

TUESDAY, JUNE 25, 2019

PLENARY		TUESDAY, JUNE 25, 2019		
	0800	Welcome to NDE in Nuclear 2019 and Plenary presentations (BIRCH, DOGWOOD, POPLAR) – P. Ashwin, H. Feldman, G. Selby, A. Sowder; <i>Electric Power Research Institute (EPRI)</i>		
	0940	COFFEE BREAK		
SESSION 1	TRACK A <i>Location: Birch</i>		TRACK B <i>Location: Dogwood</i>	TRACK C <i>Location: Poplar</i>
	NDE OPERATIONAL EXPERIENCE		ADVANCED UT	NDE FOR CONCRETE I
	1010	1.A.01 Pre-In Service Inspection of the EPR Reactor Vessel of Flamanville 3 S. Shahjahan, <i>EDF</i>	1.B.01 Review of Several New Improvements to Full Matrix Capture and the Total Focusing Methods G. Dao – <i>AOS/TPAC</i>	1.C.01 Nondestructive Testing of Concrete Structures: Development of Standards for Training and Education S. Feistkorn, D. Algernon – <i>SVTI - Swiss Association for Technical Inspections</i> R.W. Arndt – <i>FH Erfurt - University of Applied Sciences Erfurt</i> <i>See page 6 for the complete list of authors.</i>
	1030	1.A.02 Ultrasonic Qualified Inspection on Trillo NPP Reactor Pressure Vessel Base Material P. González, R. Martínez-Oña – <i>Tecnatom</i> ; R. García, C. Vilches – <i>Trillo NPP</i> I. Real – <i>Iberdrola Generación</i>	1.B.02 Benefits of PWI Weld Inspection for Attenuative Materials A. Caulder – <i>AOS/TPAC</i>	1.C.02 Ultrasonic Methods for Quality Assurance and Condition Assessment in Nuclear Concrete Structures – Lessons Learned E. Niederleithinger, S. Maack, F. Mielentz, U. Effner – <i>BAM - Federal Institute for Materials Research and Testing</i> ; D. Scott, S. Villalobos – <i>EPRI</i>
	1050	1.A.03 Venturis of Feedwater Inspection: A Curative to Predictable Maintenance Story With an Innovative Crawler C. Chabredier, M. Roussillon, J. Tarabay – <i>EDF</i>	1.B.03 Advanced Focusing Techniques for Improved PA UT Inspection Capability on Stainless Steel and Dissimilar Metal Welds G. Maes, J. Berlinger – <i>Zetec</i>	1.C.03 Quality Assurance and Validation of Nondestructive Testing (NDT) of Concrete Structures in Nuclear Power Plants D. Algernon, S. Feistkorn – <i>SVTI, Swiss Association for Technical Inspections, Nuclear Inspectorate</i> ; R.W. Arndt – <i>FH Erfurt, University of Applied Sciences</i> <i>See page 6 for the complete list of authors.</i>
	1110	1.A.04 Effective Implementation of UT in Lieu of RT K. Hacker – <i>Dominion Energy</i>	1.B.04 Comparative Study of Ultrasound Techniques for Challenging Nuclear Inspections G. Neau, F. Reverdy, L. Leber – <i>Eddyfi Technologies</i>	1.C.04 Reliability of Corrosion Condition Assessment of Steel in Contact with Concrete S. Keßler – <i>Technical University of Munich, Centre for Building Materials</i>
	1130	1.A.05 Remote Thickness Gauging for Containment Vessel Linear Plate of Operating Nuclear Station J. Park, H. Kim, C. Ryu, S. Lee, H. Yu – <i>Doosan Heavy Industries & Construction</i>	1.B.05 Novel Infrastructure Improvements to Guided Wave Inspection for Piping with Elbows L. Breon – <i>EPRI</i>	1.C.05 Nondestructive Evaluation of Steel-Concrete Composite Structure Using High-Frequency Ultrasonic Guided Wave H. Sun, J. Zhu – <i>Dept. of Civil Engineering, University of Nebraska-Lincoln</i>
1150	LUNCH			
SESSION 2	COLLABORATIONS, CODES AND STANDARDS		ARTIFICIAL INTELLIGENCE IN NDE	NDE FOR CONCRETE II
	1300	2.A.01 ASME Section XI, Division 2 Rewrite H.M. Stephens – <i>Chair, Working Group MANDE of Section XI, Division 2</i>	2.B.01 Automated Analysis of NDE and Plant Monitoring Data Streams J. Lindberg, T. Waite, C. Jaffe – <i>EPRI</i> M. Shin – <i>University of North Carolina Charlotte</i>	2.C.01 Non-destructive Testing of Mechanical Properties of NPP Biological Shielding Concrete Z. Hlavac, J. Brom, J. Patera – <i>Research Centre Rez</i>
	1320	2.A.02 Program for Investigation of NDE by International Collaboration (PIONIC): Introduction, Status, and Future Plans R. Meyer – <i>PNNL</i> ; B. Lin – <i>NRC</i> ; E. Strindö – <i>Swedish Radiation Safety Authority</i> <i>See page 6 for the complete list of authors.</i>	2.B.02 Flaw Detection in Ultrasonic Data Using Deep Learning and Virtual Flaws I. Virkkunen – <i>Aalto University</i> T. Koskinen – <i>VTT Technical Research Centre of Finland Ltd</i>	2.C.02 Inspection of Concrete Behind Steel Liners Using Ultrasonic Methods S. Villalobos, S. Johnson, D. Scott – <i>EPRI</i>
	1340	2.A.03 NDE Guide for Compliance Inservice Inspection Requirements J. Abbott – <i>EPRI</i>	2.B.03 Development and Mathematical Optimization of a Machine Learning Tool for Automated Nondestructive Evaluation (NDE) Data Analysis D. Algernon, S. Feistkorn, P. Kicherer, M. Scherrer – <i>SVTI - Swiss Association for Technical Inspections, Nuclear Inspectorate</i> R. Lenz – <i>ZIB - Zuse Institute Berlin</i>	2.C.03 Nondestructive Testing Method for Condition Assessment of PCCP R. Stark – <i>STP Nuclear Operating Company</i> P. Fisk – <i>NDT Corporation</i>

CONTINUED ON PAGE 2

TUESDAY, JUNE 25, 2019 (CONTINUED)							
SESSION 2 (CONTINUED)	TRACK A	Location: Birch	TRACK B	Location: Dogwood	TRACK C	Location: Poplar	
	COLLABORATIONS, CODES AND STANDARDS		ARTIFICIAL INTELLIGENCE IN NDE		NDE FOR CONCRETE II		
	1400	2.A.04	Implementation of the ASME ANDE-1 Standard H.M. Stephens – <i>Vice-Chair, ANDE Standard Committee</i>	2.B.04	Performance of Advanced Pattern Recognition Algorithms Using Raw Data from Ultrasonic Guided Waves System Installed on the Shell of a Low-Pressure Feedwater Heater A. Gribok – <i>Idaho National Laboratory</i>	2.C.04	Vibro-Acoustic Modulation Technique to Localize Cracking in Concrete Structures Due to Alkali-Silica Reaction S. Miele, P. Karve, S. Mahadevan – <i>Vanderbilt University</i> V. Agarwal – <i>Idaho National Laboratory</i> E. Giannini – <i>R. J. Lee Group Inc.</i> J. Zhu – <i>University of Nebraska Lincoln</i>
1420	2.A.05	Background for Full Matrix Capture P. Hayes – <i>AOS/TPAC</i>	2.B.05	Development of Automatic Flaw Identification Algorithm for Heat Exchanger Tube in High-Pressure Feedwater Heater using Bobbin-type Magnetic Camera S. Kim, H. Lee, H. Lee, J. Lee – <i>IT-based Real-time NDT Center, Chosun University</i>	2.C.05	Thermal Modulation of Nonlinear Ultrasonic Wave for Evaluation of Concrete with ASR Induced Damage H. Sun, J. Zhu – <i>University of Nebraska Lincoln</i> E. Giannini – <i>R.J. Lee Group Inc.</i>	
1440	COFFEE BREAK						
SESSION 3	NDE RELIABILITY		ONLINE MONITORING		NDE APPLICATIONS I		
	1500	3.A.01	The Voice of the Ultrasonic Examiner M. Dunlap – <i>EPRI</i> C. Gaddy, C. Weaver – <i>Human Factors International</i>	3.B.01	Long Range Wireless UT Sensor Adoption for Corrosion Monitoring & NDE Applications S. Strachan – <i>Sensor Networks, Inc.</i>	3.C.01	Eddy Current Array for Fuel Rod Inspections and Beyond from Manufacturing to End-of-Life Management A.M. Allard, O. Rousseau-Cyr, M. Bouchard – <i>Eddyfi</i>
	1520	3.A.02	A Study of Human and Organizational Factors and Their Influence on the Performances of NDT E. Martin – <i>EDF</i> ; P. Calmon – <i>CEA-LIST</i> ; F. Guarnieri, J. Larouze – <i>Mines Paris Tech, CRC</i> ; S. Bittendiebel – <i>Institut de Soudure</i>	3.B.02	Smart Film for Detecting Early-Stage Corrosion in Nuclear Power Plant Piping X. Deng, L. Prozorovska, G.K. Jennings, D.E. Adams – <i>Vanderbilt University</i> V. Agarwal – <i>Idaho National Laboratory</i>	3.C.02	Dry Storage Canister Inspection with Eddy Current Arrays and Delivery System to Support Implementation N. Muthu – <i>EPRI</i>
	1540	3.A.03	Evaluation of POD with Virtual Flaws T. Koskinen – <i>VTT Technical Research Centre of Finland Ltd.</i> I. Virkkunen – <i>Aalto University</i>	3.B.03	The Development and Evaluation for the Remote Measuring Device and the Continuous Measurable Ultrasonic Sensor for Wall Thickness Under the High Temperature Environment Y. Sakai, M. Yoshida, M. Yoshiaki, S. Kurihara – <i>Tokyo Electric Power Company Holdings</i>	3.C.03	Implementation of a High-Energy X-Ray System for Inspection of Thick-Walled Copper Welds U. Ronneteg – <i>SKB Swedish Nuclear Fuel and Waste Management Co.</i>
	1600	3.A.04	Progress in Determining the Effectiveness of Ultrasonic Examinations in Limited Coverage Scenarios M. Prowant, R.E. Jacob, A. Holmes, C. Hutchinson, R. Morales, A.A. Diaz – <i>PNNL</i>	3.B.04	Pipe Wall Thickness Management Using Pulsed ECT and Online Monitoring System M. Yoshida, Y. Sakai, Y. Tanaka, M. Yoshiaki – <i>Tokyo Electric Power Company Holdings</i>	3.C.04	Inspection of Metal Containment Vessels and Containment Vessel Liners Using Guided Waves J.L. Fisher, A.C. Cobb, J.D. Bartlett, D.R. Earnest – <i>Southwest Research Institute</i> R. Katsumata, Y. Matsumoto – <i>Nuclear Engineering Ltd.</i>
	1620	3.A.05	Prototype of UT Training Simulator Using Wave Propagation Simulation by FEM T. Jikimoto, Y. Kamiyama, T. Furukawa – <i>Japan Power Engineering and Inspection Corporation</i>	3.B.05	Application of Guided Wave Tomography for Pipes Inspection T. Druet, B. Chapuis – <i>CEA-LIST</i> A. Ferré, P.E. Lhuillier, L.G. De Roumilly – <i>EDF</i>	3.C.05	Detection of Crack-Type Damage in Nuclear Plant Pump Spindles Using Magnetostrictive Transducers and Torsional Guided Waves S. Vinogradov, J. Fisher – <i>Southwest Research Institute</i> P. Grädel, P. Dupuis – <i>BKW Energie AG</i>
	1640	3.A.06	Inspection Qualification and NDE Reliability A. Walker, C. Curtis, I. Atkinson – <i>Wood Inspection Validation Centre</i>	3.B.06	A Novel Guided Wave Method for Detecting Gas Entrapment in Piping M. Quarry, N. Camilli – <i>EPRI</i>	3.C.06	ELSCAN Manual Phased Array Scanner – Fast and Accurate J. Brignac – <i>WesDyne</i>
ADJOURN DAY ONE							

WEDNESDAY, JUNE 26, 2019

		TRACK A <i>Location: Birch</i>	TRACK B <i>Location: Dogwood</i>	TRACK C <i>Location: Poplar</i>
SESSION 4	0800	NDE QUALIFICATION I	MODELING & SIMULATION I	NDE FOR CABLES
		4.A.01 Activities and Future Trends of the ENIQ Network <i>O. Martin – European Commission, Joint Research Centre; A. Lejon – Vattenfall, Ringhals NPP; H. Myöhänen – Kiwa-Inspecta; J. Gunnars – Kiwa-Inspecta Technology; E. Martin – EDF</i>	4.B.01 Progress on Modeling and Simulation of Ultrasonic Beams Through Austenitic Welds <i>M. Prowant, R.E. Jacob, N.R. Overman, A.A. Diaz – PNNL</i>	4.C.01 The Future of Cable Insulation Diagnostics- Detecting Cable Degradation <i>A. Mantey – EPRI</i>
	0820	4.A.02 Historical Overview of Inspection Qualification in the UK <i>A. Walker, C. Curtis, I. Atkinson – Wood Inspection Validation Centre</i>	4.B.02 Numerical Solutions for UT Modelling of Austenitic Welds Using Dedicated Macroscale Finite Element Tools <i>N. Leymarie, A. Imperiale, E. Demaldent, P. Calmon – CEA-LIST</i>	4.C.02 Inter-Digital Capacitive Sensor for Non-Destructive Evaluation of Cable Insulation Through Jacket <i>S.W. Glass, L.S. Fifield – PNNL; A. Sriraman, N. Bowler – Iowa State University</i>
	0840	4.A.03 The Role of the French Qualification Commission in Validating Non-Destructive Examinations on Pressurized Water Reactors <i>B. Rotter – EDF</i>	4.B.03 Ultrasonic Simulation of Inhomogeneous Welded Components <i>G. Connolly, M. Dunlap, M. Dennis – EPRI; S. Lonne, E. Schumacher – EXTENDE</i>	4.C.03 Diagnosis of Nuclear Power Cable Using Dispersion Compensating Reflectometry Based on Time-frequency Analysis <i>M.K. Jung, Y.J. Shin – Yonsei University</i>
	0900	4.A.04 CANDU Inspection Qualification Bureau (CIQB) – How the CANDU Reactor Community Applies the ENIQ Process to Address the Regulatory Requirements <i>J. Weed, K. Jang – CANDU Owners Group Inc.</i>	4.B.04 Ultrasonic Modeling and Simulation of Coarse Grains <i>J. Beach, G. Connolly, M. Dennis, M. Dunlap – EPRI; B. Clausse, S. Lonne, B. Puel, E. Schumacher – EXTENDE</i>	4.C.04 Development of the Adaptive Threshold Curve for Detecting the Long Distance Cable Fault Considering the Wave Dispersion <i>S.J. Chang – Hanbat National University</i>
	0920	4.A.05 Current Status and Future of Japanese Performance Demonstration System in FY 2019 <i>H. Shohji, K. Watanabe – Central Research Institute of Electric Power Industry</i>	4.B.05 Seeing Ultrasound with Schlieren Imaging <i>M. Dunlap, M. Dennis, J. Neale – EPRI</i>	4.C.05 Development and Implementation of an In-Situ Cable Condition Monitoring Method <i>G. Harmon, T. Toll, C. Sexton – Analysis and Measurement Services Corporation</i>
0940	COFFEE BREAK			
SESSION 5	1000	NDE QUALIFICATION II	MODELING & SIMULATION II	MATERIAL CHARACTERIZATION
		5.A.01 Qualification and Inspection of Baffle-Former Bolts <i>K. Markulin – INETEC Institute for Nuclear Technology</i>	5.B.01 Validation of FEM Simulation for Transmission and Reception of Ultrasonic Waves with an EMAT <i>T. Yamamoto, T. Furukawa – Japan Power Engineering and Inspection Corporation; R. Urayama, T. Takagi – Tohoku University</i>	5.C.01 Nondestructive Evaluation (NDE) System for the Inspection of Operation-Induced Material Degradation in Nuclear Power Plants (NOMAD) <i>E. Leskelä – VTT Technical Research Centre of Finland Ltd.; J.L. Castresana – Tecnatom S.A.; R. Chaouadi – Belgian Nuclear Research Centre SCK•CEN</i> <i>See page 6 for the complete list of authors.</i>
	1020	5.A.02 Challenges of Test Assemblies Design and Fabrication for Qualified In-Service Inspections of VVER Type NPP Components <i>L. Horáček – ÚJV Rež, a. s.</i>	5.B.02 Prediction of the Amplitude of Ultrasound Reflection from Rough Defects <i>M. Lowe, F. Shi, S. Haslinger, P. Huthwaite, R. Craster – Imperial College London</i>	5.C.02 The European Research Project NOMAD - Validation Approach for a Non-Destructive Evaluation (NDE)-Tool Quantifying Neutron Induced Embrittlement <i>S. Feistkorn, D. Algernon – SVTI Swiss Association for Technical Inspections; J.L. Castresana – Tecnatom S.A.; R. Chaouadi – Belgian Nuclear Research Centre SCK•CEN</i> <i>See page 6 for the complete list of authors.</i>
	1040	5.A.03 The Use of Virtual Flaws to Increase Flexibility of Qualification <i>D. Snögren – Swedish Qualification Centre</i>	5.B.03 Ultrasonic Simulation of Complex 3D Flaws for Data Augmentation <i>O. Jessen-Juhler, T. Koskinen – VTT Technical Research Centre of Finland Ltd.; I. Virkkunen – Aalto University</i>	5.C.03 A Steady-State Thermoreflectance Method to Measure Thermal Conductivity <i>J.T. Gaskins, J.L. Braun, E.A. Scott, D.H. Olson, P.E. Hopkins – University of Virginia</i>
	1100	5.A.04 Artificial Flaws for the Qualification of Eddy Current Inspection Systems: Comparison of EDM-Notches with Realistic Fatigue Cracks <i>S. Feistkorn, G. Rössler, P. Kicherer, M. Scherrer – SVTI - Swiss Association for Technical Inspections, Nuclear Inspectorate</i>	5.B.04 Modelling of Wear Defects Under Anti Vibration Bar in U-bend for the Eddy Current Inspection of Steam Generator Tube <i>A. Vigneron, E. Demaldent, F. Nozais – CEA-LIST; T. Sollier – IRSN</i>	5.C.04 Wave Propagation in Centrifugally Cast Stainless Steel with Columnar Structure <i>S. Lin, H. Shohji – Central Research Institute of Electric Power Industry</i>
	1120	LUNCH		
TRANSPORTATION FROM OMNI TO EPRI CHARLOTTE OFFICES AT 1230				

WEDNESDAY, JUNE 26, 2019 (CONTINUED)							
1300	EXHIBIT			NDE IN LONG-TERM OPERATION (METALLIC MATERIALS)	ADVANCED IMAGING AND FMC/TFM FOR INDUSTRIAL NDE	ULTRASONIC SIMULATOR – INNOVATION IN NDE	
1330		PDI LAB TOUR	BUILDING 1 LAB				
1400							
1430				NDE IN LONG-TERM OPERATION (CONCRETE MATERIALS)	ADVANCED IMAGING AND FMC/TFM FOR INDUSTRIAL NDE	ULTRASONIC SIMULATOR – INNOVATION IN NDE	
1500		PDI LAB TOUR	BUILDING 1 LAB				
1530							
1600				NDE IN LONG-TERM OPERATION (CABLE MATERIALS)	ADVANCED IMAGING AND FMC/TFM FOR INDUSTRIAL NDE	ULTRASONIC SIMULATOR – INNOVATION IN NDE	
1630		PDI LAB TOUR	BUILDING 1 LAB				
1700							
1730		DINNER AVAILABLE IN THE CAFETERIA					
1800		DINNER AVAILABLE IN THE CAFETERIA					
1830		DINNER AVAILABLE IN THE CAFETERIA					
1900							
1915	TRANSPORTATION FROM EPRI TO THE OMNI HOTEL BEGINS. LAST BUS DEPARTS AT 1915.						
ADJOURN DAY TWO							

THURSDAY, JUNE 27, 2019

		TRACK A <i>Location: Birch</i>	TRACK B <i>Location: Dogwood</i>	TRACK C <i>Location: Poplar</i>
SESSION 6		RISK-INFORMED NDE	NOVEL TECHNIQUES AND TECHNOLOGIES I	ULTRASONIC INSPECTION OF COMPLEX GEOMETRIES
	0800	6.A.01 Risk-Informed Non Destructive Examination Program Development at the U.S. NRC <i>S. Dinsmore – U.S. Nuclear Regulatory Commission</i>	6.B.01 Digital Radiography for BWR Control Blade Inspection <i>B. Yoon, J. Beale – EPRI</i>	6.C.01 Developments and Implementations of UT Inspection Adapted to Irregular Surface Profile and Complex Component Geometry <i>A. Bleuze – INTERCONTROLE; B. Thigpen – Framatome Inc. K. Giersbeck – Framatome GmbH</i>
	0820	6.A.02 Periodic Inspection of CANDU Nuclear Power Plant Balance of Plant Systems and Components <i>M. Rezaie-Manesh – Ontario Power Generation; P. O'Regan – EPRI</i>	6.B.02 Guided Wave Screening of Tank Walls and Tank Bottoms Using a Novel Omnidirectional Magnetostrictive Transducer <i>S. Vinogradov, J. Fisher – Southwest Research Institute; N. Muthu – EPRI</i>	6.C.02 Flexible Wedge Phased Array Transducers for Inspecting Variable-Geometry or Complex Components <i>J. Pogue, P. Dumas, A. Membre, L. Fournier – Imasonic SAS ZA</i>
	0840	6.A.03 Ringhals Journey from ISI to RI-ISI <i>A. Lejon – Vattenfall, Ringhals NPP</i>	6.B.03 Patented Calculation Method for Ultrasonic Industrial Inspection, E-Rota Software Provides Linear Inspection for High Precision Tubes, Bars and Billets <i>C. Chollet, P. Coperet – Socomate International</i>	6.C.03 An Adaptive Approach of the Total Focusing Method for the Inspection of Parts with a Complex Shape <i>D. Braconnier – The Phased Array Company</i>
	0900	6.A.04 The Development of PRA and Risk Informed Applications in Japan <i>T. Takahashi – CRIEPI J. Hakii – Tokyo Electric Power Company Holdings</i>	6.B.04 The Application of EvisiveScan Microwave Inspection Technology to Conduct Volumetric Examination of Rubber Expansion Joints <i>B. Stakenborghs – Evisive LLC</i>	6.C.04 Inspection of Irregular Shape Welds Using Adaptive TFM Imaging <i>O. Roy, L. Le Ber – Eddyfi Europe</i>
	0920	6.A.05 Fangjishan Nuclear Power Plant RI-ISI Pilot Study <i>X. Xincui, H. Chao – CNNP</i>	6.B.05 Hyperspectral Imaging for Nuclear Applications: Boric Acid Discrimination <i>T. Cinson, T. Ballard – EPRI</i>	6.C.05 Complex Nozzle Weld Qualification Supported by iMaV Software <i>M. Jahn, M. Klotzbücher – Framatome GmbH L. Sybertz – Kernkraftwerk Gösgen-Däniken, AG</i>
	0940	COFFEE BREAK		
SESSION 7		INSPECTION PLANNING & OPTIMIZATION	NOVEL TECHNIQUES AND TECHNOLOGIES II	NDE APPLICATIONS II
	1000	7.A.01 Developing Technical Bases to Support Optimizing NDE Inspection Intervals <i>R. Grizzi – EPRI</i>	7.B.01 Replica Molding Technique – Quick and Accurate <i>L. Kastre, M. Kosinski – WesDyne; M. Bolander – Westinghouse</i>	7.C.01 NDE Contribution for PWR Reactors Fleet Maintenance – Current and Future Capabilities <i>T. Pasquier, Y. Kernin – Framatome - Intercontrôle</i>
	1020	7.A.02 Application of Probabilistic Flaw Tolerance Evaluation for Optimizing NDE Inspection Requirements <i>D.J. Shim, D. Dedhia, D. Somasundaram, N. Cafie – Structural Integrity Associates, Inc.</i>	7.B.02 Identification of Machinery and Structural Faults Using Motion Amplified Video Recordings <i>J. Hay, K. Piety – RDI Technologies Inc.</i>	7.C.02 Inspection of Circumferential Welds in Small Diameter Pipes with Ultrasonic Phased-Array Technique <i>J.A. Sillero, F.J. Fernández, F.A. Godínez – Tecnom S.A.</i>
	1040	7.A.03 Integrated Non-Mechanized Encoded PA UT System for Improved Inspection Efficiency <i>G. Maes, D. Giguère – Zetec; J. Agnew – Structural Integrity Associates</i>	7.B.03 MAVs for Autonomous Structure Reconstruction in Nuclear Facilities <i>D. Vutetakis, J. Xiao – University of North Carolina at Charlotte S. Johnson, J. Lindberg – EPRI</i>	7.C.03 Dimensional Measurements of Stellite Surfaces and Clearance Calculations of Guidance Devices for Reactor Pressure Vessel Internals <i>J. Ponton, M. Grataloup – Omexom NDT Engineering & Services</i>
	1100	7.A.04 Applicability of New Designed Multi-Redundant Robot Compared with Manual or Encoded Device for In-Service Inspection <i>L. Horáček – ÚJV Řež, a. s.; M. Šveida – University of West Bohemia</i>	7.B.04 NDE Optimization with Remote Digital Video Inspection and 3D Laser Scanning <i>R. Kessler – Quest Integrity Group, LLC</i>	7.C.04 Unique Challenges of Performing NDE Behind the Reactor Vessel Lower Internals Thermal Shield <i>M. Goodman – WesDyne</i>
	1120	7.A.05 Phased Array UT Applications-Engineering Process <i>J. Barshinger, B. Pellegrino – Sensor Networks, Inc.</i>	7.B.05 Advances in Visual Inspection - Saving Time and Improving Quality <i>M. Taglione, C. Skopinski, V. Langolff – INTERCONTROLE</i>	7.C.05 Performance Assessment of Ultrasound for Cast Austenitic Stainless Steel Components Inspection – Experimental Study from Single Probe to Advanced FMC <i>A. Ferré, P.E. Lhuillier, A. Schumm, B. Chassignole, N. Paul, P. Kassis – EDF</i>
	1140	7.A.06 Alternatives for Acquiring Component As-Built Information <i>T. Stafford, R. Salisbury – EPRI</i>	7.B.06 Image Quality Verification <i>V. Langolff – INTERCONTROLE</i>	7.C.06 Multi-Faceted Approach to Addressing Inspection Issues Related to CASS Material <i>D. Kull – EPRI</i>
1200	MEETING ADJOURNS			

SESSION 1 – NDE FOR CONCRETE I

1.C.01	S. Feistkorn, D. Algernon R.W. Arndt J. Berger M. Friese H. Garrecht C.U. Große D. Mähner E. Niederleithinger M. Schickert A. Taffe A. Walther, M. Wilcke A. Zoëga	SVTI - Swiss Association for Technical Inspections FH Erfurt - University of Applied Sciences Erfurt Beuth University of Applied Sciences Berlin BASt - Federal Highway Research Institute University of Stuttgart Technical University of Munich Münster University of Applied Sciences BAM – Federal Institute for Materials Research and Testing Materialforschungs- und -prüfanstalt (MFPA) an der Bauhaus-Universität Weimar, Weimar HTW Berlin - University of Applied Sciences Berlin Kiwa GmbH DB Systemtechnik GmbH
1.C.03	D. Algernon, S. Feistkorn R.W. Arndt W. Denzel B.Ebsen M. Friese C.U. Grosse S. Kathage S. Keßler C. Köpp, S. Küttenbaum, S. Maack, E. Niederleithinger, J. Timofeev, J. Wöstmann C. Lohse M. Schickert G. Schröder A. Taffe A. Walther, M. Wilcke J. Wolf	SVTI - Swiss Association for Technical Inspections, Nuclear Inspectorate FH Erfurt - University of Applied Sciences DNS-Denzel Feuchte-Messtechnik HOCHTIEF Engineering GmbH BASt – Federal Highway Research Institute Technical University of Munich, Institute of Non-destructive Testing Allied Associates Geophysical GmbH Technical University of Munich, Centre for Building Materials BAM – Federal Institute for Materials Research and Testing Bewehrungsnachweis und -analyse Materialforschungs- und -prüfanstalt (MFPA) Weimar, Weimar Proceq AG HTW Berlin – University of Applied Sciences Kiwa GmbH DB Engineering & Consulting GmbH, Digitalization & Technology

SESSION 2 – COLLABORATIONS, CODES AND STANDARDS

2.A.02	R. Meyer B. Lin E. Strindö J. Benitez T. Yamamoto, T. Jikimoto Y. Nagoshi, S. Hosomi S. Dugan E. Leskelä T. Koskinen I. Virkkunen, H. Kim S. Kang, J. Kim D. Algernon, S. Feistkorn	PNNL NRC Swedish Radiation Safety Authority Swedish Qualification Center Japan Power Engineering and Inspection Corporation Mitsubishi Heavy Industries Swiss Federal Nuclear Safety Inspectorate Technical Research Centre of Finland Ltd. Aalto University Sungkyunkwan University Korea Institute of Nuclear Safety Swiss Association for Technical Inspections Nuclear Inspectorate
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SESSION 5 – MATERIAL CHARACTERIZATION

5.C.01	E. Leskelä, P. Lappalainen, J. Rinta-aho J.L. Castresana, J.A. Sillero R. Chaouadi, I. Uytendhouwen A. Gasparics, G. Vertesy J. Griffin, J. Matthew M. Kopp, M. Kurras, M. Rabung J. Tóth, R. Tschuncky M. Niffenegger	VTT Technical Research Centre of Finland Ltd. Tecnatom S.A. Belgian Nuclear Research Centre SCK•CEN Hungarian Academy of Sciences, Centre for Energy Research Coventry University CU Fraunhofer Institute for Nondestructive Testing IZFP HEPENIX Technical Service Ltd. Paul Scherrer Institute PSI
5.C.02	S. Feistkorn, D. Algernon J.L. Castresana, J.A. Sillero R. Chaouadi, I. Uytendhouwen A. Gasparics, F. Gillemot, I. Szenthe, G. Vertesy J. Griffin, J. Matthew E. Hegedus, J. Tóth M. Kopp, M. Kurras, M. Rabung, K. Szielasko A. Koskinen, E. Leskelä M. Niffenegger	SVTI Swiss Association for Technical Inspections Tecnatom S.A. Belgian Nuclear Research Centre SCK•CEN Hungarian Academy of Sciences Centre for Energy Research MTA EK Coventry University CU HEPENIX Technical Service Ltd. Fraunhofer Institute for Non-Destructive Testing IZFP VTT Technical Research Centre of Finland Ltd. Paul Scherrer Institute PSI