a request. In particular scintillation probe windows and coaxial cables have proved popular, where the JFN can offer compatible replacements for the complete range of Thermo-type scintillation and GM probes. For some of the windows we can refoil the old frame, therefore minimising waste generation. More specialist consumables, such FH40G cables and gas flow probe cables are also available on request.

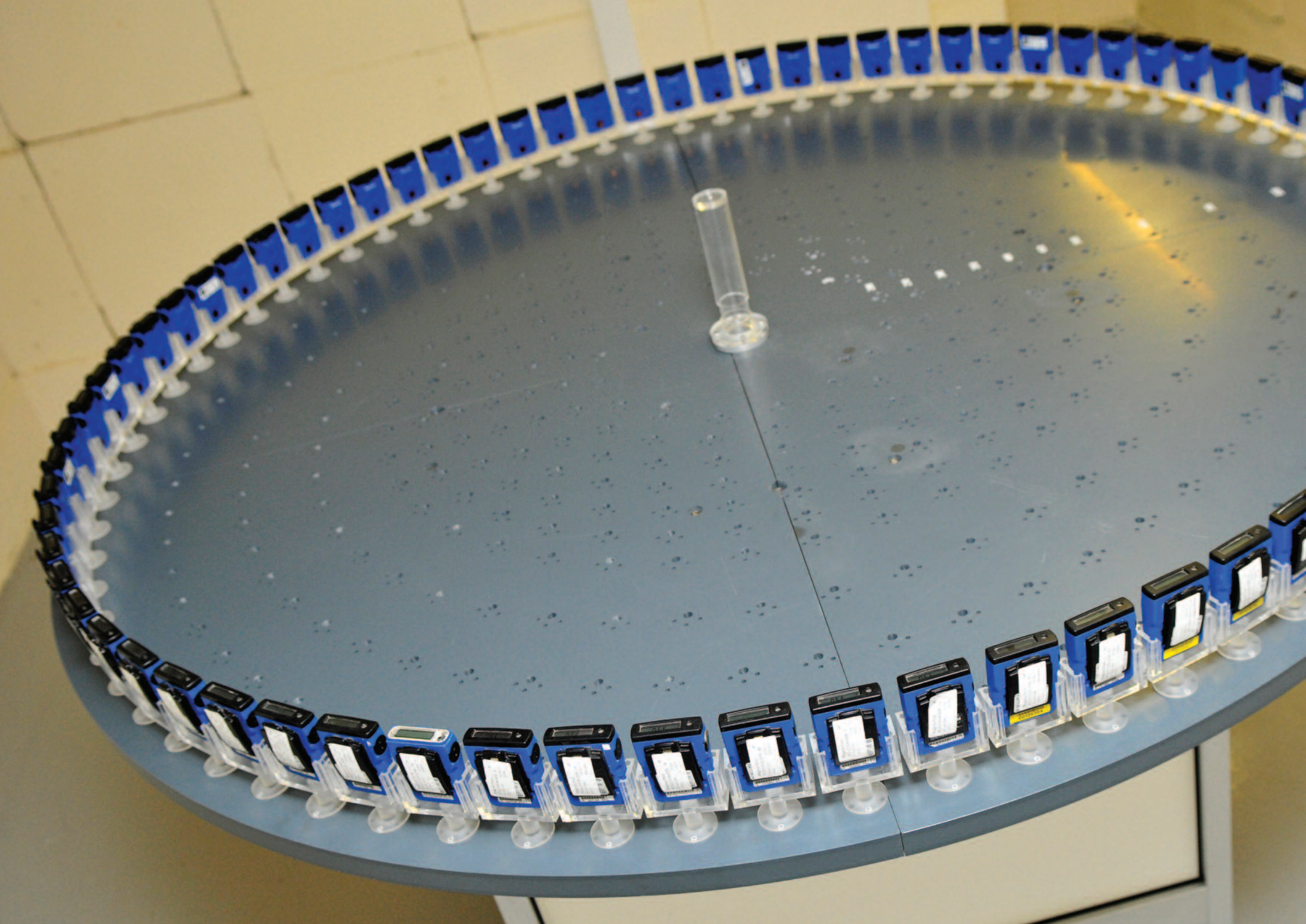
INSTALLED INSTRUMENTATION

If your instrument is not transportable, JFN has a team of SQEP engineers, which can visit your site to undertake maintenance and calibration. Where JFN use their own sources, then these will also be traceable to national standards.



TYPE TESTING

Radiological evaluation and Type Testing service, for installed and portable radiation protection instruments (RPI) . Instrument performance is compared with the requirements of international standard and/or British standards where one exists. Typical contamination monitor evaluations include testing over a range of alpha and beta radiation energies, and uniformity of response.
JFN staff have undertaken over 100 such evaluations for the Nuclear Industry.



James Fisher Nuclear Limited
Unit 64 and 65 Third Avenue
Deeside Industrial Estate
Flintshire CH5 2LA
Tel: +44 (0)1244 283890
Fax: +44 (0)1244 535440
Email: rcs@jfnl.co.uk
www.jfnl.co.uk

Incorporated in England and Wales Registration number 05915488
James Fisher Nuclear Limited is registered in Scotland No.: SC204768 North Meadows, Oldmeldrum, Inverurie, Aberdeenshire, AB51 0GQ. James Fisher Nuclear Limited is a subsidiary of James Fisher and Sons plc