

**DOE-ID NEPA CX DETERMINATION
Idaho National Laboratory**

SECTION A. Project Title: Wireless Test Bed (WTB) Long-Term Evolution (LTE) Tier III Cell On Wheels Purchase, Installation, and Testing

SECTION B. Project Description and Purpose:

The Idaho National Laboratory (INL) Wireless Test Bed (WTB) would procure and install a long-term evolution (LTE) Tier III Cellular system. This project would support research and development conducted by organizations such as Idaho National Laboratory (INL) National & Homeland Security (N&HS), State of Idaho Public Safety, National Public Safety, the Federal Program First Responder Network Program (FirstNet), and the interoperability of LTE Cellular and Verizon Wireless. This environmental checklist (EC) covers only system purchase, installation, training, testing and routine maintenance. Each project/customer test would require a separate, project-specific EC.

Electronic system components would be installed in the WTB building, Shelter 3, adjacent to Gate 1; these components would support use of the Cell On Wheels (COW) mobile units. The system would have three COWs used as portable LTE Cell sites. This work would support the acceptance testing of the three COWs and the associated cellular components on board each unit. Testing is planned for September-December 2015.

The N&HS/WTB group recently had fiber optic cable installed along the powerline from the Critical Infrastructure Test Range Complex (CITRC) area to the Security Training Facility (STF) area. This is Circuit 53. The COWs would be placed in previously disturbed locations that already have gravel, asphalt, disturbed dirt, or are located inside a fenced area to connect to the fiber for connectivity between them and the LTE Core Network, located at Gate 1 Shelter 3. No mowing would be required. Due to the COW tower needing to be erected to facilitate radio frequency (RF) emissions for testing, there would need to be at least a 50 foot or greater standoff distance from power line where the towers can be stood up to prevent electrocution hazards. The separation distance between each COW would be approximately equal.

The COWs would be parked in previously disturbed areas along the powerline. Each COW would have its own on-board 10 kilowatt-electric (kWe) diesel generator. The COWs would be set up in the proposed locations for approximately 2 weeks. Generators would only run as needed for actual testing and would be turned off at the end of each day. The COWs have a 60 foot tower which requires outriggers (stabilizer arms) to be swung out from the trailer for support. All guy wires would attach to the outriggers. This would create a footprint area of approximately 30 feet diameter. Proposed COW locations are identified in Figure 1.

Figure 1. Proposed COW locations.



SECTION C. Environmental Aspects or Potential Sources of Impact:

Air Emissions

Operation of diesel generators to power the COWs would result in minor air emissions. These engines are designated as mobile emission units. These units will be used at many locations across the INL and returned to storage several times a year.

Disturbing Cultural or Biological Resources

The COWs will be placed as depicted on Figure 1. Locations will be previously disturbed areas such as asphalt. No sagebrush will be impacted for this testing work. All locations will be reviewed by both Cultural and Biological Resources personnel before beginning work. Written recommendations made by resource personnel will be implemented. Project personnel will be reminded that disturbance of cultural resources is prohibited by Federal law.

Generating and Managing Waste

Installation and testing activities are expected to generate small quantities of packaging, scrap wire, insulation, and other related Solid Waste. All Solid Waste will be managed by Waste Generator Services (WGS). Scrap metal will be recycled to the extent practicable.

Using, Reusing, and Conserving Natural Resources

COWs will be placed to avoid damage to sagebrush and to minimize damage to other biological 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. The project would practice sustainable acquisition, as appropriate and practicable, by procuring construction materials that are energy efficient, water efficient, are bio-based in content,

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environmentally preferable, non-ozone depleting, have recycled content, or are non-toxic or less-toxic alternatives (see <http://www.sftool.gov/GreenProcurement>).

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: 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: 9/9/2015