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Codes & Standards Track

CS-1: Structural Integrity of Pressure Components		Paper	Video
PVP2020-21028	Strain Limits Against Local Fracture of Vessels and Components	Yes	Yes
PVP2020-21077	Residual-Stress, Material Characterization in P22 Hrsg-Pipeline Butt Joint	Yes	Yes
PVP2020-21319	Cross-Section Stress Analyses of Boiling Water Reactor and Pressurized Water Reactor Pressure Vessel Nozzle Corners Under Internal Pressure	Yes	No
PVP2020-21355	Investigation of Stress Intensification Factor (Sif) of 90 Degree Unreinforced Branch Connection	Yes	No
PVP2020-21358	Evaluation of Nozzle P-T Limit Curves for Korea Optimized Power Reactor.	Yes	Yes
PVP2020-21566	Technical Basis for Proposed Revisions to Asme Section Iii Code Case N-891 on Maximum Allowable Indentation Depths in Hdpe Pipe to Extend Applicability to Pent Ratir	Yes	Yes
PVP2020-21569	Local Failure Analysis of Bolted Flanges	Yes	Yes
PVP2020-21570	Design Considerations for Half Pipe Jackets Operating Under Vacuum Conditions	Yes	No
PVP2020-21663	Background on Low Temperature Overpressure Protection System Setpoints	Yes	Yes
PVP2020-21783	Analysis of Hdpe Failure Data in Support of Development of Flaw Acceptance Criteria for Butt Fusion Joints	Yes	Yes
CS-11: Recent Developments in Chinese Codes and Standards		Paper	Video
PVP2020-21058	Application of Ultrasonic Guided Wave in Lmph Tube of Ethylene Cracking Furnace	Yes	Yes
PVP2020-21061	Inspection Case Analysis of Natural Gas Manifold in a High Acid Gas Field	Yes	Yes
PVP2020-21067	Research on Regulations and Standards for Inspection of Atmospheric Liquid Metal Tank Trucks for Hazardous Chemicals	Yes	No
PVP2020-21088	Study on Acoustic Emission Detection Technology of Fiber Reinforced Plastics Pressure Vessel	Yes	No
PVP2020-21151	Research on Implementation Method and Technical Application of Risk Assessment to Storage Tank at National Petroleum Reserves	Yes	No
PVP2020-21155	Major Hazards Modelling of Pressurized Special Equipment in Chemical Industry Parks Based on Fcbpss Method	Yes	No
PVP2020-21164	Civa Simulation and Experiment Verification for Thin-Walled Small-Diameter Pipes by Using Phased Array Ultrasonic Testing	Yes	No
PVP2020-21199	Analysis of the Flange Seal Groove Cracking in a Hydrocracking Reactor	Yes	No
PVP2020-21205	Study on Numerical Simulation of Gas-Solid Erosion for Horizontal Feed Pipe	Yes	Yes
PVP2020-21212	A New Method for Preventing Plastic Collapse of Ellipsoidal Head Under Internal Pressure	Yes	Yes
PVP2020-21238	Safety Assessment of Pressure Vessels in Service for More Than 20 Years	Yes	Yes
PVP2020-21251	Failure Analysis of Flange Sealing Surface of Outlet Pipeline of Wax Oil Hydrogenation Reactor	Yes	No
PVP2020-21264	Experimental Investigation on Burst Pressure and Fatigue Life of Type-4 Lpg Cylinders	Yes	Yes
PVP2020-21342	Fitness for Service Assessment of a Propylene Heat Exchanger Subjected to Fire Damage	Yes	No
PVP2020-21352	Research on Chinese Codes and Standards of Heat Transfer Performance Testing for Heat Exchangers	Yes	No
PVP2020-21369	Current Situation and Prospect of Underground Gas Storage Well	Yes	No
PVP2020-21370	Performance Tests on Gas Storage Wells With/without Thread Defects	Yes	No
PVP2020-21417	Comparative Study on the Heated Band and Insulated Band Recommended by Different National Standards for Local Post Weld Heat Treatment	Yes	No
CS-12: Recent Developments in European Codes and Standards		Paper	Video
PVP2020-21717	Overview of Easics Weldment Assessment Route Development Through Inelastic Analysis	Yes	No
PVP2020-21720	Overview of Easics Validation Experiments and Code Comparison of R5, Rcc-Mrx and Asme Iii Section V	Yes	No
PVP2020-21721	Establishing Amr Structural Integrity Codes and Standards for Uk Gda (Easics): Overview of Activities to Provide Guidance for the Uk Generic Design Assessment Process	Yes	No
CS-13: High Temperature Codes and Standards		Paper	Video
PVP2020-21001	Elimination of Bwr Mark I Program Primary Containment Drywell-to-Wetwell Differential Pressure	Yes	Yes
PVP2020-21211	The Influence of Multiaxial Stress Relaxation on Component Creep Damage Accumulation in Biaxial, Mixed Primary and Secondary Loading on a Pipe	Yes	No
PVP2020-21328	Development of the Buckling Evaluation Method for Large Scale Vessel by the Testing of Gr. 91 Vessel Subjected to Vertical and Horizontal Loading	Yes	No
PVP2020-21420	The Impact of Carburisation on Creep Lifetime Analysis for Agr Bifurcation Weldments	Yes	No
PVP2020-21612	Codes and Standards for Managing Degradation of Boilers in Service.	Yes	Yes
CS-14: Repair, Replacement and Mitigation for Fitness-for-Service Rules		Paper	Video
PVP2020-21054	Pipeline Crack Half-Life Versus 1.10 Safety Factor at Next Inspection	Yes	Yes
PVP2020-21300	Investigation of Relationship Between Microhardness and Charpy Impact Energy for Temper Bead Welding Qualification – Part 2	Yes	Yes
PVP2020-21544	Technical Basis for N-894 Weld Overlay Repair to Address Thermal Fatigue Cracking in Class 1, 2, and 3 Nuclear Reactor Piping	Yes	No
PVP2020-21708	Tempering Efficiency Evaluation for Dissimilar Metal Weld Overlays	Yes	Yes
PVP2020-21716	A Feasibility Study on Crack Repair in Austenitic Stainless Steel Dry Storage Canisters Using Isothermal Friction Stir Welding	Yes	No
PVP2020-21760	Example Application of Code Case N-894 Rules for Weld Overlay Repair of Thermal Fatigue Cracking	Yes	Yes
PVP2020-21832	Technical Basis Summary for Code Case N-860: Inspection Requirements and Evaluation Standards for Spent Nuclear Fuel Storage and Transportation Containment Syst	Yes	No

CS-15: Probabilistic and Risk-Informed Methods for Structural Integrity Assessment		Paper	Video
PVP2020-21080	Estimating Pipe Rupture Frequencies Using Xlpr	Yes	Yes
PVP2020-21421	Extension of Pascal4 Code for Probabilistic Fracture Mechanics Analysis of Reactor Pressure Vessel in Boiling Water Reactor	Yes	Yes
PVP2020-21427	Probabilistic Fracture Mechanics Benchmarking Study Involving the Xlpr and Pascal-Sp Codes -Analysis by Pascal-Sp-	Yes	Yes
PVP2020-21430	Improved Bayesian Update Method on Flaw Distributions Reflecting Non-Destructive Examination Result	Yes	Yes
PVP2020-21698	Bayesian Uncertainty Evaluation of Charpy Ductile-to-Brittle Transition Temperature for Reactor Pressure Vessel Steels	Yes	Yes
CS-2: Fatigue and Ratcheting Issues in Pressure Vessel and Piping Design		Paper	Video
PVP2020-21089	Efficient Fatigue and Ratcheting Computation in Case of Multi-Parameter Loading	Yes	No
PVP2020-21267	Critical Review of Asme Iii Plasticity Correction Factors for Fatigue Design-by-Analysis of Nuclear Power Plant Components	Yes	Yes
PVP2020-21383	A Historical Overview of Design Analyses and Experimental Observations of Ratcheting Phenomenon	Yes	No
PVP2020-21632	Investigation Into Methods for Determining Moment Ranges at Piping Tees and Branches	Yes	No
PVP2020-21658	Mode I Ductile Crack Growth of 1tct Specimen Under Large Cyclic Loading (Part Iv)	Yes	Yes
PVP2020-21822	Mean Stress Correction of S45c Carbon Steel Based on Crack Growth Concept	Yes	Yes
PVP2020-21841	Fatigue Considerations of Layered Pressure Vessels	Yes	Yes
CS-20: Fatigue Monitoring and Related Assessment Method		Paper	Video
PVP2020-21053	Advanced Component Fatigue Monitoring Approaches Using the Example of a Boiler Recirculation Pump	Yes	No
PVP2020-21426	A Method for Measuring Combined Stress of Small Bore Piping Around Weld in Field Using Strain Gauge Holder	Yes	Yes
PVP2020-21854	Fatigue Assessment of Dented Pipeline Specimens	Yes	Yes
CS-21: Fracture Toughness and Other Small Specimen Mechanical Properties		Paper	Video
PVP2020-21104	Ductile Crack Growth Resistance and Rotation Behavior of Miniature C(t) Specimen	Yes	Yes
PVP2020-21515	Fracture Toughness Characterization of an A508-Type Weld Metal With the Mini-Ct Geometry Before and After Irradiation	Yes	Yes
PVP2020-21703	Small Punch Testing to Estimate the Tensile Properties of Additively Manufactured Ti-6al-4v	Yes	Yes
CS-27: Fatigue and fracture Assessment & Management – A Probabilistic Perspective		Paper	Video
PVP2020-21752	Fatigue Life Modeling Using Nitinol Data	Yes	No
PVP2020-21756	An Assessment of Uncertainty in Design Factors and Strain-Rate Inputs for Environmentally-Assisted Fatigue and Related Margins	Yes	Yes
CS-3: Environmental Fatigue Issues (Joint M&F)		Paper	Video
PVP2020-21009	Use of Average Temperature in Fen Calculations	Yes	No
PVP2020-21043	Fatigue Benchmark Comparison Effort Between Code_aster and Cnnc/npic Software – Part 2	Yes	Yes
PVP2020-21050	Fatigue Performance of Austenitic Stainless Steel - Enforced Endurance Limit and Questionable Design Curve	Yes	Yes
PVP2020-21078	Study on Incorporation of New Design Fatigue Curves and a New Environmental Fatigue Correction Factor for Pwr Environment Into the Jsme Environmental Fatigue Eval	Yes	Yes
PVP2020-21106	Incefa-Plus Project: Lessons Learned From the Project Data and Impact on Existing Fatigue Assessment Procedures	Yes	Yes
PVP2020-21136	Grade and Temperature Dependent Reference Curves for Realistic Fen Quantification of Austenitic Stainless Steels	Yes	Yes
PVP2020-21220	Incefa-Plus (Increasing Safety in Npps by Covering Gaps in Environmental Fatigue Assessment	Yes	Yes
PVP2020-21262	Further Evidence of Margin for Environmental Effects, Termed Fenthreshold, in the Asme Section Iii Design Fatigue Curve for Austenitic Stainless Steels Through the Inter	Yes	Yes
PVP2020-21373	Strain Control Correction for Fatigue Testing in Lwr Environments	Yes	Yes
PVP2020-21377	Incefa-Plus Project: Review of the Test Programme	Yes	Yes
PVP2020-21406	Results From Environmentally-Assisted Short Crack Fatigue Testing on Austenitic Stainless Steels	Yes	Yes
PVP2020-21422	Incefa-Plus Project: The Impact of Using Fatigue Data Generated From Multiple Specimen Geometries on the Outcome of a Regression Analysis	Yes	Yes
PVP2020-21424	Thermo-Mechanical Fatigue Crack Growth Testing	Yes	Yes
PVP2020-21501	Codes, Standards, Rules and Assumptions on Environment Assisted Fatigue for Fatigue Management of Primary Piping	Yes	Yes
PVP2020-21560	Method for Comparison of Different Material Types in Environmental Fatigue Screening	Yes	Yes
PVP2020-21585	Further Development of Fatigue Crack Growth Expressions for Austenitic Stainless Steels in Pwr Water and Additional Validation of the Wtkr Method	Yes	No
PVP2020-21627	Investigation Into Crack Closure Effects for Fatigue Crack Growth Under Negative R Conditions	Yes	No
PVP2020-21678	Environmental Fatigue Screening of Primary Equipment for Subsequent License Renewal	Yes	Yes
PVP2020-21828	Recent Argonne National Laboratory Estimated Thermal Expansion Coefficients for Reactor Pressure Boundary Base, Smw and Dmw Metals	Yes	No
CS-31: Master Curve Method and Applications		Paper	Video
PVP2020-21185	A Code Case Concerning the Effect of Embrittlement on Index Temperature Metrics	Yes	Yes
PVP2020-21186	Assessment of the Continued Need for Limits on Both Transition Temperature and Upper Shelf Fracture Toughness Metrics	Yes	No
PVP2020-21187	Methods to Appropriately Account for Uncertainties in Structural Integrity Assessment Models	Yes	No
PVP2020-21312	Post-Irradiation Evaluation of Eurofer97 Fracture Toughness Using Miniature Multinotch Bend Bar Specimens	Yes	No
PVP2020-21513	Effect of Low Temperature Irradiation on the Mechanical Properties of an A508 cl.2 Forging	Yes	Yes

		Paper	Video
CS-32: Improvement of Flaw Characterization Rules for FFS			
PVP2020-21441	Constraint Effect on Fracture Mechanics Evaluation for an Under-Clad Crack in a Reactor Pressure Vessel Steel	Yes	Yes
PVP2020-21452	Assessment of Flaw Interaction Under Combined Tensile and Bending Stresses : Suitability of Asme Code Case N877-1	Yes	Yes
PVP2020-21455	Treatment of the Interaction With the Free Surface of the Component for Combined Subsurface Flaws – Technical Basis for Revision of Iwa-3300 and Table Iwb/iwc-3510-	Yes	Yes
PVP2020-21456	A Comparison of Stress Intensity Factor Solutions for Surface Cracked Plates	Yes	Yes
PVP2020-21549	Stress Intensity Factor and Crack Opening Area of Cracked Pipe Under Torsion Moment	Yes	Yes
PVP2020-21672	Allowable External Flaws and Acceptance Standards for High Toughness Ductile Pipes Subjected to Bending Moment and Internal Pressure	Yes	No
PVP2020-21806	Prediction of Collapse Load Reduction Due to Non-Aligned Multiple Flaws	Yes	Yes
CS-36: Very High Cycle Fatigue Behavior			
PVP2020-21460	Investigation of the Very High Cycle Fatigue (Vhcf) Behavior of Austenitic Stainless Steels and Their Welds for Reactor Internals at Ambient Temperature and 300 °C	Yes	Yes
CS-39: General Codes & Standards for Pressure Equipment Overview			
PVP2020-21120	Introduction of the Technical Document in Japan for Safety Use of Type2 Pressure Vessels in Hydrogen Refueling Stations	Yes	No
PVP2020-21172	Study on the Influence of Crack Growth Behavior on Fatigue Life in Simulated Reactor Coolant Environment of Different Temperature	Yes	Yes
PVP2020-21210	Measurement of the Hydrogen Permeability of Various Polymers for High Pressure Hydrogen Storage Vessel	Yes	No
PVP2020-21380	Method and Application of Pipeline Integrity Management Performance Evaluation	Yes	Yes
PVP2020-21616	Asme Xi - Rsem - Flaw Evaluation Comparison	Yes	No
PVP2020-21622	European Pressure Equipment Research Council - Eperc - Status and First Results	Yes	No
PVP2020-21790	Overview of Uk Policy and Research Landscape Relevant to Deploying Advanced Nuclear Technologies in the Uk	Yes	No
PVP2020-21861	Qualification of a Non-Standard Piping Component for Asme Pressure Piping Applications	Yes	No
CS-44: Total Life Reliability Methods			
PVP2020-21545	Application of Environmnetally Assisted Fatigue Transient Ramp Times Optimization in Design Evaluations and Fatigue Monitoring Algorithms	Yes	Yes
PVP2020-21706	Proposal for a Total Fatigue Life Assessment Methodology That Predicts Fatigue Life From Defect Initiation to Through Wall Leak	Yes	No
PVP2020-21769	Probabilistic Leak-Before-Break Using the R6 Procedure	Yes	Yes
PVP2020-21846	Fatigue Failure Predictions Based on Fea Fracture Mechanics Simulations	Yes	No
CS-7: Recent Developments in ASME Codes and Standards			
PVP2020-21306	Uncertainty Quantification of Viscoplastic Parameters for Grade 91 Steel Through Bayesian Analysis	Yes	No
PVP2020-21469	Development of Design Method for High Temperature Nuclear Reactor Cladded Components	Yes	Yes
PVP2020-21470	A High Temperature Primary Load Design Method Based on Elastic Perfectly-Plasticity and Simplified Inelastic Analysis	Yes	No
PVP2020-21471	Investigating the Correlation Between Different Effective Stress Measures and the Service Life of Actual High-Temperature Structural Components	Yes	Yes
PVP2020-21493	Selection Criteria for Clad Materials to Use With a 316h Base Material for High Temperature Nuclear Reactor Cladded Components	Yes	Yes
PVP2020-21494	Acceptance Criteria for the Mechanical Integrity of Clad/base Metal Interface for High Temperature Nuclear Reactor Cladded Components	Yes	Yes
PVP2020-21572	Evaluation of Mean Stress Correction on Fatigue Curves of Grade 91 and Alloy 617 in Asme Section Iii Division 5	Yes	Yes
PVP2020-21587	The Impact of Geometric Discontinuities on Alloy 617 Creep-Rupture Behavior	Yes	Yes
CS-9: ASME Code Section XI Activities			
PVP2020-21051	Application of Ni Electroplating for Pwr Reactor Vessel Cladding Repair	Yes	No
PVP2020-21438	Comparison of Stress Intensity Factor Coefficients for Plates and Cylinders Under Membrane Stress	Yes	Yes
PVP2020-21690	Review of Technical Basis for Asme Code Section Xi Appendix L	Yes	Yes
PVP2020-21711	Technical Basis for Revision to Asme Section Xi Appendix C for Stress Corrosion Crack Growth Rate Equations for Alloy 600 and Associated Welds	Yes	Yes
PVP2020-21729	Application of Asme Code Section Xi Appendix L Using 3-D Finite Element Analyses	Yes	No
Computer Technology & Bolted Joints			
CT-1: Design and Analysis of Bolted Flange Joints			
PVP2020-21000	An Analytical Anisotropic Model to Analyze Fiber Reinforced Plastic Bolted Flange Joints	Yes	Yes
PVP2020-21138	An Estimation of Long-Term Sealing Performance for Bolted Pipe Flange Connections With Spiral Wound Gaskets Under Elevated Temperature	Yes	No
PVP2020-21148	Finger Flange Designs on Cast Equipment	Yes	Yes
PVP2020-21202	Experimental Study on the Characteristics of Bolted Pipe Flange Connection Under Bending Moment and Internal Pressure	Yes	Yes
PVP2020-21206	Multi-Bolt Tightening Algorithm Based on Elastic Interaction Coefficient and Gasket Creep Relaxation	Yes	No
PVP2020-21575	Numerical Simulation of the Assembly Process of Bolted Flange Joints Used in Rotating Machinery	Yes	Yes
PVP2020-21718	Influence of Structural Interface Opening of Bolted Joints Under Eccentric Load	Yes	Yes
CT-12: Computational FEA for Limit Load and Elastic-Plastic Analysis and Creep			
PVP2020-21012	Stress Analysis of Ss316l Tube Expansion in High Pressure Gas Coolers	Yes	Yes
PVP2020-21527	Assessment of Section Iii Appendix Xiii-3230 Plastic Analysis	Yes	Yes
PVP2020-21825	Simplified Procedure to Assess Hot Spots in Pressure Vessels	Yes	Yes

		Paper	Video
CT-18: Threaded Connections for Innovative and Light Weight Materials			
PVP2020-21506	Effect of Material and Lubrication Conditions on the Underhead Frictional Response in High Strength Socket-Head Screws	Yes	Yes
PVP2020-21541	Experimental Investigation on the Friction Coefficients for Different Materials, Lubrication Conditions and Coatings in Bolted Joints	Yes	Yes
CT-2: Packing and Valves		Paper	Video
PVP2020-21459	The Effect of Thermal Cycling and Packing Stress on Stem Friction and Sealability	Yes	Yes
CT-3: Leak Tightness and Fugitive Emissions		Paper	Video
PVP2020-21167	Analysis of Gasket Load Loss Versus Gasket Leakage	Yes	No
PVP2020-21221	Fem Stress Analysis and Leakage Behavior of Pipe-Socket Threaded Joints Subjected to Bending Moment and Internal Pressure	Yes	Yes
PVP2020-21473	Estimation of Tightness of Bolted Flange Connections Subjected to Combined Loads of Axial Load and Bending Moment	Yes	No
PVP2020-21829	Statistical and Lifetime Characterization of Ptfе Materials for Extreme Environments	Yes	No
CT-4: Assembly of Bolted Joints		Paper	Video
PVP2020-21248	Effects of Stud Galling on Bfja Performance	Yes	No
PVP2020-21305	Practical Estimation of Re-Torque Requirements	Yes	No
PVP2020-21402	Considerations for Assuring the Integrity of Low Strength Material Pressure Boundary Flanged Joints	Yes	No
PVP2020-21683	Verification of Flange Rigidity Index for Standard Flanges Using Finite Element Analysis	Yes	Yes
PVP2020-21726	The Effect of Water Absorption on the Mechanical Performance of Gasket Materials	Yes	No
CT-5: Threaded Fasteners		Paper	Video
PVP2020-21348	An Experimental Study on the Effect of Re-Tightening in Service on the Self-Loosening Performance of Threaded Fasteners	Yes	No
PVP2020-21409	Understanding the K Factor vs μ (Cof) Relationship	Yes	No
PVP2020-21414	Effects of Environment Ambient Temperatures on Friction Coefficients for Lubricants Used With Fasteners	Yes	No
PVP2020-21440	An Effect of Bearing Surface Angle at Bolt Head on the Nut Factor and Contact Area Ratio in Tightening Bolted Joints	Yes	No
PVP2020-21836	Effect of Friction Coefficients on Bolt Self-Loosening	Yes	Yes
CT-6: Elevated Temperature Behavior of Bolted Flange Joints		Paper	Video
PVP2020-21002	Relaxation of the Bolted Flange Connection	Yes	Yes
CT-7: Computational Applications in Fatigue, Fracture, and Damage Mechanics		Paper	Video
PVP2020-21014	Mode I Stress Intensity Factors for Small Defects in a Large Diameter Threaded Fastener	Yes	No
PVP2020-21605	Elastic-Plastic Analogy for Examination of Softening Response for Strip Yield Models	Yes	Yes
CT-8: New and Emerging Methods of Analysis and Applications		Paper	Video
PVP2020-21170	Application of Nonlinear Parameters Predictive Model Based on Ls-Svm in Pipeline of Online Mixed Transportation	Yes	Yes
PVP2020-21595	Progressive Fatigue Life Prediction of Composite Materials Based on Residual Material Property Degradation Model	Yes	Yes
PVP2020-21599	Damage Detection Using Multiphysics Analysis of Guided Wave Propagation	Yes	Yes
PVP2020-21603	Influence of Elastic-Plastic Bending on the Relationship Between Applied Load and Maximum Bending Stress for Straight and Curved Bars	Yes	Yes
Design & Analysis			
DA-1: D&A of PV, HX, and components		Paper	Video
PVP2020-21112	Buckling of Cylinders Due to External Pressure – Experimental Work Compared With Finite Element Analysis	Yes	No
PVP2020-21118	Structural Dynamic Modification of Cylindrical Shells With Variable Thickness	Yes	Yes
PVP2020-21290	Failure Mode Effects Analysis for Sec. Iii Div. 5 Class a Service of a Printed Circuit Heat Exchanger	Yes	No
PVP2020-21293	Nondestructive Evaluation for Diffusion-Bonded Compact Heat Exchangers	Yes	Yes
PVP2020-21299	Guidelines for Welding Attachments Onto, and for Pressure Testing Of, Diffusion Bonded Heat Exchangers	Yes	Yes
PVP2020-21393	Study on Design Approach for Tall Pressure Vessels With Intermediate Support in Consideration of Bottom Structure Flexibility	Yes	Yes
PVP2020-21444	Numerical Approach to Air Cooler Heat Exchanger's Inlet and Outlet Piping Layout Design With Fluid Distribution	Yes	No
PVP2020-21498	An Unified Constitutive Model With Optimized Parameters for Base and Diffusion Bonded Alloy 800h	Yes	Yes
PVP2020-21499	Allowable Stress Development of Diffusion Bonded Alloy 800h for Section Iii	Yes	Yes
PVP2020-21500	Assessment of Compact Heat Exchanger Design Following Elastic Perfectly Plastic Methodology	Yes	Yes
PVP2020-21502	Mechanical and Microstructural Characterization of Diffusion Bonded 800h	Yes	Yes
PVP2020-21540	Alternative Design Approach by Finite Element Analysis for High Pressure Equipment	Yes	Yes
PVP2020-21547	Assessment of Compact Heat Exchanger Design According to the Simplified Asme Analysis Methodologies	Yes	Yes
PVP2020-21594	Determination of Transition From Thin Shell to Thick Shell Theory for Torispherical Heads With Head Dish Radius to Thickness Ratios Under 20	Yes	No
PVP2020-21602	General Criteria and Evaluations for the Selection of Asme Section Viii, Division 1 or 2 for New Construction Pressure Vessels	Yes	Yes
PVP2020-21611	On the Study of Packed Catalyst Bed Stresses for Outward Radial Flow Reactors	Yes	Yes
PVP2020-21643	Using Engineering Judgement When Analyzing Finite Element Results	Yes	Yes
DA-10: D&A of bolted joints		Paper	Video
PVP2020-21340	Improving Flange Designs Based on Asme Section Viii Div. 1, Appendix 2	Yes	No
PVP2020-21688	Preload Assurance in Bolted Flanges With a Model and Test Based Optimized Assembly Procedure	Yes	Yes

DA-11: CFD in Design and Analysis		Paper	Video
PVP2020-21183	Dynamic Analysis of Liquid Sloshing for Shipboard Pressure Vessel	Yes	No
PVP2020-21685	Benchmark Study of Crd-Based Prediction Accuracy of the Models Evaluating Particle and Droplet Induced Erosion for Engineering Applications	Yes	No
DA-12: Fracture		Paper	Video
PVP2020-21003	Validation of the New Gamma Exponent Model for Axial Crack Assessment in Oil and Gas Pipelines	Yes	Yes
PVP2020-21081	Fracture Mechanical Assessment for Pressurized Water Rpv Nozzles Subjected to Pressure and Thermal Loading	Yes	No
PVP2020-21090	Advanced Fracture Analysis of Tube Plates - Selection Method of Minimum Margin (Sm2m)	Yes	No
PVP2020-21278	Prediction of Tensile Strain Capacity of Misaligned Welded Plates Using a Damage Model Depended on the Stress Triaxiality and the Lode Stress Parameter	Yes	Yes
PVP2020-21583	Effect of Cladding-Induced Stresses on Crack Driving Force in the Fracture Analysis of Pressure Vessels	Yes	No
PVP2020-21680	Coupling of Neutron Transport and Probabilistic Fracture Mechanics Codes for Analysis of Embrittled Reactor Pressure Vessels	Yes	No
PVP2020-21715	Microscopic Deformation of Thin Sheet of Polycrystalline Pure Titanium Under Tension	Yes	No
PVP2020-21853	Ductile Tearing and Plastic Collapse Competition	Yes	No
DA-14: Evaluation and Counter Measure for Beyond Design Basis Event		Paper	Video
PVP2020-21072	Application of Fracture Control to Mitigate Failure Consequence Under Bdb	Yes	Yes
PVP2020-21140	Investigation on Failure Behavior of Two-Elbow Piping System Models Made of the Simulation Material Under Excessive Seismic Loads	Yes	Yes
PVP2020-21375	Frequency Dependency of Beam Collapse Due to Vibration Loads	Yes	Yes
PVP2020-21397	Proposal of Simulation Materials Test Technique and Their Constitutive Equations for Structural Tests and Analyses Simulating Severe Accident Conditions	Yes	Yes
DA-15: 5th International Symposium on Code Drum Life Cycle Management		Paper	Video
PVP2020-21121	Life Assessment of a Coke Drum by Using the Thermal-Mechanical Fatigue Properties and Laser Scanning Approach	Yes	No
PVP2020-21485	Numerical Simulation of Thermal-Mechanical Stress Field of Coke Drum Considering Deformation	Yes	No
PVP2020-21574	Isothermal Low-Cycle Fatigue Evaluation of External Weld Repairs Using Alloy 182 Filler Metal With Backing Plate Design	Yes	Yes
PVP2020-21661	Assessment of the Bulges on the Cone Section of a Coke Drum	Yes	No
DA-17: Composite Materials and Structures		Paper	Video
PVP2020-21015	Probabilistic Determination of Burst Pressure in a Filament Wound Composite Pressure Vessel	Yes	Yes
PVP2020-21103	Strength Analysis and Influence Factors Research of Carbon-Fiber Wound Composite Gas Cylinder With Aluminum Liner	Yes	Yes
PVP2020-21177	A Novel Assessment Method for Wrinkle Defects in Composites	Yes	Yes
PVP2020-21521	Structural Design and Stress Analysis of a Fully-Wrapped Composite Cng Gas Cylinder With Nominal Working Pressure of 30 Mpa	Yes	No
PVP2020-21529	Development of a Novel Technique Using Finite Element Method to Simulate Creep in Thermoplastic Fiber Reinforced Polymer Composite Pipe Structures	Yes	No
PVP2020-21793	Design and Development of Acoustic Metamaterials for Cabin Noise Reduction and Pressure Sensing in Propan Aircrafts	Yes	Yes
DA-19: Special Considerations in the Design and Analysis of Supports, Restraints, and Welded Attachments		Paper	Video
PVP2020-21297	A Review of Temperature Reduction Methods in Codes and Standards for Pipe Supports	Yes	Yes
PVP2020-21301	Effect of Piping System Vibration (Fiv, Aiv, Piv) on Pipe Support Loads	Yes	No
PVP2020-21517	The Effect of Lateral Acceleration on Critical Buckling Capacities of Snubber Assemblies	Yes	Yes
DA-2: D&A of piping and components		Paper	Video
PVP2020-21179	Improving Lng Plant Piping (Or How Lng Plants Are Improving Piping)	Yes	Yes
PVP2020-21193	Evaluating the Performance of Engineered Enclosures for Piping Repairs	Yes	No
PVP2020-21208	Analysis of the Influence of Several Design Parameters on the Seal Performance of Reactor Pressure Vessel	Yes	No
PVP2020-21230	Sealing Criterion and Parameter Analysis of Beam Seal by Orthogonal Array Method	Yes	Yes
PVP2020-21255	Development of Stress Intensification Factors for Collared Type Piping Joints	Yes	Yes
PVP2020-21556	Estimation of Bending Stresses in Piping Systems Subjected to Transient Pressure	Yes	Yes
PVP2020-21738	Estimation of the Load Carrying Capacity of the Bellows Compensator for Gas Pipelines in the Areas of Mining Production	Yes	Yes
PVP2020-21759	Multi-Dimensional Approach to Design and Execution of Modifications and Beyond for Existing Nuclear Power Plants	Yes	No
PVP2020-21847	A Design Tool Methodology to Establish an Optimum Design of 2 Inch and 3 Inch Thermal Tees Used on 14 Inch Pipework Subjected to Hot and Cold Fluid Turbulent Mixer	Yes	No
DA-3: Fatigue		Paper	Video
PVP2020-21127	Fatigue Life Prediction for Variable Strain at a Mixing Tee by Use of Effective Strain Amplitude	Yes	Yes
PVP2020-21271	Comparative Evaluation of Plastic Design Methods for Fatigue Assessment of a Nuclear Class 1 Piping Nozzle	Yes	No
PVP2020-21434	Fatigue Life Prediction of Notched Specimen Based on Stress Gradient	Yes	No
PVP2020-21536	Fatigue Life Estimation Using Frequency Domain Technique and Probabilistic Linear Cumulative Damage Model	Yes	Yes
PVP2020-21637	Simulation of Fatigue Crack Growth Using Extended Finite Element Method (Xfem)	Yes	Yes
PVP2020-21747	Comparison of Evolution Fatigue With Simplified Elastic Plastic Analysis, Plastic Analysis and a Fracture Mechanics Approach	Yes	No

DA-4: Inelastic, Nonlinear, and Limit Load Analysis		Paper	Video
PVP2020-21046	Failure Pressure Prediction of Crack in Corrosion Defects in 2d by Using Xfem	Yes	Yes
PVP2020-21049	The Effect of Thermal Load and Hydrostatic Pressure on Buckling Analysis of Tank Roof	Yes	Yes
PVP2020-21156	The Comparison of the Criteria for Ratcheting in Asme VIII-2 and Methods Given by C-Tdf	Yes	Yes
PVP2020-21171	Elephant Foot Buckling Analysis of Large Unanchored Oil Storage Tanks With Tapered Shells Subjected to Foundation Settlement	Yes	Yes
PVP2020-21182	Comparative Study on the Nonlinear Calculation of Ratcheting Deformation Using Different Constitutive Model	Yes	No
PVP2020-21261	Application of Limit Load Solutions for Engineering Critical Assessment of Embedded Flaws in Evenmatch Pipeline Girth Welds	Yes	Yes
PVP2020-21275	A 2d Geometrically Nonlinear Finite Element Formulation for Analysis of Pipes	Yes	Yes
PVP2020-21326	Buckling Test of Metallic Thin-Walled Cylindrical Shells Under Non-Uniform Axial Compression Loads	Yes	Yes
PVP2020-21335	Inelastic Analysis of Process Vessel Component Under Creep and Primary Load	Yes	No
PVP2020-21379	Shakedown and Limit Analysis of Limited Kinematic Hardening Piping Elbows Under Cyclic Internal Pressures and Bending Moments	Yes	No
PVP2020-21491	Elasto-Visco-Plastic Buckling of Thick Anisotropic Shells: Numerical Buckling Predictions and Experiments	Yes	Yes
PVP2020-21681	Simplified Elastic Plastic Evaluation Incorporating Inelastic and Poisson's Ratio Corrections	Yes	No
DA-7: Thermal Stresses and Elevated Temperature Design		Paper	Video
PVP2020-21022	A Parametric Study on the Creep-Cyclic Plasticity Mechanism of Welded Flange Joints	Yes	No
PVP2020-21048	A Comparative Study on the Sub-Model Method and the Local Model Method in the Tightness Analysis of Tube-to-Tubesheet Joints of Heat Exchanger	Yes	Yes
PVP2020-21351	Environmental Fatigue Analysis Considering Thermal Stratification in Direct Vessel Injection Piping	Yes	No
DA-8: Fitness for Service Evaluations		Paper	Video
PVP2020-21085	Significance of Ms and Validation of Reference Stress Solutions for Crack Like Flaws Part1	Yes	Yes
PVP2020-21086	Significance of Ms and Validation of Reference Stress Solutions for Crack Like Flaws Part 2	Yes	Yes
PVP2020-21216	Consideration of Wind Loads in Fitness for Service Assessment of Storage Tanks	Yes	No
PVP2020-21279	Modeling of High Temperature Hydrogen Attack of Steel Using a Continuum Damage Mechanics Approach	Yes	No
PVP2020-21294	Performance-Based Assessment of an Incinerator Stack Using Field Measurements	Yes	Yes
PVP2020-21309	Guidelines for Storage Tank Fitness-for-Service Assessments	Yes	Yes
DA-9: Piping and Equipment Dynamics and Dynamic Response Analysis		Paper	Video
PVP2020-21129	Comparative Study on Seismic Response Analysis Methods of Spherical Tanks	Yes	No
PVP2020-21204	Piping and Equipment Dynamics of High Rate Hvgo Pumps	Yes	No
PVP2020-21296	Fatigue Assessment of Installed Thermowells – Fatigue Stress Evaluation Based on In-Situ Vibration Measurements and Dedicated Models.	Yes	Yes
PVP2020-21458	Vibration of Frp Bypass Piping of Sea Water Intake System in Offshore Platform	Yes	Yes
PVP2020-21689	Case Study on Beam-Mode Flow Induced Vibration Against Random Force Fluctuation Due to Turbulent Flow at Bend	Yes	No
Fluid-Structure Interaction			
FSI 4: Structures Under Extreme Loading Conditions		Paper	Video
PVP2020-21443	Thermal Bowing in Pump Suction Piping and Its Improvement Using Modified Warming-Up Process	Yes	No
PVP2020-21514	Diffacted Blast Loads Behind Structures	Yes	No
PVP2020-21633	Bounding Acoustic Load Development for Boiling Water Reactor Shroud and Shroud Supports	Yes	Yes
FSI-1: Thermal-Hydraulics Phenomena and Interactions with Vessels, Piping and Components		Paper	Video
PVP2020-21016	Erosion Prediction of Sub-Sea Xmas Tree Based on Cfd	Yes	Yes
PVP2020-21084	Venting Manhole Cover: A Nonlinear Spring-Mass System	Yes	Yes
PVP2020-21257	Throttling Effect and Thermodynamic Characteristics of Supercritical Co2 Flowing Through Shut-Off Valve	Yes	Yes
PVP2020-21522	Research on Sealing Performance of Lng Cryogenic Ball Valve Seat by Fluid-Structure Coupling Method	Yes	No
PVP2020-21535	Efficient and Flexible Finite Element Procedure for Free and Forced Vibration Problems of a Plate Coupled With Fluid	Yes	Yes
PVP2020-21667	A High-Order Spectral Difference Code With Curved Local Mesh Refinement for Predicting Arterial Flow Through Multiple Sequential Stenoses	Yes	Yes
FSI-2: Flow-Induced Vibrations		Paper	Video
PVP2020-21139	Multiphase Flow Induced Vibrations at High Pressure	Yes	Yes
PVP2020-21231	Examination of Oscillating Frequencies Generated by Combustion Oscillation Considering Temperature Distribution in a Combustor Tube Fueled by Natural Gas and Hydrogen	Yes	Yes
PVP2020-21302	Research on Nonlinear Support Model Between Tubes and Anti-Vibration Bars in Steam Generators	Yes	Yes
PVP2020-21848	Motion Model of Spent Fuel Rack Considering Two-Dimensional Gap Flow	Yes	Yes
FSI-5: FSI Design for Industry		Paper	Video
PVP2020-21069	Pump Specific Speed and Four Quadrant Data in Waterhammer Simulation – Taking Another Look	Yes	Yes
PVP2020-21203	Investigation and Resolution of the Fluid Structure Interaction of High Rate Hvgo Pumps	Yes	No
PVP2020-21341	"CFD Simulation for Ball Valve Erosion of Natural Gas Pipelines Under Gas-Sand Two-Phase Flow	Yes	Yes

High Pressure Technology

HT-1: Design, Analysis and Life Prediction of High-Pressure Vessels and Equipment		Paper	Video
PVP2020-21076	Investigation on Typical Failure Mode of High-Pressure Hydrogen Cylinders for Vehicles	Yes	No
PVP2020-21119	Proposal of Use of Mises Criteria for Elastic Analysis in Appendix 9 of Asme Section VIII Division 3	Yes	Yes
PVP2020-21401	Serviceability Assessment for Safe Operation of Ldpe Pressure Vessels	Yes	No
HT-2: Structures under Extreme Loading Conditions (Joint Topic)		Paper	Video
PVP2020-21647	Design and Testing of an Explosively Loaded Pressure Vessel System for Proton Radiography	Yes	No
PVP2020-21652	Hydrodynamic and Structural Simulations and Measurements in an Explosively Loaded High-Pressure Vessel	Yes	Yes
PVP2020-21665	Stored Elastic Strain Energy of Pressure Vessels and Their Consequential Effect on High Speed Projectiles	Yes	Yes
PVP2020-21767	Study on Key Parameters of Two-Stage Pressure Reducing Valve for 70mpa Hydrogen Supply System	Yes	Yes
HT-3: Fitness for Service and NDE of High-Pressure Vessels and Piping		Paper	Video
PVP2020-21318	Extended Finite Element Investigation of Burst Pressure of Pipeline With Combined Dent and Crack Defects	Yes	No
HT-4: Design and Analysis of High-Pressure Equipment for Industry		Paper	Video
PVP2020-21115	A Study on Residual Stresses on Autofrettaged Ldpe Tubing Including the Bauschinger Effect and Strain Aging	Yes	No
PVP2020-21292	Design and Analysis of a High Pressure Laboratory Vessel for Testing Well Cement	Yes	Yes
PVP2020-21598	Influence of Thermal and Mechanic Overload From Ldpe-Decomposition on Reactor Tube Properties	Yes	No
PVP2020-21723	Continued Study on the Effect of Mean Stress on Ground Storage Vessels for Hydrogen Fueling	Yes	No
HT-5: Materials for the High-Pressure Industry		Paper	Video
PVP2020-21478	Hydrogen Embrittlement Evaluation of Different Heats of Aisi 8630 Steel in Subsea Applications	Yes	No
HT-6: Design and Analysis of High-Pressure Equipment for Oil and Gas Exploration and Production		Paper	Video
PVP2020-21372	Subsea Flanges, Comparison Between Conventional Api 6a Type 6bx Flange and Spo Compact Flange Designs	Yes	Yes
PVP2020-21534	Stresses Evaluation and Fracture Mechanics Integrity Assessments of Stud Bolts Subjected to Cathodic Protection	Yes	No
PVP2020-21784	Asme Sec VIII Div. 3 and Api Tr 17tr8 Verification and Validation Methodology for Subsea Connectors	Yes	Yes

Materials & Fabrication

MF-1: Application of fracture mechanics in failure assessment		Paper	Video
PVP2020-21097	A Wide-Range Solution of Cmod Compliance for Clamped Sent Specimens	Yes	No
PVP2020-21124	Improved Method for Fracture Toughness Testing Using Compliance Method for High Toughness Materials	Yes	Yes
PVP2020-21142	Fracture Mechanics Assessment of Reactor Pressure Vessel Irradiated Structural Steel for Short Column Type Supports and Neutron Shield Tank	Yes	Yes
PVP2020-21169	The Effects of Material Properties on Crack Tip Constraint and Fracture Toughness for Commonly Used Pipelines Steels	Yes	Yes
PVP2020-21232	A New Proposal to Obtain the Ctod Fracture Parameter for Offshore Pipeline Steels by Using Only One Clip Gage	Yes	Yes
PVP2020-21239	Brittle Fracture of Stainless Steel Dissimilar Metal Welds in the Brittle-to-Ductile Transition Range	Yes	No
PVP2020-21265	Failure Assessment of Spring-Operated Pressure Relief Valve Proof Test Data for Extending Time-in-Service	Yes	No
PVP2020-21492	Implementation of Ductile Damage Models to Determine Constraint Parameters for Ductile Materials-Phase 1 (Generic Constraint Conditions)	Yes	Yes
PVP2020-21579	Flaw Design for Dc-Ep Monitoring of Crack Initiation and Growth During Full-Size Pipe Experiments	Yes	No
PVP2020-21651	Investigation of Temperature Dependence of Weibull Parameters of the Beremin Model in Ductile-Brittle Transition Temperature Region	Yes	Yes
PVP2020-21664	A Parametric Study of Variable Crack Initiation Criterion in Xfem on Pipeline Steel	Yes	Yes
PVP2020-21736	Impact of the Outer Surface Air Cooling and Wps Approaches on the Brittle Fracture Margin of Wwer Rpv	Yes	Yes
PVP2020-21737	Simulations of Crack Extensions in Arc-Shaped Specimens of Uncharged and Tritium-Charged-and-Decayed Austenitic Stainless Steels Using Cohesive Zone Modeling	Yes	Yes
PVP2020-21748	Regression Analysis of Transition Temperature Shift Database for the Core Region Beltline Welds of Wwer-1000 Rpv	Yes	Yes
PVP2020-21788	Sustainable Manufacturing and Optimization of Squeeze Stir Cast Rods Using Recycled Aluminum and Alumina Reinforcements	Yes	Yes
PVP2020-21792	Numerical Analysis of Electrical Roller Expanded Tube-to-Tubesheet Joints	Yes	Yes
PVP2020-21794	Ultrasonic Nondestructive Evaluation of Stress Corrosion Crack in Welded Steel Plate	Yes	Yes
MF-10: Pipeline integrity		Paper	Video
PVP2020-21007	Anisotropy Effect on Ductile Crack Growth of Pressurized Pipes Under Fully Bending Moment	Yes	Yes
PVP2020-21111	Characterization of Anisotropic Mechanical Properties of X70 Spiral Welded Steel Pipes	Yes	No
PVP2020-21147	Evaluation of Normalization Method With Crack Mouth Opening Displacement in Developing J-R Curves	Yes	No
PVP2020-21304	On the Transferability of Ctoa From Small-Scale Dwt to Full-Scale Pipe Geometries Using the Cohesive Zone Model	Yes	No
PVP2020-21668	Applications of Artificial Neural Network to Multi-Variables Regression for Estimations of J-Integral for Surface Cracked Pipes	Yes	No

		Paper	Video
MF-11: Small-scale and miniature mechanical testing (Joint with C&S)			
PVP2020-21024	Optimization of Selected Parameters and Procedures in Small Punch Test Methodology	Yes	No
PVP2020-21416	Acoustic Emission Monitoring of Fatigue Crack Growth Through Standard and Miniature Single Edge Notch Tension Specimens.	Yes	Yes
PVP2020-21480	Non-Destructive Measurement of Local Tensile Properties Using Instrumented Indentation Technique	Yes	No
PVP2020-21481	Fracture Toughness Tests on Western Rpv Steels Using Small Scale Specimen Technique	Yes	Yes
PVP2020-21490	Estimation of Uniaxial Material Properties by Small Punch Testing to Support Post-Irradiation Examination of Reactor Pressure Vessel Steels	Yes	Yes
PVP2020-21507	Mechanical Properties of Ion-Irradiated Stainless Steels Determined by Nanoindentation Tests and Finite Element Analyses	Yes	No
PVP2020-21524	Validation of the Incremental Step Loading Technique Application to Small Punch Tests in Aggressive Environments	Yes	Yes
MF-12: Leak before break			
PVP2020-21476	Crack Opening Areas Under Combined Primary and Secondary Loading	Yes	No
PVP2020-21532	Investigation of Circumferential Internal Surface Cracked Pipes and Elbows Tested at Conditions Similar to Pwr and an "Apparent Net-Section-Collapse" Prediction Approach	Yes	No
MF-13: Composite and non-metallic systems for pressure vessels and piping (Joint with D&A)			
PVP2020-21079	Composite Overwrapped Pipe Burst Test	Yes	No
PVP2020-21153	Effect of Glaze Composition on the Corrosion Resistance of Glass Lining of Glass-Lined Pressure Vessels	Yes	No
PVP2020-21260	Grp Composite Pipe Elbows Subject to an Internal Pressure and In-Plane Bending: An Experimental Study	Yes	Yes
PVP2020-21272	Cnn Based Defect Recognition for Phased Array Ultrasonic Inspection of Electrofusion Joint	Yes	Yes
PVP2020-21336	Long-Term Durability of Pitch-Based High Modulus Carbon Fiber Reinforced Plastics	Yes	No
PVP2020-21552	Materials Degradation and Strength Reduction Factors of Cfrp and Their Applications in Repair of Nuclear Safety Related Piping	Yes	No
PVP2020-21625	Investigation of Failure Behavior of Polyethylene Pipe Reinforced by Winding Steel Wires Subject to Inner Pressure and Bending	Yes	Yes
PVP2020-21818	Cryo-Mechanical Design of Alpaca: a Mixed-Material Radio-Frequency Vacuum Vessel Operating at 20 K.	Yes	Yes
MF-15: Fatigue and fracture of welds and heat affected zones			
PVP2020-21254	Evaluation of Mechanical and Corrosion Properties of Base Metal and Haz Having Ass 304l Forgings Containing Ferrite	Yes	Yes
PVP2020-21505	Post Weld Heat Treatment and Fracture Toughness Evaluation of Electron Beam Welded Sa508 Alloys	Yes	No
MF-16: Creep and creep-fatigue interaction			
PVP2020-21133	Mechanical Properties and Microstructure of the Newly Developed Steel (Low-C-18cr-11ni-3cu-Mo-Nb-B-N) After Aging Treatment	Yes	Yes
PVP2020-21165	Application of a Novel Load Line Displacement Partitioning Technique to Creep Crack Growth Tests on Sen(t) Geometries of Type 316h Stainless Steel	Yes	Yes
PVP2020-21192	Microstructure Evolution and Creep Rupture Behavior of Modified 9cr-1mo Steel Welded Joint	Yes	No
PVP2020-21224	Correlation Between Thermal Desorption Spectrum Features and Creep Damage	Yes	Yes
PVP2020-21235	Rapid Prediction of High Temperature Properties of Furnace Tube Alloys Using Deep Learning Approaches	Yes	Yes
PVP2020-21316	Extrapolation of Creep Rupture Data Using Parametric Numerical Isothermal Datum Method (P-Nid) for Inconel 617	Yes	Yes
PVP2020-21356	The Effect of Hardening Model on Deformation Behavior of Cracked Component Under Creep-Fatigue Loading	Yes	No
PVP2020-21429	Correlation Analysis Between Creep Crack Initiation Time and Transient Elastic-Plastic-Creep Crack-Tip Stress Considering Initial Plasticity and Constraint Effect	Yes	No
PVP2020-21497	Damage Assessment of Similar Martensitic Welds Under Creep, Fatigue and Creep-Fatigue Loading	Yes	Yes
PVP2020-21613	Probabilistic Creep Modeling of 304 Stainless Steel Using Modified Wilshire Creep-Damage Model	Yes	Yes
PVP2020-21614	Evaluation of High Temperature Material Models for High Temperature Advanced Reactor Component Analysis	Yes	No
PVP2020-21674	Assessment of C*-Integral and Creep Cod for Welded Pipe With Strength Mismatch at High Temperature	Yes	No
PVP2020-21677	Development of "Material Specific" Creep Continuum Damage Mechanics-Based Constitutive Equations	Yes	Yes
PVP2020-21791	The Role of Grain Boundary Orientation and Secondary Phases in Creep Cavity Nucleation of a 316h Boiler Header	Yes	Yes
MF-17: Advanced and additive manufacturing and material technologies (Joint with D&A)			
PVP2020-21308	Microstructural Evolution During a Solid State Tube Pinch Weld	Yes	Yes
PVP2020-21349	A Study of Effect Ultrasonic Nanocrystal Surface Modification (Unsm) Treatment on Fatigue Strength of Additive Manufactured Uns S31603	Yes	Yes
PVP2020-21350	Increasing Fatigue Strength and Wear Resistance of Additive Manufactured Nickel Alloy (Uns N07718) by Ultrasonic Nanocrystal Surface Modification (Unsm) Treatment	Yes	Yes
PVP2020-21410	The Tensile and Fatigue Performance of Additively Manufactured 316l Austenitic Stainless Steel	Yes	No
PVP2020-21704	Residual Stress Measurements in a 316l Uniaxial Fatigue Sample Manufactured by Laser Powder Bed Fusion	Yes	Yes
MF-18: Rotating equipment and pressure vessel technology for renewable energy			
PVP2020-21742	Study on Dynamic Pressure Effect of Gas Bearings in Fuel Cell Vehicles	Yes	Yes
MF-19: Asian programs in structural integrity			
PVP2020-21010	Fast Fracture Evaluation of Steam Generator Channel Heads Considering High Carbon Macro-Segregation	Yes	No

		Paper	Video
MF-2: Materials for hydrogen service (Joint with C&S)			
PVP2020-21021	Visualization of Trapped Hydrogen Along Grain Boundaries and Its Roles on Hydrogen-Induced Intergranular Fracture in Slow Strain Rate Tensile Testing of Pure Nickel	Yes	No
PVP2020-21122	Tensile and Fatigue Failure of 17-4 Ph Martensitic Stainless Steels in Presence of Hydrogen Depending on Test Frequency and Heat Treatment	Yes	No
PVP2020-21228	Effect of Hydrogen Content in Natural Gas Blend on the Mechanical Properties of a L485-Mb Low Alloy Steel	Yes	Yes
PVP2020-21229	Study on Hydrogen Resistance of X42 Pipeline Steel Under Electrochemical Hydrogen Charging Condition	Yes	Yes
PVP2020-21241	Evaluation of Material Compatibility for Hydrogen Applications Using Performance Factors Obtained by In-Situ Sp Test	Yes	No
PVP2020-21263	Measuring Fatigue Crack Growth Behavior of Ferritic Steels Near Threshold in High Pressure Hydrogen Gas	Yes	No
PVP2020-21277	Effect of High-Pressure Hydrogen and Water Impurity on Aluminum Alloys	Yes	No
PVP2020-21288	Hydrogen Effects on Fatigue Life of Welded Austenitic Stainless Steels Evaluated With Hole-Drilled Tubular Specimens	Yes	No
PVP2020-21361	Hydrogen-Induced Fracture of X70 Pipeline Steel Base/weld Under Natural/hydrogen Gas Mixture Condition	Yes	Yes
PVP2020-21546	Comparison of J-R Curves Obtained by Single and Multi-Specimen Methodologies for a Pipe Having an Undermatched Girth Weld	Yes	Yes
MF-20: Material quality and failure analysis		Paper	Video
PVP2020-21201	Characterisation of the Microstructural Evolution of Aged Grade 91 Steel	Yes	No
PVP2020-21363	Failure Cause Analysis of Dn150x100-L360qs Steel Tee in Oil Well	Yes	No
PVP2020-21741	Evaluation of Susceptibility to Thermal Fatigue Cracking in High Temperature Alloys for Refinery Olefin Applications	Yes	Yes
MF-22: 3D crack growth simulation using FEA		Paper	Video
PVP2020-21026	Crack Propagation Modeling in a Pwr Under Pts Using Xfem	Yes	No
MF-23: Structural integrity for spent fuel canisters		Paper	Video
PVP2020-21399	INVESTIGATION OF CHLORIDE-INDUCED STRESS CORROSION CRACKING FOR AISI 304/304L STAINLESS STEEL USING NOTCHED BAR SPECIMENS	Yes	Yes
PVP2020-21419	Critical Crack Calculation by R6 Procedure for Spent Fuel Canister Considering Welding Residual Stress and Comparison With Asme/api Method	Yes	No
PVP2020-21510	Comparative Stress Analyses of Dropped Spent Nuclear Fuel Assembly in a Prototypal Cask	Yes	No
PVP2020-21774	Ciscc Experiment of a Large Plate Sectioned From a Spent Nuclear Fuel Canister	Yes	Yes
MF-24: Materials and fabrication for refining		Paper	Video
PVP2020-21284	Fabrication of P91 Materials, Experience and Guideline	Yes	No
PVP2020-21391	Improvement of Toughness in Weld Metal of 9cr-1mo-v Steel by Gtaw After Long-Time Pwht	Yes	Yes
PVP2020-21461	Utilisation Limits of 1¼cr½mo (Sa387-11-2) Steel in High Plate Thickness	Yes	Yes
PVP2020-21484	P9mod: Coke Resistant Tubes/pipes Developed by Vallourec for Refinery Furnaces	Yes	No
PVP2020-21528	Pwht Exemptions for Carbon Steel in b31.3 – an Epc Contractor's Perspective	Yes	No
PVP2020-21555	Review of Life Assessment and Repair Strategies for Hydrogen Reformer and Ethylene Furnace Outlet Header Castings	Yes	No
PVP2020-21562	Application of Low Heat Input Gas Metal Arc Welding for Corrosion Resistant Weld Overlays	Yes	Yes
PVP2020-21626	Low Impact Test Results in Carbon Steel Flanges, Fittings and Piping – End User's View	Yes	No
PVP2020-21753	Tempering Response in Type 410 Stainless Steel Welds for Petrochemical Application	Yes	No
PVP2020-21799	Stainless Steel Pipe Welding With No Backing Gas	Yes	Yes
PVP2020-21842	Alloy 800h - Material and Fabrication Challenges Associated With Prescriptions for the Mitigation of Stress Relaxation Cracking	Yes	No
MF-25: High strength steels		Paper	Video
PVP2020-21519	High Strength Carbon Asme Sa-537 and Low-Alloy Sa-533 Steels as Alternatives to Asme Sa-516 Carbon Steel for Fabrication of Lightweight Pressure Vessels	Yes	No
PVP2020-21712	Application of Sa-533 Class 2 Vessels in Floating Lng Plants	Yes	No
PVP2020-21833	Investigation of Cghaz During Single and Multi-Pass Submerged Arc Welding of High Strength Steel	Yes	No
MF-3: Welding residual stress and distortion simulation and measurement		Paper	Video
PVP2020-21233	A52m/sa502 Dissimilar Metal Rpv Repair Weld: Evaluation of Different Techniques	Yes	No
PVP2020-21236	A52m/sa502 Dissimilar Metal Rpv Repair Weld: Experimental Evaluation and Post-Weld Characterizations	Yes	No
PVP2020-21381	Friction Stir Diffusion Bonding of Magnesium Alloy Zk 60 to Astm A516-70 Steel	Yes	Yes
PVP2020-21495	Numerical and Experimental Residual Stresses of Different Welded Joint Configurations in Heavy Wall	Yes	Yes
PVP2020-21537	Open Source Contour Method Analysis for Assessing Residual Stress in Weldments	Yes	No
PVP2020-21576	Evaluation by Two-Dimensional Finite Element Analysis of the Effect of Weld Layer Thickness on the Residual Stress Profile in Stainless Steel Pipe Welds	Yes	Yes
PVP2020-21629	Investigation Into Residual Stresses in a Small Bore Pipe Weld With Stacked Stop/start Locations	Yes	No
PVP2020-21776	Comparison of Residual Stress Measurements on Single Bead-on-Plate Welds of a Martensitic Steel Using Neutron Diffraction	Yes	Yes
MF-4: European programs in structural integrity		Paper	Video
PVP2020-21464	Consideration of Special Effects for the Application of an Optimized Fracture Mechanics Approach for the Rpv Assessment – Project Camera	Yes	No
PVP2020-21466	Atlas+ European Project - Prediction of Large Ductile Tearing in Austenitic Piping Using Local Approach	Yes	Yes
PVP2020-21551	Advanced Structural Integrity Assessment Tools for Safe Long Term Operation - Atlas+ Project : Status of the Activities of the Wp3 on Modelling in 2020	Yes	No
PVP2020-21645	Ductile Tearing Prediction of Ferritic Pipe Material by Gtn Model for Atlas+ European Project	Yes	Yes
PVP2020-21844	European Project Atlas+: Status of the Wp1 Relative to the Experimental Program on Pipes and Specimens	Yes	No

MF-5: Fitness-For-Service and failure assessment		Paper	Video
PVP2020-21274	Validation of a Finite Element Toolbox for Studying Flaw Interaction	Yes	Yes
PVP2020-21592	Test Protocol Definition to Measure Fracture Toughness Parameters Using Non-Standard Four Points Bending Specimens	Yes	Yes
PVP2020-21824	Creep Damage Assessment of a Low Alloy Pressure Vessel With Dissimilar Metal Welded Joint	Yes	Yes
MF-6: Materials and technologies for nuclear power plants		Paper	Video
PVP2020-21029	Extension of Alloy C-276 Code Design Values for Advanced Molten Salt Technology Test Facilities	Yes	Yes
PVP2020-21141	Cracking Behavior of a Decommissioned Material in Light Water Reactor Environment	Yes	No
PVP2020-21287	Plasma Arc Welding for Code Compliance Nuclear Application	Yes	No
PVP2020-21332	Applicability of Formula of the Irradiation Assisted Stress Corrosion Cracking Rates for Neutron-Irradiated Type 316l Stainless Steels to Various Types of Stainless Steels	Yes	Yes
PVP2020-21360	Estimation of Charpy Index Temperature of Sa 508 Mn-Mo-Ni Low Alloy Steels at 41J Using Small Punch Tests	Yes	Yes
PVP2020-21365	Evaluation of Crack Growth Rate of Neutron Irradiated Austenitic Stainless Steels at High Stress Intensity Factor Levels	Yes	Yes
PVP2020-21389	High Temperature Mechanical Performance of Type 316l Austenitic Stainless Steels Manufactured by the Powder Metallurgy Hot Isostatic Pressing Process	Yes	No
PVP2020-21445	Properties of Cladding With Respect to Rpv Integrity	Yes	No
PVP2020-21518	Study of the Influence of Microstructure and Intergranular Carbides on the Cracking Behavior of a Nickel Base Alloy 690 Tt in Supercritical Water Nuclear Reactor Condition	Yes	No
PVP2020-21620	Fabrication and Assembly of the First Accident Tolerant Fuel Concept for Treat Testing	Yes	No
PVP2020-21623	Creep Deformation Property and Creep Life Evaluation of Super304h	Yes	No
PVP2020-21670	Scc Growth Prediction for Surface Crack in Welded Joint Using Advanced Fea	Yes	No
PVP2020-21686	A Study of the Effects of Laser Shock Peening and Ultrasonic Nanocrystalline Surface Modification on the Susceptibility of 304l Stainless Steel to Intergranular Corrosion	Yes	Yes
PVP2020-21687	Quantification of the Material Ductility Effect on Notch Fracture Toughness Using Numerical Damage Analysis Method	Yes	No
PVP2020-21857	Investigation on Effect of Carbon Macro-Segregation on Mechanical Properties Using a Large-Scale, Heavy Forged Low Alloy Steel for a Reactor Pressure Vessel of Bwr	Yes	No
MF-9: Mechanistic modelling of deformation and fracture		Paper	Video
PVP2020-21213	Dynamic Performance Analysis of Interfacial Cracks Near an Eccentric Elliptical Hole in Piezoelectric Bi-Materials Under Incident Sh-Waves	Yes	Yes
PVP2020-21425	On Some Properties of Metals Manifested Under Complex Loading	Yes	No
PVP2020-21650	Vistadam – a Physics Based Ductile Fracture Model for Pressurized Pipe Failure	Yes	Yes
PVP2020-21746	An Investigation Into the Robustness of a Crystal Plasticity Finite Element Model	Yes	No
Non-Destructive Examination			
NDE-1: Emerging NDE and Prognostic Techniques and Applications		Paper	Video
PVP2020-21117	Experimental Studies of Typical Defects on Large Capacity Hoop-Wrapped Composite Cylinder of Steel Liner Based on X-Ray Digital Radiography Test	Yes	Yes
PVP2020-21258	Indentation Analysis of Mechanical Degradation of Single Crystal Linixmnycozo2 Cathode in Li-Ion Battery	Yes	No
PVP2020-21446	Non-Destructive Evaluation of Rpv Embrittlement by Means of the Thermoelectric Power Method	Yes	No
PVP2020-21512	Nomad: Non-Destructive Evaluation System for the Inspection of Operation Induced Material Degradation in Nuclear Power Plants	Yes	Yes
PVP2020-21581	Asset Integrity Management and Fitness-for-Service Assessment of a Pipe Elbow With Metal Loss	Yes	Yes
PVP2020-21740	A New Framework for Damage Source Localization in Composite Scarf Joints Based on Acoustic Emission and Supervised Learning	Yes	Yes
NDE-2: NDE Techniques and Applications for Petrochemical and Power Plant Components		Paper	Video
PVP2020-21064	A Finite Element Simulation Study on Reducers Based on Ultrasonic Guided Waves	Yes	No
PVP2020-21071	Research on Flexible Phased Array Technique for Testing the Inserted Fillet Welds	Yes	Yes
PVP2020-21092	Research on Digital Radiographic Inspection of In-Service Fiber Reinforced Plastic Pipe	Yes	Yes
PVP2020-21184	Diagnosis of a Corrosion Process in Secondary Piping Structures in Nuclear Power Plants	Yes	Yes
PVP2020-21246	Research on the Inspection Parameters of Ultrasonic Phased Array for the Periodic Inspection of High-Pressure Hydrogen Vessel	Yes	Yes
PVP2020-21322	A New Research Method for Corrosion Defect in Metal Pipeline by Using Pulsed Eddy Current	Yes	No
NDE-3: NDE Reliability - Modeling and Experimental Analysis		Paper	Video
PVP2020-21105	Research on the Measurement Accuracy of Ultrasonic Phased Array Time-of-Flight Method	Yes	Yes

Operations, Applications, & Components

OAC-1: Safety, Reliability, and Risk Management		Paper	Video
PVP2020-21123	Evaluation of Pressure-Temperature Limit Curve Considering Revised Stress Intensity Factor Method	Yes	No
PVP2020-21135	Mid-Term Energy Consumption Prediction of Crude Oil Pipeline Pump Unit Based on Gscv-Svm	Yes	Yes
PVP2020-21178	Surge Analysis of Typical Working Scenarios of Lng Shipment Piping System in a Port of North Africa	Yes	No
PVP2020-21218	Gas Supply Reliability Analysis of a Natural Gas Pipeline System Considering the Effects of Demand Side Management	Yes	Yes
PVP2020-21227	A Hybrid Pso-Bpnn Model Approach for Crude Oil Pipeline Electrical Energy Consumption Forecasting	Yes	Yes
PVP2020-21333	Prediction of Pipeline Corrosion Rate Model Based on Multi-Core Learning	Yes	Yes
PVP2020-21376	An Alternative Corrosion Risk Assessment Method for Industrial Pipelines in Natural Gas Purification Plant	Yes	No
PVP2020-21378	Using Machine Learning Tools for Forecasting Natural Gas Market Demand	Yes	Yes
PVP2020-21597	Maintenance Optimization: Finding the Best Frequencies of Maintenance Activities	Yes	Yes
PVP2020-21694	Verification of Stress Model in Dissimilar Materials of Varying Cladded Pipes Using a Similar Cladded Plate Model	Yes	Yes
PVP2020-21796	The Process of Creating and Reviewing a Transient Surge Computer Model	Yes	Yes
PVP2020-21823	Corrosion Behavior of Pipeline Steel With Stray Current Interference at Coating Defects	Yes	Yes
OAC-2: Qualification and Testing		Paper	Video
PVP2020-21087	Structural Evaluation With Elastic and Inelastic Analysis Methods on a High Temperature Storage Tank Subjected to Static and Dynamic Loadings	Yes	No
OAC-3: Monitoring, Diagnostics & Inspection		Paper	Video
PVP2020-21102	Modeling and Control of Real Flow Calibration System	Yes	Yes
PVP2020-21154	Application of Transient Electromagnetic Method in Urban Buried Gas Pipeline Detection	Yes	No
PVP2020-21862	A Case Study Aiming to Mitigate Pipe Vibrations Using Cfd & Dynamic Stress Analysis Approach	Yes	Yes
PVP2020-21863	Challenging the Industry Practices of Temperature Distribution, Sif and Its Effects on Piping Design	Yes	Yes
OAC-4: Storage and Transportation of Radioactive and other Hazardous Materials		Paper	Video
PVP2020-21018	A Simple Method to Estimate Airborne Release Fractions Associated With the Pressurized Release of Radioactive Materials	Yes	Yes
PVP2020-21045	Deployment of Laser Peening to Prevent Cisc of Nuclear Fuel Dry Storage Canisters	Yes	No
PVP2020-21083	Mechanical and Thermal Assessment by Bam of a New Package Design for the Transport of Snf From a German Research Reactor	Yes	No
PVP2020-21096	Mechanical Shock and Vibration Analysis of Spent Nuclear Fuel Carried by the Atlas Railcar	Yes	Yes
PVP2020-21116	Temperature Prediction of a Used Nuclear Fuel Cask With Different Gas Backfills	Yes	Yes
PVP2020-21245	Outcomes of Three Large Scale Fire Reference Tests Conducted in Bam Fire Test Facility	Yes	Yes
PVP2020-21259	Structural Analysis Approach for the Defense Programs Package 3 (Dpp-3)	Yes	No
PVP2020-21270	Numerical Modelling of Compression Stress Relaxation and Compression Set of Elastomer O-Rings During Aging	Yes	Yes
PVP2020-21280	Thermal Analysis of a 9977 Shipping Package During a Kac Fire Accident	Yes	No
PVP2020-21281	Thermal Analysis of a 9977 Shipping Package During a Fire-Drop-Smoldering Accident	Yes	No
PVP2020-21283	Secondary Impacts and Their Effects on Closure Lid Bolt Stresses in a Generic Spent Nuclear Fuel Shipment Cask	Yes	No
PVP2020-21324	Prediction of Leakage Rate of Liquefied Gas Storage Tanks and Numerical Simulation of Leakage Process	Yes	Yes
PVP2020-21508	Thermal Modeling of the High Burnup Demonstration Research Project Cask	Yes	No
PVP2020-21682	Evaluation of Hydrogen Gas Generation and Permeation in the 9979 Type AF Shipping Package	Yes	No
PVP2020-21705	Analysis of Spent Nuclear Fuel Multipurpose Canister Dynamics During Rail Transportation	Yes	Yes
PVP2020-21785	Effects of Post-Manufacturing Process on Material Properties of 3d-Printed Pressure Vessels	Yes	No
PVP2020-21850	DROP TESTS ASSESSMENT OF INTERNAL SHOCK ABSORBERS FOR PACKAGES LOADED WITH ENCAPSULATIONS FOR DAMAGED SPENT NUCLEAR FUEL	Yes	Yes
OAC-5: Pumps and Valves		Paper	Video
PVP2020-21063	Relief Valve Impact Analysis	Yes	Yes
PVP2020-21285	An Overview of Asme Class 2 and 3 Valve Design and Service Loading Rules	Yes	Yes
PVP2020-21289	A Case Study: Balanced Globe Valve Load Sensitive Behavior Upon Opening	Yes	Yes
PVP2020-21315	Check Valves in Nuclear Power Plants – Asme Om Code Requirements and Industry Compliance	Yes	Yes
PVP2020-21346	Cfd Analysis of a Piping-Pressure Safety Valve System Working in Gas/vapor Service	Yes	No
PVP2020-21835	Development of Valve Performance Qualification Methodology and Testing	Yes	Yes
OAC-6: Operation and Maintenance of Pressure Vessels, Heat Exchangers, Piping and Supports		Paper	Video
PVP2020-21074	Crude Furnace Floor Creep Assessment and Remaining Life Assessment Due to Hot Spots	Yes	Yes
PVP2020-21128	The Research on the Stress Analysis of Overhead Steam Pipeline	Yes	No
PVP2020-21130	Stress Analysis of In-Service Flare Gas Pipeline System and Equipment Nozzle	Yes	No
PVP2020-21396	Thermal Fatigue Cracking Due to Intermittently Flowing Drain Water in Steam Piping	Yes	No
PVP2020-21593	Fatigue Behavior of Metallic Pipes With Through-Wall Corrosion Damage Repaired With Bonded Metallic Patches	Yes	Yes

OAC-7: Plant Life Extension: Aging & Life Management			Paper	Video
PVP2020-21032	High Flux Reactor Continued Safe Operation – Time Limited Ageing Analyses		Yes	Yes
PVP2020-21180	A Hybrid Fatigue Analysis Method for Fatigue Monitor System		Yes	No
PVP2020-21392	High Frequency Fatigue and Using Frequency Domain Techniques		Yes	Yes
PVP2020-21838	An Assessment Methodology for Civil Ageing Management and Concrete for Lto/cso Based on International Standards and Engineering Judgement.		Yes	No
PVP2020-21858	Addressing Low Pressure Transients		Yes	Yes
Seismic Engineering				
SE-1: Earthquake Resistance and Seismic Margin			Paper	Video
PVP2020-21394	Seismic Failure Modes and Loss of Containment in Industrial Equipment		Yes	No
PVP2020-21395	Study on Vibration Mitigation of Connected Cabinets Storing Electronics Subjected to Seismic Input Using Elasto-Plastic Damper		Yes	Yes
PVP2020-21418	Uplift Deformation of the Bottom Plate of the Cylindrical Steel Tanks Under Steady-State Response of Tank Rocking Motion		Yes	Yes
PVP2020-21447	Damage to Oil Storage Tanks Caused by Severe Strong Ground Motions Due to the 2018 Hokkaido, Japan Iburu-Tobu Earthquake (mw6.6)		Yes	No
SE-10: Ratcheting Deformation of Materials and Piping			Paper	Video
PVP2020-21196	Comparison of 316ln Ratcheting Boundary at Room Temperature and 350°C		Yes	Yes
PVP2020-21209	Multiaxial Ratcheting Deformation of z2cnd18.12n at Elevated Temperatures		Yes	Yes
SE-2: Seismic Isolation			Paper	Video
PVP2020-21320	Research and Development of Three-Dimensional Isolation System for Sodium-Cooled Fast Reactor (Part 6: development of High Speed Oil Damper for Isolated Building)		Yes	No
PVP2020-21709	Research and Development of Three-Dimensional Isolation System for Sodium-Cooled Reactor Part 5 : Isolation Performance Applied to Reactor Building		Yes	No
PVP2020-21743	Study on Multifunctional Base Isolation System Using Air-Floating Technique		Yes	No
SE-3: Damping and Vibration Control			Paper	Video
PVP2020-21226	Passive Control Techniques for Seismic Protection of Chemical Plant Equipment		Yes	No
PVP2020-21268	Research and Development of Viscous Fluid Dampers for Improvement of Seismic Resistance of Thermal Power Plants Part 9 Investigation Regarding Damage Between F		Yes	No
PVP2020-21269	Research and Development of Viscous Fluid Dampers for Improvement of Seismic Resistance of Thermal Power Plants Part 10 Damper to Suppress Relative Deformation		Yes	No
SE-5: Structural Dynamics			Paper	Video
PVP2020-21343	Study on the Predictive Evaluation Method of Load Acting on the Roof and Internal Components of Cylindrical Tanks by Nonlinear Sloshing		Yes	No
PVP2020-21344	Study on the Predictive Evaluation Method for Liquid Surface Shape and Flow Velocity in Nonlinear Sloshing Based on Simplified Equations		Yes	No
PVP2020-21385	Experimental Study on the Effect of Core Support Frame on Seismic Behavior of Fast Reactor Core		Yes	No
PVP2020-21386	Analysis of Seismic Experiment of Hexagonal Multi Bundle Model Using Core Assembly Mock-Up		Yes	No
SE-6: Seismic Analysis and Design of Piping System			Paper	Video
PVP2020-21040	Research on the Seismic Analysis and Optimization of High Flux Reactor Nuclear Power Piping System Based on Multi-Point Response Spectrum Method		Yes	No
PVP2020-21134	Floor Response Spectrum Method of Multiply Supported Piping System Assisted by Time History Analysis		Yes	Yes
SE-7: Seismic Evaluation of Systems, Structures and Components			Paper	Video
PVP2020-21190	Ground Motion Model for Seismic Vulnerability Assessment of Prototype Industrial Plants		Yes	Yes
SE-9: Advanced Seismic Evaluation and Code (Joint session with C&S)			Paper	Video
PVP2020-21065	On Categorization of Seismic Load as Primary or Secondary for Multi-Modal Piping Systems		Yes	No
PVP2020-21125	Seismic Test Result of Air Operated Valve Actuators for Nuclear Power Plant (Air Operated Globe Valve (Diaphragm Type) and Air Operated Butterfly Valve (Lever Type))		Yes	Yes
PVP2020-21132	Estimating Stable Mean Responses for Linear Structural Systems by Using Limited Number of Acceleration Time Histories		Yes	No
PVP2020-21362	Seismic Test Result of the Main Steam Isolation Valve for Japanese Boiling Water Reactor Nuclear Power Plants		Yes	Yes
PVP2020-21407	Effect of Peak Excitation Frequency on Seismic Fatigue Damage of Plant Pipelines		Yes	Yes
PVP2020-21816	Characteristics of Dynamic Loading Obtained From Braced Piping Support Under Sinusoidal Shaking Condition		Yes	Yes
PVP2020-21849	Bending Deformation Performance of Underground Pipe for Power Transmission		Yes	No
Technical Presentation Only			Paper	Video
PVP2020-21019	Examples of Materials Quality Issues		No	Yes
PVP2020-21020	Mechanical Anisotropy in Small-Diameter Bar		No	Yes
PVP2020-21044	Material Properties of Hiperid Sa-508		No	Yes
PVP2020-21149	A Hybrid Digital-Twin Platform for Sequence Design in Welded Structures		No	Yes
PVP2020-21219	Effect of Electrochemical Charging on the Formation of Cracks and Blisters for 2.25cr-1mo-0.25v		No	Yes
PVP2020-21256	Localized Creep Deformation Evaluation in Grade 91 Steel Weldment		No	Yes
PVP2020-21431	Impact of Modeling Decisions on Simulations of Bolted Joints		No	Yes
PVP2020-21496	Determination of Orthotropic Material Properties Representative of the Compact Heat Exchanger Core for Efficient Global Thermo-Mechanical Analysis		No	Yes
PVP2020-21511	Improvement of Mechanical Properties of Sa508 gr.1a Low Alloy Steels to Increase Lbb Margin		No	Yes
PVP2020-21608	A Model for the Hydrogen Diffusion in Dual-Phase Stainless Steels for High-Pressure Applications		No	Yes
PVP2020-21634	Prospective Activity of Subcommittee of Atomic Energy Research Committee on Constraint-Based Assessment of Fracture in Ductile-Brittle Transition Temperature Region		No	Yes
PVP2020-21684	Thermal-Mechanical Simulation and Burst Test Experiments of Printed Circuit Heat Exchangers for High-Temperature Applications		No	Yes