

NUCLEAR
RESEARCH
INSTITUTE



25+ YEARS OF EXPERIENCE IN ALL ASPECTS OF

AGEING MANAGEMENT & EQUIPMENT QUALIFICATION

RADIATION TECHNOLOGY

EQUIPMENT QUALIFICATION

EXTENSION OF QUALIFIED LIFE

EQUIPMENT CONDITION MONITORING

CABLE AGEING MANAGEMENT PROGRAMME

TESTING OF RADIATION RESISTANCE OF MATERIALS

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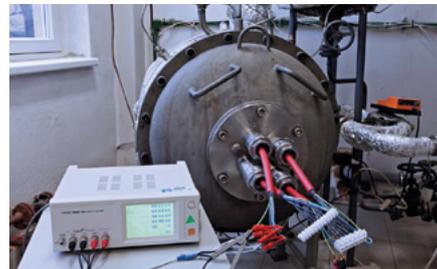
 www.ujv.cz

EQUIPMENT QUALIFICATION

- Type testing, operating experience, analysis, combined methods, reassessment of qualification.
- Laboratory accredited according to ISO/IEC 17025 follows 10CFR50 Appendix B.
- Laboratory has qualified different kind of items important to NPP safety, e.g.
 - Sensors
 - Cables (electrical, optical)
 - Penetration
 - Motors
 - Painting
 - Valves
 - Connectors



Thermal and climatic chambers for accelerated ageing with possibility to add additional stressors (mechanical, electrical) and functionality measurement.



Equipment for accident (LOCA, HELB, MSLB, SA) simulation with possibility of online functionality testing, sample energizing, pressurization, etc.



Equipment for long-term post accident simulation.



Vector network analyser (VNA) for monitoring of high frequency changes of communication cables and HF equipment.

EQUIPMENT CONDITION MONITORING

Laboratory is fully equipped for functional tests and condition monitoring of equipment under the qualification test.



Electrical laboratory for HV tests.



Determination of tensile properties of polymeric materials.



Fiber optic cable qualification; attenuation measurement with LSPD (Light Source and Power Meter) devices and/or OTDR (Optical Time Domain Reflectometer).



Differential scanning calorimetry (DSC) for thermal properties measurement.

RADIATION TECHNOLOGIES

- Testing of radiation stability.
- Dose and dose rate determination for gamma, beta and neutron radiation.



Alanine/ESR radiation dosimetry.

RADIATION TECHNOLOGIES



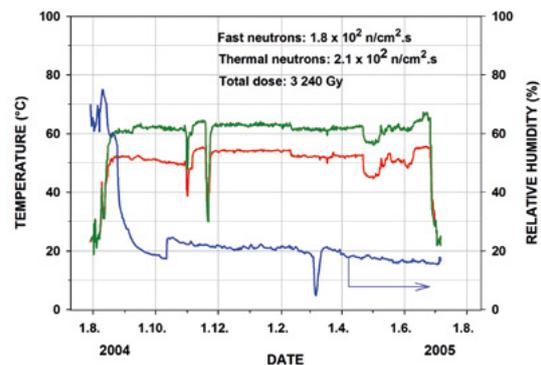
Accelerated radiation ageing in ^{60}Co irradiators (also at elevated temperature, with possibility of online properties measurement, energizing, pressurization, etc.)



Thermobox located in radiation facility for simultaneous radiation and thermal accelerated ageing of long samples at low dose rates.

CABLE AGEING MANAGEMENT PROGRAMME

- Cable life time assessment
- Cable deposits
- Environmental conditions monitoring
- TLAA



Temperature, radiation and humidity monitoring by using dataloggers and dosimeters. Evaluation of the NPP environments to which the equipment is actually exposed. Such service is provided for NPPs worldwide.

CONTACTS

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