



EASTERN EUROPE

Small Modular and Advanced Reactor Planning Workshop IV

MAY 24-25, 2022 | BUCHAREST, ROMANIA

Cantemir Ciurea-Ercau

President

Romanian Nuclear Regulatory Authority

Mr. Ciurea is the President of the Romanian Nuclear Regulatory Authority in nuclear field, the National Commission for Nuclear Activities Control.

The National Commission for Nuclear Activities Control (CNCAN) is the national authority competent in exercising regulation, licensing and control in the nuclear field, for all the activities and installations under the scope of the Law 111/1996 on the safe deployment, regulation, licensing and control of nuclear activities, republished with subsequent modifications and completions.

Mr. Ciurea graduated from the Power Engineering Faculty, University "POLITEHNICA" of Bucharest, Romania with a B.Sc. degree in Power Generation Systems in 1996, followed in 1997 by a M.Sc. degree in Computed Aided Modelling of Power Generation Systems.

Between 1996 and 2000 he was working as engineer within the Energy Research and Modernization Institute (ICEMENERG) in Bucharest where he performed engineering studies for optimization of thermal cycle for power plants, feasibility studies for power plants modernization and was involved in design and conduct of commissioning and performance tests for power plants, development of installations/operating manuals for power plants and design and implementation of modifications for power plants.

From 2000 he began his career in nuclear field within the Nuclear Regulatory Body, CNCAN, as a safety analyst until 2004 where he performed regulatory review and assessment of licensing documentation for Cernavoda NPP (Preliminary and Final Safety Analysis Reports, prerequisites for licensing activities), review and assessment of design changes for Cernavoda NPP Unit 1 and Unit 2, independent review of safety analyses, nuclear events investigations for Cernavoda NPP, review and assessment of Safety Reports for Spent Fuel Interim Dry Storage Facility as well as safety review and surveillance activities for TRIGA and VVRS research reactors.

Beginning with 2004 until 2009 he was acting as Head of the Nuclear Safety Section within CNCAN. As section head he was in charge of:

- Development of national regulations on the design of safety systems for nuclear power plants, periodic safety review and probabilistic safety assessment; development of national regulations on siting, design, construction and commissioning of new power reactors;
- Development of licensing requirements for Cernavoda NPP Units 1 and 2;
- Development of regulatory inspection plans and management of inspection activities during commissioning of Cernavoda NPP Unit 2;
- Regulatory review and assessment of Cernavoda NPP Unit 2 Commissioning Programme (processes, procedures, safety objectives); performing inspections and witnessing of commissioning tests during Cernavoda NPP Unit 2 commissioning;
- Development of pre-licensing requirements for completion of Cernavoda NPP Unit 3 and 4 projects;
- Management of licensing activities for Cernavoda NPP, TRIGA and VVRs research reactors;
- Licensing of management staff and operating staff (control room operators and shift supervisors) for nuclear installations;
- Review and assessment of procedures developed for the Periodic Safety Review programme for Cernavoda NPP Unit 1;



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- Participation, as a counterpart, in the IRRT and IRRS missions conducted for CNCAN.

Starting with 2009 he occupied the position of Director of the Nuclear Fuel Cycle Division within CNCAN and managed all activities related to regulation, licensing and inspection activities for nuclear installations in Romania.

In February 2021 he was appointed as Interim President of CNCAN and from January 2022 until now he is President of CNCAN, acting as State Secretary. As President of CNCAN he has the overall responsibility in oversight of all nuclear activities on the territory of Romania.

From 2000 until now, he participated in various training courses, workshops, fellowships and scientific visits in the area of nuclear safety organized in the framework of the IAEA Technical Cooperation Programmes. His other skills include extensive knowledge of international standards, guidelines and good practices applicable to the nuclear regulatory authorities and to the nuclear industry, including the IAEA Safety Standards, project management as well as advanced skills in use of computer codes such as ANSYS and Autocad.

Mr. Ciurea has high experience in organizing and implementing inspection plans for licensing holders/applicants to carry out activities in the nuclear field as well as practical experience in the regulation, authorization and control of nuclear installations and related activities.

Mr. Ciurea also has over 15 years of experience in coordinating the activities within a technical Section/Division within CNCAN, experience in coordinating the activities for developing of nuclear safety regulations, strategies, action plans and national reports under the Nuclear Safety Convention as well as experience in training the personnel for inspection activities.

Regarding his technical skills and competences, he has solid knowledge of the national and international legislation, of the nuclear safety regulations and technical standards as applicable to nuclear power plants. His comprehensive knowledge of standards and practices for assessment and inspection in the field of nuclear safety has been demonstrated in applying the processes related to the analysis and evaluation of technical documentation for the authorization of nuclear installations, implementation of project modifications and authorization of practices in the nuclear field.

His qualifications and competences in areas such as nuclear safety, radiological protection, quality management systems, nuclear safeguards / non-proliferation of nuclear weapons, physical protection of nuclear facilities and materials, transport of nuclear and other radioactive materials, management of radioactive waste and spent nuclear fuel, emergency preparedness and response, cyber security, manufacturing of products and supply of services for nuclear installations are proven through his active participation and involvement in working groups, evaluations missions, forums or committee, as follows:

- Participation, as National Coordinator, in the regular INES / IRS meetings;
- Participation as expert in the IRRS (Integrated Regulatory Review Service) assessment missions, carried-out by the International Atomic Energy Agency (IAEA) to the regulatory authorities of Slovenia, Finland, Norway, the Czech Republic, South Africa, Austria, the United Kingdom and Canada;
- Contribution to drafting and review of various IAEA Safety Standards and Guides;
- Participation, as expert, in the assessments related to the "stress tests" implemented for the nuclear power plants in Europe after the Fukushima accident;
- Participation in international exercises "ConveEx-3" for the evaluation of CNCAN's response capacity in radiological emergencies situations and nuclear accident;
- Participation as CNCAN member in the activities of the working groups within the NEA / OECD;
- Participation as CNCAN member in the activities of the working groups within the European network "ClearingHouse";
- Participation as member of the Romanian delegation in the meetings for reviewing the reports of the Contracting Parties to the Nuclear Safety Convention;
- Participation in the meetings of the CANDU Senior Regulators Meetings;
- Participation in the related activities of ENSREG nuclear safety working group.