

DOE-ID NEPA CX DETERMINATION

SECTION A. Project Title: Automated Serial Sectioning and Imaging in Support of Nuclear Materials Analysis – Colorado School of Mines

SECTION B. Project Description

The Colorado School of Mines will purchase a Robo-Met.3D automated polishing, serial-sectioning, and image acquisition station. The automated serial sectioning and imaging capabilities of the new system will expand the digital microstructure imaging and tomographic capabilities, allowing for the acquisition of micrometer scale 3-D microstructure data from radioactive samples. The Robo-Met.3D system will also remotely automate a large portion of sample preparation activities, significantly reducing the radiation dose to students and researchers.

SECTION C. Environmental Aspects / Potential Sources of Impact

Radioactive Material Use/Radioactive Waste Generation – The use of the requested upgrades will result in the creation of small amounts of short-lived radioactive materials. These materials will be handled in accordance with existing radiological procedures and permits.

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 purchasing equipment 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 5/21/2012