

Leaflet 14

Accident and Incident Investigation and Reporting

CONTENTS

Paragraph

- 1 Scope
- 2 Statutory requirements
- Duties
- 3 Commanding Officer and Head of Establishment (CO/HoE)
- 4 Radiation Safety Officer (RSO)
- 5 Radiation Protection Supervisor (RPS)
- 6 Workplace Supervisor (WPS)
- 7 Managers
- 8 Employees
- 9 Contractors
- 10 Definition of an Accident, Incident, Dangerous Occurrence and Near Miss
- Types of Accidents, Incidents and Dangerous Occurrences (Notifiable to Authorities External to MOD)
- 12 Radiation overexposure
- 13 Release of radioactive substances into the atmosphere
- 14 Spillage of radioactive substances
- 15 Loss or theft of a radioactive source or radioactive substance
- 16 Malfunction of medical or dental x-ray equipment
- 17 Failure of industrial radiography or irradiation equipment
- 18 Types of Radiation Incidents (NOT Notifiable to Authorities External to MOD)
- 19 Types of Near Miss
- 20 Radiation protection advice
- 21 Radiation medicine advice
- 24 Accident and incident reporting system
- 26 Records
- 27 Related Leaflets

Table

- 1 Related Leaflets

Annex

- A Immediate and Follow-up Investigations
- B Radiation overexposure - investigation, notification and reporting
- C Release of radioactive substances to atmosphere - investigation, notification and reporting
- D Spillage of radioactive substances - investigation, notification and reporting
- E Loss or theft of radioactive substances - investigation, notification and reporting
- F Quantities of radionuclides for external notification of radiation accidents and incidents
- G Malfunction of medical or dental x-ray equipment - investigation, notification and reporting

Part 2

- H Failure of industrial radiography or irradiation equipment - investigation, notification and reporting
- I Radiation incidents and near miss - investigation, notification and reporting

Scope

1 This Leaflet details the requirement for investigation, notification and reporting of radiation and radioactive material accidents, incidents, dangerous occurrences and near misses. The leaflet describes the type of radiation accident and incident that should be reported both internally to MoD and to external authorities such as the HSE and EA and incidents and near misses that should only be reported within MoD. The leaflet does not extend to other non-radiological reporting requirements (e.g. for fire, explosion, injury).

Statutory Requirements

2 In addition to the general requirements of the Health and Safety at Work etc Act 1974 and the Management of Health and Safety at Work Regulations 1999, the following specific legislation applies directly or is applied indirectly through parallel arrangements designed to achieve equivalent standards:

- Ionising Radiations Regulations 1999 (IRR99) (apply directly);
- Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995 (apply directly);
- The Environmental Permitting (England & Wales) Regulations 2010 (EPR10) (as amended) (parallel arrangements);
- Radioactive Substances Act (Scotland & Northern Ireland) 1993 (RSA93) (as amended) (parallel arrangements).

Duties

Commanding Officer and Head of Establishment (CO/HoE)

3 The CO/HoE has a duty to the Secretary of State, and a personal responsibility, to protect the environment and secure the health, safety and welfare of their staff at work. The CO/HoE is also required to protect persons not in MOD employment (e.g. members of the public) against risks to their health and safety arising from the MOD work activities. This includes radiation safety. The CO/HoE's authority (but not responsibility) for radiation safety management arrangements may be delegated to appropriate personnel, such as a Radiation Safety Officer (RSO).

Radiation Safety Officer (RSO)

4 The Radiation Safety Officer (RSO) is to ensure that:

- 4.1 Requirements for investigation, notification and reporting of radiation accidents, incidents and near misses are detailed in local orders (Leaflet 16);
- 4.2 Investigation, notification and reporting are carried out in accordance with this Leaflet and in consultation with the RPA;

Part 2

4.3 Personnel are made aware that if they are involved in a radiation accident or incident that they should complete a MOD Form 510 (or equivalent) in accordance with MoD policy in JSP 375, Leaflet 14, Para 3.2;

4.4 The accident, incident or near miss is reported to the relevant Incident Notification Cell (INC) as detailed in JSP 375, Leaflet 14, paragraph 4.4.1 and Annex C).

Radiation Protection Supervisor (RPS)

5 The RPS should normally carry out the investigation and prepare the report as directed by the RSO.

Workplace Supervisor (WPS)

6 In units where it is unnecessary to appoint an RPS, a WPS may need to be appointed with duties to ensure that work is carried out in accordance with local orders for radiation safety (see Leaflet 16).

Managers

7 In the case of personnel involved in a work related radiation accident or incident, managers shall ensure that staff are aware of their legal right to have it recorded on a MOD Form 510 (or TLB/TFA equivalent form meeting the requirements of HSE form 510) and should encourage them to do so. Information contained on a MOD Form 510 may be used to provide supporting evidence for compensation or Social Security benefit claims and be shared with Trade Union safety representatives (unless permission to disclose information has not been granted by the injured person) to aid in accident/incident investigations.

Employees

8 It is the responsibility of all employees to ensure that they immediately report any radiation accident, incident or near miss, affecting themselves or others, to the local RSO, RPS or WPS. Personnel involved in a work related radiation accident or incident should complete a MOD Form 510 (or equivalent) in accordance with MoD policy in JSP 375, Leaflet 14, Para 4.5.1.

Contractors

9 In accordance with JSP 375, Leaflet 14, paragraph 4.4.5 accidents/incidents involving contractors, sub-contractors and others (non-MOD), permanent or visiting a MOD unit/establishment shall be reported by their MOD host to the "hosts" TLB/TFA INC or equivalent. This does not preclude the need for contractors to report the accident/incident to their respective employers.

Definition of a Radiation Accident, Incident, Dangerous Occurrence and Near Miss

10 A Radiation Accident is defined in IRR99 as:

10.1 An accident that requires immediate action to prevent or reduce exposure to ionising radiation of employees or any other persons.

11 For MOD investigation and reporting purposes, radiation accidents, incidents, dangerous occurrences and near misses are defined as:

11.1 Accidents - the situations listed in Para 12 to 17 that involve a person being exposed to ionising radiation that is likely to exceed dose limits detailed in Leaflet 4.

11.2 Incidents - the situations listed in Paragraph 17 and 18.

11.3 Dangerous Occurrences - the situations listed in Paragraph 17.

Part 2

11.4 Near Miss - the situations listed in Paragraph 12 to 16 and 18 that, while not causing harm, had the potential to cause a radiation exposure or contamination of an individual, workplace or environment.

Types of Radiation Accidents, Incidents and Dangerous Occurrences Notifiable to Authorities External to MoD

12 The following radiation accidents and incidents require:

12.1 An immediate report by telephone call (followed up by an e-mail) to the appointed RPA, the appropriate TLB/TFA safety authority and the chain of command;

12.2 An immediate investigation by the RSO/RPS/WPS, taking advice from the RPA as necessary (see Annex A for details of an immediate investigation).

Radiation Overexposure

13 If a person working on the site is suspected of receiving an over exposure to ionising radiation that is likely to exceed the limits detailed in Leaflet 4, unless the immediate investigation shows beyond reasonable doubt that no overexposure could have occurred, continue with a follow-up investigation, notification and report detailed in Annex B.

Release of Radioactive Substances into the Atmosphere

14 If radioactive substances are released, or suspected to have been released into the atmosphere as a gas, aerosol or dust that are not in accordance with an EA approval (permit) (this could include a release from a fire or explosion). Unless the immediate investigation shows that no release could have occurred, continue with a follow-up investigation, notification and report detailed in Annex C.

Spillage of Radioactive Substances

15 If spills of radioactive liquids or solids leading to the spread of contamination are suspected, unless the immediate investigation shows that no spill could have occurred, or the spill was in a fume cupboard or total enclosure or did not exceed limits for disposal in an EA approval (permit), continue with a follow-up investigation, notification and report detailed in Annex D.

Loss or theft of a Radioactive Source or Radioactive Substance

16 If a radioactive source or radioactive material (including equipment containing a radioactive source or material) is suspected to be lost or stolen, unless the immediate investigation shows that no loss or theft has occurred, continue with a follow-up investigation, notification and report detailed in Annex E.

Malfunction of Medical or Dental X-Ray Equipment

17 If a person undergoing a medical or dental x-ray is suspected of being exposed to radiation much greater than the intended exposure, due to a malfunction of or defect in the equipment, unless the immediate investigation shows that no incident has taken place, continue with a follow-up investigation, notification and report detailed in Annex G.

Failure of Industrial Radiography or Irradiation Equipment

18 The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995 (RIDDOR 95) requires the following to be reported to the Health and Safety Executive (detailed information on the procedures to be followed is at Annex H):

- The malfunction of a radiation generator or its ancillary equipment used in fixed or mobile industrial radiography which results in the equipment failing to de-energise at the end of the exposure;
- The malfunction of equipment used in fixed or mobile industrial radiography which results in a radioactive source failing to return to its safe position at the end of the exposure.

Types of Radiation Incidents not Notifiable to Authorities External to MoD

19 The following radiation incidents are to be investigated by the RSO/RPS/WPS with advice from the RPA as necessary and notified and reported to the appropriate MOD authorities as detailed at Annex I:

- An incident likely to result in a person receiving an effective dose (i.e. whole body dose) exceeding 6 mSv or an equivalent dose (i.e. dose to eye, skin, hands, forearms, feet or ankles) exceeding three-tenths of the relevant dose limit. This radiation incident also carries statutory dosimetry assessment and record keeping requirements (see Leaflet 6). Note that if the dose received constitutes a radiation overexposure it is to be investigated, notified and reported in accordance with paragraph 12;
- Effective dose (i.e. whole body dose) accumulated from routine external and internal radiation exposure, exceeding the formal investigation level (see Leaflet 4). Note that if the dose received constitutes a radiation overexposure it is to be investigated, notified and reported in accordance with paragraph 12;
- Any intake of radioactive material by ingestion;
- Any fixed skin contamination greater than 3 Bq cm⁻² for α-emitters and 30 Bq cm⁻² for β and γ-emitters remaining after 24 hours;
- Any contaminated wound;
- Any release of radioactive material to atmosphere, a breakage or spillage of radioactive material which is below the levels prescribed for notification of external authorities (e.g. HSE, environment agencies).
- An incident likely to generate press or media interest.

Types of Near Miss

20 The following near miss situations are to be investigated by the RSO/RPS/WPS with advice from the RPA as necessary and notified and reported to the appropriate MOD authorities as detailed at Annex I:

- Any event listed in Paragraphs 12 to 16 and 18 where these events did not, by chance, actually occur.

21 Note that specific types of malfunction of equipment associated with industrial radiography must still be investigated and reported in accordance with paragraph 17.

Radiation Protection Advice

22 Radiation protection advice for units and establishments is to be obtained from the appointed RPA. For those units and establishments for which Dstl ESD is appointed as the Radiation Protection Adviser, radiation protection advice is available 24 hours by telephoning:

- During working hours 02392 768130;
- During silent hours 02392 768020 and asking for the Duty Health Physicist;
- Or by email: LHPINM@mail.dstl.gov.uk

Radiation Medicine Advice

23 Radiation medicine advice is to be obtained from the Radiation Medicine Section (the tri-service focal point for such advice) at the Institute of Naval Medicine, Alverstoke, Gosport, Hants, PO12 2DL; or by telephoning:

- During working hours 023 9276 8085 or 8026;
- During silent hours 023 9276 8020 and asking for the Duty Radiation Medicine Specialist;
- Fax on 023 9250 4823
- E-mail: smorm@inm.mod.uk or aoumd@inm.mod.uk

Reporting Radiation Accidents, Incidents and Near Misses

24 In addition to the reporting procedures described above, all radiation accidents, incidents, dangerous occurrences and near misses are to be reported to Incident Notification Cell points of contact found in JSP 375, Part 2, Chapter 16.

25 Personnel involved in a work related radiation accident or incident should complete a MOD Form 510 (or equivalent) in accordance with MoD policy in JSP 375, Para 3.2

Records

26 Records of investigations into radiation accidents or incidents are to be kept in accordance with Volume 1 Chapter 3 of this JSP and also the JSP441 Defence Records Management Policy & Procedures. Where an investigation shows that no unusual radiation event had occurred, the retention period is a minimum of 2 years. At the end of this period, an assessment on the relevance of retaining the document is to be made in accordance with MOD policy at Volume 1 Chapter 3.

Related Leaflets

27 Leaflets referred to within this Leaflet are shown in Table 1.

Table 1 Related Leaflets

Leaflet Number	Leaflet Title
3	Application for Permits (Notification or Approval) and agreement to the introduction and use of sources of ionising radiation including radioactive substances
4	Restriction of exposure to radiation
6	Dosimetry and personal dose records including medical surveillance of classified persons
14	Accident and incident Investigation and Reporting
16	Local orders for radiation safety
Chapter 3	Record Keeping
JSP 375	Accident/Incident Reporting and Investigation
JSP 441	Defence Records Management Policy and Procedures

Leaflet 14 Annex A

Immediate and Follow-up Investigations

Nature of an Immediate Investigation

1 An immediate investigation into a radiation accident or investigation is to be conducted by the RSO/RPS/WPS of the unit or establishment on behalf of the CO/HoE. The main purpose of the immediate investigation is to rule out suspected accidents/incidents which can readily be shown did not take place. Also, the immediate investigation is to collect details and information which may be lost due to the passage of time.

2 Once the immediate investigation has been completed, the need, or otherwise, for a report to mod authorities and, in some cases, external authorities will be evident. The RPA is to be consulted regarding the aspects which are to be covered in a follow-up investigation.

Nature of a Follow-up Investigation

3 Detailed investigations into radiation accidents and incidents are to be conducted by the RSO/RPS/WPS of the unit or establishment on behalf of the CO/HoE, in consultation with the RPA, unless alternative arrangements are made such as the setting up of a Service Inquiry. The accident or incident is to be thoroughly investigated to determine the extent of the radiation hazard, level of radiation exposures and the causes of the event including the less obvious contributory causes, and to recommend safeguards to prevent its reoccurrence.

4 Reports of investigations into a radiation accident or incident are to contain all the relevant facts, including the following details where applicable:

- Time and location;
- Names of persons involved, work routine and duties being performed at the time;
- Description of any equipment involved;
- Summary of relevant local orders, work instructions, safety documents, equipment manuals and maintenance programmes covering the work undertaken at the time or the equipment involved;
- Full description detailing the sequence of events including adherence to local orders, work instructions, safety documents, equipment manuals and maintenance programmes;
- Results of any radiation or contamination survey for the areas concerned during the period under investigation.
- Results of any special surveys or measurements taken (e.g. during a reconstruction advised by the RPA);
- In the case of an exposure (or overexposure) recorded on a dosimeter, consideration as to whether the dosimeter could have been left in a radiation area (i.e. exposed whilst not being worn) or worn whilst the employee underwent a medical exposure;
- Where relevant, estimated quantities of radionuclides involved, estimates of quantities released and spread of contamination both airborne and surface;

Part 2

- Estimated (or measured) external dose, level of bodily surface contamination or intake of radionuclide(s), together with details of results of measurements and laboratory analyses – to include employees and any other persons involved;
- Immediate action taken to lessen the consequences;
- Medical action taken, including suspension from radiation work;
- Training, instruction or information received and general competence for the work undertaken;
- Direct and/or indirect cause;
- Views of relevant safety representatives or safety committee;
- Recommendations for future preventative measures.

Leaflet 14 Annex B

Radiation Overexposure Investigation, Notification and Reporting

1 Unless the immediate investigation shows beyond reasonable doubt that no overexposure has occurred, immediately notify the following:

- Appropriate personnel at the unit or establishment;
- The Appointed Doctor and Radiation Medicine at INM Alverstoke (see paragraph 23 for contact details);
- The TLB safety authority and unit's line management
- Dstl ESD Alverstoke (for Approved Dosimetry Service (ADS) and RPA Body) or external ADS and RPA (if Dstl ESD not used for either or both);
-

2 Notify as soon as practicable:

- In the case of an employee of another employer, notify that other employer;
- Notify the person affected;
- Local office of the Health and Safety Executive.

NOTE

Notification of external body is only to be undertaken once MOD authorities have been notified. Notification of the external body will **not** apply where an overexposure has occurred to a member of a visiting force. External notification will apply for the UK armed forces, MOD civilians and other persons.

3 On advice from the RPA, carry out a follow-up investigation of the circumstances of the overexposure and the assessment of the relevant dose to determine, so far as is reasonably practicable, the measures required, if any, to be taken to prevent a recurrence of such overexposure. Details to include in a follow-up investigation are in Annex A,

4 Notify the results and forward the report of the further investigation to the authorities and individuals listed above.

5 Where the investigation shows that the exposure is below the overexposure level, then the internal MOD procedure for reporting radiation incidents and near misses at Annex I is to be followed, as the exposure will still be reportable internally within MOD.

6 All overexposures are to be reported to Incident Notification Cells (INC) points of contact found in JSP375, Leaflet 14 Annex C. Records are to be maintained in accordance with paragraph 26.

7 Where the person who received the overexposure is an employee who has a dose record, the CO/HoE must arrange for the assessment of dose to be entered into that dose record (see Leaflet 6).

Leaflet 14 Annex C

Release of Radioactive Substances to Atmosphere Investigation, Notification and Reporting

1. Unless the immediate investigation shows beyond reasonable doubt that no release to atmosphere has occurred and the potential release exceeds the quantity specified in Annex F, immediately notify the following:
 - Appropriate personnel at the unit or establishment;
 - The TLB safety authority and unit's line management
 - The RPA;
 - Local office of the Health and Safety Executive;
 - Environment agencies, as appropriate, where there is a risk of environmental contamination (see also paragraph 5 below).

NOTE

Notification of external bodies is only to be undertaken when MOD authorities have been notified. Notification of external bodies will not apply to HM Ships, except when undergoing refit.

2. The HSE and EA are to be provided initially with the following information:
 - Type of radioactive source or material;
 - Radionuclides and nominal activity;
 - Brief outline of circumstances of release.
3. On advice from the RPA, it may be necessary to carry out a follow-up investigation of the circumstances of the release to determine whether measures are required to prevent a recurrence of another release. Details to include in a follow-up investigation are in Annex A.
4. If a further report is made, notify the results and forward the report of the further investigation to the authorities and individuals listed above.
5. Further details of the release, equipment and areas affected and personnel contaminated externally or internally may be required by MOD authorities to enable advice/reassurance to be provided.
6. Where the quantity is found not to exceed the relevant level in Annex F, the advice of the RPA is to be sought as to whether a report to the appropriate environment agency is still required in accordance with the terms and conditions which relate to the radioactive material that has been released. If a report to the appropriate environment agency is not required, the internal MOD procedure for reporting unusual radiation incidents at Annex I is to be followed.
7. All releases are also to be reported to Incident Notification Cells (INC) points of contact found in JSP375, Leaflet 14 Annex C.
8. Records of investigation reports are to be retained in accordance with paragraph 26.

This page is intentionally blank

Leaflet 14 Annex D

Spillage of Radioactive Substances Investigation, Notification and Reporting

1 Unless the immediate investigation shows beyond reasonable doubt that no spill has occurred and the spill exceeds the quantity specified in Annex F, immediately notify the following:

- Appropriate personnel at the unit or establishment;
- The TLB safety authority and unit's line management;
- The RPA;
- Local office of the Health & Safety Executive;
- Environment agencies, as appropriate, where there is a risk of environmental contamination.

NOTE

Notification of external bodies is only to be undertaken when MOD authorities have been notified. Notification of external bodies will not apply to HM Ships, except when undergoing refit.

2 The HSE and EA notified above are to be provided initially with the following information:

- Type of radioactive source or material;
- Radionuclides and nominal activity;
- Brief outline of circumstances of spillage.

3 On advice from the RPA/RWA, it may be necessary to carry out a follow-up investigation of the circumstances of the spill to determine whether measures are required to prevent a recurrence of another release. Details to include in a follow-up investigation are in Annex A,

4 If a further report is made, notify the results and forward the report of the further investigation to the authorities and individuals listed above.

5 Further details of the spillage, equipment and areas affected and personnel contaminated externally or internally may be required by MOD authorities to enable advice/reassurance to be provided.

6 Where the quantity is found not to exceed the relevant level in Annex F, the advice of the RPA is to be sought as to whether a report to the appropriate environment agency is still required in accordance with the terms and conditions which relate to the radioactive material which has been spilled. If a report to the appropriate environment agency is not required, then the internal MOD procedure for reporting unusual radiation incidents at Annex I is to be followed.

6.1 All spillages are also to be reported to Incident Notification Cells (INC) points of contact found in JSP375, Leaflet 14 Annex C.

Part 2

- 7 Records of investigation reports are to be retained in accordance with paragraph 26.

This page is intentionally blank

Leaflet 14 Annex E

Loss or Theft of Radioactive Substances Investigation, Notification and Reporting

1 Unless the immediate investigation shows beyond reasonable doubt that no loss or theft has occurred and the loss or theft exceeds the quantity specified in Annex F, immediately notify the following:

- Appropriate personnel at the unit or establishment;
- The TLB safety authority and unit's line management;
- The RPA;
- Local office of the Health & Safety Executive (within 24 hours from discovery of loss);
- Environment agencies (see also paragraph 4 below);
- MOD Police (where applicable) and the local Police.

NOTE

Notification of bodies is only to be undertaken when MOD authorities have been notified.

2 The authorities notified above are to be provided initially with the following information:

- Type of radioactive source or material;
- Radionuclides and nominal activity;
- Serial number;
- Brief outline of circumstances of loss.

3 The requirement for a follow-up investigation will be determined by the authorities notified of the loss/theft. Guidance in Annex A may be of use for the content of a follow-up investigation.

4 Where the quantity is found not to exceed the relevant level in Annex F, the advice of the RPA/RWA is to be sought as to whether a report to the appropriate environment agency is still required in accordance with the terms and conditions which relate to the radioactive material which has been lost or stolen. If a report to the appropriate environment agency is not required, then the internal MOD procedure for reporting unusual radiation incidents at Annex I is to be followed.

5 All losses or thefts are also to be reported to Incident Notification Cells (INC) points of contact found in JSP375, Leaflet 14 Annex C. Records of investigation reports are to be retained in accordance with the requirements of paragraph 26.

6 All losses or thefts are to be recorded on the establishment/site Annual Holdings Return (see Leaflet 3).

This page is intentionally blank

Leaflet 14 Annex F

Quantities of Radionuclides for External Notification of Radiation Accidents or Incidents (under IRR99)

Radionuclide	Lost or stolen (Bq)	Spillage or unauthorised release to atmosphere (Bq)
Hydrogen-3 (Tritium) elemental	1×10^{10}	1×10^{13}
Hydrogen-3 (Tritium) tritiated compounds	1×10^{10}	1×10^{12}
Chlorine-36	1×10^7	1×10^{10}
Cobalt-57	1×10^7	1×10^{11}
Cobalt-60	1×10^6	1×10^{10}
Nickel-63	1×10^9	1×10^{11}
Krypton-85	1×10^5	1×10^{12}
Strontium-90	1×10^5	1×10^9
Yttrium-90	1×10^6	1×10^{11}
Technetium-99m	1×10^8	1×10^{13}
Iodine-123	1×10^8	1×10^{12}
Iodine-131	1×10^7	1×10^{10}
Iodine-133	1×10^7	1×10^{11}
Caesium-137	1×10^5	1×10^{10}
Promethium-147	1×10^8	1×10^{10}
Iridium-192	1×10^5	1×10^{10}
Polonium-210	1×10^5	1×10^7
Radium-226	1×10^5	1×10^7
Thorium-232	1×10^5	1×10^6
Thorium (natural)	1×10^4	1×10^6
Uranium-238	1×10^5	1×10^7
Uranium (natural)	1×10^4	1×10^6
Americium-241	1×10^5	1×10^6

NOTE

For radionuclides not given in the table, notifiable quantities are given in Schedule 8 of the Ionising Radiations Regulations 1999, or advice is to be sought from the RPA

This page is intentionally blank

Leaflet 14 Annex G

Malfunction of Medical or Dental Equipment Investigation, Notification and Reporting

1 Unless the immediate investigation shows beyond reasonable doubt that no incident has occurred, immediately notify the following:

- Appropriate personnel at the unit or establishment;
- Radiation Medicine at INM Alverstoke (see paragraph 23 for contact details);
- The TLB safety authority and unit's line management;
- The RPA;
- The Local Health & Safety Executive office.

NOTE

Notification of external body is only to be undertaken when MOD authorities have been notified.

2 On advice from the RPA, carry out a follow-up investigation of the circumstances of the exposure and an assessment of the relevant dose. Determine, so far as is reasonably practicable, the measures required, if any, to be taken to prevent a recurrence of the malfunction. Details to include in a follow-up investigation are in Annex A,

3 Notify the results of the further investigation to the authorities listed above.

4 All incidents in this category are also to be reported to Incident Notification Cells (INC) points of contact found in JSP375, Leaflet 14 Annex C. Records of the immediate investigation are to be retained in accordance with paragraph 26.

This page is intentionally blank

Leaflet 14 Annex H

Failure of Industrial Radiography or Irradiation Equipment Investigation, Notification and Reporting

1 Following a malfunction as described in paragraph 17 immediately notify the following:

- Appropriate personnel at the unit or establishment;
- The TLB safety authority and unit's line management;
- The RPA;
- The local Health and Safety Executive office.

NOTE

Notification of external body is only to be undertaken when MOD authorities have been notified provided that this does not cause the reporting period specified by RIDDOR to be exceeded.

2 On advice from the RPA, carry out an investigation of the circumstances of the malfunction or defect. Determine, so far as is reasonably practicable, the measures required, if any, to be taken to prevent a reoccurrence of this failure. Report the results of the investigation to the MOD authorities listed above.

3 If this failure involves a radiation exposure the Approved Dosimetry Service (ADS, usually the Dstl ESD ADS) must also be provided with a copy of the report.

4 All incidents in this category are also to be reported to Incident Notification Cells (INC) points of contact found in JSP375, Leaflet 14 Annex C. Records of the investigation are to be retained in accordance with paragraph 26.

This page is intentionally blank

Leaflet 14 annex I

Radiation Incidents and Near Miss Investigation, Notification and Reporting

- 1 Following any radiation incident or near miss, it is to be established whether the incident constitutes an overexposure, release, breakage, spillage, loss or theft (in excess of quantities in Annex F), malfunction of equipment used for medical or dental exposure or failure of industrial radiography or irradiation equipment – if the incident fits any of the aforementioned categories then the procedures appropriate to that category are to be followed.
- 2 Carry out preliminary investigation and notify:
 - Appropriate personnel at the unit or establishment;
 - The TLB safety authority and unit's line management;
 - The RPA.
- 3 On advice from the RPA, carry out a follow-up investigation of the circumstances of the incident or near miss. Determine, so far as is reasonably practicable, the measures required, if any, to be taken to prevent a recurrence of the incident or near miss. Details to include in a follow-up investigation are in Annex A.
- 4 Send the follow-up investigation report to the line management and TLB safety authority and the RPA.
- 5 All incidents in this category are also to be reported to Incident Notification Cells (INC) points of contact found in JSP375, Leaflet 14 Annex C. Records of the investigation are to be retained in accordance with paragraph 26.

This page is intentionally blank