Memorandum of Understanding between
the Environment Agency and the Health and Safety Executive
Regulation of radioactive substances at non-nuclear sites

Introduction

1. The purpose of this Memorandum is to ensure effective co-ordination of the regulation of radioactive substances at non-nuclear sites. Effective coordination should minimise duplication of regulatory effort and ensure appropriate measures to protect people and the environment. It should also avoid placing conflicting demands on businesses and others as a consequence of regulation under the Ionising Radiations Regulations 1999 (IRR99) and the Environmental Permitting (England and Wales) Regulations 2010 (EPR10)

2. The Memorandum supplements the Memorandum of Understanding (MoU) between the Health and Safety Executive (the HSE) and the Environment Agency (the Agency), which established an overarching framework for liaison.

3. This Memorandum does not apply at sites licensed, or in the process of being licensed, under the Nuclear Installations Act 1965 (as amended). Co-ordination between the Office for Nuclear Regulation (formerly HSE’s Nuclear Directorate) and the Agency on licensed sites is the subject of a separate annex to the MoU.

Regulatory Responsibilities

Health and Safety Executive


5. ‘Work with ionising radiation’ includes the production, processing, handling, use, holding, storage, moving, transport and disposal of any radioactive substance. The HSE receives notification of all work with ionising radiation under the IRR99 (except where that work is exempt from reporting under Schedule 1) and receives notice of material changes in that work. The HSE seeks to ensure that occupational exposure to ionising radiation and any direct exposure of other persons arising from a work activity is kept as low as reasonably practicable. Under the IRR99, the HSE also has certain enforcement responsibilities in relation to equipment used for medical exposure in that patient doses are restricted so far as is reasonably practicable in line with the intended diagnostic or therapeutic purpose.
Environment Agency

6. Under the EPR10, the Agency is responsible on non-nuclear sites for granting environmental permits for the:
   (a) keeping and use of radioactive materials,
   (b) keeping or use of mobile radioactive apparatus,
   (c) accumulation of radioactive waste,
   (d) receiving radioactive waste for disposal, and
   (e) disposal of radioactive waste.

Environmental permits are subject to limits and conditions which have legal force.

7. Also under the EPR10, the Agency is responsible for implementing parts of the Basic Safety Standards Directive (Council Directive 96/29/Euratom). The Agency must ensure:
   (a) all exposures to ionising radiation of any member of the public and of the population as a whole resulting from the disposal of radioactive waste are kept as low as reasonably achievable, taking into account economic and social factors; and
   (b) the sum of the doses resulting from the exposure of any member of the public to ionising radiation does not exceed dose limits set out in the Directive.

8. In addition, the EPR10 requires the Agency to implement the High Activity Sealed Source (HASS) Directive (Council Directive 2003/122/Euratom) on the control of high-activity sealed radioactive sources and orphan sources. An important requirement under the Directive is that the Agency must be satisfied with an operator’s security measures to control access to high activity sealed sources and other similar sources.

9. Under the EPR10, some uses of radioactive substances are exempt from the requirement for an environmental permit. In October 2011, revised exemption provisions came into force under the Environmental Permitting (England and Wales) (Amendment) Regulations 2011. The amended Regulations update and replace the 18 Exemption Orders under the Radioactive Substances Act 1993.

10. The Agency is responsible for implementing in England and Wales, the Transfrontier Shipment of Radioactive Waste and Spent Fuel Regulations 2008. These regulations implement Council Directive 2006/117/Euratom (“the Shipments Directive”), which provides the regulatory framework for supervision and control of shipments of radioactive waste and spent fuel into, out of, or through the European Community. The Agency is also the Competent Authority in England and Wales for the shipment of radioactive sources between European Union Member States (Council Regulation 1493/93 (Euratom).

11. Statutory Guidance issued to the Agency in July 2009 requires operators to use “Best Available Techniques (BAT)” as the means to achieve an optimised outcome for radioactive discharges into the environment. The use of BAT replaces “best practicable means” (BPM) and “best practicable environmental option “(BPEO), and is expected to deliver the equivalent level of environmental protection as achieved previously by the use of BPM and BPEO.
12. In applying BAT, operators should undertake a systematic and proportionate examination of waste management options having regard to the waste hierarchy, which requires those who generate waste to:
   - prevent the unnecessary creation of waste or discharges;
   - minimise waste generation; and
   - minimise the impact of discharges on people and the environment.

Working arrangements

13. It is the responsibility of staff in both organisations at all levels to adopt an intelligent and open approach and to ensure prompt action to achieve effective liaison whenever the need arises. It is recognised that this may involve discussions between staff at working level, to agree how the statutory provisions and compliance standards issued under them should be interpreted in particular circumstances, in order to prevent misunderstanding and to determine ways of reconciling any differences that may arise.

14. Detailed working arrangements are set down in the attached schedule. The schedule covers:
   - situations where liaison would normally be expected, unless circumstances indicate otherwise
   - situations where there are overlapping interests and therefore where liaison should be considered and may well be helpful.

15. To promote effective working arrangements and information exchange at an area level, the Agency and the HSE shall each nominate, by exchange of letters, a representative to act as a single point of contact on matters relating to non-nuclear regulation. The representatives should be at the level of non-nuclear Team Leader within the Environment Agency and at an equivalent level within the HSE. The representatives shall arrange to meet at least twice a year. The meeting will include review the operational matters listed in Appendix 3 to the main MoU and any other relevant matters.

16. To review operation of the arrangements under this Memorandum, national liaison meetings will be held at least once every two years. The meeting should be co-chaired at an appropriate senior level by the Agency and the HSE; this could be Head of Business or equivalent. The meeting should consider operational issues and the workings of this Memorandum. It should also provide a mechanism to resolve any outstanding issues arising from the arrangements under this Memorandum.

17. To ensure that there is adequate liaison at local operations level, line managers in the field should make local arrangements for maintaining effective liaison in their areas of responsibility. Line managers should keep their respective nominated representatives informed of any local arrangements.

18. When planning agendas and programmes for area, regional and national staff meetings, specialist workshops and training courses, both organisations should bear in mind the advantages of representation from the other body and make suitable arrangements when appropriate.
19. Those with regulatory responsibilities at particular premises should be made aware of any disclosure of information, including disclosure about enforcement action relating to those premises, to avoid the appearance of uncoordinated action by the regulatory authorities. It is the responsibility of the organisation proposing disclosure (or non-disclosure) to alert the other organisation to its intention whenever the disclosure would be relevant to the interests of the other organisation.

Disagreements

20. Where the Agency and the HSE disagree on any matter relevant to the regulation of radioactive substances at a particular premises, they will seek to resolve their differences before any specific requirements are placed upon an operator or business. Where such disagreements cannot be resolved by the staff concerned at working level, they shall be referred to a higher level of management and, if necessary, to the Co-ordination Group under the MoU.

Signed

Paul Leinster
for the Environment Agency
Date: 22 December 2011

Steve Dennis
for the Health and Safety Executive
Date: 31 January 2012
SCHEDULE TO THE MEMORANDUM

REGULATION OF RADIOACTIVE SUBSTANCES AT NON-NUCLEAR SITES

OPERATIONAL LIAISON BETWEEN THE HSE AND THE AGENCY

1) Situations where liaison is normally expected

Enforcement

Enforcement action by the HSE or the Agency may require: letters, including warning letters to operators confirming compliance deficiencies; issue of Notices (such as Improvement, Enforcement, Suspension or Prohibition); or, for more serious offences, either a formal caution or a prosecution.

Wherever practicable, where the HSE or the Agency proposes to take formal enforcement action the other organisation should be consulted, unless it is clear that the action proposed is not relevant to the interests of the other organisation. If it is not practicable to consult, for example, where an immediate suspension or prohibition notice must be issued, the other organisation should be informed about the action as soon as possible. In some cases, such as prosecution for serious offences under the IRR99 and the EPR10, the Agency and the HSE will consult, as joint action may be desirable.

Incidents and Notifications

The HSE should receive notifications from employers working with ionising radiation in the event of certain incidents:

- in which an employee has received an overexposure;
- in which a person undergoing medical exposure receives a dose much greater than intended as a result of an equipment malfunction;
- involving spillage, release, loss or theft of a quantity of radioactive substance specified in Schedule 8 of the IRR99;
- involving a malfunction of equipment used for industrial radiography or irradiation.

The HSE’s inspectors may investigate such incidents; this investigation may be limited, for example, if enforcement action is not required. It is likely to include an assessment of the adequacy of any contingency plan required under regulation 12 of the IRR99.

As a requirement of environmental permits under the EPR10, the Agency should be notified of the following:

- loss or theft of radioactive substances;
- damage to or escape of radioactivity from radioactive sources or articles and containers in which they are located;
- accumulation or disposal of radioactive waste in excess of authorised limits.
The Agency’s staff should investigate such incidents in order to determine whether there has been any contravention of the requirements of the EPR10, to ensure that members of the public and the environment are protected and that any radioactive wastes are managed appropriately, and to ensure that, if necessary, actions are taken to prevent a recurrence.

If radioactive waste is found on unoccupied premises, or the occupier is absent or insolvent, the Agency has the power under the EPR10 to dispose of the waste and recover from the occupier or owner of the premises any expenses reasonably incurred.

Whenever one organisation learns of an incident where the other may have an interest, it should pass on the information as soon as practicable. The primary contact points shall be the Incident Communication Service for the Agency and for HSE, the local liaison contact referenced in paragraph 17 during office hours and the Duty Officer out of hours. Such incidents include lost or stolen radioactive substances, spillages of unsealed/open radioactive sources and leakage from sealed/closed sources and discarded sources. Sources or contaminated materials discovered at, for example, scrap yards might include depleted uranium, and scrap contaminated with enhanced natural radioactivity such as tubulars from oil and gas installations.

Incidents in which the National Arrangements for Incidents involving Radioactivity (NAIR) are brought into operation may involve staff from the HSE and the Agency. The Agency has an important role in advising on and regulating disposal of radioactive waste arising from the NAIR.

**Inputs to International Work**

The HSE and the Agency have roles in the preparation and implementation of international legislation, standards and commitments; this may involve technical and other considerations. Those concerned should consult with each other, and with DECC and WAG as appropriate.

**Guidance and technical standards**

The HSE and the Agency should consult each other on proposals to produce guidance on topics of mutual interest and, where appropriate, should consider publication of joint guidance.

The HSE and the Agency should also liaise regarding the application and interpretation of technical standards.

**Monitoring New Developments**

The HSE and the Agency should keep each other informed at the earliest stage of new developments which are likely to be of mutual interest. This will ensure that from the outset there is effective co-ordination in the application of technical standards and working practices to proposed new developments.
Disclosure of Information

The HSE and the Agency aim to be open about their activities. Requests by either organisation for the exchange of information with the other will normally be met, subject to any statutory restrictions. In addition, both organisations must comply with the requirements under the Freedom of Information Act 2000 and the Environmental Information Regulations 2004. Information requested will be disclosed unless it is covered by an exemption or statutory restriction such as national security. When the HSE or the Agency receives a request for information relating to a jointly regulated premises, the receiving organisation will inform the other of the nature and extent of the information to be disclosed and, where appropriate, will provide a joint response.

2) Situations where liaison may be helpful

Where there are overlapping regulatory requirements, staff from the HSE and the Agency need to be aware of the interests of the other organisation when dealing with individual employers and undertakings. Therefore, staff in each organisation should have access to up-to-date copies of staff directories and structure charts for the other organisation to aid discussions on:

Notifications and environmental permits

The HSE’s inspectors receive advance notification under regulation 6 of the IRR99 of the intention to begin work with ionising radiation for the first time at particular premises. This notification will give basic details such as the address of the premises and the type of source to be used. Inspectors can also require additional information, such as a description of the work, by serving a written notice on the employer. Companies undertaking site radiography are normally required to give the HSE advance notification of each new job. Inspectors will receive notice of any material change to the original details notified, for example where an employer who only uses sealed sources purchases an X-ray generator. Inspectors will also receive notification of cessation of work where it has involved unsealed sources and the site, or any part of it, has been vacated.

Before the use of radioactive materials or the accumulation or disposal of radioactive waste can take place, an operator must have an environmental permit under the EPR10 unless covered by an exemption. The Agency provides application forms for environmental permits and guidance on their completion. The Agency grants environmental permits subject to limits and conditions which have legal force. Copies of applications and environmental permits are sent to local authorities and placed on the Agency’s public register.

Limits and conditions within environmental permits may address:

- the purpose for which radioactive materials are used;
- requirements for ensuring competent supervision of radioactive materials, and accumulation and disposal of radioactive waste;
- minimising radioactive waste arisings;
- limits on the maximum quantities of radioactive materials used and radioactive waste which is accumulated and disposed of.
• provision of information on changes of user or premises, cessation of use and amounts of radioactive waste disposed of;
  o records;
  o sampling and analysis of radioactive waste;
• prevention of loss, theft, damage, breakage, unauthorised access or removal of radioactive substances including specific security measures relating to control of access to high activity sealed sources and other similar sources;
• marking of radioactive materials, articles and containers, and stores in which they are held.

Storage and records for radioactive substances

The HSE enforces regulations 27-29 of the IRR99 which concern the design, construction, maintenance, leak testing, accounting and storage of sources. Regulation 8 of the IRR99, which imposes a general duty to restrict exposure by means of engineering controls and design features (e.g. shielding) is also relevant. An Approved Code of Practice supporting the regulations explains the practical standards (or equivalent) that should be achieved. Guidance is also provided.

The conditions of environmental permits under the EPR10 place requirements on users in respect of the construction, maintenance, contents and marking of stores for radioactive sources and radioactive waste and prevention of unauthorised access, in particular, security measures for high activity sealed sources and other similar sources. They also require up to date, clear and legible records to be kept of radioactive materials and waste, the dates of receipt and removal, and that these records are available for inspection. A summary report of waste disposals is required to be sent to the Agency.

Releases of Radioactivity

The HSE’s inspectors enforce the provisions of regulations 8 and 7 of the IRR99 which require the restriction of exposures to employees and other persons as far as reasonably practicable and the prevention or limitation of the consequences of any accident, occurrence or incident, including one resulting in a spread of contamination outside the site boundary. Regulation of the protection of the workforce from emissions which are entirely confined within workplaces rests with the HSE and this includes employees working on contaminated land.

Regulation of all disposals of radioactive waste, including transfers of waste between premises, waste incineration and discharge into the environment rests with the Agency. The Agency acts so as to limit such disposals so that radiation exposure of the public is as low as reasonably achievable, and is within national dose limits and constraints, in accordance with Schedule 23, Part 3 of the EPR10.

Design of workplace

The HSE’s inspectors enforce requirements under regulations 6, 7, 8, 11, 12, 14, 16, 17, 18, 19 and 25 of the IRR99 to restrict exposures to employees and other persons as far as
reasonably practicable (preferably by means of engineering controls and design features), to designate controlled and supervised areas, to prevent or limit the consequences of any accident, occurrence or incident, to provide local rules, to provide information and training and to supervise the work with ionising radiations. The HSE will also check that the employer has appointed a suitable radiation protection adviser if required under regulation 13 of the IRR99.

The Agency is responsible for regulating facilities handling radioactive substances to ensure that those facilities (including floors, ceilings, walls, fittings and furniture in any area where radioactive waste is accumulated or disposed of and any associated drainage and ventilation systems) are designed, constructed, maintained and used in such a manner that they do not readily become contaminated and that any contamination which does occur can easily be removed.