

DOE-ID NEPA CX DETERMINATION Idaho National Laboratory

SECTION A. Project Title: EBR-2 Site Characterization

SECTION B. Project Description and Purpose:

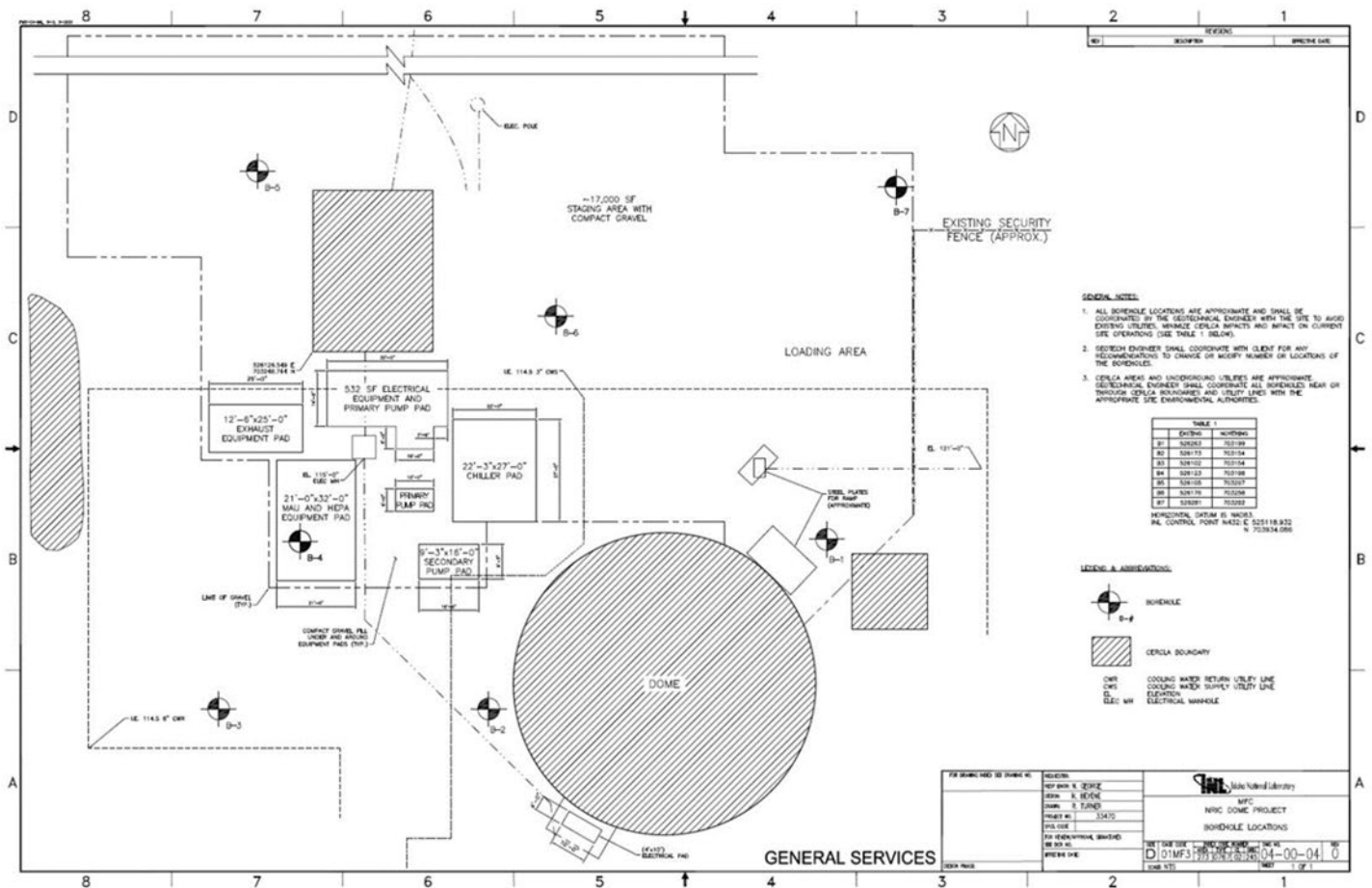
The purpose of this project is to perform a geotechnical investigation to better understand the subsurface conditions in the vicinity of the EBR-II Dome at MFC. The geotechnical investigation would identify and report representative subsurface conditions, analyze these conditions, and submit a detailed geotechnical report. The geotechnical report will provide design engineers with a geotechnical basis to design and construct future safe and dependable support facilities in the vicinity of the EBR-II Dome.

The investigation would sample and classify the soil strata, determine the presence or absence of bedrock, determine the allowable bearing pressure of the soil/rock at various depths, determine the total and differential settlement that may occur under assumed loadings, and identify conditions that would affect the design or construction of future projects.

The onsite work will involve several borings to a maximum depth of 100 ft. The following figure shows potential locations but are not limited to the described number of borings or locations.

Soil samples would be collected from each boring in order to perform laboratory tests and required evaluations.

In total the geotechnical investigation will be conducted using industry standards and best practices. Including, but not limited to, current American Society for Testing and Materials (ASTM): D-5434, D-1452, D-1586, D-1587, D-2488, D-3550 and D-2113 requirements.



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SECTION C. Environmental Aspects or Potential Sources of Impact:

Air Emissions

Project activities have the potential to generate fugitive dust. All reasonable precautions will be taken to control fugitive dust. If dust control methods are required, the date, time, location, and amount/type of suppressant used must be recorded in the project records. Personnel are responsible for working with the Program Environmental Lead to determine if any permitting requirements apply to generators and other equipment and, if necessary, obtaining the permit and maintaining a file of the documentation.

Discharging to Surface-, Storm-, or Ground Water

The proposed action has the potential to change storm water drainage patterns and soil porosity. These changes have the potential to cause soil erosion. However, minor soil erosion and changes in stormwater run-off is unlikely to impact groundwater quality. There are no wells in the project area that provide direct conduits to groundwater. There are no streams or other bodies of surface water in the project area. The proposed action does not include activities that physically or chemically alter surface water resources.

Wastewater discharges from the proposed facility modifications are not anticipated.

Disturbing Cultural or Biological Resources

A cultural resources review has been completed for this activity. Please see BEA-22-21.

Generating and Managing Waste

The CERCLA Waste generated would also be managed by WGS and would have a disposition path to Idaho CERCLA Disposal Facility (ICDF) or commercial disposal facilities.

Releasing Contaminants

Chemical use has the potential to result in spills to air, water, and soils. While not anticipated, spills of construction products, chemicals, petroleum, and PCBs may occur.

Using, Reusing, and Conserving Natural Resources

N/A

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SECTION D. Determine Recommended Level of Environmental Review, Identify Reference(s), and State Justification: Identify the applicable categorical exclusion from 10 Code of Federal Regulation (CFR) 1021, Appendix B, give the appropriate justification, and the approval date.

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, or similar requirements of Department of Energy (DOE) or Executive Orders; (2) require siting and construction or major expansion of waste storage, disposal, recovery, or treatment or facilities; (3) disturb hazardous substances, pollutants, contaminants, or Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)-excluded petroleum and natural gas products that pre-exist in the environment such that there would be uncontrolled or unpermitted releases; (4) have the potential to cause significant impacts on environmentally sensitive resources (see 10 CFR 1021). In addition, no extraordinary circumstances related to the proposal exist that would affect the significance of the action. In addition, the action is not “connected” to other action actions (40 CFR 1508.25(a)(1)) and is not related to other actions with individually insignificant but cumulatively significant impacts (40 CFR 1608.27(b)(7)).

References:

10 CFR 1021, Appendix B to subpart D, item B3.1, “Site characterization and environmental monitoring.”

Justification:

B3.1 “Site characterization and environmental monitoring (including, but not limited to, siting, construction, modification, operation, and dismantlement and removal or otherwise proper closure (such as of a well) of characterization and monitoring devices, and siting, construction, and associated operation of a small-scale laboratory building or renovation of a room in an existing building for sample analysis). Such activities would be designed in conformance with applicable requirements and use best management practices to limit the potential effects of any resultant ground disturbance. Covered activities include, but are not limited to, site characterization and environmental monitoring under CERCLA and RCRA. (This class of actions excludes activities in aquatic environments. See B3.16 of this appendix for such activities.) Specific activities include, but are not limited to: Geological, geophysical (such as gravity, magnetic, electrical, seismic, radar, and temperature gradient), geochemical, and engineering surveys and mapping, and the establishment of survey marks. Seismic techniques would not include large-scale reflection or refraction testing; Installation and operation of field instruments (such as stream-gauging stations or flow-measuring devices, telemetry systems, geochemical monitoring tools, and geophysical exploration tools); Drilling of wells for sampling or monitoring of groundwater or the vadose (unsaturated) zone, well logging, and installation of water-level recording devices in wells; Aquifer and underground reservoir response testing; Installation and operation of ambient air monitoring equipment; Sampling and characterization of water, soil, rock, or contaminants (such as drilling using truck- or mobile-scale equipment, and modification, use, and plugging of boreholes); Sampling and characterization of water effluents, air emissions, or solid waste streams; Installation and operation of meteorological towers and associated activities (such as assessment of potential wind energy resources); Sampling of flora or fauna; and Archeological, historic, and cultural resource identification in compliance with 36 CFR part 800 and 43 CFR part 7.”

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

Approved by Jason L. Anderson, DOE-ID NEPA Compliance Officer on: 04/27/2022