

2016
2017

COMMUNICATION
ON PROGRESS







Dear Friends,

I am pleased to present to you the Progress Report of Kozloduy NPP EAD for the 2016 - 2017 period. The successfully completed activities over the past period in pursuance of the commitments as put forward in the Management Policy Statement, give us ground to proudly and with due responsibility define the Bulgarian nuclear power plant as a major factor that contributes to the stability of the energy sector with its internationally recognized high safety level of the nuclear facilities, decisive involvement in the environmental protection, and last but not least, with the remarkable expertise of the Bulgarian nuclear power engineers.

An unconditional priority in this period was the continued enhancement of safety. In 2017, we presented our achievements to the World Association of Nuclear Operators (WANO) Moscow Center within the framework of the Peer Review and the pilot Crew Performance Observation of the Main Control Room Crews at the full-scope simulator. Thus, we confirmed not only our conviction in the significance of benchmarking and sharing good practices in the safe use of nuclear energy, but also our willingness to continuously improve all aspects of the work process.

The lasting trend to a high level of reliability and efficiency resulted in excellent performance indicators achieved by Kozloduy NPP, which deservedly rank the Bulgarian power plant at a leading position among the best nuclear power plants in the world.

Undisputed success is the implementation of the long-term operation project of Units 5 and 6. The license issued by the Nuclear Regulatory Agency in 2017 for the operation of Unit 5 of the Kozloduy NPP for a new 10-year period and the forthcoming finalization of the project for Unit 6 lifetime extension in 2018 reaffirm Bulgaria's energy strategy goals to further develop its nuclear energy in the time to come.

To confirm our support for the UN Global Compact principles in the areas of human rights, labor standards, environment and anti-corruption, in this Progress Report we present our actions aimed at their integration into the management policy and actual everyday activities at the Bulgarian nuclear power plant. The successful completion of the tasks planned for the year, thanks to the good organization, high professional level and the strong team spirit of the nuclear power plant employees, give us the confidence that Kozloduy NPP will continue to operate, as ever, safely and reliably, and will contribute to the achievement of the global environmental goals that modern society faces today.

Sincerely yours,

NASKO MIHOV
CEO
Kozloduy NPP EAD

POLICY STATEMENT

of the Management of Kozloduy NPP EAD

The **main goal** of Kozloduy NPP EAD management is **safe, efficient and environmentally friendly generation of energy**, under long-term operation conditions and guaranteed quality and security of supplies in compliance with the national and international standards.

To achieve this **goal**, the management has implemented a **Management System** that brings together all requirements to the activities in line with the following **priorities**:

Highest Level of Safety

- Nuclear safety, radiation protection, health and safety at work and environmental protection
- Sustaining and continuous enhancement of safety culture
- Physical protection of the nuclear facilities, nuclear material, and radioactive substances
- Safe radioactive waste management

Certified, Competent and Motivated Personnel

- Professional development opportunities
- Continuous learning and qualification enhancement
- Continuity and preservation of knowledge

Effective and Competitive Electricity Generation

- Optimising of the production process
- Sustaining high levels of equipment reliability
- Proactive ageing management of structures, systems and components
- Development and modernisations

Financial Stability

- Stable revenues, market expansion
- Cost optimisation, high profitability
- Effective control

The personal contribution, professionalism and commitment of both the Management and each plant staff member fully guarantee the successful implementation of the main goal.

CHIEF EXECUTIVE OFFICER:



NASKO MIHOV

HUMAN RIGHTS PRINCIPLES



This document aims to demonstrate our continuous efforts to improve our Corporate Social responsibility (CSR) strategy by focusing the agenda on the need for a balanced global approach towards the three aspects of sustainable development, namely: economic, social and environmental. The drive to integrate the principles and norms of the Universal Declaration of Human Rights and the global sustainable development goals (SDGs) set out in the UN 2030 Agenda for Sustainable Development in our daily work, business strategy and organizational culture is continuous and highlighted as a special priority. The Management of the Company officially declares its **MANAGEMENT POLICY** for Kozloduy NPP EAD through the **MANAGEMENT POLICY STATEMENT**, which is announced, understood, implemented and maintained at all levels of the organization and clearly defines the commitments to ensure the highest level of safety, efficient and competitive production, competent, licensed, motivated staff as well as financial stability. Our common values are at the heart of our corporate culture and guide the process of organizational development and growth. Their main objective is to outline the framework of the expected behaviour of Company employees while applying the universal principles of the UN Global Compact. These are defined in the Code of Ethics, adopted in 2013, and should also be respected by employees of external organizations operating on the site.

Activities and results

As a result of the implementation of the Kozloduy NPP Safety Culture Enhancement Project, our values have been defined:

- Safety first;
- Commitment, mutual respect and recognition;
- Personal accountability and honesty in work;
- Strive for perfection and knowledge gaining, capturing and retention.

No discrimination is tolerated at the Kozloduy NPP workplace based on gender, ethnic, religious or political

grounds. Women account for 32% of the employees in the Company, and despite the specifics of the industry, 9.7% of them occupy managerial positions at all levels of the management hierarchy. About 25% of all managerial staff are women. As early as 2011, the Company's Management committed to the participation of women in the management of the Company with a deliberately signed declaration with regard to the initiative of the European Commission.

Everyone in the Company has the right to express their opinions freely on any matter through:

- **"Opinions" column** – in the internal information system, designed to put and discuss key topics of importance for the employees, and raise issues before the Management;
- **CEO visiting day** – weekly, on which any Kozloduy NPP employee is entitled to discuss with the CEO a personal or a business problem;
- Regularly, managers at different levels have staff meetings to discuss work, comment current issues and arising problems in order to create a positive error reporting environment;
- Access to all other managers is not limited and meetings can be organized with them according to their daily schedule;
- Opinion poll **boxes** are located at various places around the plant, enabling staff to express viewpoints, post signals or complaints to the CEO;
- Weekly, on a voluntary basis, the staff's opinion on topics relevant to the Company is examined through the **"This week's question"** poll.
- Every employee of the Company has the right to freely join associations and societies of interests, while in a certain number of them the Kozloduy NPP is also a corporate member.
- An effective and vigorous tool is the Assembly of the Representatives, which ensures maximum transparency, expedience and systemic control over the management of funds in the Cultural and Amenity



Services fund in order to prioritize the Kozloduy NPP workers' preventative healthcare, sustaining their physical and emotional condition, enhancing their cultural and educational level.

The Company's Management implements a policy of correct labour relations by means of setting up a common and espoused by the employees development strategy. Respect for the person, protection of the rights and interests of employees, assurance of their social status are among the priorities in the plant's Management.

Equal rights and opportunities for work, development and career growth are provided, depending only on the initiative, the professional qualification, the personal experience and qualities and the results achieved by the employees.

The Company sustains its continual efforts towards personnel development by:

- Individual development plans;
- Opportunities for free participation in the recruitment procedures;
- Staff training. This is dealt with by a Training Centre of our own, licensed to organize and perform initial and continuing training for the Company's staff as well as the staff of external organizations performing activities on KNPP site.

Kozloduy NPP strives to apply the lifelong learning principle in order to achieve smart and sustainable growth. The approaches to encourage knowledge enhancement in the Company are:

- training and qualification enhancement;
- additional paid study leave;
- scholarships for disadvantaged people;
- granting tools and materials for the practical classes at school;
- provision of paid and unpaid internships;
- encouragement for the young, intelligent people;

Specific activities implemented:

- Agreements for cooperation with leading Bulgarian universities;
- Paid and unpaid student internships;
- Participation in the One Day Manager initiative;
- Participation in job fairs;
- Participation in the WANO Moscow Centre initiative to attract young people to take part in the WANO activities;
- Representatives of the Bulgarian nuclear power plant took part in a number of missions and inspections as a means to enhance their qualification, adopt with good practices and benchmarking, such as the OSART mission of IAEA in Krško NPP – Slovenia, Olkiluoto NPP – Finland, the WANO peer review at Edwin I. Hatch NPP – the USA, the pre-SALTO mission in Oskarshamn NPP – Sweden, a peer review in Kola NPP – Russia, WANO technical support missions in Zaporozhia NPP, Khmelnytsky NPP and the State Enterprise National Nuclear Energy Generating Company (NNEGC) "Energoatom" in Ukraine, Leningrad NPP, Balakovo NPP, Kursk NPP and Bilibino NPP in Russia;
- Kozloduy NPP is a co-organiser of the annual international conference of the Bulgarian Atomic Forum - BULATOM;
- In 2017, the Bulgarian nuclear power plant hosted the Seventh Meeting of the Technical Directors/Chief Engineers of the Nuclear Power Plants and Operating Organisations Members of WANO-MC, held in Sofia. The 28 participants in the meeting were representatives of NPPs and companies in the nuclear field from Russia, Ukraine, Armenia, Hungary, Lithuania, Finland, Slovakia, Iran, Bulgaria and the WANO-MC.
- The staff training and qualification system employed at Kozloduy NPP complies with the relevant national requirements, international standards, and established

best practices. Thanks to the Personnel and Training Centre Division, the power plant is licensed to conduct specialised training in activities carried out in nuclear facilities and work with ionising radiation sources issued by the Bulgarian Nuclear Regulatory Agency (NRA). The training process goals are consistent with the priority stated in the plant's Management Policy for maintaining certified, competent, and motivated personnel, enforcing a high level of safety culture; development of a corporate culture in which qualification is of crucial importance; effective use and management of personal and corporate knowledge; encouraging the acquiring of the necessary knowledge, skills and positive attitude to work. The mandatory specialised training is based on the systematic approach requirements. The specialised training proceeds in conformity with the programmes for initial or continuing training; individual programmes are developed for the licensed personnel; the rest of the personnel are trained in accordance with approved curriculum schedules.

The company has its own Occupational Medicine Centre. In the specialized for the purpose premises, the preliminary and preventive periodic medical check-ups by all specialists are performed as envisaged in Regulation No. 29 on health norms and requirements related to work in ionizing radiation environment. The Occupational Medicine Centre analyzes the health status of the employees, develops and proposes measures to improve the labour conditions and eliminate health risks.

Kozloduy NPP EAD employees have the opportunity for complete recreation in the holiday houses of the Company.

The Company offers all its employees and their families opportunities for cultural life via the House of Culture as well as for practising different sports at the Sports and Recreation Complex. There are 28 sports sections at the Company with more than 400 members.

Concerning the special role of women in social life, Kozloduy NPP implements all legal forms to care about and support women in order to assist them to perform their maternal commitments and not to deprive them of their professional development opportunities.

Women at the Company have their right of a pregnancy, birth or adoption leave to the extent of 410 days for each child, 45 of those being obligatory before delivery. The compensations pregnant women employees receive equals 90% of their average daily remuneration/social security wage base for the last 24 calendar months.

The Company ensures the possibility for each woman to pass free gynaecological examination on yearly basis, while those over the age of 35 have their check-ups twice a year. The Company provides a possibility for the pregnant workers and employees to trace their condition and consult a competent obstetrician-gynaecologist on site of Kozloduy NPP.

According to the internal rules the Company supports employees when becoming parents by a lump sum benefit. These same rules provide for allowances for women employees with reproductive problems.

As a socially responsible company, Kozloduy NPP pays a special attention to the young people and their future career development. The long-term safe operation of the nuclear power units is a strategic goal in the Management Policy of Kozloduy NPP, and the active participation of the personnel - a key factor for success. In compliance with the requirements to personnel in the power units operating licences, the company is committed to provide the necessary numbers of properly qualified employees to ensure the safe implementation of the activities. The number of plant employees is maintained in compliance with the approved positions payroll list. Of the new employees joining the NPP team in 2017, 55% have a higher education degree, while 29% of them are under 30-years of age.



LABOUR STANDARDS



The Company has in place a well organized explicit human resources management policy to ensure equal opportunities in the staff recruitment process, in training, development and motivation while strictly observing labour law. The Staff management policy is developed in compliance with the main objective of the Company declared by the Management – to provide safe, efficient and environmentally friendly electricity generation, maintaining sufficient number of certified, excellently trained and highly motivated personnel.

The Trade Union organizations at Kozloduy NPP and the Company's Management execute a [collective bargaining agreement](#) which ensures the protection of the personnel's rights regarding labour and insurance relations as well as the additional social benefits.

For the period 2019 - 2020 at the Kozloduy NPP there is in place the traditionally signed Collective Bargaining Agreement(CBA) that provides considerably more favourable conditions for staff in comparison with those specified in the Labour Code and in the Branch Enterprise Labour Agreement.

The Company's commitments with regard to the labour norms are evident within the following processes:

- staff recruitment;
- occurrence, modification and suspension of labour relations;
- training of workers and employees;
- tracking the health status of workers and employees;
- provision of health and safety at work including work place risk assessment and developing preventive prescriptions with regard to risk minimizing;
- corporate social programme management;
- individual work performance assessment, etc.

Activities and results:

In the recruitment process for Kozloduy NPP employees the principles of the Law on Protection against Discrimination, the Law on Protection of Personal Data as well as the internal documents are observed and no influence is tolerated regarding nationality, race or ethnic belonging of job applicants, their gender, age, convictions

or religion. The recruitment process for the job applicants is transparent and provides access to information and results for any applicant at any stage of the procedure, all details are made public on the website of the Company.

The Plant interior labour regulations clearly define the working hours requirement, taking leaves, etc., and the CLB explicitly bans employment of individuals under the age of 18. Individuals working in specific conditions have reduced working hours and benefit from additional paid annual leave.

Maintaining a high employee motivation is one of the priorities for an effective company management. Annually, since 2007, motivation polls have been conducted to facilitate feedback from the employees. In 2017, the questionnaire was updated, and the pilot poll was conducted at the end of the year. The results have shown the highest motivation since its first conduct.

The social policy towards plant personnel is aimed at providing for job corresponding to the employees' qualifications, relevant remuneration, health and safety at work, health services and medical aid, good living conditions, opportunities for organizing cultural and sports events, and rest in their free time.

In 2017, all the activities scheduled for the national priority project of Lifetime Extension of Kozloduy NPP Units 5&6 were completed in full scope. The financing of the plant life extension (PLEX) project for the two 1000-MW units is provided by the plant business programme, and the implemented activities are entirely self-financed.

On the grounds of the completed activities over the two stages of the PLEX project for Unit 5, and in conformity with the Act on the Safe Use of Nuclear Energy, on 03 November, 2017, the NRA issued an operating licence for a new 10-year period of Kozloduy NPP Unit 5. In 2018, finalisation is due of the PLEX project for unit 6, including the preparation and submission to the Nuclear Regulatory Agency of the package with documents required to apply for licence renewal for a subsequent 10-year period of operation.

Kozloduy NPP has successfully implemented a

management system for safety and health at work in compliance with the international standard OHSAS 18001:2007 under the project BG 051PO001, "Health and Safety Prevention". In 2017, the plant spent a total of BGN 81,450 thousand of own funds as per the Investment Programme toward implementing the activities for ensuring safe operation of the nuclear facilities and the two strategic projects - for lifetime extension and thermal power uprate of units 5 and 6. The long-term assets commissioned throughout the year had a value of BGN 80,802 thousand. The commitments were fulfilled to the personnel and insurance institutions as well as the obligations under commercial contracts for the implementation of the maintenance and investment programmes.

Maintaining of health and safety at work at Kozloduy NPP is carried out in compliance with the requirements of the current national legislation and the implementation of the company's policy in this field. A set of organisational and technical measures was introduced in order to ensure safe working environment; also collective and personal protective equipment is provided to prevent the impact of hazardous industrial factors on the workers. The

working environment factors are measured periodically, and the work specific risks are assessed with the purpose of successfully removing or limiting the risks to the workers' health and safety. The workers are informed about the potential risks and the countermeasures undertaken. It is of particular importance for a safe labour process to maintain high awareness of the personnel by systematically conducting briefings and trainings. All the workers are provided sanitary and medical services, reduced working hours, regulated intervals for work and rest, free food, while the workers in higher risk ambient conditions receive Industrial Accident Risk insurance.

No accidents at work occurred in 2017 in the Company and the indicators characterising industrial safety accident rate continue the steady trend of maintaining low values. An evidence for the success of the applied measures at Kozloduy NPP is the permanently established decreasing trend in the days away case rate. The annual industrial industrial injury rate at Kozloduy NPP is 0.33, which is significantly lower than the average value of 1.22 for the industry, and below the mean value of 0.67 for the country.



ENVIRONMENT



The Company Management places high priority on protection of public health and the environment from adverse effects associated with the activities implemented on the site of Kozloduy NPP. Radiation monitoring of the liquid and gaseous discharges is carried out to the highest international standards. Independent control of emissions into the environment is also carried out by the Nuclear Regulatory Agency, the Ministry of Environment and Water and the National Center for Radiobiology and Radiation Protection. A Policy on Environment is introduced and is being implemented in Kozloduy NPP EAD, in compliance with the international environmental standards, in order to achieve the following goals:

- preservation of the atmosphere and cleanness of atmospheric air;
- protection and management of waters within the area of Kozloduy NPP EAD;
- safe management, minimization and utilization of non-radioactive waste;
- energy efficiency and assessment of the influence of resources and materials used on the environment;
- minimization of the risk of occurrence of environmental damage and incidents.

There is a specialised environmental unit in the nuclear power plant which is responsible for shaping and establishing the corporate policy on decreasing the negative and increasing the positive effects on the environment resulting from plant activities. The results of the monitoring performed in 2016 and 2017 show a sustained tendency for the content of radioactive substances in gaseous and liquid emissions in the environment to be significantly lower than the reference levels, which present evidence for the effectiveness of the measures applied for the robust control of technological processes and high-quality operation of the nuclear facilities.

Activities and results:

All the activities related to the operation of Kozloduy NPP

Units 5 and 6 and the spent nuclear fuel storage facilities are performed in compliance with the provisions of the operating licences issued by the NRA. Specialised training for activities on nuclear facilities and activities with ionising radiation sources (IRS) has been performed in compliance with the provisions of the specialised training licence issued by the NRA.

In its capacity of an organization operating nuclear facilities, Kozloduy NPP EAD takes continuous, systematic and overall control of the activities, products and services which have detrimental effect on the environment and public health. Kozloduy NPP EAD environmental protection and management is based on the following principles:

- applying the requirements of the national and European legislation regarding environmental protection and management;
- maintaining compliance with the conditions of the permits issued to the Company by the environmental authorities;
- systematic planning and reporting of the implementation of environmental policy, objectives and programmes;
- implementation of effective monitoring and supervision of processes and activities which could have detrimental effect on the environment;
- providing and maintaining the necessary resources for prevention and/or mitigation of undesirable effects on the public and environment;
- maintaining and increasing the Company's staff competence and safety culture in terms of environmental protection;
- appropriately informing suppliers about the Company's policy on environmental protection;
- maintaining the public updated on the status of and measures for environmental protection.

Kozloduy NPP EAD management is committed to maintaining and improving environmental management as an integral part of the Integrated Management System

of the Company. Environmental protection control is implemented through a set of measures for environmental monitoring, control of plant discharges to the atmosphere and hydrosphere, radioactive and conventional waste processing and storage. Continuous radiation monitoring in the 30-km zone is implemented through the plant automated information systems which are integrated with the corresponding national system.

Over 4 300 analyses in more than 2 500 samples of different environmental constituents were conducted throughout 2016. The results for radiological indicators from the analyses of environmental samples in 2016 are within the background levels specific for the region, and no impact from the nuclear power plant operation was found. The human-induced activity levels detected are many times below the permissible limits for the relevant radiological indicators and analysed samples, which confirms that the radiological situation is completely favourable. The system for separate collection of metal, glass, plastic and paper packaging waste materials works efficiently.

Over 4000 trees and protective vegetation cover more than 450 000 square metres within the green space of Kozloduy NPP. The abundance of animal and fish species characteristic of the region and typical for the Danubian Basin speaks for the well preserved and carefully maintained environmentally friendly plant site.

The results of radiological indicators from the analyses of plant environmental samples in 2017 are within the background levels specific for the region, and no impact from the nuclear power plant operation was found. The human-induced activity levels detected are many times below the permissible limits for the relevant radiological indicators and analysed samples, which confirms that the radiological situation is completely favourable. In 2017, all conditions and measures in the permits issued to the plant as per the Environmental Protection Act, were fulfilled. All the necessary information, records and reports were provided to the competent environmental authorities. An amendment to the permit for the discharge of waste water into the Main Drain Channel was made.

In pursue of the Non-Radioactive Waste Management Program for licensed external organizations for subsequent safe treatment in 2016, 84.3 tons of non-radioactive waste were delivered while in 2017 the amount was 58 tons. The second stage of the non-radioactive domestic and industrial waste landfill entered commercial operation in March 2017.

The results from the analysis of 3 000 water samples in 2017 show that there was no upward trend in the monitored indicator values. There were no recorded values exceeding the permissible limits resulting from the operation of Kozloduy NPP.

Kozloduy NPP regards safety as a top priority and it is subject to independent state oversight by the Bulgarian Nuclear Regulatory Agency at the Council of Ministers of

Republic of Bulgaria, the Ministry of Environment and Water and the Ministry of Health. The radioecological state of the environment within the region of the plant complies with requirements of the effective legislation in the field of radiation protection.

In 2002 Bulgaria ratified the Kyoto Protocol which is a serious step towards decreasing the greenhouse gases emissions. The electricity generation of the NPP practically does not generate any greenhouse gases and contributes significantly to the preservation of the environment. For example, during the electricity generation in 2015, Kozloduy NPP saved the harmful impact on the public and the environment of about 18.96 million tons of carbon dioxide (CO₂), 66 thousand tons of sulphur dioxide (SO₂), 22 thousand tons of nitrogen oxides (NO_x) and 3 thousand tons of ashes, containing natural radioactivity. This effect corresponds to the world trends for limiting the emissions responsible for the ozone layer depletion and once again emphasizes the role of nuclear energy as a part of the solution to combat climate change in the context of the historic Paris Climate Agreement.

The Company effectively uses the natural and energy resources by obtaining all necessary permits according to the current regulations, plans and programmes in compliance with the best industry practices.



ANTI-CORRUPTION

Kozloduy NPP EAD opposes all forms of company or public corrupt practices in compliance with the UN Convention against Corruption to which the Republic of Bulgaria has been a party since 2006. Intolerance of and opposition to corrupt practices is a responsibility of each employee of the Company. The Company has established rules, preventive measures are implemented, misuse and corruption risks are managed. The Code of Ethics of Kozloduy NPP EAD covers specific policies for conflict of interest, personal benefits and gifts, fair and equal attitude towards suppliers and compliance with the Global Compact principles.

Investigations, law cases or other relevant events connected with corruption and bribery are conducted according to the requirements of the legislation and company internal documents.

Activities and results:

Opposition to the corrupt practices is a responsibility of each employee of the Company. The Company has established clear rules and preventive control of possible abuse or corruption. Some of the measures taken by the

Company are as follows:

- precise and transparent regulations on donations; such donations are not given to political parties;
- strict accountancy which is subject to internal and external auditor oversight;
- The Company has restricted its cash payment to a minimum, no cash register is used and payments are received only by bank transfers. Cash payment sums for our suppliers are limited.
- Awareness of anti-corruption issues of the Company employees has been raised.

The Senior Management of Kozloduy NPP EAD expresses its and of all its employees confidence and determination that the 10 principles of the UN Global Compact in the field of human rights, labour standards, the environment and anti-corruption will be the basis for the plans and everyday activities of each and everyone on the road to achieving a sustainable and harmonious future for the Company and the society as a whole.





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