

DOE-ID NEPA CX DETERMINATION

SECTION A. Project Title: Next Generation Electromagnetic Pump: Analysis Tools and Insulation Materials Development – GE Hitachi Nuclear Energy Americas LLC

SECTION B. Project Description

GE Hitachi, teaming with Argonne National Laboratory, proposes to improve electromagnetic (EM) pump analysis model and EM design and analysis tools for next-generation EM pumps. Additionally, GE Hitachi proposes to develop, produce, and evaluate samples of new pump insulation materials.

SECTION C. Environmental Aspects / Potential Sources of Impact

Chemical Use/Storage – Mica flake, ceramic fibers, glass fibers, and ceramic binders will be used.

Chemical Waste Disposal – Approximately 1 lb of mica flake, 1 lb of ceramic fibers, 1 lb of glass fibers, and 20 lbs of ceramic binders will be disposed. Disposal will follow GE EHS policy.

Hazardous Waste Generation – Minor amounts of hazardous waste will be generated. Disposal will follow GE EHS policy.

Industrial Waste Generation – Minor amounts of industrial waste will be generated. Disposal will follow GE EHS policy.

Discharge of Wastewater – Water is used in preparing ceramic binders.

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: B3.6 Siting, construction, modification, operation, and decommissioning of facilities for small-scale research and development projects; conventional laboratory operations (such as preparation of chemical standards and sample analysis); and small-scale pilot projects (generally less than 2 years) frequently conducted to verify a concept before demonstration actions, provided that construction or modification would be within or contiguous to a previously disturbed or developed area (where active utilities and currently used roads are readily accessible). Not included in this category are demonstration actions, meaning actions that are undertaken at a scale to show whether a technology would be viable on a larger scale and suitable for commercial development.

Justification: The activity consists of evaluating pump insulation material for research purposes.

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

Approved by Jack Depperschmidt, DOE-ID NEPA Compliance Officer on 7/24/2013