# Nuclear Legislation in OECD and NEA Countries

Regulatory and Institutional Framework for Nuclear Activities



NEA NUCLEAR ENERGY AGENCY



## Poland

1.	Ge	eneral Regulatory Regime2
	1.	Introduction2
	2.	Mining regime4
	3.	Radioactive substances, nuclear fuel and equipment5
		a) Licensing5
		b) Registration and monitoring of nuclear materials and radioactive sources6
		c) High activity sources7
	4.	Nuclear facilities7
		a) Licensing and inspection, including nuclear safety7
		b) Emergency response12
	5.	Trade in nuclear materials and equipment
	6.	Radiological protection14
	7.	Radioactive waste management16
	8.	Non-proliferation and physical protection18
	9.	Transport
	10	. Nuclear third party liability 20
п.	In	stitutional Framework
11.	<b>In</b> 1.	stitutional Framework
11.	<b>In</b> 1.	stitutional Framework 21   Regulatory and supervisory authorities 21   a) The President of the National Atomic Energy Agency (Prezes Panstwowej Agencji Atomistyki) (President of the PAA) 21
11.	<b>In</b> 1.	stitutional Framework 21   Regulatory and supervisory authorities 21   a) The President of the National Atomic Energy Agency (Prezes Panstwowej Agencji Atomistyki) (President of the PAA) 21   b) Minister of Health 23
п.	<b>In</b> 1.	stitutional Framework 21   Regulatory and supervisory authorities 21   a) The President of the National Atomic Energy Agency (Prezes Panstwowej Agencji Atomistyki) (President of the PAA) 21   b) Minister of Health 23   c) Minister of the Environment 23
11.	<b>In</b> 1. 2.	stitutional Framework21Regulatory and supervisory authorities21a) The President of the National Atomic Energy Agency (Prezes Panstwowej Agencji Atomistyki) (President of the PAA)21b) Minister of Health23c) Minister of the Environment23Advisory bodies23
п.	<b>In</b> 1. 2.	stitutional Framework21Regulatory and supervisory authorities21a) The President of the National Atomic Energy Agency (Prezes Panstwowej Agencji Atomistyki) (President of the PAA)21b) Minister of Health23c) Minister of the Environment23Advisory bodies23a) Council for Nuclear Safety and Radiological Protection23
п.	In 1. 2. 3.	stitutional Framework21Regulatory and supervisory authorities21a) The President of the National Atomic Energy Agency (Prezes Panstwowej Agencji Atomistyki) (President of the PAA)21b) Minister of Health23c) Minister of the Environment23Advisory bodies23a) Council for Nuclear Safety and Radiological Protection23Public and semi-public bodies24
11.	<b>In</b> 1. 2. 3.	stitutional Framework21Regulatory and supervisory authorities21a) The President of the National Atomic Energy Agency (Prezes Panstwowej Agencji Atomistyki) (President of the PAA)21b) Minister of Health23c) Minister of the Environment23Advisory bodies23a) Council for Nuclear Safety and Radiological Protection23Public and semi-public bodies24a) Radioactive Waste Management Plant24
11.	<b>In</b> 1. 2. 3.	stitutional Framework21Regulatory and supervisory authorities21a) The President of the National Atomic Energy Agency (Prezes Panstwowej Agencji Atomistyki) (President of the PAA)21b) Minister of Health23c) Minister of the Environment23Advisory bodies23a) Council for Nuclear Safety and Radiological Protection23Public and semi-public bodies24a) Radioactive Waste Management Plant24
п.	In 1. 2. 3. 4.	stitutional Framework21Regulatory and supervisory authorities21a) The President of the National Atomic Energy Agency (Prezes Panstwowej Agencji Atomistyki) (President of the PAA)21b) Minister of Health23c) Minister of the Environment23Advisory bodies23a) Council for Nuclear Safety and Radiological Protection23Public and semi-public bodies24a) Radioactive Waste Management Plant24a) Central Laboratory for Radiological Protection24
11.	<b>In</b> 1. 2. 3. 4.	stitutional Framework21Regulatory and supervisory authorities21a) The President of the National Atomic Energy Agency (Prezes Panstwowej Agencji Atomistyki) (President of the PAA)21b) Minister of Health23c) Minister of the Environment23Advisory bodies23a) Council for Nuclear Safety and Radiological Protection23Public and semi-public bodies24a) Radioactive Waste Management Plant24a) Central Laboratory for Radiological Protection24b) National Centre for Nuclear Research24
11.	<b>In</b> 1. 2. 3. 4.	stitutional Framework21Regulatory and supervisory authorities21a) The President of the National Atomic Energy Agency (Prezes Panstwowej Agencji Atomistyki) (President of the PAA)21b) Minister of Health23c) Minister of the Environment23Advisory bodies23a) Council for Nuclear Safety and Radiological Protection23Public and semi-public bodies24a) Radioactive Waste Management Plant24Research institutes24b) National Centre for Nuclear Research24c) Institute of Nuclear Physics24
11.	In 1. 2. 3. 4.	stitutional Framework21Regulatory and supervisory authorities21a) The President of the National Atomic Energy Agency (Prezes Panstwowej Agencji Atomistyki) (President of the PAA)21b) Minister of Health23c) Minister of the Environment23Advisory bodies23a) Council for Nuclear Safety and Radiological Protection23Public and semi-public bodies24a) Radioactive Waste Management Plant24a) Central Laboratory for Radiological Protection24b) National Centre for Nuclear Research24c) Institute of Nuclear Physics24d) Institute of Nuclear Chemistry and Technology25

## I. General Regulatory Regime

## 1. Introduction

There are currently no nuclear power plants in Poland. There are, however, two research reactors: the EWA reactor (TANK WWR type of 1 MWe), which commenced decommissioning on 24 February 1995 and from which all nuclear hazardous substances were removed in 2002 and the MARIA reactor (pool type), located at the National Centre for Nuclear Research at Swierk. In addition, there is a radioisotope processing centre and a spent fuel storage facility in Swierk and a radioactive waste repository at Rozan. On 28 January 2014, the Polish government adopted a resolution on the Polish Nuclear Power Programme (PNPP or Programme).<sup>1</sup> The Programme determines the scope and structure of activities that must be performed in order to implement nuclear power in Poland. The Programme addresses, among others things, the schedule for construction of two nuclear power plants as well as the preparation for these projects, regulatory infrastructure and organisation. The document determines the roles and responsibilities of the institutions responsible for the implementation of the Programme, as well as issues related to nuclear safety and radiological protection. The Programme also includes: economic justification for the implementation of nuclear power in Poland, its financing and methods of spent nuclear fuel and radioactive waste management.

The Atomic Law Act of 29 November 2000,<sup>2</sup> which entered into force on 1 January 2002, is a framework act governing all nuclear activities in Poland. It establishes and determines the competences of the regulatory body in the nuclear safety and radiological protection field in Poland, i.e. the President of the National Atomic Energy Agency (Prezes Panstwowej Agencji Atomistyki) (President of the PAA). The President of the PAA is a governmental office under the authority of the Minister of the Environment. The Atomic Law Act was substantially amended by the Act of 13 May 2011,<sup>3</sup> which:

- implemented into national legislation provisions of the Council Directive establishing a common nuclear safety framework;<sup>4</sup>
- reflected the ratification by Poland of the 1997 Protocol to Amend the Vienna Convention on Civil Liability for Nuclear Damage;<sup>5</sup>
- established the Polish Nuclear Power Programme, the main aim of which is to introduce nuclear power in Poland.

- 2. The Atomic Law Act of 29 November 2000, Dz. U. z 2012, r. poz. 264 i 908 oraz z 2014 r. poz. 587 (Atomic Law Act or Act).
- 3. Act of Parliament of 13 May 2011 amending the Atomic Law Act and Other Laws, Dz. U. Nr 132, poz. 766 (2011 Amendment).
- Council Directive 2009/71/Euratom of 25 June 2009 establishing a Community framework for the nuclear safety of nuclear installations, *Official Journal of the European Union* (OJ) L 172 (2 July 2009).
- 5. Protocol to Amend the Vienna Convention on Civil Liability for Nuclear Damage (1997), IAEA Doc. INFCIRC/566, 2241 UNTS 302.

<sup>1.</sup> Resolution of the Council of Ministers no. 15/2014 of 28 January 2014, on the multiannual programme under the name "Polish Nuclear Power Programme", Dziennik Ustaw (Official Journal of Laws of the Republic of Poland) (Dz. U.) poz. 502 (Programme).

The consolidated text of the Atomic Law Act<sup>6</sup> was published in the Dziennik Ustaw on 4 November 2014. Between 2011 and 2013, fourteen regulations were issued in order to comply with the provisions of the 2011 Amendment. On 24 May 2014, the Act of 4 April 2014 entered into force amending the Atomic Law Act and some other acts<sup>7</sup> that implemented directive 2011/70/Euratom<sup>8</sup> within the Polish legal system.

The Atomic Law Act recognises the need to develop nuclear energy for peaceful purposes, but in a manner that protects life, health, property and the environment. It establishes a licensing system that applies to:

- nuclear installations (from site selection to decommissioning) [Chapter 4];
- manufacture, use of and trade in nuclear materials [Chapter 5];
- manufacture and use of ionising radiation sources [Chapter 6];
- radioactive waste and spent nuclear fuel, construction and operation of radioactive waste repositories [Chapter 7];
- transport of nuclear materials, radioactive sources and radioactive waste [Chapter 8].

The Atomic Law Act also determines:

- principles of nuclear third party liability [Chapter 12];
- principles of the fulfilment of international obligations, including those within the European Union, involving nuclear safety, protection against ionising radiation, nuclear material safeguards and the control of nuclear technologies;
- special principles for the protection of people against the threats resulting from the ionising radiation applications for medical purposes.

In addition, the Atomic Law Act covers nuclear safety and radiological protection, as well as training and protection of workers, assessment of the national radiological situation, radiological emergency management functions of the President of the PAA and penal provisions. Several secondary regulations have supplemented the Atomic Law Act since it has come into force. The licensing procedures for nuclear installations are further detailed in regulations issued by the Council of Ministers.

More recently, a regulation adopted on 23 July 2012 provided for new requirements on transparency of the activities of nuclear power facilities.<sup>9</sup> The regulation laid down

 Regulation of the Minister of Economy of 23 July 2012, on detailed rules concerning the establishment and operation of Local Information Committees and for co-operation in the field of nuclear facilities, Dz. U. z 2012 r. poz. 1025.

Consolidated text of the Atomic Law Act of 29 November 2000, as amended by the Act of Parliament of 13 July 2012 amending the Government Administration Act and some other acts, Dz. U., poz. 908; Act of Parliament of 4 April 2014 amending the Atomic Law Act and some other acts, Dz. U., poz. 587; Act of Parliament of 25 July 2014 amending the Atomic Law Act, Dz. U., poz. 1162.

<sup>7.</sup> Dz. U. poz. 587.

Council Directive 2011/70/Euratom of 19 July 2011 establishing a Community framework for the responsible and safe management of spent fuel and radioactive waste, OJ L 199 (2 August 2011).

detailed rules for the creation and functioning of Local Information Committees and for co-operation in the field of nuclear facilities.

Criminal Code,<sup>10</sup> which entered into force The revised in Poland on 1 September 1998, contains several provisions pertaining to nuclear energy and ionising radiation. A person responsible for an event that poses a threat to the life and health of a significant number of persons or considerable damage to property, through release of nuclear energy or ionising radiation, will be liable to imprisonment for a period of one to ten years.<sup>11</sup> The Criminal Code further provides that whoever, without permission or contrary to stipulated conditions, possesses, uses, produces, reprocesses, collects or deals with radioactive materials or ionising sources shall be liable to imprisonment for a period of six months to eight years.<sup>12</sup> Whoever pollutes the water, air or ground with a substance or contaminates such with ionising radiation in such quantities or form that it could endanger the life or health of many persons or cause substantial reduction in the quality of water, air or ground or destruction to plant and animal life of considerable size shall be liable to imprisonment for a period of three months to five years.<sup>13</sup> Whoever, in violation of the provisions of law, stores, disposes of, processes, renders harmless or carries waste or substances under such conditions or in such a manner that could endanger the life or health of human beings or cause the substantial destruction to plant or animal life of considerable size shall be liable to imprisonment for a period of three months to five years. The same punishment shall be imposed on anyone who, in violation of the provisions of law, imports or exports wastes.<sup>14</sup> Anyone who carries, accumulates, stores, abandons or neglects without properly securing nuclear material or other source of ionising radiation that could endanger the life or health of human beings or cause the substantial destruction of plant or animal life of considerable size shall be liable to imprisonment for a period of three months to five years.<sup>15</sup> Whoever despite his or her duty does not properly maintain or use equipment protecting water, air or ground from pollution, or equipment protecting against radioactive or ionising radiation shall be subject to a fine, liable to the penalty of restriction of liberty or imprisonment for up to two years.16

## 2. Mining regime

There is no legislation dealing specifically with the prospecting for and mining of radioactive ores in Poland. These activities are therefore governed by the Mining and Geological Act of 9 June 2011<sup>17</sup> and the Atomic Law Act. The Act of 4 April 2014 amending the Atomic Law Act<sup>18</sup> introduced more detailed rules governing deep radioactive waste repository licensing.

- 10. The Criminal Code, Dz. U. No. 88, poz. 2677, as amended.
- 11. Ibid., Chapter XX, Article 163(4).
- 12. Ibid., Article 171(1).
- 13. Ibid., Article 182(1).
- 14. Ibid., Article 183(1) and (4).
- 15. Ibid., Article 184(1).
- 16. Ibid., Article 186(1).
- 17. The Mining and Geological Act of 9 June 2011, Dz. U. No. 163, poz. 981, as amended.
- 18. Dz. U., poz. 587.

## 3. Radioactive substances, nuclear fuel and equipment

## a) Licensing

The Atomic Law Act provides that a licence from the competent nuclear safety and radiological protection authority is required to carry out activities related to the application of atomic energy.<sup>19</sup> Among the activities listed are:

- 1) manufacturing, processing, storage, transport or use of nuclear materials or radioactive sources, as well as the trade in these materials;
- 2) storage, transport, processing or disposal of radioactive waste;
- 3) storage, transport or reprocessing of spent nuclear fuel as well as the trade in this fuel;
- 4) isotopic enrichment;
- 5) construction, commissioning, operation and decommissioning of nuclear facilities;
- 6) construction, operation and closure of radioactive waste repositories;
- 7) production, installation, use and maintenance of the equipment containing radioactive sources and trade in such devices;
- 8) commissioning and use of the equipment generating ionising radiation;
- 9) commissioning of laboratories and workrooms using ionising radiation sources, including X-ray laboratories;
- 10) intentional addition of radioactive substances in the manufacturing of consumer products and medical devices, medical devices for in-vitro diagnostics, equipment for medical devices, equipment for medical devices for in-vitro diagnostics, active medical devices and trade in such products, and also the import into the Republic of Poland's territory, and export from this territory, of consumer and medical products to which radioactive substances have been added;
- 11) intentional administration of radioactive substances to humans and animals, for the purposes of medical or veterinary diagnostics, therapy or research.

Practices involving the addition of radioactive substances to foodstuff, toys, personal jewellery or cosmetic products, as well as the import of such products into, and export from, the territory of Poland, are prohibited.<sup>20</sup> Activity consisting of trading in radioactive waste is also prohibited. The Council of Ministers may exempt certain activities from the licence requirements.<sup>21</sup> The Regulation exempting Certain Activities from Licensing<sup>22</sup> was

<sup>19.</sup> Atomic Law Act, Chapter 2, Article 4(1).

<sup>20.</sup> Ibid., Article 4(2).

<sup>21.</sup> Ibid., Article 6.

adopted on 6 August 2002. It exempts activities where the radiation source is of very low activity or concentration, or where low-level sources are contained in equipment in conformity to specified construction requirements, thereby assuring a satisfactory level of radiological protection. Although exempt from licensing, these activities must nevertheless be registered to permit some level of control by the PAA.

"Nuclear material" is defined in the Atomic Law Act as ores, starting (source) materials or special fissile materials, referred to in Article 197 of the Treaty establishing the European Atomic Energy Community.<sup>23</sup> "Radioactive source" is defined in the Atomic Law Act as radioactive substance made ready for the use of its ionising radiation.<sup>24</sup> Licences are issued by the president of the PAA,<sup>25</sup> with the exception of licences for commissioning and operation of X-ray devices for the purposes of medical diagnostics, interventional radiology, surface radiotherapy and non-cancerous disease therapy, and for commissioning of the laboratories using such devices, which are granted mainly<sup>26</sup> by the state regional ("wojewódzki") sanitary inspector.<sup>27</sup>

## b) Registration and monitoring of nuclear materials and radioactive sources

According to the Atomic Law Act, authorities responsible for granting licences or registering notification are obliged to maintain the register of those organisational entities, whose activities require at least a notification.<sup>28</sup>

The rules governing registration and monitoring of nuclear materials, physical protection of nuclear materials and nuclear facilities are established in Chapter 5 of the Atomic Law Act and in the Regulation of the Council of Ministers adopted on 4 November 2008 on the physical protection of nuclear materials and nuclear facilities.<sup>29</sup> Accounting for nuclear materials is also a subject of regulation under Commission Regulation (Euratom) No. 302/2005,<sup>30</sup> which is directly applicable in the Polish legal system and has precedence in the event of a conflict with domestic law.

The rules governing registration and monitoring and physical protection of radioactive sources are established in Chapter 6 of the Atomic Law Act. In accordance with Article 43

- 22. Regulation of the Council of Ministers of 6 August 2002 on the cases when the exposure to ionising radiation are exempted from mandatory licensing or notification, and on the cases when such activities can be conducted on the basis of a notification, Dz. U. nr.137, poz. 1153, amended by Regulation of 27 April 2004, Dz. U. Nr 98, poz. 980.
- 23. Atomic Law Act, Article 3(11).
- 24. Ibid., Article 3(56).
- 25. Ibid., Article 5(3).
- 26. Licences for organisational entities subjected or subordinated to the Minister of National Defence or the minister competent for home affairs are granted by the commander of the military centre for preventive medicine and the state sanitary inspector of the Ministry of Home Affairs and Administration respectively.
- 27. Atomic Law Act, Article 5(4).
- 28. Ibid., Article 5(8).
- 29. Regulation of the Council of Ministers of 4 November 2008 on physical protection of nuclear materials and nuclear facilities, Dz. U. Nr 207, poz. 1295.
- Commission Regulation (Euratom) No. 302/2005 of 8 February 2005 on the application of Euratom safeguards, OJ L 54 (28 February 2005).

of the Atomic Law Act, ionising radiation sources are subject to control and radioactive sources are also subject to registration. Responsibility for control of ionising sources and for maintaining the registers of the status and movements of radioactive sources is borne by the head of the organisational entity engaged in activities involving such sources. The head of the organisational entity engaged in activities involving radioactive sources is also responsible for securing them against damage, theft or unauthorised interception.

## c) High activity sources

The head of an organisational entity, which conducts operations involving a high activity source, must ensure that the source is accompanied by a document that specifies the identification number and assures the legibility of the identification number marking. Prior to transferring the source to another organisational entity, the head of the organisational entity must verify that it holds a licence issued by the President of the PAA for activities involving this source and promptly notify the PAA's President of the theft or loss of the source, as well as of its use by an unauthorised individual. After terminating the operations involving the source, the head of the organisational entity must promptly transfer the source to:

- a) an organisational entity that holds a licence to conduct activities involving such a source;
- b) the state-owned public utility, the Radioactive Waste Management Plant; or
- c) an organisational entity that supplied the source or made it available.

The President of the PAA keeps the register of high activity sources and of other sealed radioactive sources used and stored by entities that conduct licensed activities.

Conditions for safe work involving ionising radiation sources are established by Regulation of the Council of Ministers adopted on 12 July 2006 on detailed safety requirements for work involving ionising radiation sources.<sup>31</sup>

## 4. Nuclear facilities

### a) Licensing and inspection, including nuclear safety

"Nuclear facility" is defined in the Atomic Law Act as a nuclear power plant, research reactor, isotopic enrichment facility, nuclear fuel production facility, spent nuclear fuel reprocessing facility, spent nuclear fuel storage facility, as well as any radioactive waste storage facility directly related thereto or located within the premises thereof.<sup>32</sup> Article 34 of the Atomic Law Act prohibits all activities involving construction, commissioning, operation or decommissioning of nuclear facilities conducted by an organisational entity that fails to comply with the requirements concerning nuclear safety, radiological protection, physical protection and nuclear material safeguards.

In accordance with the Atomic Law Act, the obligation to fulfil the requirements of nuclear safety, radiological protection and physical protection of a nuclear facility applies

<sup>31.</sup> Regulation of the Council of Ministers 12 July 2006 on detailed safety requirements for work involving ionising radiation sources, Dz. U. nr 140, poz. 994.

<sup>32.</sup> Atomic Law Act, Article 3(17).

during the stages of the lifetime of the nuclear facility.<sup>33</sup> Responsibility for nuclear safety, radiological protection, physical protection and nuclear material safeguards rests on the head of the organisational entity authorised to conduct activities involving construction, commissioning, operation or decommissioning of nuclear facilities. The respective licences to engage in these activities are granted by the President of the PAA on the request of the investor until operation begins, and subsequently on the request of the operator.

A regulation issued on 10 August 2012 details assessments required for the siting of a nuclear facility.<sup>34</sup> This regulation establishes the detailed scope of assessments with regard to land intended for siting of a nuclear facility, including, *inter alia*:

- seismic and tectonic information;
- geological and engineering conditions;
- hydro-geological conditions;
- hydrology and meteorology;
- information regarding various external events resulting from human activity;
- natural events;
- population density and land management;
- information on the survey of geological structures;
- distribution and concentration of radioactive isotopes in the soil, surface water, underground water and in the atmosphere;
- an analysis of the distribution of ionising radiation dose rates.

This regulation also establishes conditions for excluding land from eligibility for the siting of a nuclear facility and determines the scope of the siting report for such facility.

As a result of the 2011 amendment, new provisions were added to the Atomic Law Act providing for new detailed requirements for nuclear facility design. In compliance with Article 36c of the Atomic Law Act, a regulation was issued in 2012 in order to set the basic terms and conditions that must be fulfilled by a design of a nuclear facility with respect to nuclear safety and radiological protection, as well as the safe functioning of technical devices installed and operated at the nuclear facility.<sup>35</sup> The regulation provides further details concerning the requirements indicated in the Act, and it determines

<sup>33.</sup> Ibid., Article 35.

<sup>34.</sup> Regulation of the Council of Ministers of 10 August 2012 on detailed scope of assessment with regard to land intended for the location of a nuclear facility, cases excluding land to be considered eligible for the location of a nuclear facility and on requirements concerning location report for a nuclear facility, Dz. U. z 2012 r. poz. 1025.

<sup>35.</sup> Regulation of the Council of Ministers of 31 August 2012 on nuclear safety and radiological protection requirements which must be fulfilled by a nuclear facility design, Dz. U. z 2012 r. poz. 1048.

requirements applicable to different types of nuclear facilities to be accounted for in the nuclear facility design concerning safety level sequences, design safety objectives, probabilistic safety criteria, safety functions, safety classification, design basis, classification of nuclear facility states, postulated initiating events, operational states, considered accidents, common cause failure, single failure criterion, safe state after shutdown, qualification tests, ageing of systems and components of construction and equipment of the nuclear facility. The regulation also imposes detailed requirements for the design of particular systems, structures and components of the nuclear facility that are important for nuclear safety and radiological protection such as the reactor itself, reactor cooling circuit, reactor containment system, measurement and control systems, electric power supply systems, radioactive waste and spent nuclear fuel management systems, and the external cooling systems and auxiliary systems.

Subsequently, another regulation of 11 February 2013 on requirements for the commissioning and operation of nuclear facilities<sup>36</sup> was issued in compliance with Article 38 of the Atomic Law Act. This regulation established requirements that in particular concern: nuclear facility operating limits and conditions, nuclear fuel handling, obligatory commissioning tests of nuclear facility systems, the commissioning programme and procedures, elements of nuclear facility commissioning records and of a commissioning report and elements of nuclear facility operation records.

According to the above-mentioned regulation, in order to ensure appropriate levels of nuclear safety and radiological protection during all stages of commissioning and operation of a nuclear facility, commissioning and operation shall be performed in accordance with operational limits and conditions, which shall be subject to review during the commissioning and operation of a nuclear facility. Operational limits and conditions shall cover all modes of normal operation of a nuclear facility, in particular operation at power, the reactor's sub-critical states and reloading of nuclear fuel, and transitions between these modes. Operational limits and conditions shall include at least:

- 1) safety limits;
- 2) limiting settings for safety systems;
- 3) limits and conditions for normal operation;
- requirements concerning inspection and surveillance of the systems, structures and components of the nuclear facility important for ensuring nuclear safety and radiological protection;
- 5) minimum required staffing of operational personnel, including control room operators.

A nuclear facility shall be commissioned and operated in a manner that will ensure nuclear safety and radiological protection of personnel and the general public in accordance with the licence issued by the President of the PAA, the Polish regulatory authority and the implemented integrated management system. Nuclear facility commissioning shall be conducted according to a nuclear facility commissioning programme approved by the President of the PAA. The programme shall list all

<sup>36.</sup> Regulation of the Council of Ministers of 11 February 2013 on requirements for the commissioning and operation of nuclear facilities, Dz. U. z 2013 r. poz. 281.

pre-commissioning tests of nuclear facility systems, construction elements and installations to be completed, in particular:

- 1) pre-commissioning tests, including tests required under the technical inspection regulations;
- 2) fuel load and sub-criticality tests;
- 3) preliminary criticality tests and low power output tests;
- 4) power output tests.

The nuclear facility commissioning programme shall specify:

- 1) the organisation of commissioning works, including their division into particular commissioning stages;
- 2) the programmes for particular stages of the nuclear facility's commissioning.

Commissioning of a nuclear facility shall be conducted in accordance with the commissioning procedures developed and approved under the principles set out in the integrated management system. Procedures for the operation of the nuclear facility shall be verified during commissioning to the extent practical.

Operation of a nuclear facility shall be conducted in accordance with operating procedures developed and approved under the principles set out in the integrated management system. The operating procedures for a nuclear facility shall be developed on the basis of the design documentation, in particular the safety analysis report, as well as on the basis of operational limits and conditions and the results of commissioning reviews. Operating procedures of a nuclear facility shall be developed for particular states of the nuclear facility.

Experience from the operation of the nuclear facility shall be subject to systematic assessment, which shall take into account in particular abnormal events in the nuclear facility in order to identify their causes.

Pursuant to Article 12d, Section 8 of the Atomic Law Act, another regulation<sup>37</sup> was issued on 10 August 2012, providing new requirements for commissioning, operating or decommissioning a nuclear facility. This regulation contains a detailed list of activities important for nuclear safety in an organisational unit conducting activity that consists of commissioning, operation or decommissioning of a nuclear power plant, in addition to the detailed conditions and procedures for granting authorisations to perform those activities as well as the scope of training for candidates who are applying for authorisations to perform the above activities.

Moreover, pursuant to Article 37e, Section 11 of the Atomic Law Act, a regulation on the periodic safety assessment of a nuclear facility was issued on 27 December 2011. This regulation provided a detailed scope of the periodic safety assessment of a nuclear

<sup>37.</sup> Regulation of the Council of Ministers of 10 August 2012 on activities important for nuclear safety and radiological protection in an organization conducting activity which consists of commissioning, operations or decommissioning of a nuclear power plant, Dz. U. z 2012 r. poz. 1024.

facility and the scope of the periodic safety assessment report. Inspection powers are described in Chapter 9 of the Atomic Law Act, as part of a wider nuclear surveillance function. The nuclear surveillance tasks, including inspections, are performed by the President of the PAA and the nuclear regulatory inspectors.<sup>38</sup>

Pursuant to Article 66 of Atomic Law Act, the nuclear regulatory inspectors are entitled to:

- around-the-clock access to the sites, facilities, premises and transport vehicles of the inspected entities;
- scrutinise the documentation, logbooks and other data concerning nuclear safety and radiological protection in the inspected entity;
- request copies of the documents and data to be produced or provided;
- verify whether the activities of the inspected entity are conducted in compliance with nuclear safety and radiological protection regulations and with the requirements and conditions established in the licences;
- conduct independent technical and dosimetric measurements, whenever needed;
- request written or oral information in matters under scrutiny, and interview the head and personnel of the inspected entity, as well as outside workers and apprentices;
- collect samples for laboratory tests;
- inspect the site, facilities, premises and installations of the entity and its transport vehicles;
- record the processes and results of inspection using audio-visual recording systems;
- secure and request securing (confirming security) documents and other proofs;
- request the assistance of expert laboratories and organisations authorised by the President of the PAA during inspections of nuclear power plants, and request the assistance of experts, specialists and laboratories during inspections of other organisational entities.

The procedure to be followed in surveillance matters is governed by the Code of Administrative Procedure.<sup>39</sup> Any decision involving nuclear safety and radiological protection may be contested before the Provincial Administrative Court (Wojewódzki Sad Administracyjny). The ruling of the Provincial Administrative Court may be appealed to the Supreme Administrative Court (Naczelny Sąd Administracyjny). The President of the PAA may issue an order to reduce the power output or to stop the operation of a nuclear facility if further operation of this facility poses any threat to nuclear safety or radiological protection. A subsequent increase of power output or the start-up of nuclear facility requires written approval of the President of the PAA upon confirmation that further

<sup>38.</sup> Atomic Law Act, Article 64. The Act of 4 April 2014 amending the Atomic Law Act abolished the Chief Nuclear Regulatory Inspector position. The powers of the Chief Nuclear Regulatory Inspector have been transferred into the President of the PAA. As a result, the structure of the appeal system has been simplified. The three-tier appeal system (i.e. nuclear inspectors, the Chief Nuclear Regulatory Inspector, the President of the PAA) has been superseded by a two-tier system (nuclear regulatory inspectors and the President of the PAA).

<sup>39.</sup> Code of Administrative Procedure, Dz. U. z 2013 r., poz. 269.

operation of the nuclear facility poses no threat to nuclear safety or radiological protection.<sup>40</sup>

If any threat to nuclear safety and radiological protection has been identified during the inspection, nuclear regulatory bodies (the President of the PAA and nuclear regulatory inspectors) may issue summary orders containing injunctions or interdictions addressing specified activities, and may, in particular:

- reduce the power output;
- suspend operation of a nuclear facility;
- suspend the fitting of specific installations;
- cease the handling of a specific source of ionising radiation; and/or
- cease the performance of specific works or operations.

Such orders shall normally be issued in writing; in exceptional circumstances they may be issued orally and should be promptly confirmed in writing.<sup>41</sup>

"Nuclear safety" is defined in the Atomic Law Act as "achieving specific operating conditions, preventing and limiting the consequences of accidents, if any, to safeguard personnel and the population against the risks of ionizing radiation from nuclear facilities".<sup>42</sup>

Poland is Party to the Convention on Nuclear Safety (ratified on 14 June 1995).

## b) Emergency response

The Atomic Law Act distinguishes the following types of radiological emergencies according to the extent of their impact:

- an on-site emergency is a radiological emergency occurring on the site of the organisation, with the impact limited to the area within the site boundaries of the organisation;
- a public emergency on a regional scale is a radiological emergency occurring on the site of the organisation or off-site during field work or during the transportation of nuclear materials, radiation sources, radioactive waste and spent nuclear fuel, with the impact limited to the territory of only one region; and
- a public emergency on a national scale, which is a radiological emergency referred to in the preceding paragraph, if its impact extends or may extend to a territory larger than that of the region. Each radiological emergency, which occurs within the national borders or beyond them, with the impact reaching beyond the borders of Poland constitutes a public emergency on a national scale.

<sup>40.</sup> Atomic Law Act, Article 37d (3 and 4).

<sup>41.</sup> Ibid., Article 68.

<sup>42.</sup> Ibid., Article 3(2).

Poland is party to the following international conventions or bilateral agreements dealing with emergency response:

- Convention on Early Notification of a Nuclear Accident (1986), IAEA Doc. INFCIRC/335, 1439 UNTS 275;
- Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency (1986), IAEA Doc. INFCIRC/336, 1457 UNTS 133;
- bilateral agreements on early notification of a nuclear accident and on co-operation in nuclear safety and radiological protection concluded with: Denmark (1987), Austria (1987), Norway (1989), Ukraine (1993), Belarus (1994), Russian Federation (1995), Lithuania (1995), Slovak Republic (1996), Czech Republic (2005), Germany (2009).

By order of the President of the PAA, the International Contact Point (ICP) of the early warning system was established. The ICP operates on a 24-hour basis and serves as a channel for the exchange of information on radiation emergencies with the International Atomic Energy Agency (IAEA) in Vienna and neighbouring countries, in accordance with international conventions and bilateral agreements.

## 5. Trade in nuclear materials and equipment

Under Article 62 of the Atomic Law Act, import into and export from the territory of the Republic of Poland of nuclear materials, radioactive sources and equipment containing such sources, import of consumer goods emitting ionising radiation, as well as import and export of radioactive waste and spent nuclear fuel, shall be conducted on the basis of licensing conditions provided in Article 4 of the Atomic Law Act.

In addition, a regulation of the Council of Ministers of 20 February 2007 provides for the terms and rules on imports into, exports from and transit through the Polish territory of radiation sources and devices containing such sources.<sup>43</sup> Another regulation specifies the mode of granting a licence or of a permit for the import, export or transit of radioactive waste and spent nuclear fuel.<sup>44</sup>

Nuclear materials, radioactive sources and equipment containing radioactive sources may be imported from abroad by an entity that has been licensed to:

- use such items;
- deal in nuclear materials or radioactive sources;
- manufacture and process nuclear materials and radioactive sources;
- manufacture devices containing radioactive sources; or

<sup>43.</sup> Regulation of the Council of Ministers of 20 February 2007 on the terms for import into the territory of the Republic of Poland, export from the territory of the Republic of Poland and transit through this territory of nuclear materials, radioactive sources and equipment containing such sources, Dz. U. Nr 131, poz. 911.

<sup>44.</sup> Regulation of the Council of Ministers of 21 October 2008 on granting license and permit to import into the territory of the Republic of Poland, export from the territory of the Republic of Poland and transit through this territory radioactive waste and spent nuclear fuel, Dz. U. Nr 219, poz. 1402.

• manufacture articles of general use which emit ionising radiation.

Similarly, nuclear materials, radioactive sources or devices containing radioactive sources may be exported to foreign countries by an entity that has been licensed under Article 4 of the Atomic Law Act to:

- distribute nuclear materials or radioactive sources;
- manufacture devices containing radioactive sources;
- use nuclear materials and radioactive sources; or
- manufacture nuclear materials and radioactive sources.

An Act of 29 November 2000 sets out the rules for the foreign trade of goods, technologies and services of strategic importance to the safety of the state and to maintenance of international peace and security.<sup>45</sup> These rules apply to a variety of goods and technologies, including those belonging to the nuclear fuel cycle and those capable of producing nuclear explosive devices. The list of such goods is established in Council Regulation (EC) No 428/2009.<sup>46</sup> In the case of nuclear materials and nuclear technologies, the Minister for the Economy issues import and export certificates after obtaining the opinion issued by the President of the PAA.

## 6. Radiological protection

Ongoing surveillance of nuclear safety and radiological protection is dealt with in Chapters 3 and 9 of the Atomic Law Act, with general responsibility being given to the President of the PAA and nuclear regulatory inspectors responsible for nuclear surveillance. As a result of the 2011 Amendment to the Atomic Law Act, implementing regulations have been adopted between 2011 and 2013. For further details of the nuclear surveillance tasks of the inspectors, see Section 4 "Nuclear Installations", Subsection (a) "Licensing and Inspections".

The nuclear regulatory inspectors examine the documentation relating to nuclear safety and radiological protection submitted by applicants in licensing proceedings, provide opinions on the siting of nuclear plants, review training programmes for employees in nuclear installations and give periodic reports on the nuclear safety and radiological protection situation in the country.

The regulation of 10 August 2012 on positions important for nuclear safety and radiological protection and on radiological protection inspectors sets forth new requirements for this kind of personnel.<sup>47</sup> Notably, the regulation provides for the types of authorisations necessary for a radiologocal protection inspector, for the types of activities that may be supervised under these authorisations and also specifies detailed conditions for granting these authorisations. This regulation also covers candidates who

<sup>45.</sup> Act of Parliament of 29 November 2000 on the rules for the foreign trade of goods, technologies and services of strategic importance to the safety of the state and to maintenance of international peace and security, Dz. U. Nr 229, poz. 2315 as amended.

<sup>46.</sup> Council Regulation (EC) No 428/2009 of 5 May 2009 setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items, OJ L 134 (29 May 2009).

<sup>47.</sup> Regulation of 10 August 2012 on positions important for nuclear safety and radiological protection and on radiological protection inspectors, Dz. U. z 2012 r. poz. 1022.

are applying for authorisations to occupy positions important for nuclear safety and radiological protection.

Also, it is to be noted that a regulation issued in 2012 by the Minister of the Environment authorised the President of the PAA to recognise qualifications for regulated professions acquired in the member states of the European Union, the Swiss Confederation and the member states of the European Free Trade Association (EFTA) – parties to the Agreement on the European Economic Area.<sup>48</sup> It concerns, *inter alia*, professions such as: radiologocal protection inspector, nuclear regulatory inspector, operator of a research reactor and a specialist for accounting for nuclear material.

Furthermore, a regulation issued by the Minister of Health on 29 September 2011 provides for psychiatric and psychological testing of employees performing activities important for nuclear safety and radiological protection.<sup>49</sup>

Chapter 3 of the Atomic Law Act deals with training and health protection of workers in the nuclear industry and other areas connected with ionising radiation exposure. Workers may only carry out activities involving nuclear materials, sources of ionising radiation or radioactive waste, if they have adequate knowledge of nuclear safety and radiologocal protection requirements in light of their position. Medical examinations are required to ensure that the worker is suitable for the post, and training programmes must be periodically organised to educate workers on nuclear safety and radiologocal protection issues. The Minister for Health is responsible for establishing the general content and principles of the training programme for persons responsible for ensuring protection against ionising radiation in X-ray centres.<sup>50</sup> The Atomic Law Act also requires medical surveillance of workers likely to be exposed to ionising radiation and provides for compulsory systematic dosimetric readings as part of this surveillance.

The standards for such medical surveillance and dosimetric recordings in the workplace are set out in the Regulation of the Council of Ministers of 23 March 2007 on the requirements for the individual dose registration.<sup>51</sup> Under that regulation, the results of measurements concerning the level of exposure for individuals must be kept for at least 30 years after termination of the work involving exposure to ionising radiation. Similarly, the results of atmospheric dosimetric measurements taken at the workplace must be kept for at least 30 years, unless such results have been handed over to the state nuclear safety and radiologocal protection surveillance body.

The relevant radiation dose limits are set out in the Regulation of the Council of Ministers adopted on 18 January 2005 on dose limits of ionising radiation.<sup>52</sup> These dose

- 50. Atomic Law Act, Article 12.
- 51. Dz. U. Nr 131, poz. 913.
- 52. Dz. U. Nr 20, poz. 168.

<sup>48.</sup> Regulation of the Minister of the Environment of 11 September 2012 on the authorisation for recognition of qualifications for regulated professions acquired in Member States of the European Union (EU), Dz. U. z 2012 r. poz. 1088.

<sup>49.</sup> Regulation by the Minister of Health of 29 September 2011 on psychiatric and psychological tests for employees performing activities important for nuclear safety and radiological protection at the organisational unit conducting activities related to exposure which consist in commissioning, operation or decommissioning of a nuclear power plant, Dz. U. Nr 220, poz. 1310.

limits are for workers employed under conditions where there is a likelihood of exposure to ionising radiation and for persons residing in the proximity of ionising radiation sources, including nuclear installations.

The Appendices to the regulation set out the formulas used to calculate the applicable dose limits under the regulation. Generally, to identify ionising radiation hazards for workers, there is an annual limit on intake corresponding to one of the following:

- overall effective dose equivalent of 50 mSv;
- 100 mSv for lenses of the eyes;
- 500 mSv for other tissues or organs.

Poland ratified the 1960 ILO Convention No. 115 on Workers Protection against Ionising Radiation in 1965. As a result, the international safety standards for radiologocal protection and their amended versions were implemented in Poland. The present law is based on the 1994 Basic Safety Standards for Protection against Ionising Radiation and for the Safety of Radiation Sources (BSS) as approved by the IAEA. The recent revision of the BSS is the basis for bringing the existing regulations in Poland into line with European Union directives.

## 7. Radioactive waste management

Chapter 7 of the Act sets out the general framework for the regulation of radioactive waste. Radioactive waste and spent nuclear fuel must be stored in a manner that protects people and the environment in terms of radiologocal protection both in normal and emergency conditions, in particular, protecting them from dispersion or release. Radioactive waste shall be stored in such a way that allows their segregation according to categories and subcategories.<sup>53</sup>

An entity that produces radioactive waste or spent nuclear fuel is responsible for ensuring the possibility of radioactive waste and spent nuclear fuel management, including providing funding for this management, from its creation through to its assignment to storage, including final storage financing.<sup>54</sup> Radioactive waste is classified due to the concentration of the radioactivity contained in the radioactive isotopes of waste into the following categories:

- 1) low-level waste;
- 2) intermediate level waste;
- 3) high-level waste.

The classification of waste, its characterisation and registration, and the conditions for its treatment and storage are determined by rules made by the Council of Ministers.<sup>55</sup> Licences for the construction, operation and closure of radioactive waste repositories are

<sup>53.</sup> Atomic Law Act, Article 50.

<sup>54.</sup> Ibid., Article 48a.

<sup>55.</sup> Ibid., Article 57a.

granted by the President of the PAA.<sup>56</sup> Only technical and organisational solutions that comply with the ALARA principle may be used in the process of siting, design, construction, operation and closure of radioactive waste repositories.<sup>57</sup>

Trading in radioactive waste is prohibited.<sup>58</sup> Import into the territory of the Republic of Poland of radioactive waste and spent nuclear fuel for disposal is also prohibited.<sup>59</sup>

Further, a Regulation of the Council of Ministers of 3 December 2002 lays down rules on classification of radioactive waste, its characterisation, control and record keeping, as well as on conditions for the storage of radioactive waste and spent fuel.<sup>60</sup> This regulation remains in force until the entry into force of the regulations issued under Article 57a of the Atomic Law Act amended by the Act of Parliament of 4 April 2014, but not longer than 18 months from the date of entry into force.

More recently, various regulations by the Council of Ministers relating to radioactive waste management were issued. Two regulations introduced new requirements relating to decommissioning funding contributions: a regulation issued in 2011 specified the form of the standard quarterly report on the amount of contributions to the decommissioning fund<sup>61</sup> and another regulation issued in 2012 established the amount of contribution to the fund in order to cover the costs of spent fuel and radioactive waste disposal as well as the costs of decommissioning.<sup>62</sup> A third regulation issued in 2013 provided for new requirements for the decommissioning of nuclear installations.<sup>63</sup> It specified the initial activities in the decommissioning process, its management, performance and the content of a special report on the decommissioning.

By the Act of Parliament of 4 April 2014 amending the Atomic Law Act,<sup>64</sup> Poland implemented directive 2011/70/Euratom establishing a Community framework for the responsible and safe management of spent fuel and radioactive waste. At the international level, Poland ratified the 1997 Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management on 5 May 2000. On 23 January 1979 Poland also ratified the 1972 London Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter.

- 59. Ibid., Article 62e.
- 60. Regulation by the Council of Ministers of 3 December 2002 on radioactive waste and spent nuclear fuel, Dz. U. Nr 230, poz. 1925.
- 61. Regulation by the Council of Ministers of 27 December 2011 specifying the form of standard quarterly report on the amount of contributions to the decommissioning fund, Dz. U. z 2012 r. poz. 43.
- 62. Regulation by the Council of Ministers of 10 October 2012 establishing the amount of contributions to cover the costs of spent nuclear fuel and radioactive waste disposal and the costs of nuclear power plant decommissioning, Dz. U. z 2012 r. poz. 1213.
- 63. Regulation by the Council of Ministers of 11 February 2013 on nuclear safety and radiological protection requirements for the stage of decommissioning of nuclear facilities and on the content of a report on decommissioning of a nuclear facility, Dz. U. z 2013 r. poz. 270.

<sup>56.</sup> Ibid., Article 53.

<sup>57.</sup> Ibid., Article 48b.

<sup>58.</sup> Ibid., Article 4.

<sup>64.</sup> Dz. U. 2014 poz. 587.

## 8. Non-proliferation and physical protection

Poland is party to the following international conventions, treaties, agreements and European Union instruments dealing with non-proliferation and physical protection in the nuclear field:

- Treaty on the Non-Proliferation of Nuclear Weapons (1968), IAEA Doc. INFCIRC/140, 729 UNTS 161, entered into force 5 March 1970 (ratified on 12 June 1969);
- Agreement between the Kingdom of Belgium, the Kingdom of Denmark, the Federal Republic of Germany, Ireland, the Italian Republic, the Grand Duchy of Luxembourg, the Kingdom of Netherlands, the European Atomic Energy Community and the International Atomic Energy Agency, in implementation of Article III, (1) and (4) of the Treaty on the Non-Proliferation of Nuclear Weapons, signed in Brussels on 5 April 1973;<sup>65</sup>
- Additional Protocol to the Agreement between the Republic of Austria, the Kingdom of Belgium, the Kingdom of Denmark, the Republic of Finland, the Federal Republic of Germany, the Hellenic Republic, Ireland, the Italian Republic, the Grand Duchy of Luxembourg, the Kingdom of Netherlands, the Portuguese Republic, the Kingdom of Spain, the Kingdom of Sweden, the European Atomic Energy Community and the International Atomic Energy Agency, in implementation of Article III, (1) and (4) of the Treaty on the Non-Proliferation of Nuclear Weapons, Vienna, 22 September 1998;<sup>66</sup>
- Convention on the Physical Protection of Nuclear Material (1980), IAEA Doc. INFCIRC/274 Rev. 1, 1456 UNTS 125 (ratified on 5 October 1983);
- Comprehensive Nuclear Test Ban Treaty (ratified on 25 May 1999);
- Treaty Establishing the European Atomic Energy Community done at Rome on 25 March 1957;
- Commission Regulation (Euratom) No. 302/2005 of 8 February 2005 on the application of Euratom safeguards, OJ L 54 (28 February 2005);
- Amendment to the Convention on Physical Protection of Nuclear Material (2005), GOV/INF/2005/10-GC(49)/INF/6, Attachment pp. 3-11 (ratified on 1 June 2007).

Poland is also a member country of the Nuclear Suppliers Group (NSG) and, as a result, observes the NSG guidelines set out in IAEA publication IAEA INFCIRC/254/Rev.12/Part 1 and IAEA INFCIRC/254/Rev.9/Part 2.

As discussed under Section 5 "Trade in Nuclear Materials and Equipment", Polish law provides for special control rules for the import, export and transit of certain goods and technologies in accordance with international agreements concluded by Poland.

Under the Atomic Law Act, the physical protection of nuclear materials and nuclear facilities is the responsibility of the head of the entity engaged in activities involving

<sup>65.</sup> The application of safeguards in Poland under the Non-proliferation Treaty safeguards agreement INFCIRC/179, in force since 11 October 1972, was suspended on 1 March 2007, on which date the agreement of 5 April 1973 between the non-nuclear-weapon states of Euratom, and the IAEA (INFCIRC/193), to which Poland had acceded, entered into force for Poland.

<sup>66.</sup> See *infra* footnote 64.

nuclear materials which a licence has been granted to manufacture, process, store, dispose, transport, use or trade in those materials or construct, commission, operate or decommission nuclear facilities. For nuclear facilities, the head of the entity has the obligation to establish a physical protection system that must be approved by the President of the PAA after receiving a favourable opinion from the Internal Security Agency. The physical protection system is supervised by the President of the PAA on terms and conditions stated in Chapter 9 of the Atomic Law Act and by the Internal Security Agency.<sup>67</sup>

Detailed rules governing physical protection of nuclear materials are provided by the Regulation of the Council of Ministers of 4 November 2008 on physical protection of nuclear materials and nuclear facilities.<sup>68</sup> It sets out the various categories of nuclear materials and establishes adequate protection levels for each of them. It further determines the organisational methods and technologies that should be used in the field of physical protection, as well as the appropriate procedures for the periodic controls carried out by the President of the PAA. Non-proliferation requirements are covered also by the Chapter 5 of the Atomic Law Act.

## 9. Transport

Chapter 8 of the Atomic Law Act deals in particular with the transport of nuclear materials and radioactive sources and waste. Licences to transport nuclear materials and radioactive sources are granted by the President of the PAA. The nuclear materials must be prepared for transport and transported in such a way as to prevent any possibility of a self-sustained fission reaction. The radiation doses to which persons involved in the transport operation are exposed must be monitored and must not exceed the dose limits specified under the Act.

The Regulation of the Council of Ministers of 4 November 2008 on physical protection of nuclear materials and nuclear facilities contains specific provisions to ensure security during the transport of nuclear material falling into one of the three categories set out in the Appendix to that regulation.<sup>69</sup>

The conditions and requirements applying to transport within the site of the entities that produce, store or use nuclear materials or radioactive sources and waste are to be specified by the President of the PAA in the licence for the activity authorised.

The Act of 19 August 2011 on the transport of dangerous goods sets out rules for national and international road, rail and inland waterway transport of dangerous goods and for performing tasks associated with the transport.<sup>70</sup>

<sup>67.</sup> Atomic Law Act, Article 41.

<sup>68.</sup> Regulation by the Council of Ministers of 4 November 2008 on physical protection of nuclear materials and nuclear facilities, Dz. U. Nr 207, poz. 1295.

<sup>69.</sup> Ibid.

<sup>70.</sup> Dz.U. 2011 Nr 227, poz. 1367, Nr 244, poz. 1454.

## **10.** Nuclear third party liability

Poland acceded to the 1963 Vienna Convention on Civil Liability for Nuclear Damage<sup>71</sup> and the 1988 Joint Protocol on the Application of the Vienna Convention and the Paris Convention<sup>72</sup> on 23 January 1990. On 21 September 2010, Poland ratified the 1997 Protocol to Amend the Vienna Convention. The legislative provisions to meet its obligations under the Vienna Convention were already largely in place under Chapter 12 of the Act, although there are provisions in the Convention that are not specifically addressed under the Act. As a matter of basic principle, however, the Act, like the Convention, channels liability for nuclear damage to the operator of a nuclear installation, with the exception of damage caused directly by acts of war or armed conflict.<sup>73</sup>

If a person who suffers nuclear damage has caused or aggravated that damage by intentional behaviour, the court of justice may relieve the operator, wholly or partially, from its obligation to pay compensation in respect of the damages suffered by such individual.

Pursuant to Article 100(5), nuclear damage includes any one of the following:

- personal injury;
- damage to property;
- damage to the environment the costs of measures of reinstatement which aim to restore the impaired environment viewed as common property to its natural state, unless such impairment is insignificant.

In the event of nuclear damage occurring during the transport of nuclear materials, the operator sending the material remains liable for third party damage unless an agreement between nuclear operators provides for the liability of the other party.<sup>74</sup>

The operator's liability is limited to the amount of SDR<sup>75</sup> 300 million.<sup>76</sup> Two exceptions to this rule are permitted by the Atomic Law Act with respect to two separate kinds of activities. If the activity concerned is the operation of a research reactor or facility in which nuclear material originating from a research reactor is stored or the transportation of such nuclear material, the liability amount is lower. A regulation issued on 14 September 2011 sets the equivalent in Polish currency of SDR 400 000 as the guaranteed minimum amount of compulsory civil liability insurance for those two activities.<sup>77</sup> The operator of a nuclear installation is required to maintain a financial

- 72. Joint Protocol Relating to the Application of the Vienna Convention and the Paris Convention (1988) ("Joint Protocol"), IAEA Doc. INFCIRC/402, 1672 UNTS 293.
- 73. Atomic Law Act, Article 101(1).
- 74. Ibid., Article 101(2).
- 75. SDR stands for "Special Drawing Right", a unit of account defined by the International Monetary Fund based upon a basket of key international currencies.
- 76. Ibid., Article 102(1).
- 77. Regulation by the Minister of Finance of 14 September 2011 on guaranteed minimum amount of the compulsory civil liability insurance of the nuclear facility's operator, Dz. U. Nr. 206, poz. 1217.

<sup>71.</sup> Vienna Convention on Civil Liability for Nuclear Damage (1963) ("Vienna Convention"), IAEA Doc. INFCIRC/500, 1063 UNTS 266.

security covering this liability.<sup>78</sup> The National Treasury shall guarantee the payment of compensation for nuclear damage incurred by an individual, where such amount could not be obtained from the financial security.<sup>79</sup>

The right to compensation for personal injury due to nuclear damage is not subject to a prescriptive time limit. Nuclear damage to property or the environment is subject to a ten-year prescription period and to a three-year discovery rule, i.e. the injured party must file suit within three years of the date that he or she knew or should have known of the injury.<sup>80</sup>

To the extent not covered by Chapter 12 of the Act, the provisions of the Civil Code apply to claims for nuclear damage.<sup>81</sup> Similarly, the provisions of Chapter 12 of the Act do not prejudice the application of other provisions on benefits for industrial injuries or occupational illness.<sup>82</sup>

## **II. Institutional Framework**

## 1. Regulatory and supervisory authorities

## a) The President of the National Atomic Energy Agency (Prezes Panstwowej Agencji Atomistyki) (President of the PAA)

The President of the PAA is the central authority of the governmental administration, competent for nuclear safety and radiological protection matters. As such, it is responsible for in particular:

- exercising regulatory control and supervision over the activities that may lead to actual or potential ionising radiation exposure of humans and the environment, including the issuance of decisions on licences and authorisations and other decisions, as provided in the Atomic Law Act;
- promulgation of technical and organisational recommendations concerning nuclear safety and radiological protection;
- performing the tasks involving the assessment of the national radiation situation in normal conditions and in radiological emergency situations, and the transmission of relevant information to appropriate authorities and to the general public;
- performing the tasks resulting from Poland's obligations concerning accountancy and control of nuclear materials, physical protection of nuclear materials and facilities, special control measures for foreign trade in nuclear materials and technologies, and from other obligations resulting from international agreements on nuclear safety and radiological protection;

- 81. Ibid., Article 107.
- 82. Ibid., Article 108.

<sup>78.</sup> Atomic Law Act, Article 103(1).

<sup>79.</sup> Ibid., Article 103(3).

<sup>80.</sup> Ibid., Article 105.

- performing activities connected with public communication, education and popularisation, scientific, technical and legal information concerning nuclear safety and radiological protection, including activities consisting in providing the general public with information about ionising radiation and its impact on human health and the environment and about feasible measures to be implemented in the event of radiation emergency, excluding the promotion of the use of ionising radiation, and in particular, the promotion of the nuclear power sector;
- co-operation with suitable foreign national entities and international organisations;
- developing the drafts of legal acts on the issues covered by the Atomic Law Act and conducting the process of establishing their final form, according to the procedures established in the working rules for the Council of Ministers; and
- co-operation with governmental and local administrative authorities in matters involving nuclear safety and radiological protection, and in matters concerning scientific research in nuclear safety and radiological protection.

The President of the PAA is appointed by the Prime Minister upon the proposal of the Minister competent in environmental matters. The President of the PAA reports to this Minister. The President executes his/her tasks through the PAA. The President of the PAA is assisted by an advisory body, the Council for Nuclear Safety and Radiological Protection, which was established by the 2011 Amendment of the Atomic Law Act and replaced the Council for Atomic Matters. A regulation issued in 2011 specified the method and procedure of operation of the Council, including the duties of the Chairman, Deputy Chairman and Secretary of the Council.<sup>83</sup>

The Atomic Law Act sets out the powers and responsibilities of the President of the PAA and the PAA in Chapter 13. In addition, various regulations specify the President of the PAA's powers and functions. An order issued by the Minister of the Environment (as a body supervising the President of PAA from the viewpoint other than regulatory decisions) on 3 November 2011 grants the PAA a statute establishing the general organisational scheme.<sup>84</sup> A detailed organisational scheme of the PAA, its working rules and the tasks of its organisational sub-units are established in organisational rules by the President of PAA, in the form of an order.

The nuclear legislative scheme attributes a particularly important role to the President of the PAA, especially with relation to the granting of licences and the overall supervision of the nuclear sector.<sup>85</sup> The President is responsible for governmental supervision of all aspects of the peaceful uses of atomic energy related to nuclear safety and radiologocal protection. The President also supervises control over foreign trade in and transit through the Polish territory of nuclear materials and equipment. Finally, the president, in co-operation with the Minister for Foreign Affairs, co-ordinates international relations in the field of nuclear safety and radiologocal protection, and represents the government of Poland in the governing bodies of specialised international organisations in the above-mentioned areas.

<sup>83.</sup> Regulation by the Minister of the Environment of 18 November 2011 on the Council for Nuclear Safety and Radiological Protection, Dz. U. nr. 279 poz. 1643.

<sup>84.</sup> Order of the Minister of the Environment nº 69 of 3 November 2011 on granting the Statute on the National Atomic Energy Agency Dziennik Urzędowy Ministerstwa Środowiska i Głównego Inspektora Ochrony Środowiska, Nr 4 z 2011 r., poz. 66.

<sup>85.</sup> Atomic Law Act, Article 110.

## b) Minister of Health

The Minister of Health is responsible under the Atomic Law Act for introducing regulations laying down the conditions for the safe application of ionising radiation for medical purposes. The Minister of Health establishes conditions for the safe use of ionising radiation in medical applications and methods of internal control for the fulfilment of these conditions.<sup>86</sup>

## c) Minister of the Environment

The Minister of the Environment supervises the President of the PAA<sup>87</sup> (from the viewpoint other than regulatory decisions) and nominates the deputy presidents.<sup>88</sup> The Minister of the Environment, through an order, vests the PAA with the statute establishing its general internal organisation. A detailed organisational scheme of the PAA, its working rules and the tasks of its organisational sub-units is established in organisational rules by the PAA's President, in the form of an order.

## 2. Advisory bodies

## a) Council for Nuclear Safety and Radiological Protection

The Council for Nuclear Safety and Radiological Protection is an advisory body that assists the President of the PAA by providing its opinion on questions relating to the PAA's activities and, in particular, on radiological protection and nuclear safety.<sup>89</sup> The Council's tasks include, in particular: issuing opinions with regard to draft versions of licences for construction, commissioning, operation or decommissioning of nuclear facilities, and also drafting versions of legal acts and organisational and technical recommendations developed by the PAA President. In addition, the Council may independently submit initiatives concerning improvements in activities of nuclear regulatory bodies. The Council consists of distinguished experts in nuclear safety, radiological protection, physical protection and nuclear material safeguards, as well as other disciplines important from the viewpoint of nuclear safety and radiological protection. The Council is elected for a period of four years. Its members are appointed by the PAA by virtue of Order No 3 of 2 July 2012.<sup>90</sup>

<sup>86.</sup> Regulation of the Minister of Health of 18 February 2011 on the conditions for the safe use of ionising radiation for all types of medical exposure, Dz. U. nr 51 poz. 265; Regulation of the Minister of Health of 24 April 2012 amending Regulation on conditions for the safe use of ionising radiation for all types of medical exposure, Dz. U., poz. 470.

<sup>87.</sup> Article 28 of Act of Parliament of 4 September 1997 on Governmental Administration Departments, Dz. U. z 2013 r. poz. 743, 984.

<sup>88.</sup> Atomic Law Act, Article 109.

<sup>89.</sup> Ibid., Article 112.

<sup>90.</sup> Dz. U. z. PAA z 2012 r., poz.3.

## **3.** Public and semi-public bodies

## a) Radioactive Waste Management Plant

This plant, established by the Atomic Law Act, is a state-owned public utility located in Otwock-Swierk. It was established to conduct activities involving radioactive waste management and spent nuclear fuel management and, above all, to ensure permanent feasibility of radioactive waste and spent nuclear fuel disposal.

The Radioactive Waste Management Plant is supervised by the Minister for the Economy and is headed by a director nominated by this Minister. The Minister for the Economy shall control the plant's activities and submit those activities to an annual evaluation that he or she shall present to the Prime Minister. Regulatory control and supervision over the Radioactive Waste Management Plant from the viewpoint of nuclear safety and radiological protection is exercised by the President of the PAA.

## 4. Research institutes

## a) Central Laboratory for Radiological Protection

The Central Laboratory for Radiological Protection was established in 1957. Currently, it is a research institute within the meaning of an Act of Parliament of 30 April 2010 on research institutes,<sup>91</sup> supervised by the Minister of Economy. Its main activities include the scientific research programme in radiologocal protection, the formulation of standards on radiologocal protection, the safe handling of radioactive sources and the personal dose monitoring service.

### b) National Centre for Nuclear Research

The National Centre for Nuclear Research (NCBJ) was established by the Regulation of Council of Ministers of 5 August 2011 on the merger of the Andrzej Soltan Institute of Atomic Energy and POLATOM.<sup>92</sup> The NCBJ's applied research combines nuclear power-related studies with various fields of sub-atomic physics (elementary particle physics, nuclear physics, hot plasma physics, etc.). The NCBJ is involved in developing nuclear technologies and promoting practical applications of nuclear physics methods.

The activities of the Radioisotope Centre, as a part of the NCBJ, consist of production of radioactive materials for biochemical and industrial purposes and research work in the fields of radioimmunology, radioactive preparations, ionising radiation sources, metrology and analysis.

### c) Institute of Nuclear Physics

The Institute of Nuclear Physics of the Polish Academy of Sciences is responsible for conducting research in high and low energy physics, condensed matter physics, accelerator techniques and applied nuclear physics.

<sup>91.</sup> Dz. U. z 2010 r. Nr 96, poz. 618 i 620, as amended.

<sup>92.</sup> Dz.U. z 2011 Nr 173, poz. 1032.

## d) Institute of Nuclear Chemistry and Technology

The Institute's main fields of activity include material studies, studies on the use of radioisotope instruments, and research and studies in the areas of radiochemistry, radiobiology and health protection, chemical engineering, metallurgy, hydrology and environmental protection.

## e) Institute of Plasma Physics and Laser Microfusion

The Institute's main fields of research are basic and applied sciences in the nuclear field.