NSF BIOGRAPHICAL SKETCH

NAME: Borrelli, R. A.

POSITION TITLE & INSTITUTION: Assistant Professor, University of Idaho

(a) PROFESSIONAL PREPARATION

INSTITUTION	LOCATION	MAJOR / AREA OF STUDY	DEGREE (if applicable)	YEAR YYYY
Worcester Polytechnic Institute	Worcester, MA	Mechanical/Nuclear Engineering	BS	1996
Worcester Polytechnic Institute	Worcester, MA	Civil/Environmental Engineering	MS	1999
University of California-Berkeley	Berkeley, CA	Nuclear Engineering	PHD	2006

(b) APPOINTMENTS

2015 - present Assistant Professor, University of Idaho, Department of Nuclear Engineering and Industrial Management, Idaho Falls, ID

2012 - 2015 Adjunct Professor, Diablo Valley Community College, Department of Architecture and Engineering , Pleasant Hill, CA

2009 - 2012 Postdoctorate Researcher, University of California-Berkeley, Department of Nuclear Engineering, Berkeley, CA

2007 - 2009 Research Associate, The University of Tokyo, Department of Nuclear Engineering/Management, Tokyo

(c) PRODUCTS

Products Most Closely Related to the Proposed Project

1. Borrelli R, Delligatti M, Heidrich B. Borated aluminum cask design for onsite intermediate storage - Preliminary neutronics design and certification analysis. Nuclear Engineering and Design. 2020; 363. DOI: 10.1016/j.nucengdes.2020.110666
2. Carter J, Borrelli R. Neutron physics study of an integral molten salt reactor using Monte Carlo N-Particle code. Nuclear Engineering and Design. 2020; 365. DOI: 10.1016/j.nucengdes.2020.110718
3. Peterson J, Haney M, Borrelli R. An overview of methodologies for cyber security vulnerability assessments conducted in nuclear power plants. Nuclear Engineering and Design. 2019; 346:75.
4. Lee J, Borrelli R. Sensitivity analysis and application of advanced nuclear accounting methodologies on the high reliability safeguards model: Use of discrete event simulation for material throughput in fuel fabrication. Nuclear Engineering and Design. 2019; 345:183.
5. Lee J, Shigrekar A, Borrelli R. Hazard and operability analysis of a pyroprocessing facility. Nuclear Engineering and Design. 2019; 348:131.

Other Significant Products, Whether or Not Related to the Proposed Project

1. Redfoot E, Borrelli R. Analysis of nuclear renewable hybrid energy systems modeling and nuclear fuel cycle simulators. Nuclear Technology. 2018; 204:249.
2. Lee J, Tolman M, Borrelli R. High reliability safeguards approach to remotely handled nuclear processing facilities: Use of discrete event simulation for material throughput for fuel fabrication.

Nuclear Engineering and Design. 2017; 324:54.

3. Borrelli R. A high reliability safeguards approach for safeguardability of remotely-handled nuclear facilities: 1. Functional components to system design. Journal of Nuclear Materials Management. 2014; XLII:4.
4. Borrelli R. A high reliability safeguards approach for safeguardability of remotely-handled nuclear facilities: 2. A risk-informed approach for safeguards. Journal of Nuclear Materials Management. 2014; XLII:27.

(d) SYNERGISTIC ACTIVITIES

1. American Nuclear Society: Executive Committee - Fuel Cycle and Waste Management Division, Nuclear Nonproliferation Policy Division, Student Sections Committee
2. University of Idaho: Faculty Advisor - American Nuclear Society University of Idaho Student Section
3. Idaho Section of the American Nuclear Society: Coordinator - Smoke Detector Donation Program