DOE-ID NEPA CX DETERMINATION

CX Posting No.: DOE-ID-17-006

SECTION A. Project Title: IASCC Test Facility for University of Florida Nuclear Fuel and Structural Materials Research Center

SECTION B. Project Description

The University of Florida proposes to add the Irradiation Assisted Stress Corrosion Cracking (IASCC) test facility to its capacity. In addition to equipment the university already has, it is proposed to purchase a PWR/BTW water recirculation loop and a landmark test system. The water loop will provide high temperature high-pressure water flow for an autoclave. The recirculation loop will consist of a low-pressure low temperature water preparation section and high temperature high-pressure testing section. A well design water recirculation loop with controlled oxygen and hydrogen level down to ppb level is essential for simulating a corrosion environment in a PWR/BWR. The landmark test system (shown in Fig. 2) will be integrated with the water loop and a high temperature autoclave that is already housed in the PI's lab. The proposed landmark system from MTS provides the versatility and high performance for accurate and repeatable static and dynamic material and component testing.

SECTION C. Environmental Aspects / Potential Sources of Impact

The action consists of purchasing equipment to be used in research and teaching. The action would not create additional environmental impacts above those already occurring at the university.

SECTION D. Determine the Level of Environmental Review (or Documentation) and Reference(s): Identify the applicable categorical exclusion from 10 CFR 1021, Appendix B, give the appropriate justification, and the approval date.

Note: For Categorical Exclusions (CXs) the proposed action must not: 1) threaten a violation of applicable statutory, regulatory, or permit requirements for environmental, safety, and health, including requirements of DOE orders; 2) require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities; 3) disturb hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products that pre-exist in the environment such that there would be uncontrolled or unpermitted releases; 4) adversely affect environmentally sensitive resources. In addition, no extraordinary circumstances related to the proposal exist which would affect the significance of the action, and the action is not "connected" nor "related" (40 CFR 1508.25(a)(1) and (2), respectively) to other actions with potentially or cumulatively significant impacts.

References: B1.31 Installation or relocation and operation of machinery and equipment (including, but not limited to, laboratory equipment, electronic hardware, manufacturing machinery, maintenance equipment, and health and safety equipment), provided that uses of the installed or relocated items are consistent with the general missions of the receiving structure. Covered actions include modifications to an existing building, within or contiguous to a previously disturbed or developed area, that are necessary for equipment installation and relocation. Such modifications would not appreciably increase the footprint or height of the existing building or have the potential to cause significant changes to the type and magnitude of environmental impacts.

Justification: The activity consists of purchasing and installing equipment for teaching and research purposes.

Is the project funded by the American Recovery and Reinvestment Act of 2009 (Recovery Act) ☐ Yes ☒ No

Approved by Jason Sturm, DOE-ID NEPA Compliance Officer on 4/6/2017