Division 8: Issues Related to Operations, Inspection and Maintenance

Division Coordinators:

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Technical Sessions (tentative)

- TS 8-1a, b, c: Management of Aging NPPs
- TS 8-2a, b, c: Improvements in NPP Maintenance and Monitoring Programs
- TS 8-3: Improvement in NPP Inspection Programs

Technical Session 8-1a Management of Aging NPPs

TS 8-1.1 (1842) Ken Kirkhope, Andrei Blahoianu and Gerry Frappier
Canadian Nuclear Safety Commission, Ottawa, Canada, Canada
Update on Canadian Regulatory Oversight of Ageing Management for Nuclear Power Plants – New Builds, Old Builds and Everything In Between

TS 8-1.2 (2595) Claude FAIDY
EDF-SEPTEN, France
Aeing Management Program : a key issue for operating plants and new designs

TS 8-1.3 (2533) Tae Ryong Kim
KEPRI, Korea, South
Korean Experience in Aging Management for Long Term Operation of NPP

TS 8-1.4 (1835) Paul Smeekes
TVO, Finland
PAMS - Piping and Component Analysis Aad Monitoring System Application and Visualisation

TS 8-1.5 (1650) A.V. Bogachev, V.Ya. Berkovich, B.N. Dranchenko, V.P. Semishkin
OKB "GITROPRESS", Podolsk, Russia
Management of RP equipment ageing using computerized monitoring system of residual life (SACOR)

1 Presentation (speaker) not confirmed before printing of the programme
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Technical Session 8-1b Management of Aging NPPs

TS 8-1.6 (1804)  Andrei Blahoianu 1, and Alejandro Huerta 2
1 Canadian Nuclear Safety Commission, Ottawa, ON, Canada
2 Organization for Economic Cooperation and Development - Nuclear Energy Agency, Nuclear Safety Division, Paris, France, France
Activities of OECD/NEA in the Fields of Integrity and Ageing of Components and Structures

TS 8-1.7 (2619)  Yinbiao He, Wangping Zhang, Ming Cao
Shanghai Nuclear Engineering Research and Design Institute, Shanghai, China, China
Methodology Research on Prediction for Operating Lifetime of PWR RPV

TS 8-1.8 (1954)  Doctor, S.R. 1, Bond, L.J. 1, Cumblidge, S.E., Hull, A. B. 2 and Malik, S.N. 2
1 Pacific Northwest National Laboratory and
2 US Nuclear Regulatory Commission, United States
Proactive Management of Materials Degradation (PMMD) and enhanced structural reliability.

TS 8-1.9 (3173)  P.Contri
European Commission, JRC-Institute for Energy, Safety of Current Nuclear Reactors Unit, Netherlands
A proposal for a unified model on Nuclear Power Plant Life Management including Maintenance Optimisation

TS 8-1.10 (1663)  Mihail COJAN 1, Corina MOCANU 2, Gheorghe FLORESCU 1
1 Institute for Nuclear Research, Romania
Considerations Related to Long-Term Operation for CANDU 6 NPP

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Technical Session 8-1c Management of Aging NPPs

**TS 8-1.11 (1685)** Erkki Vesikari¹, Jari Puttonen², Vesa Hiltunen³ & Aki Mattila⁴
¹VTT Technical Research Centre of Finland, Finland
Service Life Management System of Concrete Structures in Nuclear Power Plants

**TS 8-1.12 (1647)** Fahim Al-Neshawy, Esko Sistonen, Jukka Piironen, Susanna Peltola, Jari Puttonen
Helsinki University of Technology, Faculty of Engineering and Architecture Department of Structural Engineering and Building Technology, Finland
Monitoring Relative Humidity and Temperature for Life-Time Assessment of Sandwich-Type Concrete Structures

**TS 8-1.13 (1622)** Dimitar Stefanov
Bulgarian Academy of Sciences, CLSMEE, Bulgaria
Aging Problems and Residual Life Time Evaluation of the WWER-1000 MW Containment Shell Structure

**TS 8-1.14 (2071)** Tae Ryong Kim*, Sung Ho Lee*, Chi Yong Park*
Korea Electric Power Research Institute, 65 Munji-ro Yuseong-gu, Daejeon, Korea, Korea, South
Development of Integrity Evaluation Program for Pipe Wall Thinning

**TS 8-1.15 (1959)** Koenig, Guenter Schoeckle, Friedrich
EnBW Kernkraft GmbH & AMTEC Services GmbH, Germany
Ageing Management of Steam Generator Internals

¹ Presentation (speaker) not confirmed before printing of the programme
Technical Session 8-2a Improvements in NPP Maintenance and Monitoring Programs

TS 8-2.1 (1652)  Reese, Sven H. & Seichter, Johannes
E.ON Kernkraft GmbH & Siempelkamp Prüf- und Gutachter-Gesellschaft mbH, Germany
German Nuclear Power Plants Utility Ageing Management – Long term Fatigue Evaluation of Safety Relevant Components

TS 8-2.2 (1815)  Simone Bartels, Erika Nowak, Tobias Richter
E.ON Kernkraft GmbH, Germany
Microbially Influenced Corrosion in Cooling Water Systems - Development of a New Protection Concept for Components Conveying Brackish Water

TS 8-2.3 (2476)  SR Doctor
Pacific Northwest National Laboratory, United States
Fabrication Flaw Density and Distribution in Piping Weldments

TS 8-2.4 (2477)  SR Doctor
Pacific Northwest National Laboratory, United States
Fabrication Flaw Density and Distribution in Weld Repairs

Technical Session 8-2b Improvements in NPP Maintenance and Monitoring Programs

TS 5-2.5 (2047)  D. Dauffer 1, A. Limam 2, D.T. Nguyen 2, J.M. Reynouard 2
1 EDF-SEPTEN, France,
2 Université de Lyon, INSA-Lyon, LGCIE, F-69621, Villeurbanne, France
Repair and Strengthening of Damaged Reinforced Concrete Slabs with CFRP

TS 8-2.6 (2603)  Yu-Cheng Kan 1, Kuang-Chih Pei 2, Dong-Wei Lin 2
1 Department of Construction Engineering, Chaoyang University of Technology, Taiwan;
2 Engineers, Institute of Nuclear Energy Research, Taiwan, Taiwan
A Model to Monitoring Real-time Fracture of Concrete Subjected to the Load from Tendons by AE Technique

TS 8-2.7 (1848)  Julia Tcherner (nee Milman), Tarek S. Aziz, Daman K. Panesar, Marc Demers, and Kenneth W. Neale
Atomic Energy of Canada Limited, University of Toronto, University of Sherbrooke, Canada
Performance Surveillance of Gentilly-1 Reactor Building GFRP Repair Using Fiber Optic Sensors and Strain Gauges

TS 8-2.8 (1802)  Jin-Ho Park, Doo-Byung Yoon, Young-Chul Choi
Korea Atomic Energy Research Institute, Korea, South
A New Loose Part Monitoring Technique on a Reactor Pressure Boundary Structure

TS 8-2.9 (1986)  Young Ki Jang¹, Kyeong Lak Jeon¹, Yong Hwan Kim¹, Jae Ik Kim², Jung Cheol Shin³, Man Su Kim⁴, Taehyung Lee⁵ and Jong Ryul Park⁶
¹ Nuclear Fuel Technology Department, Korea Nuclear Fuel, Yuseong, Daejeon, Korea,
South

Korea Hydro & Nuclear Power Co., Ltd., Korea, South

Development & In-reactor Verification Status of Three Types of Korean Advanced Nuclear Fuels for PWRs

Technical Session 8-2c Improvements in NPP Maintenance and Monitoring Programs

TS 5-2.10 (1812) Sungjin Bae and Luis Moreschi
note¹ Bechtel Power Corporation, United States
Effects of Concrete Creep and Shrinkage on the Stress Conditions of a Post-Tensioned Containment Structure for Steam Generator Replacement Project

TS 8-2.11 (1630) Pi-Kuan Chen
note¹ China Steel Corporation, Taiwan
The Application of Ultrasonic Testing for Coating Layer Bonding of Mold

TS 8-2.12 (2486) Sheng Xuanyu, Wu Xinxin, He Shuyuan
note¹ INET, Tsinghua University, Beijing, China
Graphite Blocks Reloading Consideration in HTR-PM

TS 8-2.13 (1619) Yong Hwan KIM
note¹ Korea Nuclear Fuel Co., ltd., Korea, South
Fretting Wear Resistance Nuclear Fuel design & Operating Experience

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Technical Session 8-3: Improvement in NPP Inspection Programs

**TS 8-3.1 (1794)** Ari Julin, Jouko Marttila, Ilkka Niemelä, Rainer Rantala, Olavi Valkeajärvi, Reino Virolainen
Radiation and Nuclear Safety Authority, STUK, Finland
Development of RI-ISI at STUK

**TS 8-3.2 (1801)** Young-Chul Choi, Doo-Byung Yoon and Jin-Ho Park
Korea Atomic Energy Research Institute (KAERI), Korea, South
Monitoring Pipe Thinning using Two Accelerometers

**TS 8-3.3 (1731)** Kim Wallin, Rainer Voskamp, Jan Schmidbauer, Henner Ostermeyer and Gerhard Nagel
Academy of Finland, Finland
Statistical Assessment Method for the Optimisation of the Inspection Need for Nuclear Steam Generators Based on Existing Inspection Data

**TS 8-3.4 (1910)** G.P. Karzov, S.A. Suvorov, V.A. Fedorova
FSUE CRISM "Prometey", Russia
The Complex Approach to the Determination of NPP Steam Generators Heat-Exchange Tubes Plugging Criterion (NPP SG HET PC) on the Basis of Analy-Ses of the Processes of the Tubes Damaging during NPP Operation

**TS 8-3.5 (2621)** Mahesh D. Pandey, S.V. Datla & Mikko I. Jyrkama
Department of Civil and Environmental Engineering, University of Waterloo, Waterloo, Ontario, Canada
The Effectiveness of Chemical Cleaning in Reducing the Risk of Leakage in Steam Generator Tubing: A Bayesian Approach

**TS 8-3.6 (1889)** note
Hyun Young Chang, Won Min Kim, Tae Eun Jin, Jeong Ho Son, Young Sik Kim and Young Ran Yoo
Korea Power Engineering Company, Korea, South
Study on the Boric Acid Corrosion Behavior of Disk/Seat Materials in SI Check Valves

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