



# KOZLODUY NPP REVIEW

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## SPECIAL AWARD FOR KOZLODUY NPP

Kozloduy NPP Plc. Executive Director Ivan Genov was awarded the National Structure Special Prize for Contribution to the economic development of Bulgaria. The event was a part of the "Businessman of the 2007" award ceremony, traditionally organized by the Economic Life Weekly and marking major achievements in economically significant areas such as legal employment, taxation and social security contributions and investment in the country.



## KOZLODUY NPP HEALTH AND MEDICAL CARE CENTRE CARES ROUND THE CLOCK

Wide is the range of the numerous and various indicators and requirements that need to be met in order to maintain a high ranking as a leading industrial company. Regardless of the state-of-the-art technologies implemented it is only natural that human factors prove to be of major importance for the excellence of performance to accomplish the Company's aims. The senior management of Kozloduy NPP has always considered the medical status of employees to be of the highest priority. Therefore, the Health Centre with the Occupational Medicine Department at the KNPP appears to be unique and unparalleled in the country. In

compliance with the Health and Safe Work Conditions Act in addition to the mandatory prevention examinations, medical check-ups, outpatient treatment, first aid, physical therapy etc., the Occupational Medicine Department consults and assists the Employer to provide health and safe work conditions for KNPP staff.

Almost 60 highly qualified staff are involved in the activities of the Medical and Health centre, 18 of them being physicians with certified clinical specialty, 24 are the nurses and medical technicians, including those involved directly with the Occupational medicine issues. Qualification status of personnel meets the highest standards as applied to similar centres throughout the world.



## KOZLODUY NPP HEALTH AND MEDICAL CARE CENTRE CARES ROUND THE CLOCK

The Health and Occupational Medicine centre is equipped with state-of-the-art apparatuses – biochemical and hematologic analyzers, ultrasonic and holter devices, high frequency biotron and quartz apparatuses facilitate treatment and recovery of patients.

### Main activities

Prevention medical examinations are obligatory on signing on and are conducted on



regular basis once or twice a year for all the KNPP personnel. These activities are of high priority and are provisioned for by the Ordinance No. 9 of the Ministry of Health of 16.09.2005, concerning requirements for work in ionizing irradiation environment. All

the results of the medical check-ups and tests are summarized and the final conclusion on the fitness of the individual for the specific position or work place can only be arrived at after a detailed and comprehensive investigation and elaboration by the team of doctors to exclude the probability of subjectivity or inconsistency. Personnel of outsourcing organizations can obtain access to site of the plant only after they undergo the procedures as stipulated and get a positive medical conclusion of their state of health and fitness to perform works assigned.

### Medical aid consultations

These constitute a large part of the activities, related to medical exams and health surveillance of individuals with lighter complaints. In cases of heavy complaints patients are redirected to specialized medical institutions for further treatment or hospitalization.

### Urgent medical aid

In parallel to health surveillance and health status control of KNPP employees an important area of the activities of the medical service are related to the urgent medical aid in cases of necessity 24 hours a day.

## Physiotherapy

With this the circle of high quality services, rendered to KNPP employees closes. In January 2002 the physiotherapy consulting room was moved to the Sports and Recreation Complex in order to be readily available not only for KNPP staff but for patients from the town of Kozloduy as well. A wide scope of diseases can be successfully treated here - neurological, surgical, of the locomotory system as well as of the internal organs of adults and children. About 50 people a month pay visits to this physiotherapy establishment to take advantage of the recreation procedures, massages and recuperative gymnastics.

Dr. Konstantin Serafimov

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## PREVENTION IS OUR PRIORITY EVERY DAY



Medical check-ups on regular basis are the backbone of the health status surveillance system, established at the Kozloduy NPP for many years now. The main objective of these check-ups is to find out if there is a correlation between the working

conditions at the KNPP and the diseases as registered and/or recorded, diagnostics of early forms of diseases and in cases of ailment – to assist successful treatment and recovery, to avoid recurrence, to determine the risk factors of origin and spreading labor related diseases as well as diseases of social significance.

Data from Human Resources Department of the KNPP on specific profile details of KNPP employees, patients' charts, preventive medical check-ups, expert decisions of Labor-expert physician board and Physician consultancy board as well as other sources of information are made use of to achieve the goals of the Health and Medical Care Centre. All medical records need to be kept at the record office for 50 years. It is worth mentioning the scope of prevention medical examinations for 2007 involved 99% of Kozloduy NPP staff with no cases of occupational disease registered.

Dr. Daniela Viktorova



## ENGINEERING DESIGN OF SPENT FUEL DRY STORAGE FACILITY APPROVED

On April 2<sup>nd</sup>, 2008 the Bulgarian Nuclear Regulatory Agency issued an Order of Approval of the Technical project as well as the Intermediate Safety Analysis Report concerning the first construction stage of the Spent Fuel Dry Storage Facility at the Kozloduy NPP. This first stage includes the erection of the building itself and the delivery of 34 specially constructed CONSTOR-440/84 type containers to ensure safety storage of 2800 spent fuel assemblies of the VVER-440 units before the end of 2010. The second stage will enlarge storage capacity by 5200 more spent fuel assemblies of the VVER-440 type as well as 2500 SFA of the VVER-1000 units. Thus, by complying with all relevant international standards the facility will ensure safe storage of spent fuel for no less than 50 years, The option to expand capacity has also been envisaged.

## WANO-MC TECHNICAL SUPPORT MISSION

WANO-Moscow Center Technical Support Mission on "Event Investigators based on a well-proven Root Cause Analysis methodology (Human Performance Enhancement System or HPES) developed over the past ten years by the Institute of Nuclear Power Operations (INPO)." April 14-18, 2008 in Kozloduy NPP. The following issues were discussed: organization, strategy and quality assurance in the investigation of violations in NPP operation, investigation methodologies, INPO methods based on HPES methodology as well as some good practices in determining corrective actions, analyzing precursors, behavioral and causal factors, psychological factors for professional commitment, social – psychological parameters of communication, psychology of NPP safety etc.



## NATIONAL METROLOGICAL WORKSHOP

Kozloduy NPP hosted in Sofia the National Workshop on uniformity of measurements. It was organized by the Bulgarian Institute on Metrology, Bulgarian Accreditation Service Executive Agency, The Union of Metrologists in Bulgaria and Kozloduy NPP. The participants were from power engineering companies-Kozloduy NPP, HPPs, Bulgargas, accredited calibration laboratories, surveillance authorities, leading Bulgarian companies-manufacturers and importers of instrumentation equipment, Bulgarian Air SA etc. There were lectures by scientists from Russia and Ukraine. The policy of the BIM for uniformity of measurements and the policy of EA BAS was presented plus the establishment of an effective network of accredited laboratories for calibration of instrumentation equipment.

## BNRA CERTIFIES SENIOR OPERATIONAL STAFF

On April 4<sup>th</sup>, 2008, the Chairman of the Bulgarian National Regulatory Agency, DSc Sergey Tzotchev awarded qualification certificates to senior operational staff of Kozloduy NPP – plant shift engineers, shift unit supervisors, reactor operators and reactor physicists working at the 440 MW units, issued in compliance with the relevant regulation requirements.

**Iranian Nuclear power experts visit KNPP**

Representatives of the Atomic Energy Organization of Iran (AEOI) visited Kozloduy NPP within the program of the BNRA national advisory and support mission on the elaboration of an external emergency plan for the NPP in Iran and related to the development of the Iranian Nuclear Program for Peaceful Purposes. The focus of the site visit was the plant emergency plan and its importance as a component of the national emergency plan and response system.

**Participation in a Workshop in Smolensk NPP**

The Head of Radiation and Dosimetry Control in EP 2-Georgi Slavchev took part in the international workshop on NPP Radiation protection – ways of decreasing the radiation exposure of personnel, implementing the ALARA principle, organized by WANO-Moscow Center and by VGB PowerTech – Germany, within a Twinning Programme. The report delivered by Mr. Slavtchev was about the experience of Kozloduy NPP in this area gained through the Modernization Programme of Units 5 and 6, and the measures implemented under the special program with the recommendations of the European Commission 2004/2-EURATOM for surveillance of radioactivity in the environment.

**Students from the Secondary Comprehensive School at the Russian Embassy visited KNPP**



**Hungarian Young Generation Network visit to KNPP**



**More than 20 students, lecturers and scientific workers from Hungary visited KNPP**

**Excellence in performance not only operating Kozloduy NPP but in arts as well**



**ANNIVERSARY**

**15th anniversary of the Theatre amateurs Club at the House of Culture of KNPP**

**NEW IN MAY AND JUNE:**

- 1. Units 5 & 6 UKTS modernization
- 2. Outages are exceptionally specific
- 3. Aerosol environmental monitoring
- 4. NATO General Assembly delegation visit
- 5. KNPP sports team champion again
- 6. Record breaking visitors to KNPP on Open Day
- 7. “KNPP–Energy & Nature” children paintings competition

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