NATIONAL ATOMIC ENERGY AGENCY

NATIONAL REPORT OF POLAND ON COMPLIANCE WITH THE OBLIGATIONS OF THE CONVENTION ON NUCLEAR SAFETY

Polish 5th national report as referred to in Article 5 of the Convention on Nuclear Safety

August 2010

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TABLE OF CONTENTS

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1. INTRODUCTION

This report has been prepared, according to the guidelines established by the Contracting Parties under Article 22, to fulfil the obligations of the Article 5 of the Convention on Nuclear Safety (CNS), signed by Poland on 20 September 1994 in Vienna and ratified by the President of the Republic of Poland on 10 May 1995. Present Report is the fifth one, following national reports issued in September 1998, October 2001, September 2004 and September 2007. Previous reports were presented during Review Meetings of the Contracting Parties of the Convention on Nuclear Safety held in Vienna in 1999, 2002, 2005 and 2008.
Being a Contracting Party without nuclear installations in the sense of the Article 2(i) of the Convention, in the previous reports Poland submitted information of general nature, outlining the national policy towards nuclear activities, the development of national nuclear safety laws and regulations (Article 7) as well as the regulatory infrastructure (Article 8).
Information was also given on the nuclear installations other then defined in the article 2(i) of the Convention and how the major requirements of the Convention as well as general safety consideration (in particular criteria presented in the Articles - 9, 10, 13, 14) are satisfied with respect to operation of those installations. Legal radiation protection requirements and criteria (Article 15) and emergency preparedness arrangements (Article 16) were also addressed.

During the 4th Review Meeting the following topics were reflected in the presentation:

- changes in legal framework introduced since 3rd Review Meeting,
- practical implementation of Convention articles referring to Polish nuclear installations,
- plans regarding Polish nuclear power programme,
- implementation of recommendations from previous Review meeting - i.e. data collection for the Central Register for occupational doses, staff recruitment and training for the Regulatory Body (National Atomic Energy Agency – NAEA).

In the final conclusions it was stated that the review process did not identify areas of non-compliance with the Convention on Nuclear Safety to the extent applicable for Poland.

The present report was prepared with the aim to update and supplement the information contained in the previous reports. It includes in particular the matters that were suggested during the fourth review meeting to be addressed in the Polish 5th national report; there were the following:

- continuation of staff recruitment and training for the Regulatory Body,
- self-assessment of regulatory infrastructure and preparations for IRRS mission.

This report describes legal framework, responsibilities and structure of regulatory body and status of implementation of relevant Convention's articles.

All information described in Chapter 2 of this report is based on current legislation. However, due to governmental decision on embarking on nuclear power and in order to transpose Council Directive 2009/71/Euratom establishing the Community Framework for the nuclear safety of nuclear installations, in 2009 NAEA began extended works on major amendment of Atomic Law act. On 22nd June 2010, the document called "Guidelines for the draft act amending Atomic Law" (see Annex no. 4 for details) was approved by the Council of Ministries. Currently (August 2010) Government Legislation Centre is finishing works on preparing the text of above mentioned amending act.
The expected date for the amended Atomic Law to come into force is July 2011. As it is described in Annex no. 4, in the amended Atomic law there will be many issues implemented into national legislation, which are covered by Convention on Nuclear Safety, though which so far were irrelevant for the country without nuclear power plants. Practical implementation of these new legal requirements will be one of the biggest tasks of the NAEA in following years.

RECOMMENDATIONS OF 4TH REVIEW MEETING

Continuation of staff recruitment and training for the Regulatory Body

Since publication of previous national report (September 2007) 9 new staff members were employed in positions related to nuclear safety, radiation protection and emergency preparedness (6 in Dep. of Radiation and Nuclear Safety and 3 in Radiation emergency Centre CEZAR). Recruitment strategy combined employment of group of young people (among the others with background in geology, as this area of expertise was lacking among NAEA staff) and 3 experienced experts (with experience in NPP project implementation). In autumn 2009 and spring 2010 internal training course on safety of nuclear power plants was conducted. Course was consisting of theoretical part and practical exercises. In addition NAEA staff is participating in a number of trainings and workshops organised by IAEA, WNA, NEA/OECD, etc. Probably by the end of the year 2010 bilateral agreement between NAEA and US NRC will be signed. Agreement assumes cooperation in field of nuclear safety regulation including on-the-job trainings for Polish regulatory inspectors.

Self-assessment of regulatory infrastructure and preparations for IRRS mission

In 2009 self assessment against recommendations of GS-G-1.1 Safety Guide and other relevant documents was conducted. On the basis of this document a draft action plan for the next 4-5 years was prepared. This document consists of actions necessary to adapt NAEA to the role of the regulatory body for Polish nuclear power programme.

In April 2009 Minister of Economy signed a letter with request for IRRS mission to be conducted in Poland. In autumn of 2009 meetings of NAEA and IAEA officials were held in Vienna in order to discuss details of the mission and the IRRS information meeting was held in Warsaw in November for the NAEA staff. In February 2010 workshop on self-assessment methodology was organised by IAEA in NAEA headquarters and in April 2010 self-assessment process with use of SAT software was launched. According to latest arrangements (not yet officially confirmed) IRRS mission in Poland will be held in 1st quarter of 2012.

2. COMPLIANCE WITH ARTICLES 6 - 19

2.1. Article-by-article review

Article 6. Existing nuclear installations

At the moment Poland has no nuclear installations according to definition in Article 2(i) of the Convention. There is neither NPP in operation nor in construction in Poland. The one planned in Zarnowiec (construction of two units of WWER-440/V213, started in 1985, and terminated in 1990) was finally cancelled in the year 1991. At present time Poland has only one research reactor in operation (the others, operated in the past, had been either permanently shut down or decommissioned - see **Annex no.1** for details).

Regarding future nuclear power programme *Resolution no. 4/2009 of the Council of Ministers of January 13th, 2009 on nuclear power development activities* stated among others that:

- Nuclear Power Program for Poland will be prepared and implemented (after public discussion and government's approval);
- Government Commissioner for Nuclear Power in Poland will prepare Nuclear Power Program for Poland (1st draft of this document was published in August 2010);
- PGE Polska Grupa Energetyczna SA (Polish Energy Group SA) will play a leading role in the implementation of Nuclear Power Program for Poland;
- At least 2 nuclear power plants will be built; first NPP will be commissioned in 2020.

Annex no. 5 gives information on the implementation of nuclear power in Poland prepared by Ministry of Economy for the needs of this national report.

Article 7. Legislative and regulatory framework.

1. ***Each Contracting Party shall establish and maintain a legislative and regulatory framework to govern the safety of nuclear installations.***
2. ***The legislative and regulatory framework shall provide for:***
    - ***i. the establishment of applicable national safety requirements and regulations;***
    - ***ii. a system of licensing with regard to nuclear installations and the prohibition of the operation of a nuclear installation without a licence:***
    - ***iii. a system of regulatory inspection and assessment of nuclear installations to ascertain compliance with applicable regulations and the terms of licences;***
    - ***iv. the enforcement of applicable regulations and of the terms of licences, including suspension, modification or revocation.***

National safety requirements and regulations

The issues of nuclear safety of nuclear facilities are regulated in the Act of 29 November 2000 "*Atomic Law*" (Journal of Laws of 2007, No. 42, item 276, as amended). The Atomic Law and its supporting regulations contain provisions that regulate the requirements related to:

1. radiological protection (of staff, society and patients);
2. nuclear and radiation safety, including
    - safety of nuclear facilities,
    - proceeding with nuclear material and sources of ionising radiation,
    - related to radioactive waste and spent nuclear fuel,
    - related to transport of nuclear material and radioactive sources, and spent nuclear fuel and radioactive waste,
    - assessment of radiation level and emergency actions,
3. physical protection (of nuclear facilities and nuclear material);
4. non-proliferation of nuclear material and technology (safeguards);
5. civil liability for nuclear damage.

Annexes no. 2 & 3 give summary of entire Atomic law and complete list of supporting regulations issued by Council of Ministries, Ministry of Health, Ministry of Internal Affairs, Ministry of Finances and Ministry of Environment.

The act incorporates a number of international and Community regulations, such as:

- Convention on Early Notification of a Nuclear Accident, Vienna, 26 September 1986 (Journal of Laws of 1998, No. 31, item 216) (INFCIRC/335);
- Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency, Vienna, 26 September 1986 (Journal of Laws of 1998, No. 31, item 218) (INFCIRC/336);
- Convention on Nuclear Safety, Vienna, 20 September 1994 (Journal of Laws of 1997, No. 42, item 262) (INFCIRC/449);
- Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management, Vienna, 5 September 1997 (Journal of Laws of 2002, No. 202, item 1704) (INFCIRC/546);
- Convention on the Physical Protection of Nuclear Material, including annexes I and II, open for singing in Vienna and New York on 3 March 1980 (Journal of Laws of 1989, No. 17, item 93)(INFCIRC/274/Rev.1);
- Amendment to Convention on Physical Protection of Nuclear Material, Vienna, 8 July 2005 (GOV/INF/2005/10-GC(49)/INF/6);
- Treaty on the Non-Proliferation of Nuclear Weapons, Moscow, Washington, London, 1 July 1968 (Dz. U. 1970, No. 8, item 60) (INFCIRC/140), and resulting acts:
    - Agreement between the Kingdom of Belgium, Kingdom of Denmark, Federal Republic of Germany, Ireland, Republic of Italy, Great Duchy of Luxembourg, Kingdom of Netherlands, European Atomic Energy Community and International Atomic Energy Agency, on Implementation of Article III, Sections 1 and 4, of the Treaty on Non-Proliferation of Nuclear Weapons, Brussels, 5 April 1973 (Dz. U. 2007, No. 218, item 1617);

    - Additional Protocol to the Agreement between the Republic of Austria, Kingdom of Belgium, Republic of Finland, Kingdom of Denmark, Federal Republic of Germany, Republic of Greece, Ireland, Republic of Italy, Great Duchy of Luxembourg, Kingdom of Netherlands, Republic of Portugal, Kingdom of Spain, Kingdom of Sweden, European Atomic Energy Community and International Atomic Energy Agency, on Implementation of Article III, Sections 1 and 4, of the Treaty on Non-Proliferation of Nuclear Weapons, Vienna, 22 September 1998 (Dz. U. 2007, No. 156, item 1096);
- Vienna Convention on Civil Liability for Nuclear Damage, Vienna, 21 May 1963 (Journal of Laws of 1990, No. 63, item 370)(INFCIRC/500);
- Joint Protocol Relating to the Application of the Vienna Convention and Paris Convention (on liability for nuclear damage), Vienna, 21 September 1988 (Journal of Laws of 1994, No. 129, item 633) (INFCIRC/402);
- Protocol Amending the Vienna Convention on Civil Liability for Nuclear Damage (INFCIRC/556) - during the ratification procedure.

In addition, the Republic of Poland is a party to the Treaty Establishing the European Atomic Energy Community (Euratom). Based on the treaty, a number of directives have been adopted and implemented in the Polish legal system, including but not limited to:

- Council Directive 96/29/Euratom of 13 May 1996 laying down basic safety standards for the protection of the health of workers and the general public against the dangers resulting from ionising radiation (OJ L 159 of 29.06.1996, page 1; OJ Polish version, chapter 5, vol. 2, page 291),
- Council Directive 89/618/Euratom of 27 November 1989 on informing the general public about health protection measures to be applied and steps to be taken in the event of radiological emergency (OJ L 357 of 07.12.1989, page 31; OJ Polish version, chapter 15, vol. 1, page 366),
- Council Directive 90/641/Euratom of 4 December 1990 on the operational protection of outside workers exposed to the risk of ionising radiation during their activities in controlled areas (OJ L 349 of 13.12.1990, page 21, as amended, OJ Polish version, chapter 5, vol. 1, page 405, as amended).
- Council Directive 97/43/Euratom of 30 June 1997 on health protection of individuals against the dangers of ionising radiation in relation to medical exposure and repealing directive 84/466/Euratom (OJ L 180 of 09.07.1997, page 22, as amended; OJ Polish version, chapter 15, vol. 3, page 332, as amended).
- Council Directive 2003/122/Euratom of 20 November 2006 on the supervision and control of shipments of radioactive waste and spent fuel (OJ L 337 of 05.12.2006, page 21),
- Council Directive 2006/117/Euratom of 22 May 2003 r. on the control of high-activity sealed radioactive sources and radioactive waste (OJ L 346 of 31.12.2003, page 57; OJ Polish version, chapter 15, vol. 7, page 694).

Licensing system for nuclear installations

The Act of Atomic Law requires (Art.4.1 p.2) a separate licence for construction, commissioning, trial and normal operation and decommissioning of any nuclear installation, issued by the President of NAEA. The requirements, concerning documentation to be submitted by an applicant and the procedure to be followed to obtain an appropriate licence, have been established in the *Council of Ministers Regulation* **on** *the documents required for licence application submitted for the practices that involve or could involve radiation exposure or for the notification of such practices,* last amendment on 27 May 2009 (OJ no 71 item 610). The general procedure of licensing nuclear installation (including power and research reactors, radioactive waste and spent fuel management facilities), in the phases of construction, commissioning, operation, decommissioning or closure is illustrated on **Fig.1**.

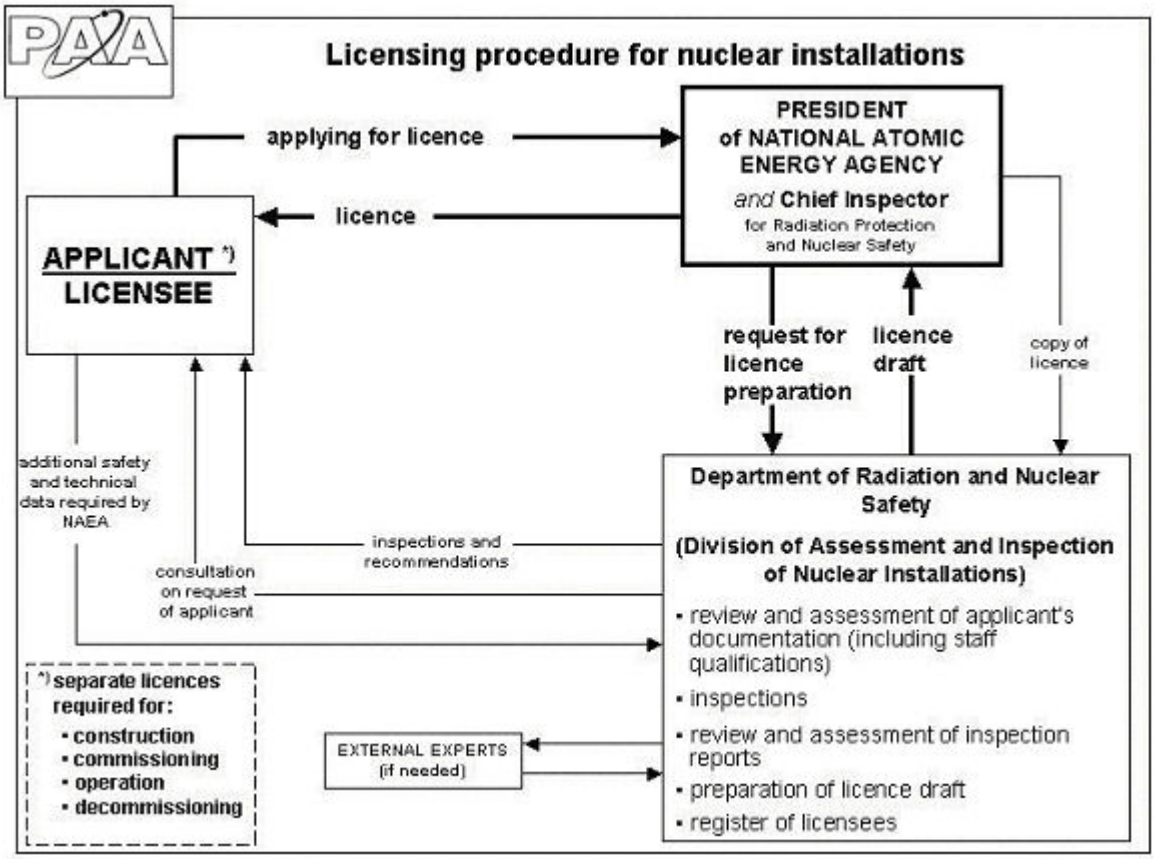

Fig. 1. Licensing procedure

Applications for a licence or for a official opinion related to a nuclear installation must be submitted to NAEA President. It applies also, with some modifications, to the stage of siting, which does not require NAEA President's licence, but only official opinion of this Body (see reporting on Article 17 for details).

Draft licences and opinions are prepared by the NAEA Department for Radiation and Nuclear Safety in its Division of Assessment and Inspection of Nuclear Installations, on the basis of review and assessment of safety documentation supplied by the applicant and also on the basis of inspections performed by NAEA regulatory inspectors in applicant's premises if necessary. The reports from each of inspections, performed by NAEA inspectors in nuclear installations upon the Agency President's order, are submitted to the Chief Inspector and to the Agency's President. While performing the review and assessment tasks, NAEA may use external experts or consultant organizations, but only on the condition that those experts or organizations are free from conflict of interest, i.e. they are not employed by or otherwise dependent on applicant/licensee. A draft licence or opinion, if accepted by Chief Inspector, is submitted to the Agency's President for endorsement and for the official granting to the applicant.

In the siting stage of a nuclear installation (including both NPPs and research reactors, spent fuel storages or repositories), the authority competent to issue of the decision on terms of building and area development conditions on the site of a future nuclear facility, issues this decision after obtaining the Agency President's positive opinion on the matters concerning nuclear safety and radiological protection (Art.36).

The licensing process applies also to the staff of a nuclear facility. According to Art.12 of the Atomic Law Act in any facility performing activities involving radiation exposure, the position important for ensuring nuclear safety and radiological protection have to be occupied exclusively by an individual possessing appropriate authorization issued by the Agency's President. Licences for such positions are granted on the basis of the qualification process, established by the Council Ministers' Regulation, issued pursuant to Art. 12.2 of the Act, and of the exams performed by

the Commission for Qualification of Staff for the Posts Important for Nuclear and Radiation Safety, appointed by the NAEA President.
Moreover, according to Art.11 of the Act, any employee of a nuclear facility have to be duly trained, according to the program prepared by the facility manager and endorsed by the NAEA President, to possess and maintain the knowledge of nuclear safety and radiological protection regulations appropriate for his position, as well as appropriate skills and qualifications.

Prohibition of the operation without a licence

According to the Art.2 of the Atomic Law Act, activities involving real and potential exposures to ionising radiation shall be permitted after undertaking the measures defined in appropriate regulations, aimed at ensuring the safety and protection of human life and health, as well as protection of property and the environment.
The Art. 4.1 p.2 requires that each subsequent stage, i.e. construction, commissioning, trial operation, normal operation and decommissioning, requires separate licences, granted by the NAEA President after ascertaining that the requirements and conditions relevant to radiation and nuclear safety at the given stage were met and fulfilled. It means, in particular, that the operation of a nuclear installation without a licence is prohibited**.**
The applicant/licensee must submit at each of the stages, together with his application for the licence to the NAEA President, a proper safety documentation for the nuclear facility. Results of the review and assessment of this documentation provide the regulatory body with the basis for preparation of a licence with relevant requirements and conditions.
The head of the organisational entity, who without the required licence, or in violation of the conditions attached to such a licence, engages in the construction, commissioning, operation and decommissioning of a nuclear facility, is subject to fine penalty (Art.123), imposed by the Chief Nuclear Regulatory Inspector.

Regulatory inspections and assessment of nuclear installation

According to the Act of Atomic Law, Regulatory Body responsibilities include in particular conducting inspections in nuclear facilities and in other facilities possessing (or involved in activities with) nuclear materials, ionizing radiation sources, radioactive waste and spent nuclear fuel (Art.64.4). To perform regulatory tasks, the NAEA President uses regulatory inspectors, who are under direct control of Chief Inspector. The inspection procedure for both – the nuclear facilities and the radiation application activities – is presented on **Fig.2**.
In the context of conducted inspection the regulatory Inspectors are entitled to (Art.66):

- access at any time to the means of transport and to the sites of organizational units, where nuclear materials, ionizing radiation sources, radioactive waste or spent nuclear fuel are produced, used, stored, disposed or transported (in particular – to nuclear installations),
- access to the documents relevant for nuclear safety and radiological protection in inspected organizational unit,
- check whether the activity / practice referred to in Art. 4.1 of the Atomic Law (subject to obtain licence or to be notified to the regulatory body) is conducted in compliance with the nuclear safety and radiological protection regulations and with the requirements and conditions specified in the licence,
- conduct, if necessary, independent technical and dosimetric measurements,

request written or oral information, when it is necessary for clarifying a concern.

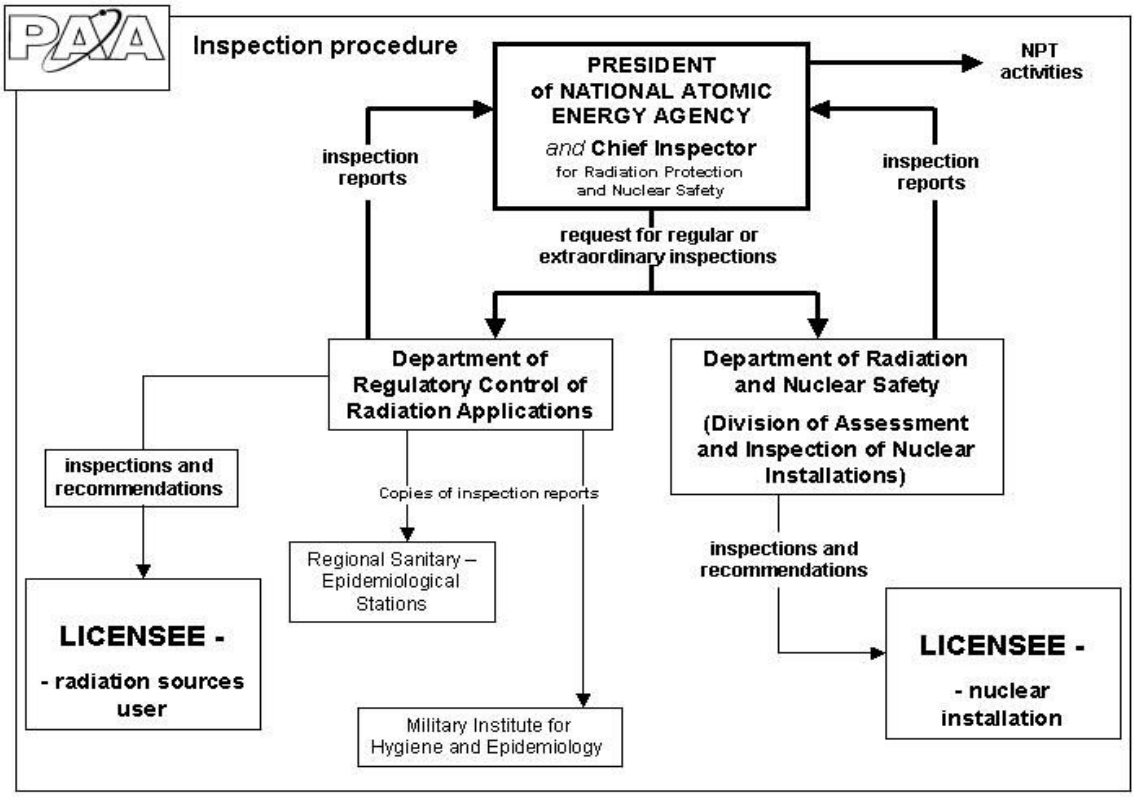

Fig.2. Inspection procedure

The manager of facility being inspected is obliged (Art. 67) to supply all necessary resources, to meet the conditions necessary for inspection, and make available all documents. The employees of the unit being inspected have to give the inspectors oral or written explanations on the questions related to the subject of inspection. Should an inspection reveal a direct threat to nuclear safety or radiation protection, the President of NAEA, the Chief Inspector or regulatory Inspectors are obliged by Art. 68 of the Act to give immediately applicable orders to impose emergency measures designed to eliminate the danger.

In the performing regulatory inspection also the international guidelines and experience from former inspections of nuclear facilities are taken into account. The primary purpose of regulatory inspection is the independent determination of how the licensee complies with the general nuclear safety and radiation protection requirements, with the licence terms, additional regulatory requirements and good engineering practices; the inspection also is a check of the implementation of the QA programme.

To ensure the effectiveness of routine regulatory inspections, each of them is carefully prepared. The programme and scope of such inspections is formulated prior to visiting the site, relevant procedures are evoked or, if necessary, prepared by the inspectors. The personnel designed to carry out each inspection is selected and notified beforehand to provide adequate time to become acquainted with applicable instructions and appropriate background material. In some cases non-routine (special) inspections are performed.

Enforcement provisions

The Act of Atomic Law gives regulatory body adequate powers to enforce compliance with safety requirements imposed by laws, regulations and licence conditions (Art. 5.5). According to its Art. 5.11 the NAEA President may revoke a licence or modify it as needed. In particular Agency's President shall revoke a licence if nuclear safety and radiation protection requirements imposed by applicable regulations and of the terms of licence have not been fulfilled. Depending of regulatory assessment of situation the following enforcement actions can be undertaken:

(1) oral or written immediately applicable order (Art.68)

(2) issuance of a written warning or directive to the licensee (Art.67.4, Art. 69),

(3) ordering the licensee to curtail activities (Art.39),
(4) suspension or revoking the licence (Art.5.11),
(5) financial penalty collected by mean of administrative execution proceedings (Art.123),
(6) punishment by fine or detention (Art. 127).
(7) recommendation of prosecution through the courts of law.
The regulatory inspectors have been equipped by Art.68 of the Act of Atomic Law with the authority to take on-the-spot decisions.

Article 8. Regulatory body

1. ***Each Contracting Party shall establish or designate a regulatory body entrusted with the implementation of the legislative and regulatory framework referred to in Article 7, and provided with adequate authority, competence and financial and human resources to fulfil its assigned responsibilities.***
2. ***Each Contracting Party shall take the appropriate steps to ensure an effective separation between the functions of the regulatory body and those of any other body or organization concerned with the promotion or utilization of nuclear energy.***

Scope of responsibilities

The Atomic Law requires that **activities involving real and potential ionizing radiation exposures** from man-made radioactive sources, nuclear materials, equipment generating ionizing radiation, radioactive waste and spent nuclear fuel, **are supervised** and **controlled** by the State and can be permitted on the condition of employing regulatory means for the safety and health and life protection of humans, and also for the protection of property and environment (Art.2). This includes the **obligation of obtaining an appropriate licence**, excluding the cases when such activities may be performed on the basis of notification or do not have to be licensed or notified according to the criteria established in the regulation of the Council of Ministers of 6 August 2002 (amended in 2004), based on the Article 6.1 of the Atomic Law.
Under the Atomic Law, the following activities / practices involving exposures require a licence or notification (with reservation as above):

1) manufacturing, conversion, reprocessing, storage, disposal, transport or use of, and trade in, nuclear materials, radioactive sources, radioactive waste and spent nuclear fuel;
2) **construction, commissioning, test and permanent operation and decommissioning of nuclear facilities**;
3) construction, operation, closure and decommissioning of disposal facilities for radioactive waste and disposal facilities for spent nuclear fuel, and construction and operation of storage facilities for spent nuclear fuel;
4) manufacture, installation, use and maintenance of equipment containing radioactive sources and trade in such equipment;
5) manufacture, purchase, commissioning and use of the ionizing radiation generating devices;
6) commissioning of laboratories and workrooms using ionizing radiation sources, including X-ray rooms;
7) intended addition of radioactive materials in the processes of manufacturing consumer and medical products, and trade in such products;
8) intended administration of radioactive materials to humans and animals, for medical or veterinary diagnostics, therapy or research purposes.

According to art.5, art.36-39 and art.63 of the Atomic Law Act, legal authority to issue licences, binding opinions and to perform regulatory control of the siting, design, construction, commissioning, operation and decommissioning of nuclear installations in Poland is given to the President of the National Atomic Energy Agency.
The President of the National Atomic Energy Agency **issues the licences and accepts the notifications** related also to other activities / practices that are listed above, with only the following exceptions: the **licences** for commissioning and use of X-ray equipment for medical

purposes[1] and for commissioning of the laboratories using such equipment are issued by **the state regional sanitary inspector** or – for organizational units subordinated or supervised by the National Defence Ministry – **the commander of the military preventive medicine centre**, or – for organizational units subordinated or supervised by the minister for internal affairs – **the state sanitary inspector in the Ministry of Internal Affairs and Administration.**

As a consequence of the above exceptions also the **supervision and control** in the area of nuclear safety and radiological protection over the activities / practices resulting in actual or potential ionizing radiation exposures of people and environment, are executed by (Art. 6.2):

1) **"regulatory bodies" (as defined below) – in the cases** when the licence is issued or notification accepted by the President of the Agency;
2) regional sanitary inspector, commander of the military preventive medicine centre or state sanitary inspector in the Ministry of Internal Affairs and Administration in the sphere of activities / practices licensed by these bodies.

According to definitions in the Art.64.1 of the Act of Atomic Law, the "regulatory bodies" consist of:

1) the President of NAEA, as the supreme nuclear regulatory body,
2) Chief Nuclear Regulatory Inspector, as the higher-level body in relation to the nuclear regulatory inspectors,
3) regulatory inspectors.

Atomic Law Act defines tasks of the regulatory bodies in its Chapter 9. They include in particular (Art.64.4):

- **issuing licences and other decisions** in issues related to the nuclear safety and radiological protection, according to the principles and methods established by the Act;
- **conducting inspections** in nuclear facilities and organizational units which possess nuclear materials, ionizing radiation sources, radioactive waste and spent nuclear fuel,
- **issuing on-the-spot orders** if during the inspection it is found that nuclear safety and radiological protection are endangered,
- **approving training programs** developed by the managers of organizational units operated on the basis of a licence (except the training programs developed by the managers of organizational units using X-ray equipment for medical purposes).

The President of NAEA constitutes a **central organ** of the governmental administration, **competent in** the issues of **nuclear safety** and **radiological protection** within the scope defined in the Act of Atomic Law (Art.109.1).

Mandate, authority and particular responsibilities of this body are defined in the Chapter 13 of the Atomic Law Act. The Agency's President is nominated and recalled by the Prime Minister (Art.109.2), and reports directly to him (Art.109.13) However, since the 1st January 2002, due to amendments made in the Act on Sectors of Governmental Administration (by the new Act passed by Parliament on 21 December 2001), the Agency's President has been administratively supervised by the Minister of Environment, who was obliged to invest the NAEA with a new statute establishing its internal organization. The above change in the law resulted in a rule that the Agency President shall be nominated by the Prime Minister upon request of the Minister of Environment. Prime Minister, in the form of regulation, may establish a detailed scope of activities for the Agency's President (art.111).

The President of NAEA executes his tasks through the National Atomic Energy Agency (art.112 of the Atomic law act).

Separation of regulatory and promotional function

The National Atomic Energy Agency and its President neither was in the past, nor is at present responsible for promoting of nuclear power generation.

In the case of construction of NPP Zarnowiec, the promotion and management of this project was the duty of the former Ministry of Industry from which NAEA was completely separated and independent. In view of fact, that according to definition of nuclear installation used in the Article 2

[1] In the following scope: medical diagnostics, invasive radiology, surface radiotherapy and radiotherapy for non-cancerous diseases.

(i) nuclear facilities other then NPPs are excluded from the scope of the Convention, the situation in Poland had satisfied the requirement of Article 8 (2) of the Convention. However, with respect to other installations utilising nuclear energy but excluded from the scope of the Convention, like research reactors or spent fuel and radwaste facilities, the clear separation between regulatory and managerial responsibility of the NAEA President was achieved according to provisions of the Atomic Energy Act of 29 November 2000 by appropriate organizational changes successfully performed before the new Atomic Law entered in force.
Since the beginning of the year 2002 the Agency's President has no duties which could be in contradiction with its regulatory functions in nuclear safety matters. All the operators of nuclear facilities (research reactors, spent fuel and waste management, disposal and repository sites), as well as all organisational units , performing activities licensed by or notified to the Agency's President, are within the organisational structures other then NAEA: the Institute of Atomic Energy (operator of MARIA research reactor) under the Ministry of Economy, the Radioactive Waste Management Plant (operator of the spent fuel facilities, the decommissioned EWA reactor and the radwaste management and disposal facilities in Świerk and Różan) are under the Ministry of State Treasury, while the NAEA is in different sector of State administration - supervised by the Ministry of Environment.

Regulatory body duties and organization

To perform **regulatory** tasks, the NAEA President uses, as his executive body, the appropriate NAEA departments, namely the Department for Radiation and Nuclear Safety (DRNS) with its 2 divisions: Division of Assessment and Inspection of Nuclear Installations (DoAINI) and Division of Non-proliferation and Safeguards (DoNS), and the Department of Regulatory Control of Radiation Sources (DRCRS). These departments of NAEA have nuclear **regulatory inspectors** who work under direct control of **Chief Inspector** (see **Fig.3**).
They support the Agency's President in the discharge of his regulatory responsibilities and perform their duties related to particular regulatory tasks listed above as well as to the following ones:

1. establishing regulations (art.110 p.11) and guidelines (art.110 p.3) for nuclear safety and radiation protection;
2. giving binding opinion at the stage of siting and licensing of the construction, commissioning, operation and decommissioning of nuclear installation after appropriate review and assessment of all safety concerns (art.5, art.36-38);
3. licensing activities related to the use of radiation sources (art.5, art. 64.4 p.1)
4. conducting review and assessment of the licensees' documentation, demonstrating the safety of nuclear installations or other radiation sources application (art. 66.1 p.2),
5. verifying whether the activities/practices performed by licensees comply with the nuclear safety and radiation protection requirements as set forth in relevant regulations and terms of licences (66.1 p.3)

Regulatory tasks involving licensing and inspection of nuclear facilities and other ionizing radiation sources users are performed mainly by two Agency's departments: DRNS and DRCRS. The regulatory tasks involving the nuclear material accountancy are performed also by DRNS through its Non-proliferation Division (DoNS).
The issues involving the training programs and public relations are covered by Department of Science, Training and Public Information (DSTPI).
The licences and other decisions related to nuclear facilities and facilities for the management of radioactive waste and spent nuclear fuel are issued by the NAEA President, on the basis of documents prepared by the DRNS in its Division of Assessment and Inspection of Nuclear Installations (DoAINI). Inspectors from this division perform safety assessments and regulatory inspections of nuclear facilities, and also perform assessments of the situation concerning nuclear and radiation safety in nuclear facilities in neighbouring countries. DRNS, responsible for the assessment and inspection, operates also the Agency's President Central Register of Doses of all the occupationally exposed A - category workers in Poland.

Licences for activities / practices involving ionizing radiation sources are issued by the NAEA President (or individuals by him authorized), basing on the draft documents prepared by the DRCRS. The inspectors from this Department perform all other inspections of radiation users.

Authority, competence and financial and human resources

The President of NAEA, being national regulatory authority, based on a legal system originating from the parliamentary bill – the Atomic Law, is competent in and responsible for nuclear safety and nuclear security as well as for radiological protection of professionals and of general public. That means that the NAEA is licensing and controlling (from the point of view of nuclear & radiation safety) all the activities involving any sources of ionizing radiation, is registering all the nuclear materials and radioactive sources and controlling their physical protection, is registering individual radiation doses of workers and is supervising within its competence all the activities undertaken in case of radiation emergency.
The legislation is established also on the lower levels of the pyramid and complies with international conventions and the EU directives. Regulatory functions have been separated from management and promotion functions, in particular also in the area of research reactors, radioactive wastes and spent fuel.

General safety consideration in current regulatory practice The major requirements as well as the general safety considerations of the Convention are applied in Poland in practice to the existing facilities, other than NPPs. The examples are: the rule of the ultimate responsibility for safety of the licence holder, polices that give due priority to safety, the requirement to use of quality assurance programs in facilities and activities that involve ionizing radiation and the assessment and verification of safety.

ARTICLE 9. RESPONSIBILITY OF THE LICENCE HOLDER

Each Contracting Party shall ensure that prime responsibility for the safety of a nuclear installation rests with the holder of the relevant licence and shall take the appropriate steps to ensure that each such licence holder meets its responsibility.

According to the Atomic Law Act, the applicant or licensee has the primary responsibility for ensuring safety in the siting, design, construction, commissioning, operation and decommissioning of a nuclear facility (Art.35.1). In Poland, the applicant or licensee during siting, design, construction and commissioning is called the investor and during operation and decommissioning is referred to as the operating organization.
The financial provisions to cover the possible harms caused by a nuclear accident have been arranged according to Vienna Convention to which Poland is a Party, by means of obligatory third party responsibility insurance required from the nuclear installation's operator, according to *the Council of Ministers' regulation on obligatory third party liability insurance of nuclear installation operator* (Art.103.4), issued on 23.04.2004, OJ (Dz. U. 2004) no 94 item 909, in force since 01.05.2004;

ARTICLE 10. PRIORITY TO SAFETY

Each Contracting Party shall take the appropriate steps to ensure that all organizations engaged in activities directly related to nuclear installations shall establish policies that give due priority to nuclear safety.

In addition to the investor's obligations, other persons (organizations) involved in the project of a nuclear installation are responsible, in accordance with their duties, for ensuring compliance with the nuclear safety and radiation protection requirements (Art.35.2).
The Atomic Law Act does not refer directly to any particular set of fundamental principles of nuclear installations safety. Nevertheless it requires that, beginning from site selection, through construction, commissioning and in operation, such technical and organizational measures shall be taken in accordance with the most updated scientific and technical

knowledge, that are necessary to eliminate, in all operational stages of a nuclear facility and in emergency situations, the harmful effects to the facility staff, the public and the environment (art.35.3).
Annex no. 4 gives description of planned measures to further implement Article 10 into Polish legal system.

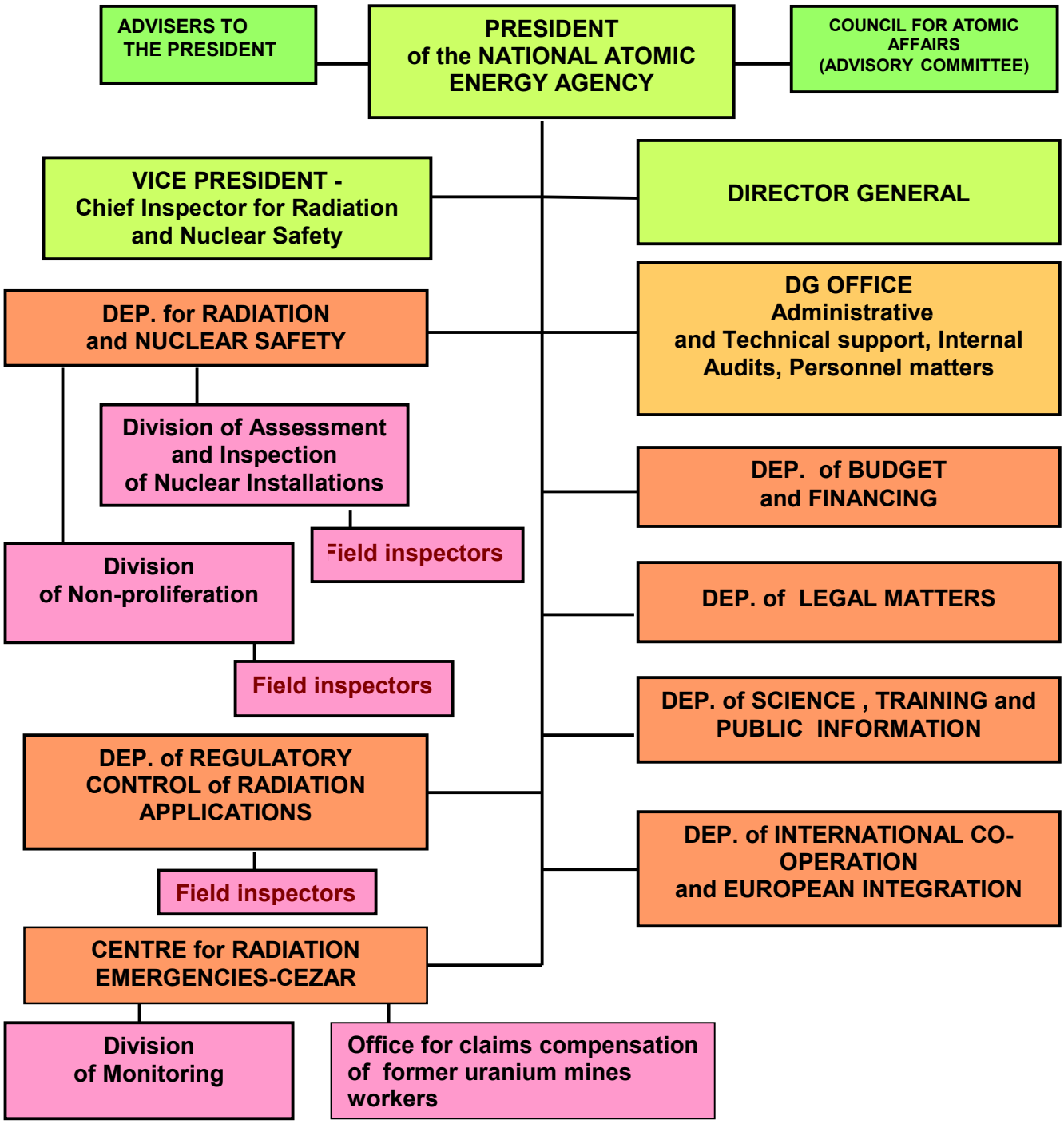

Fig.3. Structure of the National Atomic Energy Agency of Poland

ARTICLE 11. FINANCIAL AND HUMAN RESOURCES

1. ***Each Contracting Party shall take the appropriate steps to ensure that adequate financial resources are available to support the safety of each nuclear installation throughout its life.***

2. ***Each Contracting Party shall take the appropriate steps to ensure that sufficient numbers of qualified staff with appropriate education, training and retraining are available for all safety-related activities in or for each nuclear installation, throughout its life.***

Annex no. 4 gives description of planned measures to implement Article 11 in Polish regulatory system.

ARTICLE 12. HUMAN FACTORS

Each Contracting Party shall take the appropriate steps to ensure that the capabilities and limitations of human performance are taken into account throughout the life of a nuclear installation.

Annex no. 4 gives description of planned measures to implement Article 12 in Polish regulatory system.

ARTICLE 13. QUALITY ASSURANCE

Each Contracting Party shall take the appropriate steps to ensure that quality assurance programmes are established and implemented with a view to providing confidence that specified requirements for all activities important to nuclear safety are satisfied throughout the life of a nuclear installation.

The Atomic Law Act requires (Art.7.2) that every holder of licence issued by the President of NAEA is obliged to establish and implement quality assurance programme. Submission of this programme document as attachment to the application for the licence is prerequisite to obtain the licence. The programme is subject to review by regulatory body together with safety analysis report. Practical implementation of the programme is subject of control by regulatory body inspectors.
The programme should describe the ways of assuring that all quality-related activities will be performed in the properly controlled conditions, i.e. by properly qualified personnel using appropriate tools, equipment, methods and technological processes and under suitable environmental conditions, so that the required quality is attained and may be verified by inspection or test. Review and assessment of this programme shall be carried out by the regulatory body at all stages of the licensing process, i.e. prior to and during the construction, during commissioning and operation. If necessary, suitable conditions and requirements will be included in the licence.
The regulatory body, through the requirements concerning the preparation and implementation of the QA programme, obliges the applicant/licensee, as well as his vendors, to plan, perform, verify and document all their activities in an organized and systematic way. An effective QA programme, established and implemented by the licensee, allows the regulatory body to obtain satisfactory confidence in the quality of nuclear facility's equipment and in the quality of all performed activities. The regulatory body satisfies itself that the licensee has established and implemented and effective QA programme by audits, document reviews and inspections of work.
Annex no. 4 gives description of planned measures to further implement Article 13 in Polish regulatory system, among the others by introducing concept of Integrated Management System for nuclear installations.

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ARTICLE 14. ASSESSMENT AND VERIFICATION OF SAFETY

Each Contracting Party shall take the appropriate steps to ensure that:

i. comprehensive and systematic safety assessments are carried out before the construction and commissioning of a nuclear installation and throughout its life. Such assessments shall be well documented, subsequently updated in the light of operating experience and significant new safety information, and reviewed under the authority of the regulatory body;

ii. verification by analysis, surveillance, testing and inspection is carried out to ensure that the physical state and the operation of a nuclear installation continue to be in accordance with its design, applicable national safety requirements, and operational limits and conditions.

The scope of the safety documentation, reflecting the content and results of safety assessment performed, to be submit for review and acceptance by the regulatory body before each of the relevant licence/permit throughout the life of nuclear facility is issued to the applicant, is established by the governmental *Regulation on documents required for licence application submissions for practices that involve radiation exposure*, issued on 3.12.2002 (OJ no 220, item 1851), last amendment on 27 May 2009 (OJ no 71 item 610).
In regulatory practice in Poland nuclear installations licensees (of installations other then defined in the article 2(i) of the Convention) have to submit to regulatory body (the NAEA President) quarterly reports on nuclear safety status of facility, safety related events and licence conditions conformance. During regulatory inspections the requirements of the art.66.3 and art 66.4 are followed to verify if the state and operation of a facility conform to its technical specifications, operational limits and conditions, safety requirements and terms of the licence.
Annex no. 4 gives description of planned measures to further implement Article 14 including setting up obligatory requirements of conducting Periodic Safety Review by nuclear facilities operating organizations.

ARTICLE 15. Radiation protection

Each Contracting Party shall take the appropriate steps to ensure that in all operational states the radiation exposure to the workers and the public caused by a nuclear installation shall be kept as low as reasonably achievable and that no individual shall be exposed to radiation doses which exceed prescribed national dose limits.

The radiological protection issue at the national level is broadly addressed in the chapter 3 of *Atomic Law Act* and relevant several secondary regulations in which internationally endorsed criteria and standards had been incorporated. The Act takes into account the *Basic Safety Standards for radiation protection* (BSS- *International Basic Safety Standards for Protection against Ionizing Radiation and for the safety of Radiation Sources, IAEA Safety series No.115* based on ICRP 60/72). It is aimed at ensuring the compliance with the provisions of the *EURATOM Treaty* and appropriate EU directives. Besides of the *Directive 96/29/EURATOM on basic safety standards in health services, for the protection of workers and of the members of the public against the ionizing radiation risks*, the Atomic Law provisions introduce the requirements contained in other EU directives, relevant for the protection of workers and general public. They provide for the fundamental set of nuclear safety and radiological protection requirements. Detailed requirements, concerning specific facilities and activities conducted by individual licensee are specified in the licensing conditions. These conditions take into account the results of assessments and analyses performed to establish the operational conditions and limits assumed in safety reports for these facilities and activities.
Dose limits are established strictly according to the EU Directive 96/29 EURATOM in the governmental regulation on ionising radiation dose limits, first issued on 28 May 2002, replaced by its updated version on 18 January 2005 (OJ no 20, item 168). The effective dose limit for workers is 20 mSv per year (or equivalent dose for the lens of eye – 150 mSv per year, for the skin 500 mSv per year and for the hands, forearms, feet and ankles – 500 mSv per year), it is allowed however to exceed it up to the 50mSv in calendar year provided that in any 5 years period of his

occupational exposure the worker shall not exceed effective dose of 100 mSv (average value of 20 mSv yearly). The same limits are for apprentices and students over 18 years old. For this category for age between 16 and 18 years old yearly limit is 6 mSv/y , for younger than 16 years – 1 mSv/y – the same as for general public. If the worker is pregnant woman, the limitation of her doses has to be such as her child to be born does not exceed the dose of 1 mSv. In special circumstances, strictly defined by law, the limits above may be exceeded with exclusion of apprentices, students and pregnant women. For population equivalent dose limits are 15mSv per year for the lens of eye and 50 mSv per year for skin; the limit of 1 mSv per year may be exceeded provided that in 5 years period the effective dose shall not exceed 5 mSv. Workers exposures are subject to optimisation. For this purpose the radiation protection targets may be established by the management of facility. They are not subject to review or endorsement by the regulatory authority. On the contrary, the discharges of effluents to the environment are under control by the regulatory body and numerical values of relevant limits are usually included into the terms of licence. For the purpose of protection of population groups living in vicinity of nuclear facility the zone of limited use is established within such distance from the facility, that the effective dose at its perimeter does not exceed the value of 0.3 mSv.

Under the Atomic Law, the responsibility for compliance with the nuclear safety and radiological protection requirements rests upon the manager of the organizational unit conducting activities / practices involving exposure (Art.7). This exposure must not exceed the dose limits described above, established in the regulation issued under the Art. 25.1 of the Atomic Law. At the same time the principle of exposure optimization must be observed (Art.9). This means that the activity should be conducted in such way that – after reasonable consideration of economic and social factors – the number of exposed workers and members of general public and their doses are as low as reasonably achievable. According to this principle, **the manager** of the organizational unit shall perform an **assessment of the employees' exposure.** If it seems to be necessary from the exposure optimization analysis – the director shall establish the authorized limits **for the workers' exposure (dose constraints)** to ensure that their ionizing radiation doses will be not greater than these **limits**, which in turn are lower than **dose limits**. If the authorized limits are established in the licence, the licensing authority has to be notified of the possibility of their overrun by the organizational unit manager. The assessment of the employees' exposure is based on the spot-check individual dose measurements or dosimetric measurements in the workplace. The workers whose exposure – according to the manager's assessment – can exceed 6 mSv in one year in the terms of effective dose or three tenths of dose limit values for skin, limbs and eye lens in terms of equivalent dose, shall be subject to the exposure assessment based on systematic individual dose measurements (category A workers). For these workers the organizational unit director is obliged to maintain a register of their individual doses based on systematic measurements and doses' assessment conducted by properly accredited entities. The data concerning these exposures must be relayed systematically (in compliance with the requirements established in the *Regulation of the Council of Ministers of 5 November 2002 on the individual dose records*) first issued on 5 November 2002, replaced by its updated version on 23 March 2007 (OJ no 131, item 913) to the authorized medical practitioner, who maintains medical records of these workers, and also to the central dose register of the NAEA President.

To match the methods of exposure assessment to the expected exposure level for workers, two categories of workers are established: category A (for workers who may be exposed to an effective dose exceeding 6 mSv/y or to an equivalent dose exceeding three-tenths of the dose limits for eye lens, skin and limbs) and category B (for workers who may be exposed to an effective dose exceeding 1 mSv/y or to an equivalent dose exceeding one-tenth of the dose limits for eye lens, skin and limbs).

The data related to the doses obtained by workers classified (by their supervisor) as "category A workers" is collected since year 2003 in the Central Dose Register of the President of the National Atomic Energy Agency. These data are based on the measurements of whole-body effective dose or effective dose to a specified exposed body part (e.g. the hands). Exceptionally, in the cases of exposures to radioactive contamination from the so-called unsealed sources, the assessment of committed dose from internal contamination is performed. Radiation dose measurements are performed by specialized laboratories.

The central dose register is kept in the form of an electronic data-base comprising electronic registration cards, separate for every “category A worker”. Data are stored until the worker reaches the age of 75 years, but not shorter than for 30 years from the end of the calendar year in which the last entry concerning the given worker has been made.
The total number of workers classified as “category-A workers” and recorded in the Central Dose Register exceeded 2000. The data show that approximately 97% of category-A workers did not exceed the lower limit for this category of exposure (6 mSv/y) and 99.5% did not exceed the 20 mSv/a limit. Each case of exposure exceeding the annual dose limit of 20 mSv is subjected to a detailed investigation by regulatory inspectors.
Head of organizational entity, prior to employing a worker in radiation exposure conditions, shall apply to the NAEA President for the information from the central dose register on the doses received by this worker in the calendar year in which the application is submitted, and also in the period of the four preceding calendar years. All employers of the category A workers are obliged to submit the dose data of their employees yearly in legally fixed date, and each time after the dose limits were exceeded or the employee finished its employment.

ARTICLE 16. Emergency preparedness

1. ***Each Contracting Party shall take the appropriate steps to ensure that there are on-site and off-site emergency plans that are routinely tested for nuclear installations and cover the activities to be carried out in the event of an emergency.***
   For any new nuclear installation, such plans shall be prepared and tested before it commences operation above a low power level agreed by the regulatory body.
2. ***Each Contracting Party shall take the appropriate steps to ensure that, insofar as they are likely to be affected by a radiological emergency, its own population and the competent authorities of the States in the vicinity of the nuclear installation are provided with appropriate information for emergency planning and response.***
3. ***Contracting Parties which do not have a nuclear installation on their territory, insofar as they are likely to be affected in the event of a radiological emergency at a nuclear installation in the vicinity, shall take the appropriate steps for the preparation and testing of emergency plans for their territory that cover the activities to be carried out in the event of such an emergency.***

Regulation of the Council of Minister’s of 20 February 2007 on the emergency plans for radiation emergency (issued on 23 December 2002, OJ (Dz.U.2002) no 239, item 2033, last amendment in 2007, OJ (Dz. U. 2007) no 131 item 912), defines the responsibilities, scope, requirements and general rules of cooperation in a case of radiation emergency. According to this regulation, the plans on different levels (facility level, province level, national level) and appropriate emergency preparedness arrangements have to be in place and maintained by the organizations and bodies responsible for directing actions aimed at eliminating the threat and its consequences, and in particular - for implementation of intervention measures in case of radiation emergency with consequences beyond the site where it has occurred. The same bodies are responsible for systematic testing of these plans and arrangements within the prescribed time-intervals as established by the Atomic Law for national level (Art.96) and by the regulation of the Council of Minister’s on the emergency plans for radiation emergency for facility and province levels.
There are emergency plans for spent fuel and radioactive waste management facilities localized at Świerk site and for the National Radioactive Waste Repository in Różan. The external transportation of radioactive waste is essential for these plans. The plans include internal (radiation protection and decontamination service) and external communication and cooperation (President of the National Atomic Energy Agency, Province Governor office and services, State Regional Sanitary Inspector, police, fire-department).
The Atomic Law Act requires that during on-site radiation emergency, the actions aimed at the elimination of the threat and its consequences shall be directed by the facility manager. During radiation emergency on regional scale actions including intervention measures shall be directed by the governor of a province (Voivode) in co-operation with the proper State Regional Sanitary Inspector. On national level this is responsibility of the minister of interior and administration, with

the NAEA President assistance. This minister is obliged by Law (Art.96.2 of Atomic Law) to perform exercise to test the national level radiation emergency preparedness plan at least once in 3 years. According to present requirements (Art.96.1 of Atomic Law, regulation of the Council of Minister's on the emergency plans for radiation emergency) the frequency of testing of the relevant plans at regional (provincial) and facility level must be established within each particular plan by the province governor or the facility manager respectively. In practice such exercises are performed every one-two years for the facility and every one-three years for the province.
As there is no NPPs in Poland and existing other nuclear facilities are sited far from the national borders, it is rather unlikely that Poland could create immediate radiation threat to a neighbouring country. Also the NPPs in neighbouring countries are not located in the close vicinity to Poland's borders. However appropriate arrangements have been made to be able to respond adequately to even very unlikely radiation emergency situation. According to the Atomic Law the NAEA President is responsible for performing the tasks concerning the assessments of national radiation situation in normal conditions and in radiation emergency situations, and the transmission of relevant information to appropriate authorities and to the general public.
For the purpose of information gathering and of assessment and forecasting of radiation situation development, the President of NAEA has established **the Radiation Emergency Centre** "CEZAR" being one of department **in the NAEA structure,** which operates **National Contact Point** (for domestic matters and for EC, IAEA, CBSS, NATO, and bilateral agreements) and has direct access to the data from the Country-wide system for early detection of radioactive contamination (early warning radiation monitoring system), the meteorological data as well as appropriate computerized tools (decision support systems e.g. RODOS, ARGOS), relevant data bases, and the staff adequately trained to operate these tools, to perform analysis and prognosis and to formulate recommendations for decision makers. The system provides also for foodstuff monitoring data to be collected and transmitted to the Centre.
CEZAR operates also the **International and Domestic National Warning Point** (NWP) working on 24h a day/7 days a week basis. It serves as a channel of exchanging information on radiation emergencies with IAEA in Vienna, EC, CBSS, NATO and neighbouring countries according to international conventions and bilateral agreements. It operates also the ECURIE station for urgent exchange of information in the situation of radiation emergency between EU Member States.

Poland has bilateral agreements on early notification of a nuclear accident and on cooperation in nuclear safety and radiological protection with Denmark (1987), Norway (1989), Austria (1989), Ukraine (1993), Belarus (1994), Russian Federation (1995), Lithuania (1995), Slovak Republic (1996), Czech Republic (2005) and Germany (2009).

Poland participates in international projects in the emergency preparedness area, therefore Radiological Emergency Centre CEZAR of NAEA regularly participates in many international exercises and tests organized by IAEA (CONVEX level 1, 2 and 3), EU (ECURIE level 1 and 3), NATO (CMX-2005, EADRCC), NEA-OECD (INEX-3 in 2005), Council of Baltic Sea States (CBSS) EGNRS (Expert Group for Nuclear and Radiation Safety), and within bilateral agreements with neighbouring countries. Each year CEZAR participates in several domestic exercises on the national or regional level.

ARTICLE 17. SITING

Each Contracting Party shall take the appropriate steps to ensure that appropriate procedures are established and implemented:

i. ***for evaluating all relevant site-related factors likely to affect the safety of a nuclear installation for its projected lifetime;***

ii. ***for evaluating the likely safety impact of a proposed nuclear installation on individuals, society and the environment;***

iii. ***for re-evaluating as necessary all relevant factors referred to in sub-paragraphs (i) and (ii) so as to ensure the continued safety acceptability of the nuclear installation;***

iv. ***for consulting Contracting Parties in the vicinity of a proposed nuclear installation, insofar as they are likely to be affected by that installation and, upon request providing the necessary information to such Contracting Parties, in order to enable them to evaluate and make their own assessment of the likely safety impact on their own territory of the nuclear installation.***

Within the current legal status, a nuclear facility can be located based on the local land-use plan or, if missing, based on the preliminary planning decision. If a draft local land-use plan includes a nuclear facility, the draft should be agreed upon by the President of the National Atomic Energy Agency, under the procedure of the Act of 27 March 2003 on land-use planning (Journal of Laws, No. 80, item 717, as amended). However, if the local land-use plan is missing, the site of a future nuclear facility is subject to the preliminary planning decision. The competent authority shall issue this decision after obtaining a positive opinion of the Agency's President on nuclear safety and radiological protection matters (Article 36 of the Atomic Law).
Currently, the Ministry of Infrastructure is amending the Act of 27 March 2003 on land-use planning. The draft act prepared by the Minister of Infrastructure, amending the Act on land-use planning and certain other laws, has been submitted for discussion to the Committee of the Council of Ministers. The draft act amending the act on land-use planning stipulates that nuclear facilities can be located based on the local land-use plan or the decision concerning the urban implementation plan which is to replace the current preliminary planning decision. Upon enforcement of the draft act amending the act on land-use planning and certain other laws, both the local land-use plan and the urban implementation plan decision will require approval of the President of the National Atomic Energy Agency, if applicable to nuclear facilities.
Annex no. 4 gives description of changes to be introduced in Atomic Law Act regarding siting of nuclear installation.

ARTICLE 18. DESIGN AND CONSTRUCTION

Each Contracting Party shall take the appropriate steps to ensure that:

i. ***the design and construction of a nuclear installation provides for several reliable levels and methods of protection (defence in depth) against the release of radioactive materials, with a view to preventing the occurrence of accidents and to mitigating their radiological consequences should they occur;***

ii. ***the technologies incorporated in the design and construction of a nuclear installation are proven by experience or qualified by testing or analysis;***

iii. ***the design of a nuclear installation allows for reliable, stable and easily manageable operation, with specific consideration of human factors and the man-machine interface.***

Annex no. 4 gives description of planned measures to implement Article 18 in Polish regulatory system regarding design and construction of future nuclear installations.

ARTICLE 19. OPERATION

Each Contracting Party shall take the appropriate steps to ensure that:

i. the initial authorization to operate a nuclear installation is based upon an appropriate safety analysis and a commissioning programme demonstrating that the installation, as constructed, is consistent with design and safety requirements;

ii. operational limits and conditions derived from the safety analysis, tests and operational experience are defined and revised as necessary for identifying safe boundaries for operation;

iii. operation, maintenance, inspection and testing of a nuclear installation are conducted in accordance with approved procedures;

iv. procedures are established for responding to anticipated operational occurrences and to accidents;

v. necessary engineering and technical support in all safety-related fields is available throughout the lifetime of a nuclear installation;

vi. incidents significant to safety are reported in a timely manner by the holder of the relevant licence to the regulatory body;

vii. programmes to collect and analyse operating experience are established, the results obtained and the conclusions drawn are acted upon and that existing mechanisms are used to share important experience with international bodies and with other operating organizations and regulatory bodies;

viii. the generation of radioactive waste resulting from the operation of a nuclear installation is kept to the minimum practicable for the process concerned, both in activity and in volume, and any necessary treatment and storage of spent fuel and waste directly related to the operation and on the same site as that of the nuclear installation take into consideration conditioning and disposal.

Reporting on articles 7, 8, 14 and Annex no. 1 give information on current implementation of Article 19 provisions in operation of installations other then defined in the article 2(i) of Convention. Annex no. 4 gives description of planned measures to be introduced regarding operation of nuclear installations. It must be underlined that most of the new requirements will be binding also for existing nuclear facilities (i.e. research reactor).

2.2. Concluding summary statement on the fulfilment of the obligations

Based on the evaluation, it can be concluded that Polish regulations and practices continue to be in compliance with the obligations of the Convention to the extent applicable to Poland, and further progress is underway in the view of Polish nuclear power programme.
Extended summary of planned changes in legislative framework are given in Annex no. 4. It is clear that proper implementation of Convention on Nuclear Safety articles is one of the major prerequisite to develop national nuclear power programme in Poland. Practical execution of new safety requirements, which are expected to enter into force in July 2011, will be main task of NAEA in following years. In order to develop human resources and technical expertise in regulatory body a proper funding from state budget is essential. Successive national reports prepared for future review meetings will provide further information on regulatory body and legislative framework development. At this moment it is impossible to give more details as major governmental decision are still pending (i.e. endorsement of Nuclear Power Program for Poland prepared by Ministry of Economy and passing an amendment to Atomic law).

Annex no.1

POLAND

Installations (other than defined in the article 2(i) of the Convention on Nuclear Safety)

Research reactors

The only Polish **operational reactor „MARIA"** is a high flux **channel-pool type** one, of nominal thermal power **30 MW** (**first criticality date 1974/18/12**), at present operating at about 20 MW thermal power and used mostly to isotopes production, silicon doping and physical experiments. It was operating at the time of entering into force of the Convention, after an extensive process of upgrading. In the years 1999-2002 a process of conversion from 80% to 36% enriched fuel of reactor core was completed. Conversion of reactor core to LEU fuel is ongoing. First two LEU fuel assemblies were introduced into core for testing. Full conversion is expected by the year 2015.
The facility, **operated by the Institute of Atomic Energy POLATOM in Świerk (IAE)**, is subject to process of its constant upgrading and accommodation to actual tasks. All principles enumerated in Article 19, concerning its operation are observed. The exchange of experience (art.19 (vii)) is naturally limited as the design of the reactor is very specific.
The spent fuel from this reactor is stored in a technological pool connected to the reactor pool inside the reactor building (**AR, wet** type of storage).

The first research **reactor "EWA"** (pool type) 10 MW_{th} (first criticality date **1958/06/14**), used for isotopes production and physical experiments in horizontal channels, was shut down and unloaded of fuel in 1995. Its **decommissioning** process, authorized under general permission issued to its **operator (IAE)** - in 1997, recently has reached the end of its **2nd stage**, according to IAEA definition. The spent fuel unloading, decontamination and the majority of dismantling works were performed by IEA before the year 2002, when the facility was handed over together with spent fuel facilities to the newly created State owned public utility enterprise Radioactive Waste Management Plant (RWMP). Since the beginning of the 2002 RWMP has been continuing of EWA decommissioning works and operating 2 separate facilities that used to contain all EWA reactor spent fuel (**AFR, wet** type of storage), before their partial repatriation to Russian Federation GTRI (see more information below) initiative. At the moment only EK-10 (LEU) spent fuel is stored at Świerk site, but governmental plans assume repatriation of this type of fuel together with HEU fuel from MARIA reactor within next 2-3 years.

The former **critical assembly "ANNA"** (first criticality date **1963/01/01**), **zero-power reactor "AGATA"** (pool type, first criticality date **1973/05/05**) and **small power (100 kW_{th}) reactor "MARYLA"** (pool type, first criticality date **1967/02/01**) long ago had been **permanently shut-down**, unloaded of fuel and **dismantled**.

Both reactors as well as the spent fuel storages are sited at nuclear research centre in Świerk, where also waste treatment and storage facilities for ILW and LLW are located. High activity spent sealed sources are also temporarily stored at Świerk. Another nuclear site in Poland is Różan Radioactive Waste Repository, for near-surface disposal of LILW institutional waste, SSRS and for interim storage of alpha waste.

Spent fuel facilities and GTRI

Before the year 2009 spent fuel elements from the MARIA reactor was stored in the MARIA reactor operated by IEA (**AR, wet**) and spent fuel storage facility operated by RWMP. Spent fuel from EWA reactor (HEU and LEU fuel) was stored in two spent fuel storages operated by RWMP. Within the framework of GTRI Poland implemented RRRFR Programme (Russian Research Reactor Fuel Return Programme). In the years 2009-2010 five spent fuel shipments were performed and all HEU EWA SF and most of the MARIA SF (80% enrichment) was shipped back to Russian Federation. Intergovernmental agreements assume continuation of RRRFRP in

following years and repatriation not only of remaining MARIA HEU spent fuel but also of LEU EWA spent fuel. Time schedule of second part of RRRFRP is currently under negotiations.

Radioactive waste facilities

RWMP operates the following installations and facilities at Świerk site and Różan site:

Świerk:

Treatment and storage of ILW and LLW liquid waste and LILW solid waste: evaporation facility and membrane separation facility, chemical treatment facilities (liquid waste), cementation unit, bituminization unit, hydraulic press (12 ton), temporary storage facility.

Różan (*the site was originally a military fort, converted to a repository in 1961)*

Near-surface repository / storage. LILW Institutional waste, SSRS, Interim storage in case of alpha waste. Low- and intermediate-level beta and gamma waste is being disposed of in a moat area (facility no. 8), and alpha-bearing waste is being placed in temporary storage in facility no.1. The PHARE project on the closure of the repository was finished in 2004. This project specifically considered the decommissioning options regarding facilities nos. 2 and 3 at the site, including waste retrieval, repackaging and re-disposal.

It is currently the only radioactive disposal site available in Poland. It is likely that another site for a national repository for future waste arising will eventually have to be found. Indeed, in 1999 Poland completed a three-year Strategic Governmental Programme covering all aspects of present and possible future radioactive waste management in the country. Not only did this deal with the sitting issue regarding construction of a new storage when the Różan facility will closed (about year 2020) but also considered the waste implications on a future national nuclear power programme (i.e. deep geological repository). This detailed examination of areas suitable for near surface repository sitting resulted in 19 sites being chosen for *in-situ* geological investigations. Unfortunately, none of the local authorities concerned are currently in favour to have storage at its territory.

Uranium mining

Most mining activities took place in the south-west of the country. Mining of ore ended in 1968, and processing was terminated in 1973. There are some 100 dumps, mostly abandoned, of waste rock and ore totalling approximately 1.4 x 10^6 m^3 as well as one tailing pond, which remediation project (partly funded by the EC) was finished in 2004.

Annex no.2

Executive Regulations to the Act of Atomic Law

1. Regulation of the Council of Ministers of 21 October 2008 on the authorization and approval for 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 (JL no. 219, item 1402)

2. Regulation of the Council of Ministers of 4 November 2008 on physical protection of nuclear material and nuclear facilities (JL no. 207, item 1295)

3. Regulation of the Minister of Health of 27 March 2008 on minimum requirements for health units providing health care benefits from the X-ray, interventional radiology and radionuclide diagnosis and therapy of non-malignant diseases (JL no. 59, item 365)

4. Regulation of the Minister of Health of 27 March 2008 on the database of radiological devices (JL no. 59, item 366)

5. Regulation of the Council of Ministers of 4 October 2007 on the allocated and special purpose subsidy, fees and finance management in the state-owned public utility 'Radioactive Waste Management Plant' (JL no. 185, item 1311)

6. Regulation of the Council of Ministers of 20 February 2007 on the requirements for controlled and supervised areas (JL no. 131, item 910)

7. 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 (JL no. 131, item 911)

8. Regulation of the Council of Ministers of 23 March 2007 on the requirements for the individual dose registration (JL no. 131, item 913)

9. Regulation of the Minister of Health of 2 February 2007 on the detailed requirements for the form and content of the reference and working medical radiological procedures (JL no. 24, item 161)

10. Regulation of the Council of Ministers of 2 January 2007 on the requirements concerning the content of natural radioactive isotopes of potassium K-40, radium Ra-226 and thorium Th-228 in raw materials and materials used in buildings designed to accommodate people and livestock, as well as in industrial waste used in construction industry, and the procedures for controlling the content of these isotopes (JL no. 4, item 29)

11. Regulation of the Minister of Health of 22 December 2006 on the supervision and control of observance of terms of radiological protection in the organizational units using x-ray devices for medical diagnosis, interventional radiology, surface radiotherapy and radiotherapy of non-malignant diseases (JL 2007 no. 1, item 11)

12. Regulation of the Council of Ministers of 28 December 2006 on the special purpose subsidy awarded to ensure national nuclear safety and radiological protection while using ionizing radiation (JL no. 251, item 1849)

13. Regulation of the Minister of Health of 21 August 2006 on detailed safety requirements for work involving radiological devices (JL no. 180, item 1325)

14. Regulation of the Minister of Interior and Administration of 30 August 2006 on the list of border crossings through which nuclear materials, radioactive sources, devices containing such sources, radioactive waste and used nuclear fuel may be imported into and exported from the territory of the Republic of Poland (JL no. 164, item 1158)

15. Regulation of the Council of Ministers of 12 July 2006 on detailed safety requirements for work involving ionising radiation sources (JL no. 140, item 994)

16. Regulation of the Minister of Health of 4 May 2006 on the organization, operation mode and the specific tasks of the National Centre for Radiation Protection in Health Care (JL no. 85, item 592)

17. Regulation of the Minister of Health of 7 April 2006 on minimum requirements for health care facilities applying for authorization to conduct activities involving exposure to ionizing radiation for medical purposes, consisting in the provision of health services in the field of radiation oncology (JL no. 75, item 528)

18. Regulation of the Minister of Health of 25 August 2005 on conditions for the safe use of ionizing radiation for all types of medical exposure (JL no. 194, item 1625)

19. Regulation of the Council of Ministers of 18 January 2005 on the positions important for ensuring nuclear safety and radiological protection and on radiological protection inspectors (JL no. 21, item 173)

20. Regulation of the Council of Ministers of 18 January 2005 on ionizing radiation dose limits (JL no. 20, item 168)

21. Regulation of the Council of Ministers of 27 April 2004 on intervention levels for various intervention measures and criteria for cancelling intervention measures (JL no. 98, item 987)

22. Regulation of the Council of Ministers of 27 April 2004 on the determination of entities competent to inspect maximum permitted levels of radioactive contamination of foodstuffs and feeding stuffs following a radiation event (JL no. 98, item 988)

23. Regulation of the Council of Ministers of 27 April 2004 on the protection against ionising radiation of outside workers exposed during their activities in controlled areas (JL no. 102, item 1064)

24. Regulation of the Council of Ministers of 27 April 2004 on prior information to the general public in the event of a radiation emergency (JL no. 102, item 1065)

25. Regulation of the Minister of Finance of 23 April 2004 compulsory third-party liability insurance for the operators of nuclear devices (JL no. 94, item 909)

26. Regulation of the Minister of Environment of 30 December 2002 on detailed rules for the creation of a restricted-use area surrounding nuclear facility, indicating relevant restrictions concerning its uses (JL no. 241, item 2094)

27. Regulation of the Council of Ministers of 17 December 2002 on the station for early detection of radioactive contamination and on the units that conduct measurements of radioactive contamination (JL no. 239, item 2030)

28. Regulation of the Council of Ministers of 23 December 2002 on the requirements for dosimetric equipment (JL no. 239, item 2032)

29. Regulation of the Council of Ministers of 3 December 2002 on radioactive waste and spent nuclear fuel (JL no. 230, item 1925)

30. Regulation of the Council of Ministers of 3 December 2002 on the documents required with the application for the licence for activities involving the exposure to ionizing radiation or with the notification of such activities (JL no. 220, item 1851 as amended; last amendment: 21.04.2009)

31. Regulation of the Council of Ministers of 6 August 2002 on the cases when the exposure to ionizing radiation are exempted from mandatory licensing or notification, and on the cases when such activities can be conducted on the basis of a notification (JL no. 137, item 1153 as amended, last amendment: 01.05.2004)

32. Regulation of the Council of Ministers of 6 August 2002 on nuclear regulatory inspectors (JL no. 137, item 1154)

Annex no. 3

Summary of the Act of Atomic Law

The Atomic Law Act, originally enacted by the Parliament of the Republic of Poland on 29 November 2000, has been amended several times in the years 2001-2010. Last amendment was published in Official Journal No. 107, Item 679 on 17th June 2010 and will enter into force on 18th September 2010.

The Act is divided into 18 Chapters:

Chapter 1 entitled *"General provisions"* defines the subject and presents definitions of terms used in the text of the Law. The list of definitions of terms has been extended by those connected with the high activity sealed sources and medical exposure, also some old definition has been improved for example term "quality assurance programme" has been literally included in Atomic law.

Chapter 2 entitled *"Licenses addressing nuclear safety and radiological protection issues"* lists the activities which require licenses or notifications from the point of view of nuclear or radiological safety, and activities which are prohibited. It also sets up adequate procedures regarding the licensing and defines the authorities granting licenses to perform activities.

Chapter 3 entitled *"Nuclear safety, radiological protection and health protection of workers"* places the responsibility for nuclear safety and radiological protection on manager of the organization pursuing the activities involving exposure and defines the scope of this responsibility, in particular in a case of ceasing activity. It formulates the requirement for justification of such activities, as well as a number of other requirements, such as supervision and inspection, the imperative to follow the "optimization principle" with regard to exposures, adequate training of workers, radiological safety of individuals in cases of medical exposures, occupational exposures and radiological protection of workers and external workers, and their rights. This chapter also specifies the conditions for carrying out actions aimed at elimination of radiation emergency consequences, maintaining of the central register of doses received by individuals, categorization of radiation workers (categories A and B) and requirements with regard to dosimetric equipment. Finally, it introduces a system of subsidizing certain activities in the area of nuclear and radiological safety from the State budget;

Chapter 3a entitled *"Medical application of ionizing radiation"* enumerates medical applications of ionizing radiation, and formulates principles of carrying on activities that involve patient's exposure to ionizing radiation, in particular – mandatory justification of exposure and optimization of radiological protection. It places responsibilities for patient's exposures on the authorized medical practitioner, and relevant responsibilities and duties in the area of inspection and clinical audits - on medical institutions. It defines principles and requirements for quality management system in radio-diagnostics, invasive radiology, nuclear medicine and radiotherapy, including the reference radiological procedures for standard medical exposures, the terms of issuance of relevant permits and authorizations and the authorities competent for granting them. Finally, it formulates the scope and terms of creation of the National Radiation Protection Centre in Medicine and the central data base for medical radiation facilities.

Chapter 4 entitled *"Nuclear facilities"* places the responsibility for nuclear and radiological safety on manager of the organization which is operating a nuclear facility, and addresses the questions of licensing and establishing of the restricted areas around such facility, as well as formulates the right for the NAEA President to curtail or suspend the operation of nuclear facility when nuclear safety may be endangered;

Chapter 5 entitled "Nuclear materials and technologies" formulates requirements for adequate nuclear materials accountancy and their physical protection as well as for appropriate control of nuclear technologies (as required by appropriate international agreements and conventions). In particular it includes prohibition of use these materials and technologies to construct nuclear

weapon or nuclear explosives; any scientific researches in this area are subject to notification to the NAEA President prior their commencement. It defines also other NAEA President's duties and responsibilities in this area as well as the obligations of the managers of units performing activities with nuclear materials and of other users of lend or buildings where such an activities could be possible, in connection with inspections performed by NAEA, IAEA or EURATOM inspectors;

Chapter 6 entitled "Ionizing radiation sources" formulates requirements for the accountancy, and inspection with regard to radioactive sources and to equipment containing such sources or generating ionizing radiation. It includes also requirement of appropriate protection of radioactive sources against damage, theft or possessing by an unauthorized person.

Chapter 7 entitled "Radioactive waste and spent nuclear fuel" classifies radioactive wastes, states the responsibilities of the manager of the organizational unit which is handling wastes, and addresses the questions of wastes disposal and of the necessary protection of humans and of the environment.

Chapter 8 entitled "Transport of nuclear materials, ionizing radiation sources, radioactive wastes and spent nuclear fuel" formulates requirements for safe transporting of such materials and regulates the questions of their import, export and transit through the Polish territory, as well as on reporting of these activities to the NAEA President;

Chapter 8a entitled "Import, export and transit through the territory of Republic of Poland of radioactive waste and spent nuclear fuel" establishes formal and organizational conditions connected with procedure of licensing above mentioned activities.

Chapter 9 entitled "Control and inspection from the viewpoint of nuclear safety and radiological protection conditions" allocates the control and inspection responsibilities to appropriate bodies, formulates these responsibilities as well as the rights of the regulatory body organs, introduces enforcement measures, and sets up qualification requirements with regard to inspectors of the regulatory body;

Chapter 10 entitled "National radiation situation assessment" obliges the NAEA President to conduct systematic assessments of the national radiation situation and formulates requirements thereof, including the use for these purposes of a dedicated Radiation Emergency Centre established within the NAEA and receiving appropriate data from "stations" and "units" serving for early detection of radioactive contamination (the list of such "stations" and "units" has been established by means of the Governmental regulation) and operates the International Contact Point for early warning and information exchange with IAEA, EU and other Countries in a case of radiation emergency. It also obliges the NAEA President to provide information to the general public, regional governors, Council of Ministers and/or to the chairman of the appropriate crisis management team at the national level.

Chapter 11 entitled "Radiation emergency management" introduces distinction between different types of radiation emergencies and list the actions to be undertaken in case of such emergencies, as well as formulates the responsibilities on all levels. It refers to the national emergency preparedness plan established through a Governmental regulation and sets up rules for the implementation of specific intervention measures (including the issue of costs to be borne in such cases). It also formulates a requirement to conduct periodic exercises to test the national emergency preparedness plan and addresses the questions of protection against the use of food and feeding stuffs which exceed the permitted levels of radioactive substances contents, both produced within the Polish territory or imported;

Chapter 12 entitled "Civil liability for nuclear damage" allocates the responsibility for nuclear damage caused to individuals, property and environment to the operator and limits its liability to 150 million SDR, allows the operator to establish a limited liability fund in case when claims exceed this figure, obliges the operator to be insured, sets procedures for claiming the compensation, sets time limits for suing for the damage, and locates the competence in the issues of nuclear damage.

Chapter 13 entitled "The President of the National Atomic Energy Agency" states that the President of the NAEA is the central organ of the governmental organization and is nominated by

the Prime Minister to whom he reports directly, on request by the Minister competent for environmental matters, who supervises NAEA administratively. The President executes his tasks (which are listed) through the National Atomic Energy Agency, statute of which is to be issued by the Minister for environmental matters. In addition, this chapter introduces a NAEA President's consulting and opinion-giving body, "Council for Atomic Affairs", whose Chairman is to be proposed by the NAEA President and nominated by the Prime Minister.

Chapter 14 entitled "State-owned public utility "Radioactive Waste Management Plant" establishes the above named plant as a legal personality while the supervision over the plant is placed under responsibilities of the minister competent in State Treasury matters, which will provide the plant with a statute. This chapter specifies, inter alia, that the utility will receive subsidy from the national budget for radioactive waste and spent fuel management.

Chapter 15 entitled "Penal regulations" introduces financial penalty or other means of punishment for cases of violations of rules established by this Law.

Chapter 16 entitled "Transitional, adaptive and final provisions" formulates detailed conditions for the enactment of this Law.

Annex no.4

Summary of the document "Guidelines for the draft act amending Atomic Law"

Introduction

All information in this annex summarises relevant elements of "Guidelines for the draft act amending Atomic Law", a document endorsed by the Polish Council of Ministers on 22nd June 2010. According to the legislative procedure in Poland, following such endorsement, this document is further processed by the Governmental Legislation Centre in order to prepare the final text of the amending act itself, later to be considered by the Council of Ministers and finally approved by the Polish Parliament. Therefore, at the time of this writing it is not certain whether all measures described bellow will be fully implemented in final text of the Amended Atomic Law.

The current amendment to the Atomic Law principally addresses the transposition to the Polish legal system of the Council Directive 2009/71/Euratom of 25 June 2009 establishing the Community framework of nuclear safety (OJ L 172 of 02.07.2009, page 18 and OJ L 260 of 03.10.2009, page 40), as required of all EU Member States. The content of this Directive largely corresponds to the provisions of the Convention on Nuclear Safety. As such, it is of direct relevance to the national nuclear power programme which Poland is currently introducing.

In general, the obligations to be introduced into the Polish laws result from Council Directive 2009/71/Euratom, from the Convention on Nuclear Safety, from guidelines of the Western European Nuclear Regulators Association and from several other documents related to nuclear safety prepared by the International Atomic Energy Agency in Vienna. The documents considered are:

1) IAEA Fundamental Safety Principles (SF-1);
2) "Safety of Nuclear Power Plants: Design – IAEA Requirements No. NS-R-1;
3) "Site Evaluation for Nuclear Installations – IAEA Requirements No. NS-R-3;
4) WENRA Reactor Safety Reference Levels 2008;
5) 2009 Report of the European Nuclear Safety Regulators GROUP;
6) Recruitment, Qualification and Training of Personnel for Nuclear Power Plants –IAEA Safety Guide No. NS-G-2.8;
7) Organisation and Staffing of the Regulatory Body for Nuclear Facilities – IAEA Safety Guide No. GS-G-1.1;
8) Licensing Process for Nuclear Installations – IAEA Safety Standards No. DS-416 (draft);
9) Establishing a Safety Infrastructure for National Nuclear Power Programme – IAEA Safety Standards No. DS. – 424 (draft).

Licensing

The presently binding requirement that a licence for trial operation of a nuclear facility is required (now set out in Article 4.12 of the Atomic Law) will no longer hold. From analyses conducted, actions related to that stage of activity of a nuclear facility should be covered by the licence for commissioning a nuclear facility. Results of such actions should be presented in the commissioning report, and approved by the NAEA President as a prerequisite for him to issue the licence for operating a nuclear installation. Under the proposed change, the system of regulatory

licensing for a nuclear facility will include licences for construction, commissioning, operation and decommissioning stages.

In the proposed Atomic Law, parts of Chapter 4 will be completely new and some parts considerably extended, compared with the description of the current status given in Annex no. 3. Clear statements assigning the priority of safety above other aspects of the conducted activities will be introduced. The head of the organisation or unit which holds the licence for construction, commissioning, operation or decommissioning of a nuclear facility, will be responsible for assuring nuclear safety, radiological protection, physical protection and nuclear material safeguards. During the process of construction of a nuclear facility, the scope of these requirements will be extended to other participants in the investment process, the obligations of the manager of the organisation or unit notwithstanding.

One of the important licence prerequisites for the applicant will be to possess appropriate financial means required to ensure:

1) fulfilment of the requirements of nuclear safety, radiological protection, physical protection and nuclear material safeguards during the respective stages of operation of a nuclear installation until decommissioning is completed;
2) for the licence for construction – completion of the construction of a nuclear installation.

Siting

The Amended Atomic Law will include the rule stating that a nuclear facility can be located on a terrain that assures nuclear safety, radiological protection, and physical protection during commissioning, operation and decommissioning of a nuclear facility as well as effective execution of emergency preparedness procedures in the case of a radiation emergency.

It is assumed that, according to the rule of the licence holder being liable for nuclear safety, the investor of a nuclear facility, being the future licence holder, should independently evaluate the terrain for the prospect site of a nuclear facility using methods of evaluation which yield quantifiable results and appropriately reflect the actual conditions of such terrain. Such an evaluation is the prerequisite for selecting the site for a nuclear facility, and concerns:

1) seismic, tectonic, geotechnical, hydrological, hydro-geological and meteorological conditions;
2) external events caused by human activity;
3) terrain infrastructure;
4) population density and land development;
5) possibility of implementing emergency preparedness procedures over the site area in case of a radiation event.

The investor will prepare the results of the evaluation of a terrain for the prospect site of a nuclear facility, together with results of tests and measurements that are the basis for such evaluation, in the form of a site evaluation report. The site evaluation report will be subject to assessment by the NAEA President, in the course of the procedure for issuing a licence for construction for a nuclear facility. No separate siting licence will be introduced.

The investor of a nuclear facility will be able to apply to the NAEA President for issuance of a preliminary opinion with regard to the planned site for a nuclear facility.

Design and construction

No separate licence to design a nuclear facility will be set forth, however the Amended Atomic Law will define the fundamental conditions that must be met by a nuclear facility in view of nuclear safety and radiological protection as well as safe operation of technical devices installed and used at a nuclear facility.

The design of a nuclear facility must warrant nuclear safety, radiological protection and physical protection during construction, commissioning, operation, including repairs and modernisation, and decommissioning of a nuclear facility, and permit effective emergency procedures in case of a radiation emergency. The design should also incorporate a series of safety levels (defence in depth concept) aimed to avoid any variance from normal operation, anticipated operational occurrences, design basis accidents and severe accidents, or if such variance, occurrences or accidences cannot be avoided, then monitor and minimise radiological effects of a accidents.

According to the Amended Atomic Law, in the design and the development process during construction of a nuclear facility, only those technologies and methods can be applied that have been tested practically during construction of nuclear facilities or verified via appropriate trials, tests and analyses. It should also include experience gained during operation of similar facilities, and in case of nuclear power plants, selected issues related to operation of conventional power plants. To ensure an appropriate level of reliability of nuclear safety in nuclear power plants Office of Technical Inspection (UDT) (as the body specialising in issues defined in the technical inspection regulations, such as design, production, operation, repair and modernisation of technical devices) will be included in design and construction oversight process. This solution will ensure safety during construction and future operation of nuclear facilities thanks to application of tested methods and procedures of control to design and construction of such facilities. The design of a nuclear facility should ensure operation that is reliable, stable, easy and safe, with special attention paid to human factors and factors related to human activity and operation of technical devices.

Prior to applying to the NAEA President for the licence for construction of a nuclear facility, the investor will have to conduct safety analyses related to nuclear safety, taking into account technical and environmental factors. Results of safety analyses in the form of the preliminary safety report would be submitted to the President of NAEA.

Systems, structures and components of a nuclear facility that are key for nuclear safety and radiological protection, including steering and control software, must be identified and classified according to certain safety classes depending on the degree of their respective impact on nuclear safety and radiological protection of a nuclear facility.

The Amended Atomic Law will require from nuclear facility (at stage of construction, commissioning, operation and decommissioning) to adopt the integrated management system that would, among the others, include a quality assurance programme. In order to ensure implementation and documentation of the system as an whole, the integrated management system should include actions that are taken directly by the licence holder as well as other actions crucial for nuclear safety and radiological protection that are taken by contractors and subcontractors. Integrated management system will be defined via documentation that will include:

1) quality assurance programme;
2) quality policy;
3) description of the integrated management system;
4) description of the organisational structure;
5) description of liability, obligations, rights and mutual impact in the area of management, implementation and evaluation;
6) description of mutual impact on external entities;
7) description of processes at an organisational unit, including supplemental information to explain how its operations are prepared, reviewed, executed, documented, evaluated and improved;
8) the safety classification for systems and elements of the structure and equipment of a nuclear facility.

As regards the construction of a nuclear facility, the nuclear regulatory body and other relevant bodies would be entitled to perform inspections in order to ensure conformity of works with the licence for construction. The inspections should include contractors and suppliers of systems, structures and components of a nuclear facility as well as contractors of works that are performed

during construction and equipping of a nuclear facility in terms of systems, elements and works crucial for nuclear safety and radiological protection as well as safe operation of technical devices. The inspections should take a form of verification of selected systems, structures and components of a nuclear facility, either finished or during production, as well as verification of works at a nuclear facility during their performance.

Contractors and suppliers of systems, structures and components of a nuclear facility as well as contractors of works that are performed during construction and equipping of a nuclear facility should also implement relevant quality systems in respect of their works.

Commissioning

The Amended Atomic Law will set a general rule stating that a nuclear facility must be launched and operated in a manner ensuring nuclear safety and radiological protection of the staff and the society, according to the integrated management system to be implemented at an organisational unit. More precise regulations should apply to the requirement to commissioning of a nuclear facility in line with the nuclear facility commissioning programme – a document that covers particularly the list of commissioning tests of elements of the structure and equipment of a nuclear facility and the procedure to perform them, in division to:

1) tests before operation, including tests required under separate regulations;
2) fuel charge tests and subcritical tests;
3) preliminary critical tests and low power operation tests;
4) power tests.

Approval by the NAEA President for the nuclear facility commissioning report will be a prerequisite for issuing the licence for operation of a nuclear facility.

Operation

Operation of a nuclear facility must be documented on an ongoing basis, in form of operational documentation, and provided to the NAEA President with information about the current working parameters of a nuclear facility that are crucial for safety. Additionally President of the Office of Technical Inspection (UDT) must be provided with current information about safety of operation of technical devices that are installed and used in a nuclear power plant.

Above mentioned mechanism will allow ongoing control of the status of nuclear safety and radiological protection at a nuclear facility, and of the safety of operation of technical devices.

The NAEA President would be empowered to order power reduction or a nuclear facility shut down if further operation of such facility will pose a threat to nuclear safety or radiological protection.

During operation of a nuclear facility, an organisational unit operating a nuclear facility will be obliged to, on an ongoing basis, include its experience gained in the course of operating a nuclear facility as well as experience resulting from operation of other nuclear facilities by other organisational units.

To obtain exhaustive information about the status of a nuclear facility the Amended Atomic Law will oblige the head of an organisational unit operating a nuclear facility to execute periodic assessment of nuclear safety of a nuclear facility.

The periodic safety review will include:

- current national and international legal regulations, norms and specifications related to nuclear safety standards and safe operation of technical devices – issues related to ageing of devices, systems and elements of the structure and equipment that form a nuclear facility;

- changes introduced in a nuclear facility since the last periodic safety review or from commissioning of a facility.

The periodic safety review should be administered as frequently as stipulated in the licence for operation of a nuclear facility (at least every 10 years). Precise plan of the periodic safety review (prepared by the manager of an organisational) will be approved by the NAEA President.

Decommissioning

The Amended Atomic Law will set a rule stating that a nuclear facility must be decommissioned in a manner ensuring nuclear safety and radiological protection of the staff and of the society. During decommissioning of a nuclear facility , actions should be avoided that could impact the future generations more seriously than permitted with respect to the current generation. These rules should be taken into account when defining the programme for decommissioning of a nuclear facility. It is recommended that the programme be submitted to the NAEA President for approval together with the application for the licence of construction, commissioning and operation of a nuclear facility, and later, during operation, updated and submitted for approval at least every 5 years, together with a forecast of costs to decommission a nuclear facility.

In order to ensure and sustain appropriate financial resources for the purpose of performance of decommissioning of nuclear power plants and resulting radioactive waste management the Amended Atomic Law will introduce a system of collecting appropriate funds. Operator of NPP will be obliged to pay a quarterly fee to a separate bank account to the so-called „decommissioning fund". The value of the fee will be defined via the regulation of the Council of Ministers

The monies allocated in the decommissioning fund can only cover the costs of final management of radioactive waste and spent nuclear fuel generated by a nuclear facility, and to cover the costs of decommissioning a nuclear facility

Inspection and verification of safety

Chapter 9 of the current Atomic Law gives description of system of supervision and inspection of compliance with the conditions for nuclear safety and radiological protection. However, these provisions must be strengthened in view of the need to prepare to the new tasks resulting from the developing nuclear sector in Poland and experiences gained during the current inspection and oversight activities.

Current Atomic Law does not determine any precise tasks or the procedure for performing supervision and control, leaving these issues at the discretion of the Council of Ministers that can issue applicable regulations, however such regulation has not been issued so far. It is therefore planned to introduce relevant provisions in the Amended Atomic Law.

The NAEA President should also be equipped with rights allowing certain enforcement actions including suspensions of operation of a nuclear installation. For that purpose, it is recommended to extend the catalogue of rights of the nuclear regulatory inspectors (now defined in Article 66 Section 1 of the Atomic Law). The nuclear regulatory bodies will have the right to:

1) at any time, freely access and carry any equipment into the site, facilities and rooms of an inspected organisational unit, and to its means of transport;
2) review documentation, books and other carriers of information belonging to the inspected organisational unit related to nuclear safety and radiological protection;
3) request preparation and issue of copies of such documents and carriers of information;
4) verify whether the activity of an inspected organisational unit conforms to the regulations on nuclear safety and radiological protection and the requirements and criteria set forth in relevant licences;
5) perform independent technical and dosimetric measurements, as needed;

6) request written or verbal information on inspected issues, and request and interrogate the manager and staff of an inspected organisational unit as well as other persons performing works at the site of an inspected organisational unit;
7) collect samples for laboratory tests;
8) inspect facilities, rooms and devices of an inspected organisational unit and its means of transport;
9) record the course and results of inspections mentioned in item 8 above using devices and technical measures for recording image and sound;
10) secure or request securing of documents and other evidence;
11) for nuclear power plants – use the help of NAEA authorised laboratories and expert associations; for other organisational units – use the help of experts, specialists and laboratories.

When performing supervision and control over nuclear safety and radiological protection of nuclear installations, the nuclear regulatory body shall cooperate with other public administration bodies taking into account the scope and competences of such bodies, and in particular with the Office for Technical Inspection (UDT) on technical safety of technical devices installed and operating in nuclear installations, the Internal Security Agency (ABW), environmental control bodies, building control bodies and sanitary control bodies.

Taking into account international experience the amended atomic law will distinguish following types of inspections:

1) periodic inspections - based on the inspection plan approved by the NAEA President or the Nuclear Safety Chief Inspector;
2) temporary inspections – in the event of new circumstances that are crucial for nuclear safety and radiological protection of an inspected organisational unit;
3) permanent inspections (performed by “resident inspectors”) – in nuclear power plants; based on permanent authorisation to inspect; it is a new solution in the Polish legal system, already used in many other countries; it allows ongoing assessment of the status of nuclear safety of a nuclear power plant and can be very important in case of a crisis scenario.

In connection with the permanent inspections NAEA President will have possibility to determine (in licence conditions) works and actions that can be performed at an nuclear facility only in the presence of a nuclear regulatory inspector.

Council for Nuclear Safety and Radiation Protection

In order to ensure the NAEA President a support of independent experts Council for Nuclear Safety and Radiation Protection will be established. Within its duties, in particular the Council will:

- at the request of the President of NAEA, evaluate:
  - draft licences for an construction, commissioning, operation and decommissioning of a nuclear facility,
  - draft legal acts prepared by the President of NAEA,
  - draft organisational and technical instructions issued by the President of NAEA;
- propose initiatives to improve supervision over activities related to exposure to ionising radiation.

Supporting regulations

In order detail some of the above mentioned requirements (that will be set forth in act of parliament) number of supporting regulations will be issued by Council of Ministries, Ministry of Environment and Ministry of Health. Those regulation, among the others, will cover following issues:

- factors that should be considered when evaluating the site for a nuclear facility;
- basic requirements of nuclear safety and radiological protection to be considered in the design of a nuclear facility;
- requirements for safety analyses that are conducted prior to application for the licence for construction of a nuclear facility;
- safety requirements for commissioning and operation of nuclear facilities;
- scope of periodic safety assessment of nuclear facilities;
- safety requirements for decommissioning of nuclear facilities.

Drafts of all regulations are currently under preparation in NAEA.

Prepared by Ministry of Economy **Annex no.5**

INFORMATION

on the implementation of the nuclear power in Poland

The report presents the current status of the Nuclear Power Program for Poland. Choosing the nuclear power gives Poland the possibility of meeting our sustainable development commitments and will have a potentially great economic and social impact for the domestic power industry and the entire economy. By recognizing the value of the global revival of the nuclear energy, the Polish Government made a decision to launch the nuclear power program last year.

The ***Resolution no. 4/2009*** *of the* ***Council of Ministers*** *of January 13th, 2009 on nuclear power development* activities stated among others that:

- ***Nuclear Power Program for Poland*** will be prepared and implemented (after public discussion and government's approval);
- Government Commissioner for Nuclear Power in Poland will prepare ***Nuclear Power Program for Poland****;*
- PGE Polska Grupa Energetyczna SA (*Polish Energy Group SA*) will play a leading role in the implementation of ***Nuclear Power Program for Poland****;*
- At least 2 nuclear power plants will be built, first NPP will be commissioned in 2020

This decision was made mainly for energy security reasons, to ensure power supply at rational costs, respecting at the same time the environment protection requirements. This is connected with taking efforts to prepare appropriate regulations encouraging such investments, including a long term vision of nuclear power sector.

Following the above decision the government of Poland adopted another regulations connected to the implementation of the nuclear power in Poland. They are:

Regulation of the Council of Ministers of May 12th, 2009 *on Appointment of the* ***Government Commissioner for Nuclear Power in Poland****.*
The **Commissioner's** tasks comprise activities concerning among others:

- preparation of ***Nuclear Power Program for Poland,***
- specifying potential locations of first NPPs,
- presentation to the Council of Ministers, coordination and supervision of all activities of involved organizations necessary to launch ***Nuclear Power Program for Poland,*** etc. ...

Ordinance No 70 of the Prime Minister of September 9th, 2009 *on appointment of the* ***Committee for Polish Nuclear Power****.*
The Committee shall optimize the activities concerning on preparation of ***Nuclear Power Program for Poland*** and consists of the representatives of all ministries and other governmental agencies and institutions***.*** The Committee supports **Prime Minister.**

Ordinance No 20 *of the* ***Minister of Economy of July 21st, 2009*** *on appointment of the* ***Public Advisory Committee for Cooperation with the Government Commissioner for Nuclear Power in Poland****.*
The Committee is composed of experts in the fields e.g. of economy, energy, nuclear power energy, atomics and environment protection. The Committee supports the **Minister of Economy.**

Our objective to start up the operation of the first nuclear power reactor around 2020 was the result of the challenging situation of the power sector and its obligations to meet international targets set by the EU climate-energy package. In August 11th, 2009 – in order to fasten and better organize and coordinate work on the implementation of the nuclear power in Poland - the Council of Ministers of the Republic of Poland adopted the **„Framework time schedule for Nuclear Power activities"** (encl). The time schedule foresees four stages of the nuclear power implementation:

- STAGE I until 31.12.2010 preparation and approval by the Council of Ministers of the Polish Nuclear Power Program
- STAGE II - 2011 – 2013 NPP site selection and conclusion of a contract for construction of the first NPP
- STAGE III - 2014 – 2015 preparation of technical design and obtaining all required decisions and permits
- STAGE IV - 2016 – 2020 construction of the first NPP in Poland

The stage I and II of the nuclear power development in Poland contains following elements:

1. Elaboration of the Nuclear Power Program for Poland:
   - long term vision of the Program; it's scope and pace; economic and social impact
   - public debate prior to the formal adoption by the Government
2. Building necessary infrastructure:
   - legal regulations; model of nuclear power industry
   - institutional and organizational structure; building new competences
   - effective system of human resources training/education
   - R&D resources
3. Preparatory work for the construction of the first NPP – investor responsibilities
   - nuclear technology and suppliers selection, concluding contracts
   - providing financing for the first NPP
   - auxiliary investments planning

For the power sector the document *"National Energy policy up to 2030"* approved by the Council of Ministers in November 10th, 2009 sets the following goals:

- to assure long-term security of electricity supply, among others by diversification of energy sources (through implementation of the nuclear power)
- to maintain electricity prices at levels acceptable to the national economy and the society;
- to reduce emission of SO2, NOx, and CO2 (GHGs)
- to increase share of RES in the final energy mix to levels defined by EU requirements.

The Annex 3 to the Policy contains 12 activities directly connected with the nuclear power implementation in Poland and corresponding with tasks and goals of The time schedule...

Described above decisions and regulations have created a legal framework for preparation and implementation of the Nuclear power Program in Poland, which is the greatest challenge in the history of the Polish energy market and the Poland's post war economy. Bearing in mind that the process from taking the decision on the **launch** of the Nuclear Power Program **to the start up** of the operation of the first nuclear power plant is long, complicated and complex – it is necessary that only the proper preparation will lead to the satisfactory results. In another words, skilful and effective navigation is required to cover that distance in a possible shortest time, while allowing no shortcuts.

Bearing in mind above reasons we concentrate on two blocks of activities. First one is to elaborate Nuclear Power Program. The main objectives of the Program will be to define an optimal scope of nuclear power development in present and in predictable future, to prepare the list and time

schedule of activities for the government administration and for investor. Another important objective will be to determine costs of implementation of the program. The final approval of the Program will require a consultation and public debate.
Building necessary infrastructure based on the prepared model of functioning of the nuclear power sector is another important task. The model of functioning of the nuclear power sector elaborated by the Government Commissioner - comprises a complete construction cycle, operation, decommissioning of the NPPs including spent fuel and radioactive waste management. The regulations are concerning especially nuclear safety and radiological protection as well as an institutional infrastructure whose duty will be to ensure coherence and stability of the nuclear power development.
Third, equally important task for the public administration is the information and education campaign of Polish society in the field of nuclear power. The draft campaign program was prepared in 2009. At present the documents for the public tender were elaborated and the negotiations with all big players in the field of public campaigns will start soon. The campaign will start in autumn 2010.
Also, the investor, PGE S.A. has already started its preparatory works for future investment aimed at selection of the experienced co-investor, selection of technology and providing financing for the first NPP. PGE S.A. created 3 Working Groups with leading technology vendors in order to discuss all details of potential technology transfer and co-operation conditions in the construction and exploitation phase of the NPP.

Only this kind of systematic approach to nuclear investments may determine the success of the whole program.

Using the IAEA terminology the role of NEPIO is played in Poland by the Government Commissioner for Nuclear Power in Poland supported by the Nuclear Energy Department of the Ministry of Economy. The plans are that the NEPIO's role will be played by the Nuclear Energy Agency to be created in the 2011 as a result of the Program as well as legal regulations concerning the nuclear power in Poland (to be adopted by the Parliament until the end of 2010). The structure of the activities of NEPIO in Poland is given in the diagram 1 below.
As for now the Polish NEPIO have elaborated the analyses aimed at:
- the comparison of electricity generation costs according to different technologies
- ranking the NPPs sites proposed by local authorities
- shaping the necessary legal infrastructure

Their results and conclusions paved the way for development and justify our determination.

Today, NEPIO intensively works on the:
- Adaptation/creation of necessary legislation and regulations
- Nuclear Power Program – identifying goals and objectives
- Human resources training program for nuclear power institutions
- Information and education campaign
- Preparation of the National Atomic Energy Agency (PAA) for fulfilling the duty of the NRC for the nuclear power industry
- R&D resources development

Other activities of NEPIO are:
- Site analyses and research for low and medium radioactive waste depository
- *National Plan for Radioactive Waste and Spent Fuel Management*
- Involvement of Polish industry in Nuclear Power Programme, so we have started reviewing companies which can or should participate in the programme
- Searching for uranium sources in Poland
- Designing and construction of low and medium radioactive waste depository

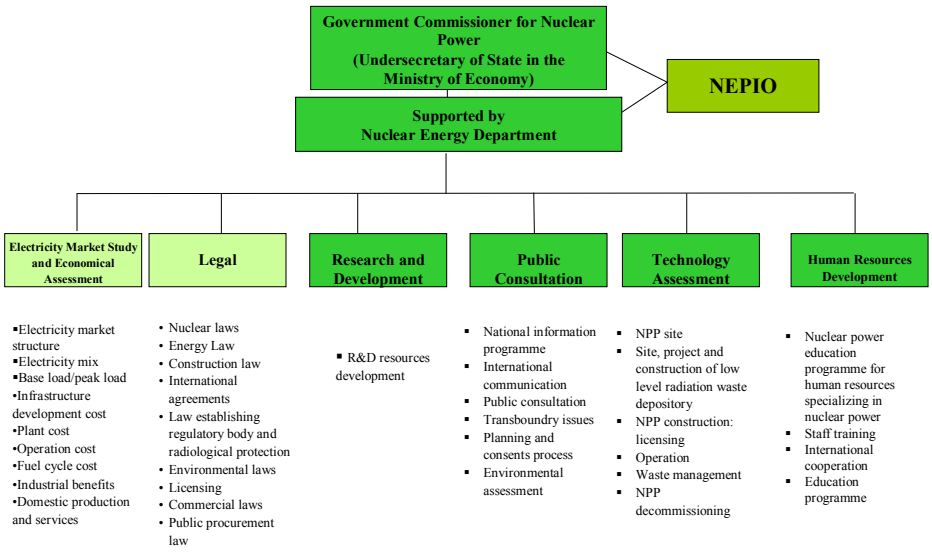

Diagram 1

The elaborated by NEPIO model of functioning of the nuclear power sector creates the necessity to prepare regulations for the entire life of the nuclear power sector. The basic principles of new Polish regulations are aimed at the ensuring of:

- Separation of regulatory functions from promotion and coordination functions
- Transparency of all activities
- Preservation of Safety Culture at each stage of activities.

Therefore NEPIO works now on a package of 8 laws applicable to the nuclear power sector, as listed below:

1. Law on Investment in Nuclear Facilities
2. Atomic Law (amendment) – prepared by the regulator (NAEA) draft was adopted by the Council of Ministers on June 22nd, 2010.
3. Law on the Waste and Spent Fuel Management
4. Law on the Decommissioning of Nuclear Facilities
5. Law on Civil Liability for Nuclear Damage
6. Law on Transparency and Public Involvement Regarding Siting, Construction and Operating of Nuclear Facilities
7. Law on the Nuclear Energy Agency
8. Law on the National Laboratory for Nuclear Research

The diagram 2 (below) shows the connection between main actors in the process with an essential role of the:

- Commission for Nuclear Safety and Radiological Protection (successor of present regulator – Chairman of the National Atomic Energy Agency),
- Nuclear Power Agency,
- Radioactive Waste Disposal Facility
- and Investor.

New regulations should describe their duties and rights and should ensure the competent cooperation between organizations fully dedicated to the Nuclear power program.

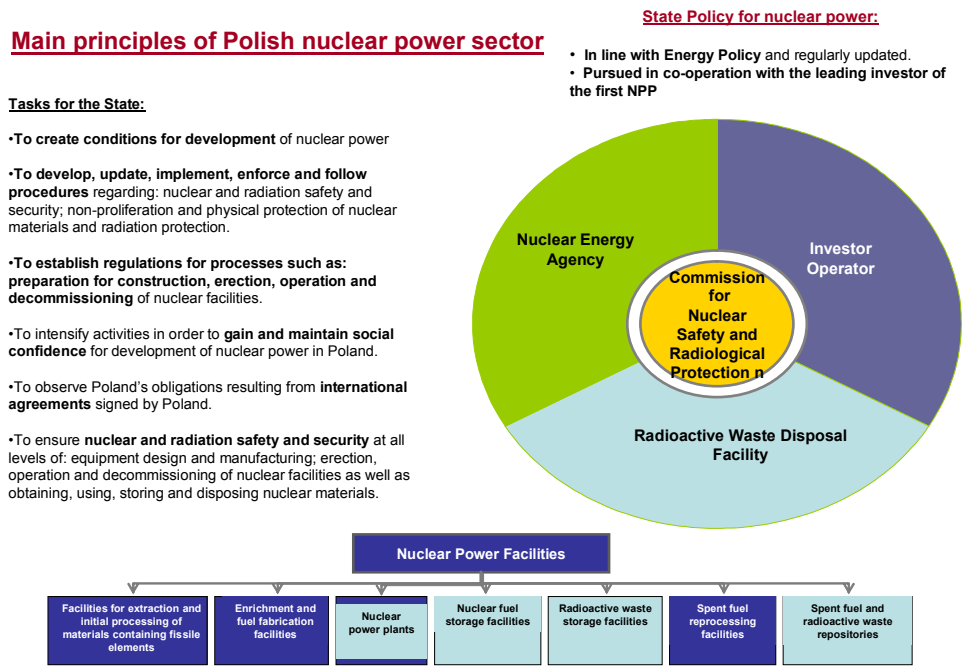

Diagram 2

The above diagram shows only basic players in nuclear power sector in Poland. However, many more organizations are active in the preparatory work concerning the nuclear power implementation program in Poland. They can be divided in two groups – "internal" and "external". Below please find the lists with some of them.

„Internal" stakeholders engaged in implementation of the nuclear power in Poland

- Government/Government Commissioner for Nuclear Power/Interministerial group
- Local administration
- PGE –Investor
- National Atomic Energy Agency (PAA) (finally - Commission for Nuclear Safety and Radiological Protection)
- Nuclear Power Agency (supervision of Ministry of Economy)
- Energy Regulatory Office (URE)
- PSE OPERATOR
- Agencies linked to environment protection and industrial development, Office of Technical Inspection (UDT)
- Agencies responsible for safety issues and emergency planning

„External" stakeholders exerting influence on the development of the project

- Electricity consumers
- Strategic investors
- Universities, educational and human resources development bodies
- R&D resources (National Centre for Nuclear Research) – TSO for administration
- Strategic technology and services' suppliers
- Domestic and international banks (ECAs)
- Domestic industry and services suppliers
- Domestic public opinion and appropriate authorities in neighbouring countries
- International organizations (IAEA, NEA, IEA, WENRA, EURATOM, FORATOM, WANO, IFNEC – former GNEP, EUR)

- European Commission: DG ENERGY, DG COMP, DG ENVIRO.

Very important factor of the activities regarding the implementation of the nuclear power in Poland is the international co-operation – bilateral and multilateral. In case of bilateral cooperation Poland concluded 10 agreements with: Austria, Belorussia, Denmark, Lithuania, Norway, Russia, Slovak Republic, Ukraine, Czech Republic, and Germany. Moreover, the Minister of Economy responsible in Poland for the energy sector and in this way for the implementation of the nuclear power is concluding bilateral, technical agreements with his counterparts in other countries. As for now the Minister signed Memorandum of Cooperation with Japan. Shortly the Minister will sign the Joint Declaration with the USA and the Memorandum of Understanding with Korea. The Memorandum of Understanding with Italy is also being discussed. The NAEA is in the final phase of negotiations concerning the agreement with US NRC and the signing is foreseen for the autumn this year. Multilaterally, Poland is party of following international treaties:

- Treaty on the Non-Proliferation of Nuclear Weapons
- Agreement in Implementation of Article III, (1) and (4) of the Treaty of the Non-Proliferation of Nuclear Weapons (*INFCIRC/153/(Corr.))*
- Additional Protocol to the Agreement in Implementation of Article III, (1) and (4) of the Treaty of the Non-Proliferation of Nuclear Weapons *(INFCIRC/540(Corr.))*
- Convention on Early Notification of a Nuclear Accident *(INFCIRC/335)*
- Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency *(INFCIRC/336)*
- Convention on Nuclear Safety *(INFCIRC/449)*
- Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management *(INFCIRC/546)*
- Convention on Physical Protection of Nuclear Material *(INFCIRC/274/Rev.1)*
- Amendment to the Convention on the Physical Protection of Nuclear Material
- Vienna Convention on Civil Liability for Nuclear Damage *(INFCIRC/500)*
- Joint Protocol Relating to the Application of the Vienna Convention and the Paris Convention *(INFCIRC/402)*
- Protocol to Amend the 1963 Vienna Convention on Civil Liability for Nuclear Damage *(INFCIRC/566)*
- Treaty establishing the European Atomic Energy Community

Preparatory activities for implementation of nuclear power program are being conducted in full observance of international law, EU regulations and in accordance with relevant guidelines and recommendations of IAEA. Expert of IAEA participated in Warsaw, March 29th - April 2nd, 2010 in the In-depth Review (IdR) of the IEA. Moreover the IAEA promptly responded to the Polish request to organize INIR and IRSS missions in Poland. Both are in the phase of organization and first meetings have taken place (in frames of INIR the national seminar in Warsaw on April 27th - 29th, 2010, concerning IRSS mission is in the realization phase). The final results of both missions are expected in the beginning of next year.
Poland is going to apply formally for the membership in the Nuclear Energy Agency of the OECD. It will be possible after the prompt decision of the Council of Ministers as well as after the notification of the above application to the European Commission (according to the art. 103 of the Euratom Treaty). Fulfilling above procedures will make it possible to become the member of the NEA OECD during the next NEA's Steering Committee meeting in October 2010. Poland is active member of the International Framework for Nuclear Energy Cooperation (IFNEC – former GNEP).

In general it could be said that the main fields of the international cooperation are first of all:
- safety and security issues, understood as both nuclear safety as well as radiological protection of nuclear facilities and fissile materials;
- financing civil nuclear power facilities, here I have in mind especially the need to support rather than penalize such investments by international financial institutions;

- educating highly qualified staff for nuclear power sector. Nowadays, more than ever it is so clear that nuclear power is firmly linked with high technology, thus highly qualified human resources are required;
- next but equally important is the issue of access to nuclear fuel, security of its supply and spent fuel and radioactive waste management.