CATEGORICAL EXCLUSION

200 EAST AREA COMMUNICATIONS TOWER AND INSTRUMENT TRAILER

HANFORD SITE, RICHLAND, WASHINGTON

PROPOSED ACTION

The U.S. Department of Energy (DOE) proposes to install a communications tower and supporting instrument trailer in 200 East Area to extend wireless coverage on the Central Plateau of the Hanford Site (hereafter referred to as the "proposed action").

A new *Worldwide Interoperability for Microwave Access* (WiMAX) radio system has been proposed for deployment at strategic locations across the Hanford Site to achieve fixed, nomadic, and mobile communication coverage (i.e., data, video, and voice). This will be accomplished by extending wireless infrastructure connectivity where it is not economically feasible to route physical infrastructure and avoid further land disturbance and potential impacts to cultural and ecological resources. The proposed action will support the WiMAX radio system network on the Hanford Site and enhance safety and security communication capabilities to meet mission requirements.

LOCATION OF ACTION

The location of the proposed action is approximately 100-feet directly west of MO-405 in 200 East Area of the Hanford Site. The communication tower and instrument trailer will be installed on an existing asphalt and concrete pad that formerly supported a mobile office building and associated parking lot. Figure 1 is an aerial photograph depicting the location of the proposed action.

DESCRIPTION OF PROPOSED ACTION

The proposed action will include the installation of a 120-feet high, self-supporting tower, tower foundation, grounding system, lightning protection system, and all necessary and incidental items required for a complete self-sustaining communications system. An instrument trailer will be relocated from another area on the Hanford Site to support the instrumentation mounted on the communications tower. The communications tower will house antennas and miscellaneous equipment that will be needed to expand the wireless coverage on the Central Plateau. Figure 2 is a ground-level photograph depicting the construction site for the proposed action. Figure 3 is a photograph depicting WiMAX antenna instrumentation that is typically installed.

Figure 1. Aerial Photograph Depicting the Location of the Proposed Action

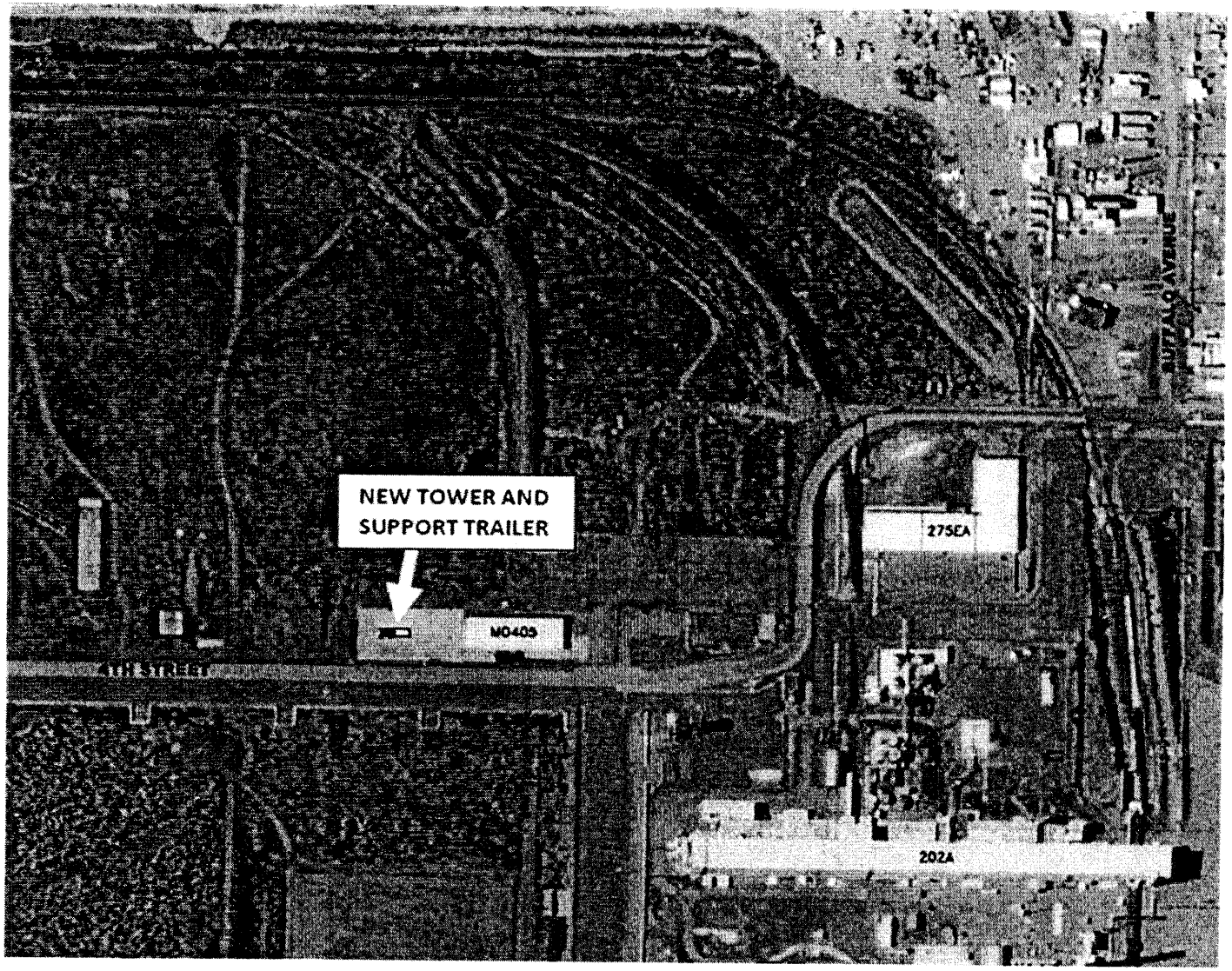


Figure 2. Ground-Level Photograph of the Proposed Action Site

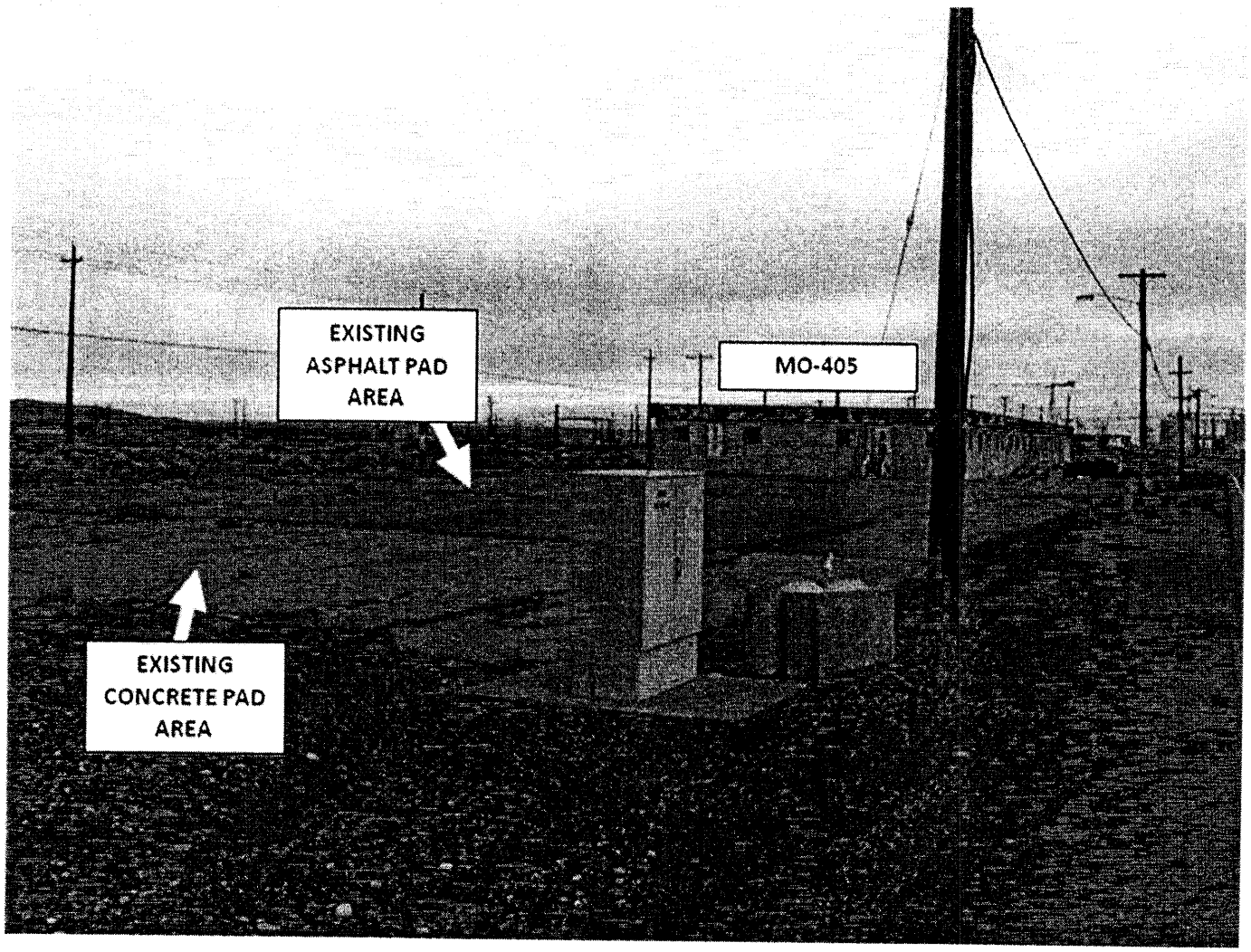
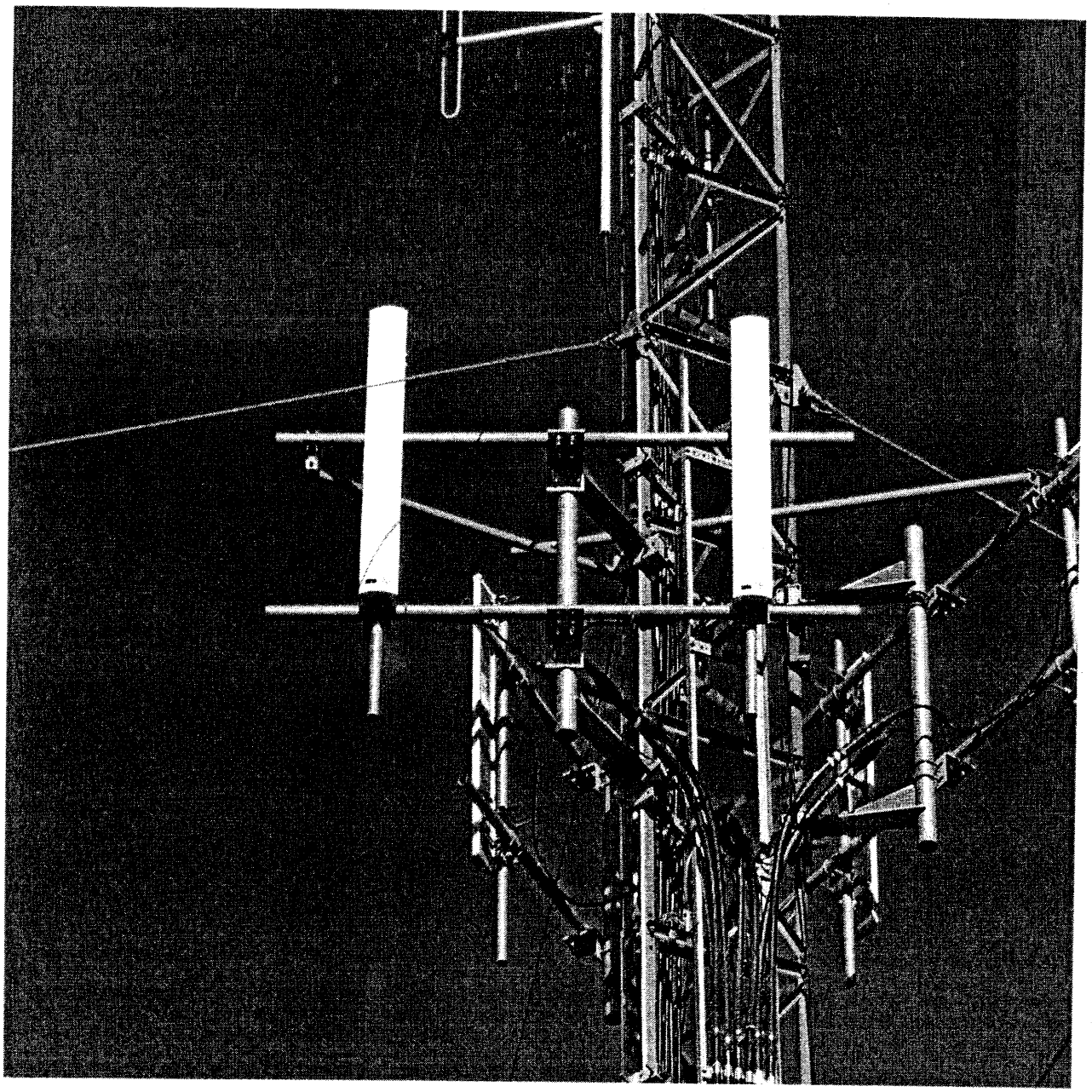


Figure 3. Photograph of Typical WiMAX Antenna Installation on Communications Towers



Excavation beneath the existing asphalt and concrete pad is required for the foundation of the tower and will measure, 32 feet wide by 32 feet long and 5 feet deep. The mobile trailer will be positioned to the east of the communications tower. The mobile trailer will be placed on top of the existing concrete and asphalt pad and will not require any subsurface utilities that will disturb the ground. The total duration of the project is scheduled for sixty days from start to finish. Work is anticipated to begin 2-3 weeks after contract award.

CATEGORICAL EXCLUSION TO BE APPLIED

The Categorical Exclusion (CX) listed in Title 10, Code of Federal Regulations (CFR) 1021, *National Environmental Policy Act Implementing Procedures,* Subpart D, Appendix B that will be applied to the proposed action described herein is B1.19. The authority for the regulation is 42 U.S.C. 7101 *et seq.*; 42 U.S.C. 4321 *et seq.*; and 50 U.S.C. 2401 *et seq.* The source for the regulation is 57 FR 15144, April 24, 1992, unless otherwise noted. Application of CX B1.19 to the proposed action is discussed further in the section entitled, "Eligibility Criteria."

B1.19 - Siting, construction, and operation of microwave and radio communication towers and associated facilities, if the towers and associated facilities would not be in an area of great visual value.

ELIGIBILITY CRITERIA

In applying categorical exclusions under the provisions of 10 CFR 1021.410(b) to specific proposed actions, DOE must determine that:

(1) The proposal fits within a class of actions that is listed in Appendix A or B to Subpart D of the regulation;

(2) There are no extraordinary circumstances related to the proposal that may affect the significance of the environmental effects of the proposal. Extraordinary circumstances are unique situations presented by specific proposals, such as scientific controversy about the environmental effects of the proposal; uncertain effects or effects involving unique or unknown risks; or unresolved conflicts concerning alternate uses of available resources within the meaning of section 102(2)(E) of NEPA; and

(3) The proposal is not "connected" [40 CFR 1508.25(a)(1)] to other actions with potentially significant impacts, is not related to other proposed actions with cumulatively significant impacts [40 CFR 1508.25(a)(2)], and is not precluded by 40 CFR 1506.1 or §1021.211 of the regulation.

The proposed action fits within the class of actions described in 10 CFR 1021, Subpart D, Appendix B, categorical exclusion B1.19; and the communications tower and instrument trailer will not be installed in an area of great visual value as documented in the cultural resources review. There are no extraordinary circumstances that may affect the significance of the

environmental effects of the proposed action. Also, the proposed action is not connected to other actions with potentially significant impacts, is not related to other proposed actions with cumulatively significant impacts, and is not precluded by 40 CFR 1506.1 or 10 CFR 1021.211.

The proposed action fits within the class of actions listed in 10 CFR 1021, Subpart D, Appendix B, categorical exclusion B1.19, as discussed above. For classes of actions listed in Appendix B, the following conditions are integral elements to fit within the class that must be addressed:

INTEGRAL ELEMENTS 10 CFR 1021, SUBPART D, APPENDIX B	
Would the Proposed Action:	Comment or explanation:
Threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, including requirements of DOE and/or Executive Orders?	No. The proposed action will comply with laws, regulations, permits, health and safety, DOE, and other applicable requirements. The communications tower will be designed and installed to safely withstand the meteorological conditions (i.e., wind speeds) typical of the Hanford Site to ensure stability and overall safety of operations.
Require siting and construction or major expansion of waste storage, disposal, recovery or treatment facilities (including incinerators)? The proposal may include categorically excluded waste storage, disposal, recovery or treatment actions.	No. The proposed action will not require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities.
Disturb hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products that preexist in the environment such that there would be uncontrolled or unpermitted releases?	No. The proposed action will not disturb hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products if they existed. There will be no uncontrolled or unpermitted releases.
Adversely affect environmentally sensitive resources including, but not limited to: (i) Property (e.g., sites, buildings, structures, objects) of historic, archaeological, or architectural significance designated by Federal, state, or local governments or property eligible for listing on the National Register of Historic Places; (ii) Federally-listed threatened or endangered species or their habitat (including critical habitat), Federally-proposed or candidate species or their habitat or state-listed endangered or threatened species or their habitat; (iii) Wetlands regulated under the Clean Water Act	No. The proposed action will not adversely affect environmentally sensitive resources. The proposed action will be implemented in an area that was previously disturbed and formerly contained a mobile office trailer and associated parking lot. Proposed actions will be conducted within the footprint of these formerly utilized areas on existing concrete and asphalt covered ground. The property upon which the proposed action will occur is not of historic, archaeological, or architectural significance and is not eligible for listing on the National Register of Historic Places. Federally listed threatened or endangered species and their habitats will not be affected by the proposed action; including federally proposed or candidate

(33 U.S.C. 1344) and floodplains; (iv) Federally- and state-designated wilderness areas, national parks, national natural landmarks, wild and scenic rivers, state and Federal wildlife refuges, and marine sanctuaries; (v) Prime agricultural lands; (vi) Special sources of water (such as sole-source aquifers, wellhead protection areas, and other water sources that are vital in a region); (vii) Tundra, coral reefs, or rainforests?	species, state listed endangered or threatened species, and their habitat. There will be no impacts of the proposed action on wetlands, floodplains, federal/state designated wilderness areas, national parks, national landmarks, wild/scenic rivers, wildlife refuges, marine sanctuaries, prime agricultural lands, special water sources, tundra, coral reefs, or rainforests.

CULTURAL AND BIOLOGICAL RESOURCES REVIEW

Cultural Resources Review

The proposed action will be implemented in areas previously disturbed by excavation and installation of a concrete and asphalt pad in support of a mobile office trailer and associated parking lot. The areas surrounding the concrete and asphalt pad have also been highly disturbed and all of these areas have a low potential to contain cultural resources. While the project area has not been surveyed, areas adjacent to it on the north, west, and south sides have been investigated in the past by cultural resources staff. One archaeological isolate and one archaeological site were found to be located within 500 meters of the project area. Both were found to be at a distance of 1328 feet south of the project area. It was determined that project related activities were at a distance far enough away that there will be no impact to these cultural resources from activities associated with the WiMAX tower installation.

An investigation for adverse visual impacts from the installation of the communications tower was also performed. It was found that a number of other buildings within the vicinity of the project area stand much taller than the proposed communication tower. Because of this, it was determined that the installation of the WiMAX tower would not have an adverse visual effect to the surrounding landscape.

Based on this information, a *No Potential to Cause Effect Finding* was recommended and sent to the DOE Hanford Cultural Resources Program Manager. On April 16, 2010 the DOE Hanford Cultural Resources Program Manager responded and determined that in accordance with 36 CFR Part 800, Subpart B 800.3.a, the proposed action is not the type of undertaking with potential to cause effects to historic properties and no further actions are required. For tracking purposes, the DOE Hanford Cultural Resources Program has assigned NPCE# 2010-200-026 to the cultural resources review for this project.

Workers will be directed to watch for cultural materials (e.g., bones, shell, artifacts, etc.) during all work activities. If any cultural materials are encountered, work in the vicinity of the

discovery will stop until a qualified Hanford Site cultural resource specialist has been notified, assessed the significance of the find, and if necessary, arranged for mitigation of the impacts to the find.

Biological Resources Review

The proposed action will be implemented in areas previously disturbed by excavation and installation of a concrete and asphalt pad in support of a mobile office trailer and associated parking lot. Construction of the proposed communications tower and support trailer on the existing concrete and asphalt pad adjacent to MO-405 is not likely to result in adverse ecological or biological impacts. However, there is a slight potential for ground nesting birds, such as killdeer or common nighthawks, to use the cracks and open dirt/gravel patches scattered over this site.

The proposed actions will be conducted in a manner to avoid spreading noxious weeds into non-infested areas of the Hanford Site. Also, if any nesting birds are encountered or bird defensive behaviors are noted, a qualified Hanford Site biological resources specialist will be contacted for further consultation and direction.

Potential Environmental Impacts Considered

The following checklist summarizes potential environmental impacts that were considered. Explanations for all "YES" responses are provided at the end of this section.

IMPACT TO AIR

	Would the proposed action:	YES	NO
1.	Result in more than minor and temporary gaseous discharges to the environment?		X
2.	Release other than nominal and temporary particulates or drops to the atmosphere?		X
3.	Result in more than minor thermal discharges?		X
4.	Increase offsite radiation dose to >0.1 mrem (40 CFR 61 Subpart H)?		X

IMPACT TO WATER

	Would the proposed action:	YES	NO
5.	Discharge any liquids to the environment?		X
6.	Discharge heat to surface or subsurface water?		X
7.	Release soluble solids to natural waters?		X
8.	Provide Interconnection between aquifers?		X
9.	Require installation of wells?		X
10.	Require a Spill Prevention Countermeasure and Control Plan (40 CFR 112 and 761).		X
11.	Violate water quality standards (WAC 713-200, Table 1)		X

IMPACT TO LAND

	Would the proposed action:	YES	NO
12.	Conflict with existing zoning or land use?		X
13.	Involve hazardous, radioactive, PCB, or asbestos waste?		X
14.	Cause erosion?		X
15.	Require an excavation permit?	X	
16.	Disturb an undeveloped area?		X

GENERAL

	Would the proposed action:	YES	NO
17.	Disturb Arid Lands Ecology or Wahluke Slope Reserves		X
18.	Cause other than a minor increase in noise level?		X
19.	Make a long-term commitment of large quantities of nonrenewable resources?		X
20.	Require new utilities or modifications to utilities?	X	
21.	Use pesticides, carcinogens, or toxic chemicals?		X
22.	Require a radiation work permit?		X

The following are explanations for all "YES" responses in the potential environmental impacts considered above:

15. **Require an excavation permit** – The proposed action will be awarded as a "design/build" contract. The contractor will excavate through the existing asphalt pad to provide a stable foundation for the communications tower. In accordance with Hanford Site procedures and protocols, ground disturbing activities will require an excavation permit. Workers will be directed to watch for cultural materials (e.g., bones, shell, artifacts, etc.) during all work activities. If any cultural materials are encountered, work in the vicinity of the discovery will stop until a qualified Hanford Site cultural resource specialist has been notified, assessed the significance of the find, and if necessary, arranged for mitigation of the impacts to the find.

20. **Require new utilities or modifications to utilities** – The proposed action will utilize existing electrical, telephone, and Hanford Local Area Network services available at the site. Modifications to these utilities will be conducted, as needed, to support the proposed action.

DETERMINATION

Based on my review of information conveyed to me and in my possession concerning the proposed action, as NEPA Compliance Officer authorized under DOE Order 451.1A, I have determined that the proposed action fits within the specified class of actions described in 10 CFR 1021, Subpart D, Appendix B, categorical exclusion B1.19; and satisfies the requirements of 10 CFR 1021.410(b). The proposed action is hereby categorically excluded from further NEPA review.

Ralph W. Russell 5/4/10

R. W. Russell III, NEPA Compliance Officer
Environmental Compliance Division
DOE-Office of River Protection

Date

cc:

J. W. Cammann
M. E. Carlson
R. J. Carriera
D. E. Havens
D. J. Rains
J. A. Van Orton