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WASHINGTON, D.C. 20555-0001

March 6, 2018

Dr. Michael Corradini, Chairman  
Advisory Committee on Reactor Safeguards  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

SUBJECT: ACRS ASSESSMENT OF THE QUALITY OF SELECTED NRC RESEARCH  
PROJECTS – FY 2018

Dear Mr. Corradini:

Thank you for the Committee's recent letter dated January 28, 2018 (ADAMS Accession No. ML18022A054), transmitting the report entitled, "ACRS Assessment of the Quality of Selected NRC Research Projects – FY 2017." This annual report assists the NRC staff in evaluating the quality and usefulness of selected programs to support licensing and related regulatory functions of the agency.

The purpose of this letter is to provide a list of NRC research projects for ACRS consideration and review during FY 2018. The list below provides documents containing research published over the past year; we excluded NUREGs developed under international agreements and those that contain research that support a specific licensing review. You will note that this list is more comprehensive than in previous years to provide the Committee more products to choose from and to represent a more complete range of our research.

<a href="#">NUREG-1855 (Revision 1)</a>	Guidance on the Treatment of Uncertainties Associated with PRAs in Risk-Informed Decision Making
<a href="#">NUREG-2170</a>	A Risk-Informed Approach to Understanding Human Error in Radiation Therapy
<a href="#">NUREG-2206 (Pending Publication)</a>	Technical Basis for the Containment Protection and Release Reduction Rulemaking for Boiling Water Reactors with Mark I and Mark II Containments
<a href="#">NUREG-2213 (Pending Publication)</a>	Updated Implementation Guidelines for Senior Seismic Hazard Analysis Committee (SSHAC) Hazard Studies
<a href="#">NUREG-2218</a>	An International Phenomena Identification and Ranking Table (PIRT) Expert Elicitation Exercise for High Energy Arcing Faults (HEAFs)
<a href="#">NUREG/CR-7225</a>	Stability of Circumferential Flaws in Once-Through Steam Generator Tubes Under Thermal Loading During LOCA, MSLB, and FWLB
<a href="#">NUREG/CR-7226</a>	Primary Water Stress Corrosion Cracking of High-Chromium, Nickel-Base Welds Near Dissimilar Metal Weld Interfaces
<a href="#">NUREG/CR-7228</a>	Open Secondary Testing of Window-Type Current Transformers
<a href="#">NUREG/CR-7229</a>	Testing to Evaluate Battery and Battery Charger Short-Circuit Current Contributions to a Fault on the DC Distribution System

<a href="#">NUREG/CR-7230</a>	Seismic Design Standards and Calculational Methods in the United States and Japan
<a href="#">NUREG/CR-7231</a>	Modeling of Radionuclide Transport in Freshwater Systems Associated with Nuclear Power Plants
<a href="#">NUREG/CR-7232</a>	Review of Spent Fuel Reprocessing and Associated Accident Phenomena
<a href="#">NUREG/CR-7233</a>	Developing a Bayesian Belief Network Model for Quantifying the Probability of Software Failure of a Protection System
<a href="#">NUREG/CR-7234</a>	Development of A Statistical Testing Approach for Quantifying Safety-Related Digital System on Demand Failure Probability
<a href="#">NUREG/CR-7235</a>	Results of Blind Testing for the Program to Assess the Reliability of Emerging Nondestructive Techniques
<a href="#">NUREG/CR-7236</a>	Results of Open Testing for the Program to Assess the Reliability of Emerging Nondestructive Techniques
<a href="#">NUREG/CR-7237</a>	Correlation of Seismic Performance in Similar SSCs (Structures, Systems, and Components)
<a href="#">NUREG/CR-7238</a>	Guidance Document: Conducting Paleoliquefaction Studies for Earthquake Source Characterization
<a href="#">NUREG/CR-7240</a>	Impact of Operating Parameters on Extended BWR Burnup Credit
<a href="#">NUREG/CR-7243</a>	PIMAL: Phantom with Moving Arms and Legs – Version 4.1.0
<a href="#">NUREG/CR-7245</a> (Pending Publication)	State-of-the-Art Reactor Consequence Analyses (SOARCA) Project

The RES staff values the Committee's review and will use your suggestions to improve our research program.

Sincerely,

**/RA/**

Michael F. Weber  
Director of Nuclear Regulatory Research

ACRS ASSESSMENT OF THE QUALITY OF SELECTED NRC RESEARCH PROJECTS – FY 2018

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