

Preparing for (and surviving!) an Environment Agency Radioactive Substances Inspection

Preparing

If required, your School Safety Officer can usually arrange a brief 'pre-visit' before the Inspection.

A reminder of some key 'practical' topics that are required to comply with the Permits issued under the EPR 2016 are set out below:

1. Are all records of radioactivity stocks, accumulations and disposals up to date, in individual labs and in the master/central records held by the relevant RPS or Administrator?
2. Are contamination monitoring records clear and up-to-date?
3. Has a reasonable attempt been made in the Department to complete the EPR 'Matrix' provided by the Safety Office? It is possible that the Inspectors will ask for specific pieces of evidence that are linked to the conditions of the EPR Permit. Having these items identified in the 'Matrix' will ease the progress of the inspection! – also, check that the current Permit is on display (other than sealed source Permits) and that users are *aware of the conditions* of the Permit.
4. Are all wall surfaces behind work stations and disposal sinks in first class condition (sealed surfaces) with no open cracks, gaps or grooves that could attract contamination? All service 'trunkings' below 500mm from bench surface must have grooves and fixings holes appropriately sealed – by waterproof tape, sealant or by the positioning of appropriate sealed screens between the trunking and the work area. Are all painted surfaces in excellent condition with no peeling or chipped areas?
5. There must be no other unsealed cracks, holes, gaps, etc. on or near radioactive work areas or sinks. Also no bare timber in the vicinity – all timber must be very well varnished or painted. No timber framed or absorbent cloth covered stools or chairs may be present in radioactive substance work areas. All side and rear screens at work areas and sinks must be well sealed to bench and walls with flexible sealant in good condition.
6. There must be no accumulations of absorbents – or ideally any materials – beneath sinks or work areas.
7. Are all sink traps and immediate plumbing labelled with rings of radioactive warning tape to the point where the waste pipe joins a point of significant dilution? Are sink traps in good condition – ideally, 'Perspex' or other suitable drip container should be positioned beneath the trap.

8. Are all floors in the vicinity of work areas or sinks in good condition, clean, and with no cracks holes splits or peeling sections? Are all floor to wall coved 'up stand' sections firmly fixed to the wall with no peeling sections?
9. There should be no paper notices or records fastened to walls immediately behind disposal sinks or work areas. Work areas and sinks must be well segregated, preferably by a physical barrier, from non-radioactive areas such as write up areas.
10. Items bearing radioactive tape should only be kept at designated radioactive work station areas or disposal sinks – items that are not radioactive should not be labelled with 'radioactive tape! There should not be large accumulations of empty e.g. 'Perkin Elmer' stock pots visible on window ledges, benches or elsewhere. Used-up pots should be monitored, warning labels removed and stored in an appropriate place awaiting disposal.
11. Is the radioactive waste store tidy and in good condition? – painted walls and floor surfaces ok? Up-to-date records in place in the store (there is no need to empty the waste store – the Inspectors will expect to see some waste!)
12. Are all door, area and fridge and freezer signs in place? Are all fridges and freezers lockable?
13. Is the current EPR permit accessible to all users together with name of RPS who is overseeing waste disposal.
14. Are the training (RPS and user) records available? Are the monitor 'calibration' certificates to hand. Are all mini-monitors working, batteries ok, and are the monitors within their annual test date?
15. Are written Contingency Plans up-to-date and have they been rehearsed within your department? We understand that EA Inspectors are putting more emphasis on the *environmental impacts* of incidents, and are expecting to see possible issues identified and solutions available. In practice, with the limited amounts of unsealed radioactive substance now in use, environmental effects of any incident will be small – but this topic may well come up during the inspections, and we may be required to take further action centrally on this.
16. Is your most recent radioactive substances audit report available, together with the response to the Safety Office made by your Head of Department?
17. If you have hand operated as opposed to elbow/lever operated taps at waste disposal sinks, be prepared to discuss/justify this situation with the Inspector!

At the end of the inspection, or more likely within a few days of the visit, the EA should issue a compliance assessment report (RASCAR) for each department – this will identify non-compliances in a formal scoring process, but also give helpful advice to the Department and to the University. Remember that your RASCAR report subsequently goes on the public register and this information is available to anyone who can search the EA Website! *So we aim for 100% compliance!*

In the event of identifying serious non-compliance with a condition of the EPR Permit, the Inspectors can issue immediate 'prohibition of work' notices, or time limited enforcement notices which require improvements within defined time periods.

As far as possible, Administrators, RPSs and radioactivity users who may be present at the time of the inspection, should be prepared to comment to the Inspectors on the BAT approach in the Department (minimisation of waste generation, accumulation and disposal to other parties), and their own understanding that the use and disposal of radioactive materials is 'controlled' by means of compliance with the conditions of the EPR Permit (which they must have read!).

And ... Surviving the inspection on the day!

Please ensure that the Inspector is met by the Departmental Administrator or other senior member of the Department (for example Head or Deputy Head of Department). This person should remain available within the Department, in the event that further discussion is needed during or at the end of the inspection.

One or more of the departmental RPSs (preferably the 'lead or Senior RPS') - must also be available to accompany the Inspector for the duration of the visit.

A member of the Safety Office (and, for most of the visits the relevant School Safety Officer) will attend each inspection.

Interacting with the Inspector...

1. *Inspectors often appreciate the offer of a cup of tea when they arrive!*
2. *Ask inspector what he would like to see/do - normal reply will be to ask for a verbal description of how radioactive materials are requested, authorised, received, booked in and secured by end-users.*
3. *Show paperwork WHEN ASKED relating to ordering, items received, booking in and 'what happens to used up stock record sheets'.*

As a general principle it is best NOT to offer to show documents, papers and records unless the Inspector asks for them – every piece of paper shown usually results in another question from the Inspector – so difficult as it is to resist showing off good systems, it is often best to show only what is requested and directly relevant to any question!

4. *The Inspector is very likely to ask if the Department have recently attempted to complete an EPR check-list ("matrix") – and if you have, Inspector will ask to see the document - note this is not a statutory item – but EA regard it as a good practice item to help users identify where (or not) are the various items that demonstrate compliance with the Permit.*
5. *Be prepared to talk about how users of radioactive materials are "trained" and how refresher/update training is/might be provided, and how 'mini-monitors' are tested and used.*

6. *Inspector will, from the records seen, want to see where two or three current stock items are stored, and when he/she goes to those areas, will generally inspect the work facilities and disposal facilities.*
7. *Make sure waste records are up-to-date and there is no waste in labs that has exceeded the permitted accumulation period – the EA these days are increasingly picking on the extended periods that some people seem to accumulate waste on the bench – a month is generally seen as too long – we of course believe that a day is too short and impractical – weekly 'clearances' seems reasonable – but in the meantime, waste should also be held in 'secure areas'. Out-of-hours, unauthorised persons (including members of the Department) must not be able to access any radioactive material – including waste – the discussions have always been on reliance on corridor doors as 'security' – lockable rooms out-of-hours is still seen by EA as the preferred option, even if the general corridor door is locked.*
8. *Ensure all corridor freezers/fridges holding radioactive material are locked! Make sure no junk, particularly absorbent materials are lurking beneath **ra waste** benches and disposal sinks, and contamination monitoring records for those areas are clear and up-to-date.*
9. *EA Inspectors are not fans of the grooved out Trespa draining boards – we try to justify that, but not the most suitable solution. EA prefer to see lever operated taps (with pressure control valves) at disposal sinks – although has been recently conceded that hand operated taps can give better control over splashing. Lever taps of course required at hand-wash sinks.*
10. *EA inspectors are generally not too interested in the detail of "risk assessments or local rules" (HSE items) – but might ask to see evidence that BAT is considered in all protocols (i.e. – show the front sections from a risk assessment!). If a 'management system' is requested, reference to the School/Departmental Safety Manual, and to Local Rules, should be made.*

And, finally ... it is good to discuss with the Inspector any opinions expressed during the inspection, but overall there can only be one winner on the day! – if there is a controversial point raised it is best to acknowledge clearly what is being said, and wait to see if it really is so important that it will be raised in the subsequent written report - it may not be! – and there is an appeal mechanism for these reports.

