SECTION A. Project Title: Wireless Test Bed Antennas at Energy Innovations Laboratory

SECTION B. Project Description and Purpose:

The proposed action would install high frequency (HF) antennas on the roof of the Energy Innovations Laboratory (EIL) and on the ground near EIL in support of the Wireless Test Bed. This Environmental Checklist (EC) covers installation and removal activities; it does not cover the research and development (R&D) activities conducted using the antennas. Each project using the antennas will require a separate, project-specific, EC.

The proposed action would install support stands, raceways, enclosures, cabling, bulkheads, and antennas on the roof and inside the labs of EIL. Antennas and mounting hardware would protrude approximately 12 ft above the roof membrane. The project would also install and remove a temporary 20-ft tall ground-mounted HF antenna with a footprint of approximately 150’ x 60’ south of EIL in an area owned by Idaho State University (ISU) (See Figure 1). The antenna could also be installed on the EIL lawn. The antenna is a mobile unit and would occasionally be removed and replaced. It would be anchored using guy wires to staked anchor points. At least one grounding rod would also be installed. The antenna would be operated from a vehicle parked near the antenna using a mobile power source and transmitter/receiver.

Figure 1. Area owned by ISU south of EIL

SECTION C. Environmental Aspects or Potential Sources of Impact:

Air Emissions

Emissions from construction activities are expected to be minimal. No asbestos work is anticipated. Emissions/fumes from common construction adhesives are anticipated. Emissions from portable generators are not regulated since the generator will be in place less than one year.

Disturbing Cultural or Biological Resources

Ground disturbance has the potential to disturb cultural and biological resources. Since the project is in previously disturbed soils, cultural surveys are not needed.

Generating and Managing Waste

Industrial waste, in the form of common construction debris, is expected.

Releasing Contaminants

Typical construction chemicals such as lubricants, paints, adhesives, etc., will be used during the project.
Using, Reusing, and Conserving Natural Resources

All applicable waste would be diverted from disposal in the landfill when possible. Project personnel would 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 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: National Environmental Policy Act (NEPA) Implementing Procedures, Final Rule, 10 CFR 1021, Appendix B to Subpart D, Categorical Exclusion B1.31 "Installation or relocation of machinery and equipment."

Justification: The proposed activities are consistent with CX B1.31 "Installation or relocation and operation of machinery and equipment (including, but not limited to, laboratory equipment, electronic hardware, manufacturing machinery, maintenance equipment, and health and safety equipment), provided that uses of the installed or relocated items are consistent with the general missions of the receiving structure. Covered actions include modifications to an existing building, within or contiguous to a previously disturbed or developed area, that are necessary for equipment installation and relocation. Such modifications would not appreciably increase the footprint or height of the existing building or have the potential to cause significant changes to the type and magnitude of environmental impacts."

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: 2/9/2016