

Summary of Research Reports Developed Under User Need Request NRR-2013-009			
	Deliverable(s)	Deliverable Date	ADAMS No.
NDE Modeling	PNNL-26336, Validation of Ultrasonic Nondestructive Examination (NDE) Computational Models - Phase 1	March 2017	ML17082A190
	PNNL-28362, Ultrasound Modeling and Simulation: Status Update	January 2019	ML19010A070
	PNNL-29889, Modeling and Simulation of Austenitic Welds and Course-grained Specimens	May 2020	ML20122A252
Theoretical & Experimental Basis for Exam Coverage	PNNL-26157 Rev. 1., Summary of Literature Search of Relief Requests on ASME Code, Section XI, Volumetric Examination Coverage Requirements for Piping Butt Welds	November 2017	ML17318A120
	Draft PNNL-xxxx, Evaluating Flaw Detectability Under Limited Coverage Conditions	March 2020	TBD*
Eddy Current Inspection	PNNL-29113, Baseline Evaluation of Eddy Current Testing for PWSCC Susceptible Materials	September 2019	ML19267A244
Worldwide Assessment of Technologies including Qualification of Inspectors and Procedures	NUREG/CR-7235, Results of Blind Testing for the Program to Assess the Reliability of Emerging Nondestructive Techniques	June 2017	ML17159A466
	NUREG/CR-7236, Results of Open Testing for the Program to Assess the Reliability of Emerging Nondestructive Techniques	August 2017	ML17223A700
Detection & Characterization of Flaws	PNNL-24920, Phased Array Ultrasonic Examination of Reactor Coolant Pump Nozzle (Carbon Steel-to-CASS) Dissimilar Metal Weld Mockup Specimen	February 2016	ML16041A137
	PNNL-25537, Cast Austenitic Stainless Steel (CASS) Ferrite and Grain Structure Relationship	September 2016	ML16161A369
	PNNL-27712, Interim Analysis of the EPRI CASS Round Robin Study	November 2018	ML18331A093
	NUREG/CR-7263, NDE Reliability Issues for the Examination of CASS Components	September 2019	ML19255J814
Visual Testing	NUREG/CR-7246, Reliability Assessment of Remote Visual Examination	August 2018	ML18228A516
Partial Penetration Welds	Lower priority task – to date, no funds allocated		
Probability of Detection	PNNL-28090, Analysis of Empirical Probability of Detection Data for Dissimilar Metal Welds	July 2019	ML19204A258
	PNNL-29761, Nondestructive Examination (NDE) Training and Qualifications: Implications of Research on Human Learning and Memory, Instruction, and Expertise	April 2020	ML20079E343

\*This draft report, delivered under UNR NRR-2013-009, will be completed under UNR NRR-2020-002.