

The Antenna

NEWSLETTER FROM A.N.T. INTERNATIONAL No.50 2021



NEW BLOG

We have noticed that most of the public energy information from different sources is either incorrect or incomplete. In addition, the sources of the information are frequently missing, thereby introducing questions regarding facts versus personal opinion and political assertion. The objective of this blog is to provide information about the pros and cons of different energy sources to promote technically sound decisions regarding clean, safe, inexpensive and reliability electricity. The blog, www.energyeducation.se, focuses on nuclear power, which provides all of these attributes but continues to be a subject of opposition in the popular press. We hope that you will find the blog useful and if so we ask you to share it with your friends. It is important that people who are open to new ideas will understand how important it is to preserve and develop nuclear technology as a cornerstone of our energy generating capabilities.



Please feel free to contribute with articles/videos or give links to interesting information by contacting either Mikaela at mikaela.strand@antinternational.com or Peter at peter.rudling@antinternational.com.



ZIRAT AND LCC SEMINARS IN 2022

We are pleased to announce the arrangements for the ZIRAT26 and LCC17 Seminars that will take place in USA (ZIRAT26) and Spain (ZIRAT26 and LCC17). These seminars are open to all current ZIRAT and LCC members:



In USA, the ZIRAT26 Seminar will be hosted by INL, the Idaho National Laboratories in Idaho Falls, USA and will be held at the Energy Innovation Laboratory, 775 MK Simpson Boulevard, Idaho Falls, Idaho 83415 on March 16-18, 2022.



In Europe, the LCC and ZIRAT seminars will be hosted by Iberdrola Generacion Nuclear in Madrid and will be held on the Iberdrola Campus in San Agustin de Guadalix. The LCC17 and ZIRAT26 Seminar will be held on April 25-29th 2022.

ZIRAT26 AND LCC17 MEMBERS ARE CORDIALLY INVITED



MEET OUR MOST RECENT EXPERTS



DR. P O ARONSSON
COOLANT CHEMISTRY
AND CORROSION

Dr. P O Aronsson has a Ph.D. Nuclear Chemistry and has spent his main professional career at the Ringhals Nuclear Power Plant, having one BWR and three PWR units, as lead radiochemist. He has also been acting as a teacher in “Radiochemistry in nuclear power plants” in training courses for Radiation Protection personnel, in “Radiation Monitoring System” for reactor operators at Ringhals under the auspices of KSU (the Swedish company for training of nuclear plant personnel) and for “Continuous Professional Development” for radiophysicists under the auspices of SSM (Swedish Radiation Safety Authority).



MR. ADOLFO REPÁRAZ
FUEL MATERIAL

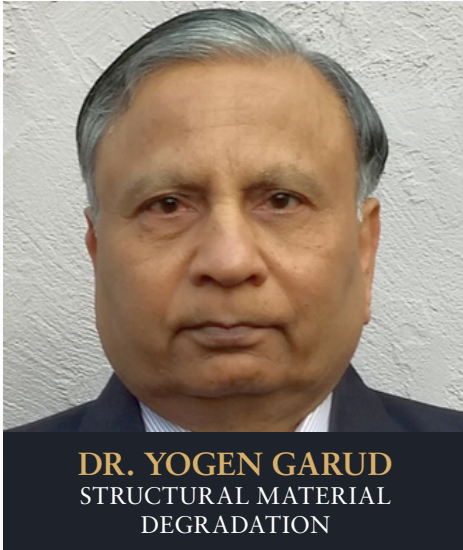
Mr. Adolfo Repáraz has extensive experience in the commercial nuclear industry in the areas of fuel mechanical design and manufacturing, irradiated fuel inspection, fuel performance assessment, failed fuel diagnostics, irradiated fuel inspection tooling, manufacturing surveillances, project management, hot cell inspections, and interaction with licensing authorities.

Mr. Repáraz retired from the Westinghouse Electric Company in 2016, where for ten years, he was the Manager of Product Performance Engineering, responsible for planning and conducting irradiated fuel inspection campaigns of Westinghouse fuel in the US, Taiwan and some European plants and for providing customer support during refueling outages. He also worked for over 21 years with Siemens Power Corporation in Richland, Washington where he was the manager of the fuel design group. His group was responsible for the mechanical design of fuel and core components for PWR and BWR reactors. Under his leadership, Siemens Power Corporation

developed and implemented unique solutions to nuclear power plant operational problems including the development of the High Thermal Performance (HTP) grid, products such as the debris filter FUELGUARD nozzle, the fuel rod clip to address the problem of baffle jetting, and the implementation in the US of the BWR ATRIUM fuel design developed in Germany.

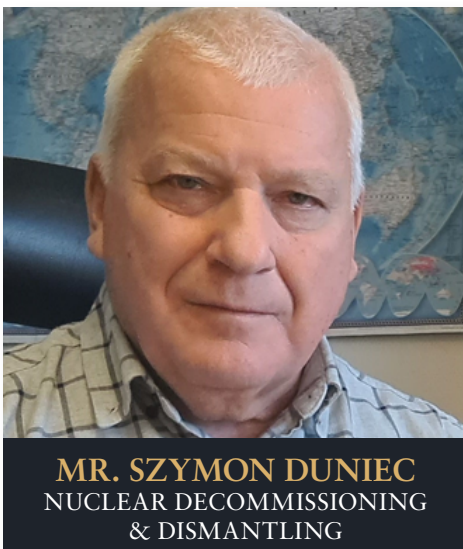
As a consultant, Mr. Reparaz has provided independent consulting services to the Massachusetts Institute of Technology (MIT) in the development of advanced fuel designs competing for DOE funding. He is a Certified QA Auditor by AQS (American Quality Society) and a Lead Auditor by DOE OCRWM (Office of Civilian Radioactive Waste Management). Mr. Reparaz also supported the US DOE during the construction of the vitrification plant being built in Richland, Washington. He has performed numerous fuel manufacturing surveillances to support utilities and performed research work for the Electrical Power Research Institute (EPRI).

Mr. Repáraz has a degree in Aeronautical Engineering from the Polytechnical Institute of Madrid (Spain). He holds several US Patents in the areas of PWR and BWR fuel designs.



Dr. Garud has provided engineering and consulting services for over 45 years to electric utilities, research institutes, and Argonne National Laboratory. Key areas of his interest and experience include:

- Development and application of engineering models for assessing corrosion and materials degradation effects on the life and integrity of major metallic components in nuclear power systems:
 - systems covering BWRs, PWRs, CANDU, and HTGR,
 - environments including high temperature reactor water, steam, and helium gas, and
 - effects including corrosion, oxidation, creep, fatigue, embrittlement, SCC/PWSCC, IASCC, & FAC
- Integrity assessment work related to pressure retaining components, stress-strain analysis of complex thermo-mechanical loads, 3D-plasticity effects, finite element analysis, and safety margins
- Mechanical design/analysis including integration of probabilistic, statistical, and exploratory data analysis methods in component integrity and life assessment, and use of risk/reliability methods
- Technical support in nuclear quality assurance, QA (10CFR50, Appendix B), ASME B&PV Code (Sections III and XI parts) rules and their application
- Nuclear power plant license renewal or long-term operation (LTO) and aging management programs, and related technical audits
- Engineering assessment for problem resolution and independent technical/technology reviews



Mr. Szymon Duniec has a B. Sc. Degree in Radiation Physics and during the last 13 years he has been involved in the following fields:

- Refinement and development of measuring methods for radiation levels in NPP's process system.
- RadWaste and decommissioning issues
- Development of computer codes for prediction of future radiological conditions in the NPP
- Consultancy in Reactor Chemistry
- Consultancy in reactor and nuclear safety
- Radiation shielding design
- Dosimetry, and Health Physics

Through A.N.T. International independent World Class Network of 27 Experts we can provide unique knowledge and experience in the nuclear field.

**READ MORE ABOUT
OUR EXPERTS »**

CUSTOMER FEEDBACK

The Krško Nuclear Power Plant is the only nuclear power plant in Slovenia. This is the one of the reasons why we feel the need to share experiences with other PWR nuclear power plants. We have been members of the **LCC program** since 2009. Membership in the A.N.T. has allowed us to effectively exchange views with colleagues across European and other nuclear power plants over the years. At the same time, the annual publications prepared by A.N.T. experts provide an in-depth understanding of the degradation mechanisms, chemistry of water media, influences on materials, nuclear fuel and everything else that we consider important in carrying out our mission and achieving the set goals of the Chemical Department of our NPP. When making important decisions and managing constant change we often use the ANT's comprehensive publications. At the same time, publications are welcome in training of new and less experienced colleagues.

Over the years of membership, with the help of experts from the A.N.T. organization, we have solved many dilemmas and answered any questions. We have great respect for their experience and knowledge, as well as their willingness to dialogue and help.

We wish A.N.T. International many successful years in combining ideas, knowledge and experience and bringing together experts in the field of chemistry of water media.

Dr. Milan Simončič
Chemistry Superintendent
Nuclear Power Plant Krško
Slovenija



**WE HAVE GREAT RESPECT FOR THEIR
EXPERIENCE AND KNOWLEDGE**



A.N.T. INTERNATIONAL®

CONTACT

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Please also visit our website for the latest updated information www.antinternational.com