

DOE-ID NEPA CX DETERMINATION

SECTION A. Project Title: Recovery of Uranium from Seawater: Polymer-Supported Aminophosphinates as Selective – Hunter College of the City University of New York

SECTION B. Project Description

Hunter College proposes to develop a polymer-supported extractant for the recovery of uranium from seawater. Work includes evaluating polymers with the highest capacities with authentic seawater at 3 ppb UO_2^{2+} .

SECTION C. Environmental Aspects / Potential Sources of Impact

Chemical Use/Storage / Chemical Waste Disposal – Per week use includes 1 L each of dioxane, toluene, pyrrolidone, THF, and much smaller quantities of chemicals such as chlorodiethylphosphate, vinylbenzyl chloride, triethylphosphite, pentaerythritol, dilute acids and bases. Wastes will be managed according to the Hunter College Hazardous Waste Management Plan with waste collection performed by the Hunter College Office of Environmental Health and Safety.

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 developing extractants for recovery of uranium from seawater for 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 Deputy NEPA Compliance Officer on 11/25/2013