

Ireland's National Report Required Under
Article 9 of Council Directive
2009/71/EURATOM of 25 June 2009
Establishing a Community Framework for
the Nuclear Safety of Nuclear Installations¹

¹ Article 9 (Reporting): Member States shall submit a report to the Commission on the implementation of this Directive for the first time by 22 July 2014, and every three years thereafter, taking advantage of the review and reporting cycles under the Convention on Nuclear Safety.

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1. Introduction

In Ireland there is a legal prohibition against the use of nuclear power for energy requirements (Section 18(6) of the Electricity Regulation Act, 1999). Ireland does not have any nuclear installations as defined under Article 3(1) of the Directive.

Ireland currently meets its electricity requirements from a combination of thermal and renewable energy sources. In addition, Ireland's national grid is electrically interconnected with Northern Ireland and Great Britain allowing both import and export of electricity. Ireland has chosen not to develop a nuclear power industry and the Government has no plans for a change of policy in this respect. Factors informing the formation of this policy include concerns about public health and safety, environmental protection and security, as well as concern at the continued absence of an acceptable solution to the problem of the long-term management of the large quantities of radioactive waste produced by nuclear power stations.

Ireland supports all activities aimed at improving nuclear safety and radiological protection and emergency preparedness. This involves close contact with regulatory authorities in other countries. Ireland also participates in a number of IAEA, NEA and EU committees and working groups on a range of issues relating to nuclear safety.

While Ireland does not have a nuclear power industry, it recognises the right of States to determine their own energy mix. It is Ireland's expectation that, where a State chooses to develop a nuclear power industry, this will be done in line with the highest international standards with respect to safety and environmental protection.

Responsibility for nuclear policy is vested in the Minister for the Environment, Community and Local Government. The Department of the Environment, Community and Local Government (DECLG) is responsible for:

- Implementing national policy in relation to nuclear matters.
- The transposition into national legislation of all relevant EU and other international legal instruments.
- Co-ordination of the national nuclear emergency plan.
- Representation at EU, IAEA and other international organisations.

The RPII is an independent public body under the aegis of the Department of Environment, Community and Local Government. The RPII was established in 1992 under the 1991 Radiological Protection Act, which conferred on the RPII a broad remit in relation to radiological protection in Ireland, including regulating all uses of ionising radiation, assessing people's exposure to ionising radiation and advising Government and the public on the prevention of unnecessary exposure. In 2014, the RPII will be merged with Ireland's Environmental

Protection Agency. The Radiological Protection (Miscellaneous Provisions) Bill 2014 provides for the dissolution of the Radiological Protection Institute of Ireland (RPII) and transfer of its functions to the Environmental Protection Agency (EPA).

2. Summary

Ireland does not have any nuclear installations as defined under Article 3(1) of the Directive (2009/71/Euratom of 25 June 2009 establishing a community framework for the nuclear safety of nuclear installations).

This is the first national report required under Article 9 of Council Directive 2009/71/EURATOM of 25 June 2009 Establishing a Community Framework for the Nuclear Safety of Nuclear Installations. This report outlines the legislative, regulatory and organisational framework governing nuclear safety and radiation protection in Ireland. It is important to note that, as a non-nuclear country, Ireland's national regulatory framework provides primarily for radiation protection and safety in the context of the use of ionising radiation in medicine, education and industry.

The report describes the organisation and functions of the competent regulatory authority. This includes an explanation of how it is functionally independent from any external bodies.

The License holder's duties and responsibilities are outlined along with requirements regarding the competence of the licensee's staff and radiation protection officers.

The report includes details of requirements on the competent authority to provide information to the public on any matters relating to radiological safety which the Institute deems fit.

There is significant change to the regulatory body planned this year. In 2014, the RPII will be merged with Ireland's Environmental Protection Agency. The Radiological Protection (Miscellaneous Provisions) Bill 2014 provides for the dissolution of the Radiological Protection Institute of Ireland (RPII) and the transfer of its functions to the Environmental Protection Agency (EPA). In addition, there will be a transition to a graded approach to regulatory authorisation. It should be noted however that there will be no change to Ireland's commitment to high standards of nuclear safety/radiological protection (incl. regulation and emergency preparedness)

3. Reporting Article by Article

Article 4: Legislative, regulatory and organisational framework

Article 4 (1)

Member States shall establish and maintain a national legislative, regulatory and organisational framework (hereinafter referred to as the 'national framework') for nuclear safety of nuclear installations that allocates responsibilities and provides for coordination between relevant state bodies. The national framework shall establish responsibilities for:

(a) the adoption of national nuclear safety requirements. The determination on how they are adopted and through which instrument they are applied rests with the competence of the Member States;

(b) the provision of a system of licensing and prohibition of operation of nuclear installations without a licence;

(c) the provision of a system of nuclear safety supervision;

(d) enforcement actions, including suspension of operation and modification or revocation of a licence.

The main legislative framework governing nuclear safety and radiation protection in Ireland is the Radiological Protection Act 1991 (No. 9 of 1991), as amended by Section 26 of the Energy (Miscellaneous Provisions) Act, 1995 (No 35 of 1995) and by the Radiological Protection (Amendment) Act 2002 (No. 3 of 2002). Other legislation relevant to nuclear matters is as follows:-

- SI 390 of 2011 (which gives effect to council directive 2009/71/Euratom of 25 June 2009 establishing a community framework for the nuclear safety of nuclear installations) gives powers to the RPII to (if needed) '*establish and maintain a national, regulatory and organisational framework for nuclear safety of nuclear installations*'.
- The Radiological Protection Act 1991 (Ionising Radiation) Order 2000 (S.I. No. 125 of 13 May 2000), hereinafter referred to as the Ionising Radiation Order. (The Ionising Radiation Order incorporates the requirements of the European Communities (Ionizing Radiation) Regulations, 1991 and the European Communities Protection of Outside Workers from Ionizing Radiation) Regulations, 1994, which are now repealed)
- European Communities (on the supervision and control of certain shipments of radioactive waste and spent fuel) Order (S.I. No. 86 of 2009);
- European Communities (Radiological Emergency Warning to Public) Regulations 1993 (S.I. No. 209 of 1993);
- The Radiological Protection Act 1991 (Control of High-activity sealed radioactive sources) Order 2005 (S.I. No 875 of 2005)
- European Communities (Medical Ionising Radiation Protection) Regulations, 2002 (S.I. No. 478 of 2002)
- The Radiological Protection Act 1991 (Licensing Application and Fees) Regulation, 2007 (S.I. No. 654 of 2007) setting out the application provisions and the schedule of application and licence fees payable for licences issued by RPII

- Commission Regulation (Euratom) No 302/2005 of 8 February 2005 on the application of Euratom safeguards which equally apply in Ireland

The Radiological Protection Act 1991 (No. 9 of 1991) established the RPII and assigned it a range of functions, including to carry out a licensing system relating to the custody, use, manufacture, importation, distribution, transportation, exportation or other disposal of radioactive substances, nuclear devices or irradiating apparatus. In 2014, the RPII will be merged with Ireland's Environmental Protection Agency. The Radiological Protection (Miscellaneous Provisions) Bill 2014 provides for the dissolution of the Radiological Protection Institute of Ireland, RPII, and the transfer of its functions to the Environmental Protection Agency. The Bill also introduces the necessary statutory provisions to enable Ireland to ratify the 2005 Amendment to the Convention on the Physical Protection of Nuclear Material.

All practices involving sources of ionising radiation other than exempted sources are subject to control by licence issued by the RPII.

The RPII is the national competent authority for the purposes of the IAEA Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency and the Convention on Early Notification of a Nuclear Accident and is the national authority responsible for the physical protection of nuclear material.

In March 2000, Ireland became the 25th State to ratify the Joint Convention on the Safety of Radioactive Waste and the Safety of Spent Fuel Management, thus triggering the entry into force of the Convention.

The Convention on Nuclear Safety entered into force in Ireland on 24th October 1996

Article 4 (1) a

The national framework shall establish responsibilities for: the adoption of national nuclear safety requirements. The determination on how they are adopted and through which instrument they are applied rests with the competence of the Member States;

The RPII is a State sponsored body established under the Radiological Protection Act, 1991. SI 390 of 2011 (which gives effect to council directive 2009/71/Euratom of 25 June 2009 establishing a community framework for the nuclear safety of nuclear installations) gives powers to the RPII to, if needed, 'establish and maintain a national, regulatory and organisational framework for nuclear safety of nuclear installations'. In addition, the RPII, which is accountable to the Minister for Environment, Community and Local Government, carries out the following duties:

- provision of advice to the Government, the Minister for the Environment, Community and Local Government and other Ministers on matters relating to radiological safety;
- provision of information to the public on any matter relating to radiological safety which the Institute deems fit;
- maintenance and development of a national laboratory for the measurements of levels of radioactivity in the environment, and assessment of the significance of these levels for the Irish population;
- provision of an instrument calibration service for those who work with ionising radiation;
- reviewing and granting approval to dosimetry services who provide services on Ireland and the operation of the National Dose Register;
- control by licence of the custody, use, manufacture, importation, transportation, distribution, exportation and disposal of radioactive substances, irradiating apparatus and other sources of ionising radiation;
- assisting in the development of national plans for emergencies arising from nuclear accidents and acting in support of such plans;
- provision of a radioactivity measurement and certification service;
- preparation of codes and regulations for the safe use of ionizing radiation;
- carrying out or promoting research in relevant fields;
- monitoring developments abroad relating to nuclear installations and radiological safety generally, and keeping the Government informed of their implications for Ireland;
- co-operating with the relevant authorities in other States and with appropriate international organisations;
- representing the State on international bodies;
- to be the competent authority for Ireland under International Conventions on nuclear matters.

The main legislative framework governing nuclear safety and radiation protection in Ireland is outlined under Article 4(1) above.

Article 4 (1) b

*The national framework shall establish responsibilities for:
the provision of a system of licensing and prohibition of operation of nuclear installations without a licence;*

All practices involving sources of ionising radiation other than exempted sources are subject to control by licence issued by the RPII in accordance with the requirements set out in the Ionising Radiation Order mentioned above. This Order covers both site specific emergency plans, which must be prepared by undertakings (when directed to do so by the RPII) licensed to carry on defined categories of practices, and the National Emergency Plan for Nuclear Accidents.

This provides a framework for the national response to an event with widespread radiological impact. Additionally, the Ionising Radiation Order places legal requirements on all licensees regarding notification of incidents.

The Irish licensing system was first established in 1977 with the passage of the Nuclear Energy (General Control of Fissile Materials, Radioactive Substances and Irradiating Apparatus) Order 1977. The current regulations are provided by the Ionising Radiation Order. The Nuclear Energy Board (NEB) commenced issuing licences in 1977 and by 1985 there were 300 active licences in the medical and industrial sectors. As of the 1st January 2014 there were 1698 active licences covering a broad range of activities including radiotherapy, research, non-destructive testing and process irradiation.

SI 390 of 2011 (which gives effect to council directive 2009/71/Euratom of 25 June 2008 establishing a community framework for the nuclear safety of nuclear installations) gives powers to the RPII to, if needed, '*establish and maintain a national, regulatory and organisational framework for nuclear safety of nuclear installations*'. This would include the following:

- a) The adoption of national nuclear safety requirements;
- b) The provision of a system of licensing and prohibition of operation of nuclear installations without a licence;
- c) The provision of a system of nuclear safety supervision; and
- d) Enforcement actions, including suspension of operation and modification or revocation of a licence.

Article 4 (1) c

*The national framework shall establish responsibilities for:
the provision of a system of nuclear safety supervision;*

As noted above, Ireland does not have any nuclear installations as defined under Article 3(1) of the Directive. SI 390 of 2011 (which gives effect to council directive 2009/71/Euratom of 25 June 2008 establishing a community framework for the nuclear safety of nuclear installations) gives powers to the RPII to, if needed, '*establish and maintain a national, regulatory and organisational framework for nuclear safety of nuclear installations*'. This would include the following:

- a) The adoption of national nuclear safety requirements;
- b) The provision of a system of licensing and prohibition of operation of nuclear installations without a licence;
- c) The provision of a system of nuclear safety supervision; and
- d) Enforcement actions, including suspension of operation and modification or revocation of a licence.

Article 4 (1) d

*The national framework shall establish responsibilities for:
enforcement actions, including suspension of operation and modification or revocation of a licence.*

SI 390 of 2011 (which gives effect to council directive 2009/71/Euratom of 25 June 2008 establishing a community framework for the nuclear safety of nuclear installations) gives powers to the RPII to, if needed, *'establish and maintain a national, regulatory and organisational framework for nuclear safety of nuclear installations'*. This would include the following:

- a) The adoption of national nuclear safety requirements;
- b) The provision of a system of licensing and prohibition of operation of nuclear installations without a licence;
- c) The provision of a system of nuclear safety supervision; and
- d) Enforcement actions, including suspension of operation and modification or revocation of a licence.

The production of electricity for supply to the national grid, by nuclear fission, is currently prohibited in Ireland under the Electricity Regulation Act, 1999 (Section 18).

As a non-nuclear country, Ireland's national regulatory framework provides primarily for radiation protection and safety in the context of the use of ionising radiation in medicine, education and industry. The day to day responsibility for implementing the RPII's regulatory programme is devolved to a division within the RPII (the Regulatory Services Division). This comprises 11 persons, eight of which are warranted inspectors and three are administrative staff. Staff training and expertise are monitored through a programme of performance management and development as well as through a formal system of training developed in accordance with the quality system for the RPII as an inspection body (ISO 17020). Where additional skills gaps are identified external expertise is contracted.

The RPII and its inspectors are provided with significant enforcement powers under the Radiological Protection Act 1991 and Statutory Instrument No.125 of 2000 including powers of entry and seizure. Prosecutions can and have been taken against individuals and companies involved in unlicensed activities and against non-compliant licensees. Fines have been imposed by the courts on individuals and companies which have been prosecuted. In addition, the RPII has the power to issue directions and enforcement notices.

Article 4 (2)

Member States shall ensure that the national framework is maintained and improved when appropriate, taking into account operating experience, insights gained from safety analyses for operating nuclear installations, development of technology and results of safety research, when available and relevant.

Ireland has no nuclear installations and therefore nothing to report under this Article.

Article 5: Competent regulatory authority

Article 5 (1)

Member States shall establish and maintain a competent regulatory authority in the field of nuclear safety of nuclear installations.

The RPII is an independent public body under the aegis of the Department of Environment, Community and Local Government. The RPII was established in 1992 under the 1991 Radiological Protection Act, which conferred on the RPII a broad remit in relation to radiological protection in Ireland.

SI 390 of 2011 (which gives effect to council directive 2009/71/Euratom of 25 June 2009 establishing a community framework for the nuclear safety of nuclear installations) assigns the RPII as the competent authority in the field of nuclear safety of nuclear installations.

As previously noted, the Irish Government has decided to merge the RPII and the Environmental Protection Agency (EPA), as part of a Public Sector Reform Plan. It has been decided that the two organisations will be merged by creating an Office of Radiological Protection within the EPA structure. One of the guiding principles for the merger process is that there should be no diminution, or perception of any diminution, among stakeholders and the general public, to Ireland's commitment to either environmental or radiological protection.

Article 5 (2)

Member States shall ensure that the competent regulatory authority is functionally separate from any other body or organisation concerned with the promotion, or utilisation of nuclear energy, including electricity production, in order to ensure effective independence from undue influence in its regulatory decision making.

Although there is no nuclear industry in the country, Ireland has provided comment/details on the independence of the regulatory body. While this is applicable to regulation activities in a non-nuclear sector, it is likely that the principles employed to ensure regulatory independence would also apply.

The RPII was established as an independent regulatory body through primary legislation in the 1991 Radiological Protection Act (RPA 91) with general and particular functional responsibilities that do not involve external parties in the regulatory decision making process.

The RPII consists of a governing body (known as the Board of the RPII), the Chief Executive and four Directors. Each Director is responsible for a number of work areas. The Board consists of a Chairman and not less than 6 or more than 11 ordinary members. The Board of the RPII is non-executive and part-time. The RPII Act requires that appointments to the Board of the RPII be made by the Minister for the Environment, Community and Local Government (the Minister),

with the consent of the Minister for Finance. The RPII Act states that, of the members of the RPII, not more than five shall be persons engaged in, or having knowledge or experience that the Minister considers appropriate and not more than six shall be persons nominated for appointment by such organisations as the Minister may determine that are representative of persons engaged in activities listed in the RPII Act.

Licences are issued by the RPII without recourse to any external bodies (Section 30 of RPA 91 and Article 4 of SI125); inspectors are appointed by the RPII [Section 28, RPA 91] with significant powers [Section 29, RPA 91] without recourse to any external bodies; regulatory decisions are taken without recourse to external bodies though some stakeholder engagement in practice may be exercised as appropriate.

Prosecutions are taken by RPII [Section 41, RPA 91] without recourse to any external party. In practice such prosecutions are decided upon in accordance with an approved procedure and policy 'Enforcement Policy including Procedures and a Decision Architecture' (2011).

The RPII is dependent on central Government for financial assistance by way of grant and this is negotiated on an annual basis through budgetary submissions and business plans but those discussions do not touch on regulatory decisions. However, the actual regulatory function of the RPII operates on a full cost recovery basis by charging for licences but these monies go directly into the central agency fund.

The RPII is itself a licence holder for an instrument calibration service and for a number of sealed sources but this operation is kept functionally and administratively separate from the regulatory and inspection function.

Staff of the RPII have no direct or indirect interest in facilities and activities of authorised parties and this is provided for in a 'Staff Hand Book' and a 'Code of Conduct for inspectors'

The publication of an Annual Report and Accounts is the primary means by which the RPII reports on its activities to the Minister, the parent Department (Department of the Environment, Community and Local Government), the Dáil (parliament) and the public. Preparation of an annual report is a mandatory requirement of the RPII under Section 17 of the RPII Act. The Act requires that the RPII present to the Minister a report on its activities during the year and that copies of the report will be laid before the Houses of the Oireachtas (Government) as soon as possible after the end of the financial year, but not later than six months thereafter.

Article 5 (3)

Member States shall ensure that the competent regulatory authority is given the legal powers and human and financial resources necessary to fulfil its obligations in connection with the national framework described in Article 4(1) with due priority to safety. This includes the powers and resources to:

- (a) require the licence holder to comply with national nuclear safety requirements and the terms of the relevant licence;*
- (b) require demonstration of this compliance, including the requirements under paragraphs 2 to 5 of Article 6;*
- (c) verify this compliance through regulatory assessments and inspections; and*
- (d) carry out regulatory enforcement actions, including suspending the operation of nuclear installation in accordance with conditions defined by the national framework referred to in Article 4(1).*

The regulatory resources (human and financial) currently available in Ireland are considered commensurate with the regulation of the (non-nuclear) practices in place in Ireland.

The RPII and its inspectors are provided with significant enforcement powers under the Radiological Protection Act 1991 and the Ionising Radiation Order including powers of entry and seizure. Prosecutions can and have been taken against individuals and companies involved in unlicensed activities and against non-compliant licensees. Fines have been imposed by the courts on individuals and companies which have been prosecuted. In addition, the RPII has the power to issue directions and enforcement notices.

The RPII has the resources to undertake typically 150 – 220 inspections per year and the number of inspections undertaken in a given year is based upon a risk analysis. For example, a hospital providing a broad range of services such as diagnostic, nuclear medicine and radiotherapy may be inspected with only one of these areas examined during a given inspection. Most inspections are planned in advance but a number of unannounced inspections also take place each year. Inspections can arise outside of the normal annual programme where incidents are investigated.

The RPII is committed to ensuring the highest standards in all activities it undertakes. In fulfilment of this commitment all inspection activities are carried out within the framework of an ISO 17020 quality management system. This ensures that inspections are carried out to best international standards and ensures consistency between both inspections and inspectors. In particular the system provides for inspection planning, training of new and experienced inspectors, the conduct of inspections as well as post inspection follow up and review.

It should be noted that inspections are not viewed as the only means of enforcement. In particular, the RPII has incorporated the statutory Radiation Protection Advisor (RPA) requirement into its licensing requirements on a phased basis and this is seen as a significant step forward in enhancing radiation safety and compliance in all relevant sectors.

The RPII's income is made up of a grant from the Exchequer and earnings from licence charges and commercial measurement services. In 2012, the RPII's income was made up of a grant of €3.499m from the Exchequer and earnings of €1.679m from licence charges and dosimetry, product certification, radon measurement and other services.

In 2005 the RPII, with the assistance of an external accounting and consultancy firm, carried out a comprehensive review of all its licence fees. The revised schedule of fees, which provide for full cost recovery of the costs associated with running the RPII's Regulatory Service, was approved by the Minister of the Environment, Community and Local Government in 2007 and introduced by way of Regulations (Radiological Protection Act, 1991 (Licensing Application and Fees) Regulations, 2007). The Regulations provide for a once-off application fee for new licence applications and an annual licence fee. Licensees fall into one of three fee categories depending upon:

- the number of practices to be licensed and the level of complexity of the practice(s)
- the type, size, number and complexity of the radioactive source or irradiating apparatus
- the security and safety measures
- the complexity of radiation protective measures required
- potential for doses arising to workers and members of the public
- consequences of an accident.

Article 5 (3) a

This includes the powers and resources to: require the licence holder to comply with national nuclear safety requirements and the terms of the relevant licence;

Ireland has no nuclear installations and therefore nothing to report under this Article.

Article 5 (3) b. *This includes the powers and resources to: require demonstration of this compliance, including the requirements under paragraphs 2 to 5 of Article 6;*

Ireland has no nuclear installations and therefore nothing to report under this Article.

Article 5 (3) c *This includes the powers and resources to: verify this compliance through regulatory assessments and inspections; and*

Ireland has no nuclear installations and therefore nothing to report under this Article.

*Article 5 (3) d. This includes the powers and resources to:
carry out regulatory enforcement actions, including suspending the operation of nuclear
installation in accordance with conditions defined by the national framework referred to in
Article 4(1).*

Ireland has no nuclear installations and therefore nothing to report under this Article.

Article 6: Licence holders

Article 6 (1)

Member States shall ensure that the prime responsibility for nuclear safety of a nuclear installation rests with the licence holder. This responsibility cannot be delegated.

Licenses issued in Ireland cover a broad range of non-nuclear activities including radiotherapy, research, non-destructive testing and process irradiation.

The principle of prime responsibility of the licence holder is met by a sum of regulatory requirements including justification and adherence to specific licence conditions set down by the Competent Authority (RPII).

Stringent regulatory controls are in place to protect workers from exposure to harmful levels of ionising radiation. The Safety, Health and Welfare at Work Act, 2005, requires employers to identify hazards in the workplace, assess the risk to health and safety from these hazards, and put in place measures to eliminate or reduce the risk. The primary Irish legislation governing the protection of workers and members of the public from ionising radiation is the Radiological Protection Act, 1991, and its supplementary legislation - particularly the Ionising Radiation Order. These regulations explicitly make the licence holder responsible for all aspects of radiation protection relating to the sources of ionising radiation for which they are licensed. The RPII is responsible for implementing this legislation

Article 6 (2)

Member States shall ensure that the national framework in place requires licence holders, under the supervision of the competent regulatory authority, to regularly assess and verify, and continuously improve, as far as reasonably achievable, the nuclear safety of their nuclear installations in a systematic and verifiable manner.

Ireland has no nuclear installations and therefore nothing to report under this Article.

Article 6 (3)

The assessments referred to in paragraph 2 shall include verification that measures are in place for prevention of accidents and mitigation of consequences of accidents, including verification of the physical barriers and licence holder's administrative procedures of protection that would have to fail before workers and the general public would be significantly affected by ionizing radiations.

The primary Irish legislation governing the protection of workers and members of the public from ionising radiation is the Radiological Protection Act, 1991, and its supplementary legislation - particularly the Ionising Radiation Order.

These regulations explicitly make the licence holder responsible for all aspects of radiation protection relating to the sources of ionising radiation for which they are licensed. The RPII is responsible for implementing this legislation

The radiation protection of patients arising from medical exposures of ionising radiation is addressed under S.I. No. 478 of 2002. This statutory instrument gives effect in Ireland to Council Directive 97/43/Euratom (Medical Ionising Radiation Protection). The Minister for Health and Children is the designated competent authority for this statutory instrument.

Stringent regulatory controls are in place to protect workers from exposure to harmful levels of ionising radiation. The Safety, Health and Welfare at Work Act, 2005, requires employers to identify hazards in the workplace, assess the risk to health and safety from these hazards, and put in place measures to eliminate or reduce the risk.

Ireland's Emergency preparedness is divided into three main areas, i.e., (1) Site emergency planning (2) Local/regional emergency planning and (3) National emergency planning.

Site emergency planning: Undertakings licensed to carry on certain defined categories of practice, such as transportation of radioactive materials, industrial radiography, industrial irradiation, nuclear medicine and radiotherapy are required, under the Ionising Radiation Order, to prepare detailed emergency plans when directed to do so by the RPII. These plans must be based on risk assessment and must address potential risks to workers, intervention personnel (e.g. fire services) and where appropriate members of the public. These plans must address issues such as resources, consultation with relevant stakeholders, emergency procedures, training, exercises and review.

Major Emergency Plans: In Ireland, Major Emergency Plans are in place in all local authority areas and may be activated by any one of the Principal Response Agencies: the Local Authorities, An Garda Síochána (Police), the Health Service Executive and the Coast Guard. Major emergencies include those resulting from fires, transport accidents, hazardous substances incidents and severe weather. The Major Emergency Plan of each agency sets out that agency's response, as well as its contribution to the combined response of all agencies. In addition, a national protocol for responding to CBRN incidents (malevolent Chemical-Biological-Radiological-Nuclear events) was completed by the Government Taskforce on Emergency Planning in 2011. The protocol covers acute incidents where the location of the potential contamination is known and contained.

National Emergency Plan for Nuclear Accidents (NEPNA): In accordance with the Ionising Radiation Order, the Minister for the Environment, Community and Local Government must prepare a plan referred to as the "National Emergency Plan for Nuclear Accidents". NEPNA is intended specifically to cater for a widely dispersed radiological emergency or crisis such as that arising from a major

accident at a nuclear installation abroad resulting in radioactive contamination reaching Ireland. NEPNA sets out a framework for a coordinated national response to an event where the response is beyond the resources or capabilities of any individual Government Department or public authority and as such requires the political and strategic involvement of Government. NEPNA is one of a number of complementary national and local authority plans designed to cater for different types of emergency situation. The RPII has a special responsibility for radioactivity monitoring and for the provision of advice on the potential consequences of any accident and on the measures to be taken. The main elements of the emergency arrangements in existence in Ireland are published in a booklet entitled "National Emergency Plan for Nuclear Accidents" which is available free of charge from the Department of Environment, Community and Local Government. It is also published on the RPII website (www.rpii.ie). The NEPNA is currently being reviewed and updated.

Article 6 (4)

Member States shall ensure that the national framework in place requires licence holders to establish and implement management systems which give due priority to nuclear safety and are regularly verified by the competent regulatory authority.

Ireland has no nuclear installations and therefore nothing to report under this Article.

Article 6 (5)

Member States shall ensure that the national framework in place requires licence holders to provide for and maintain adequate financial and human resources to fulfil their obligations with respect to nuclear safety of a nuclear installation, laid down in paragraphs 1 to 4.

Ireland has no nuclear installations and therefore nothing to report under this Article.

Article 7: Expertise and skills in nuclear safety

Article 7

Member States shall ensure that the national framework in place requires arrangements for education and training to be made by all parties for their staff having responsibilities relating to the nuclear safety of nuclear installation in order to maintain and to further develop expertise and skills in nuclear safety.

Under the existing licensing system in Ireland, licensees are responsible for radiation protection and general safety and security issues, and requirements regarding the competence of the licensee's staff and radiation protection officers are established under the system. This is in line with the principles to be applied in nuclear countries.

In 2000, the IAEA carried out a Peer review mission of the RPII's licensing system. The IAEA review covered all areas of the work of the RPII's Regulatory Service, with the exception of the regulation of the transport of radioactive materials. In summary, the review team was of the opinion that the essential legal infrastructure for radiation protection is well established in Ireland and that the regulatory programme operated by the RPII's Regulatory Service is effective. The team, however, felt that the RPII's Regulatory Service would benefit from a thorough review of work priorities in licensing inspection and policy and guidance, to ensure that the activities of the Service remain well focussed.

In the intervening period a number of targeted peer reviews were undertaken encompassing the licensing and inspection arrangements for Radiotherapy, Non Destructive Testing, and Industrial Sterilisation and the off-shore oil and gas sectors. Implementation of the recommendations arising from these reviews constitutes continuing work for the RPII. Most issues have been addressed such as augmenting existing expertise in the medical sector, implementing a focused training programme for inspectors and taking a more safety focused approach to inspections.

Significant progress has been made in relation to Radiation Protection Advisor (RPA) registers with one operational in the medical sector and similar registers to provide services in the industrial sector. In 2008 the RPII finalised arrangements for the establishment of a protocol and criteria for approval of RPAs for the industrial and third level educational sectors. The approval scheme also included work activities involving natural radiation. This Category II RPA approval scheme is broadly similar to that already in place for Category I RPAs (Medical and Dental) and is based on a formal approval of core competence by the RPII. The register of RPAs (individual and corporate) for the industrial and third level educational sectors has since been established and a register of all approved RPAs is maintained on the RPII website.

The RPII implements a performance management and development system (PMDS) for all staff which includes a module on training and staff development. Training is organised either on an individual basis or in groups depending on the nature of and demand for the training. Training contracts are awarded to trainers who have a good reputation and experience in their field. Where Ireland does not have a large experience base in a given topic (e.g. reactor technology) training is often obtained abroad. Feedback is sought by the RPII's Human Resources department on the quality of training provided by third party trainers. This feedback is sought both from staff attending the courses and from HR personnel in other organisations.

One of the requirements of the European Council Directive (Directive 2009/71/EURATOM) establishing a Community framework for the safety of nuclear installations is for Member States to arrange for self-assessments of their national framework and competent regulatory authorities and invite an international peer review team to assess these aspects, at least once every ten years. Ireland requested an Integrated Regulatory Review Service (IRRS) of its regulatory framework for 2015. The IRRS self-assessment will be completed in 2014, and a follow-up peer review visit will take place in 2018.

Article 8: Information to the public

Article 8

Member States shall ensure that information in relation to the regulation of nuclear safety is made available to the workers and the general public. This obligation includes ensuring that the competent regulatory authority informs the public in the fields of its competence. Information shall be made available to the public in accordance with national legislation and international obligations, provided that this does not jeopardise other interests such as, inter alia, security, recognised in national legislation or international obligations.

Under the Radiological Protection Act, 1991, the RPII are required to provide information to the public on any matters relating to radiological safety which the Institute deems fit.

One of the key strategic goals for the RPII is to provide information on radiation protection, in a readily accessible and understandable format, so that the public has the necessary information to protect themselves from the harmful effects of exposure to radiation. A range of communication activities are undertaken each year to meet this objective and to promote the work of the RPII through the media, events, advertising, the RPII website, free phone radon advice, presentations and publications. The media play a significant role in disseminating information and in reporting on radiological protection issues of public concern. Press releases (on average eight per year) are issued to national media to coincide with the RPII's major events and media interest in RPII activities is strong with staff participating in over 30 television and radio programmes on an annual basis. The print media also have a keen interest in RPII activities. Feature articles have also been placed in publications which assist in highlighting the array of activities that the RPII is responsible for. The RPII ensures that all public communications are focused and use the media to target various groups in the community and continuously develops their existing relationships with the media. Each year the RPII hosts a number of events including report launches, seminars and presentations with the objective of disseminating information to targeted groups.

The RPII's website, www.rpii.ie, is a valuable source of key information. It is the primary communications tools for the RPII and its users. Each year, the RPII produce a number of publications, including reports, guidance notes, codes of practice, information leaflets and posters – all of which are available free of charge on www.rpii.ie

Measures to keep the public informed about a nuclear accident or emergency are addressed in Ireland's National Emergency Plan for Nuclear Accidents (NEPNA). Arrangements are in place to inform the public of an accident, its consequences and of any countermeasures that are to be implemented to reduce doses to the population. This information would be issued through media channels: radio, television, internet including social media, press statements, press conferences and via national weather forecast broadcasts on television and radio. Regular updates of the situation would be given.

In Ireland, the EU Council Directive (89/618/Euratom) on informing the general public about the health protection measures to be applied and the steps to be taken in the event of a radiological emergency, is implemented by means of the European Communities Act, 1972 (Radiological Emergency Warning to Public) Regulations, 1993. The RPII is the Competent Authority for the purpose of these Regulations.

Measures are in place to keep the public informed about emergency planning arrangements. A detailed information booklet on the NEPNA was published in 2002 and updated in 2005. An information leaflet on the NEPNA was distributed to libraries and citizen information centres in 2006. This leaflet and other information on nuclear emergency preparedness are available on the websites of the Department of the Environment, Community and Local Government and the RPII. Public opinion is an important part of emergency preparedness and comments received from the public are taken into consideration as part of the planning process. Emergency planning developments are addressed and arrangements are published in the Annual Reports of the RPII and other statutory agencies such as local authorities update their emergency planning procedures including for nuclear emergencies on a regular basis. These are also published.

Also in 2008 a general public information and awareness campaign on emergency planning was launched by the Government. As part of the public information campaign on emergency planning a handbook was sent to all households in Ireland. The handbook gave basic information on what individual householders can do to improve their own emergency preparedness as well as information on emergency plans in place (including the National Emergency Plan for Nuclear Accidents). The handbook also gave guidance on where more detailed information can be obtained. It was printed in a bilingual format (English and Irish) and is available in CD format, in large print, in braille and an easy to read version. It is also available electronically in Polish, Chinese and Russian. The handbook can be downloaded from www.emergencyplanning.ie.