

DOE-ID NEPA CX DETERMINATION

Idaho National Laboratory

SECTION A. Project Title: Carbon Free Power Project (CFPP) Site Characterization (Revision 3)

SECTION B. Project Description and Purpose:

Revision 3

The purpose of this revision is to add planned work scope associated with changes to the core boring/well drilling locations proposed for completion in 2021, minor improvements to T-11 and access routes from T-11 to core boring locations, and expansion of area to be mowed prior to the continuation of drilling. For efficiency and clarity, this Environmental Compliance Permit (ECP) revision does not include all information discussed and analyzed in the prior versions. Previous revisions to this document (with additional graphics and descriptions) can be found in INL-19-067 R2, INL-19-067 R1, and INL-19-067. However, all Environmental Aspects and Impacts, Hold Points, and Project Specific Instructions are consistent between all versions of the CFPP revisions and are captured here in Revision 3 as well.

On-going CFPP design efforts have enlarged the facility footprint and shifted some of the planned core boring and well drilling locations outside of the originally proposed Location 2A area, which is now the preferred location of the CFPP facility. Specifically, the facility footprint has expanded in the southwestern and northeastern direction, and as a result, there are likely to be core boring activities and monitoring/testing well drilling activities which are no longer inside the bounds of Location 2A as shown on Figure 2-1. Mowing of vegetation in these expanded areas is planned in the spring of 2021 to mitigate risks of wildland fire and bird nesting activities during core boring and well drilling activities. Mowing of the areas surrounding the existing meteorological tower is also planned to facilitate laydown and repairs to the tower instrumentation. This mowing plan encompasses approximately 40 – 50 acres in Location 2A and areas immediately surrounding Location 2A, along with the aforementioned area immediately adjacent to the meteorological tower. All of the areas planned for mowing have only sparse sagebrush cover. While the majority of access for the planned work is expected to be via the T-11 roadway, access to the northeastern-most monitoring well locations may include use of the T-3 Stage Road and the Rocky Mountain Power transmission line road. Such a route would also provide a secondary egress pathway from the CFPP drilling sites out to Highway 33 in the event of wildland fire or other emergencies.

The current mowing plan is shown in the attachment; however, some further adjustments to the mowing plan locations may be needed to account for unsuitable site conditions and/or final designs. Prior to mowing, new cultural and biological surveys of the affected areas would be completed. Please note: there are two large non-uniform black shapes located on the map. These are areas designated as avoidance locations. Further instructions are in the Hold Points.

With regard to access route improvements, the main area of the CFPP's core boring site is accessed via an existing INL two-track access road (T-11) and a short overland (off-road) route extending roughly 0.4 miles eastward from the existing two-track road. Several rock outcroppings along the route make travel difficult for water truck support, and consequently slow drilling operations to a significant extent. Consideration is being given in work scope planning to improve the travel route by use of a skid-steer loader or a backhoe (with a bucket) to level and smooth areas of existing rock outcroppings on the overland route extending from the T-11 two-track to the main CFPP drill site.

Surface disturbance associated with leveling and smoothing is largely expected to be limited to depths of less than 12-inches, excepting some deeper pitting likely to be associated with the removal of larger rock fragments. The CFPP would limit improvements to a 0.5-mile segment of the T-11 two-track. This segment would extend from the termination point of previously completed improvements on T-11 (at a point approximately 0.46 miles south of State Highway 33) to the drill site turn off (approximately 0.96 miles from the intersection of T-11 and State Highway 33). Improvements along this segment would only include targeted (spotty) grading and leveling of particularly uneven track sections or locations with exposed boulders, and to placement of gravel on particularly problematic areas. We expect this gravel placement to be limited largely to the placement of 2 to 3 cubic yards of gravel on the first sharp elevation rise on the T-11 two-track, at a location with prominent surface exposures of rock. Placement of the gravel is also expected to be completed using a skid-steer loader or a backhoe with a bucket. Gravel will be spread only on the existing road surface, to fill-in low areas between rock exposures. Compaction is expected to be provided only by movement of vehicles across the surface.

The areas planned for the route access improvements have been previously surveyed for cultural resources and biological impacts. Also, the environmental footprint impacts associated with these activities will be largely enveloped by those already realized by initial core boring activities and overland travel in support of those activities to date. Areas identified in previous surveys will be avoided by all project related activities. Additionally, a physical barrier will be erected to ensure all vehicles will avoid the area near P124, P125, and P126.

The following attachment shows the areas needing mowed for 2021 in red. Since some of the areas are small and detailed, it is safe to assume total mowed areas may extend beyond the boundaries shown. A buffer should be considered when field surveys are completed.

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SECTION C. Environmental Aspects or Potential Sources of Impact:

AirProject activities have the potential to generate fugitive dust.

Mobile engine/generator sets used during Phase I activities are exempted from permitting in APAD INL -01-83 R1, Mobile Sources - Nonroad Engines - Generic Coverage for engines less than 294 hp and APAD INL-02-20, Mobile Sources - Nonroad Engines - Generic Coverage for gasoline engines less than 52 hp.

A truck mounted coring unit with an air compressor would be used to core the boreholes. Because drilling activities would be conducted several hundred feet below the surface, air pollutants from the boreholes are not anticipated. Emissions from the operations of mobile coring units and other heavy equipment are not regulated as stationary sources. No emission reporting is required. Emissions

Discharging to Surface-, Storm-, or Ground Water

Project activities discharge wastewater from well and borehole drilling operations to the ground.

Disturbing Cultural or Biological Resources

Soil disturbing activities have the potential to impact cultural resources.

Impacts to biological resources (e.g., vegetation, birds, nests, leks) have the potential to occur during project activities. The CFPP Site is within the SGCA.

Generating and Managing Waste

Project activities have the potential to generate industrial waste such as boxes, wiring, paper, insulation, and some metals (wire, conduit, etc.) and hazardous waste. Industrial waste would be properly managed and disposed.

Core drilling activities are expected to generate several hundred cubic feet of rock cuttings and drilling fluid, most of which would enter fractures in the boreholes. Drilling activities would also generate basalt and sediment core, which when no longer needed for project activities would be archived at the INL/USGS Core Storage Library for future studies.

Releasing Contaminants

Chemicals such as hydraulic oil may also be used. Because this project would use petroleum products and possibly other potentially hazardous industrial chemicals, there is the potential for release of small amounts of contaminants into the air, water, or soil. Although not anticipated, there is a potential for spills when using chemicals or fueling equipment. In the event of a spill, notify facility PEL. If the PEL cannot be contacted, report the release to the Spill Notification Team (208-241-6400). Clean up the spill and turn over spill cleanup materials to WGS (waste generator services), or otherwise manage and dispose of the waste in accordance with all applicable federal, state, and local laws, codes, and regulations.

Using, Reusing, and Conserving Natural Resources

Project personnel will use every opportunity to recycle, reuse, and recover materials and divert waste from the landfill when possible.

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, B1.24 "Property Transfers," B3.1 "Site characterization and environmental monitoring," and B3.2 "Aviation activities," and B1.13 "Pathways, short access roads, and rail lines."

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Justification:

Activities proposed for fall 2018 are consistent with 10 CFR 1021, Appendix B, B1.24, "Transfer, lease, disposition, or acquisition of interests in personal property (including, but not limited to, equipment and materials) or real property (including, but not limited to, permanent structures and land), provided that under reasonably foreseeable uses (1) there will be no potential for release of substances at a level, or in a form, that could pose a threat to public health or the environment and (2) the covered actions will not have the potential to cause a significant change in impacts from before the transfer, lease, disposition, or acquisition of interests."

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 a building for sample analysis). Such activities will 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:

- a) 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 will not include large-scale reflection or refraction testing;
- b) Installation and operation of field instruments (such as stream-gauging stations or flow-measuring devices, telemetry systems, geochemical monitoring tools, and geophysical exploration tools);
- c) 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;
- d) Aquifer and underground reservoir response testing;
- e) Installation and operation of ambient air monitoring equipment;
- f) 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);
- g) Sampling and characterization of water effluents, air emissions, or solid waste streams;
- h) Installation and operation of meteorological towers and associated activities (such potential wind energy resources assessments);
- i) Sampling of flora or fauna; and
- j) Archeological, historic, and cultural resource identification in compliance with 36 CFR part 800 and 43 CFR part 7.

B3.2, "Aviation activities for survey, monitoring, or security purposes that comply with Federal Aviation Administration regulations," and,

B1.13 "Construction, acquisition, and relocation, consistent with applicable right-of-way conditions and approved land use or transportation improvement plans, of pedestrian walkways and trails, bicycle paths, small outdoor fitness areas, and short access roads and rail lines (such as branch and spur lines)."

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

Approved by Jason Anderson, DOE-ID NEPA Compliance Officer on: 04/28/2021