

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

SECTION A. Project Title: USG 113 Gannett R4

SECTION B. Project Description and Purpose:

Revision 4: New locations

Gannett R1	43.5541	-112.8535	(just outside of CITRC Fence west of PBF-623)
Gannett R2	43.528	-112.711	(just past buttes historical site sign)
Gannett R3	43.426	-112.740	(east of US26 across from table legs)
Gannett R4(highway loop)	43.519	-112.910	(NW of Van Buren right across from where you enter the highway loop)
Gannett R5	43.541	-112.968	(north of VanBuren just before corner leading to Gate 3)

Revision 3:

This revision identifies two new/alternate locations for testing. The new locations will reduce crowding and potential conflicts with other projects within the CITRC fence.

This revision incorporates a new set of locations for the affected equipment from Revision 2 that was identified at PBF-612 (signal generator and antenna on roof) and in the field east of PBF-622. This equipment has been referred to as "first test" equipment in previous revisions of this EC.

The project plans to move their equipment from PBF-612 to Cell Site 6 (Signal Generator in a rack that will be inside) and an antenna that will be moved from the roof of PBF-612 to the existing mast at cell site 6. The project also plans to move their field device about 500 meters east and slightly north of the current location, so it is outside of the fence and still has line of sight to Cell Site 6.

The specific locations for the "first test" equipment will be as follows:

Signal Generator: the signal generator cabinet will be located inside of shelter #1 at Cell Site 6

Antenna: The antenna will be installed on the existing 60' wood mast adjacent to shelter #1.

Field device: the field device (a radio frequency transmitting device) will be installed in the field just outside of the CITRC fence, near the fence corner east of PBF-622/623.

The approximate UTM coordinates for the field device are 43.553, -112.852. See Figure 3-1 for the approximate locations.

Figure 3-1. New locations of equipment and test devices



This test remains the same as in Revision 2 in that the field device will be partially buried in a 2' x 2' area and about 8" deep. Personnel will access the field device by driving the fence line road and then walking a short distance to the device.

The rest of test locations discussed in the previous revisions of this ECP may get used again in the future. Previous locations may be used in accordance with identified hold points and project specific instructions.

Revision 2

This revision evaluates a new set of tests at different locations and does not include activities discussed in the original environmental checklist (EC) or Revision 1. Some locations were used in previous tests. The first test utilizes a previously installed antenna on the roof of PBF-612 and a location east of PBF-622. The test buries a radio frequency transmitting device in an area about 2' x 2' and about 8" deep. A utility vehicle will transport the device to the test location. Cultural resource personnel will survey the utility vehicle travel path and the test location before and during excavation of the hole and must be present during retrieval of the device. The approximate UTM coordinates for the device are 43.550605, -112.857392. See Figure 2-1 for the approximate locations.

Figure 2-1 Test 1 Test Locations.



The second set of test locations will utilize a site on East Butte and a corresponding site southeast of the Central Facilities Area off the side of Highway 20 near Gate 3. Both are previously disturbed areas. The East Butte location will employ a 25-ft telescoping tower, with a drive-over base, and a small generator. The location near CFA will use a tripod mounted antenna approx. 1 meter tall with a spectrum analyzer.

As part of the testing a vehicle will be roving along state highways, site roads and T-roads. Transmission will occur from the East Butt location. One vehicle will stop and deploy a receive antenna with spectrum analyzer at the following locations from 17-19 OCT.

UTM Coordinates

43.5726 -112.65777 A

43.75922 -112.77345 B

43.85622 -112.74853 C

43.51461 -112.76451 E

43.49449 -113.03106 F

43.58794 -113.40106 H

43.59693 -113.13791 W

43.99722 -112.70935 Y

43.92515 -112.77396 Z

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The site on East Butte is shown in Figure 2-2.

Figure 2-2. East Butte Test Location.



Revision 1:

This revision addresses a new set of tests in two different areas. In the first area two distinct locations will be used. A transmitter will utilize an antenna installed on the roof on PBF-612. The corresponding receiver will be an antenna buried in the ground east of PBF-623. The area of disturbance is approximately 0.5 ft² and approximately 6 inches deep. The receiver location will be just off of the asphalt parking lot in a previous disturbed area and will avoid CERCLA site PBF-21, even though it has no institutional controls associated with it. No sagebrush will be disturbed. See Figure 1-1 for detail on the locations.

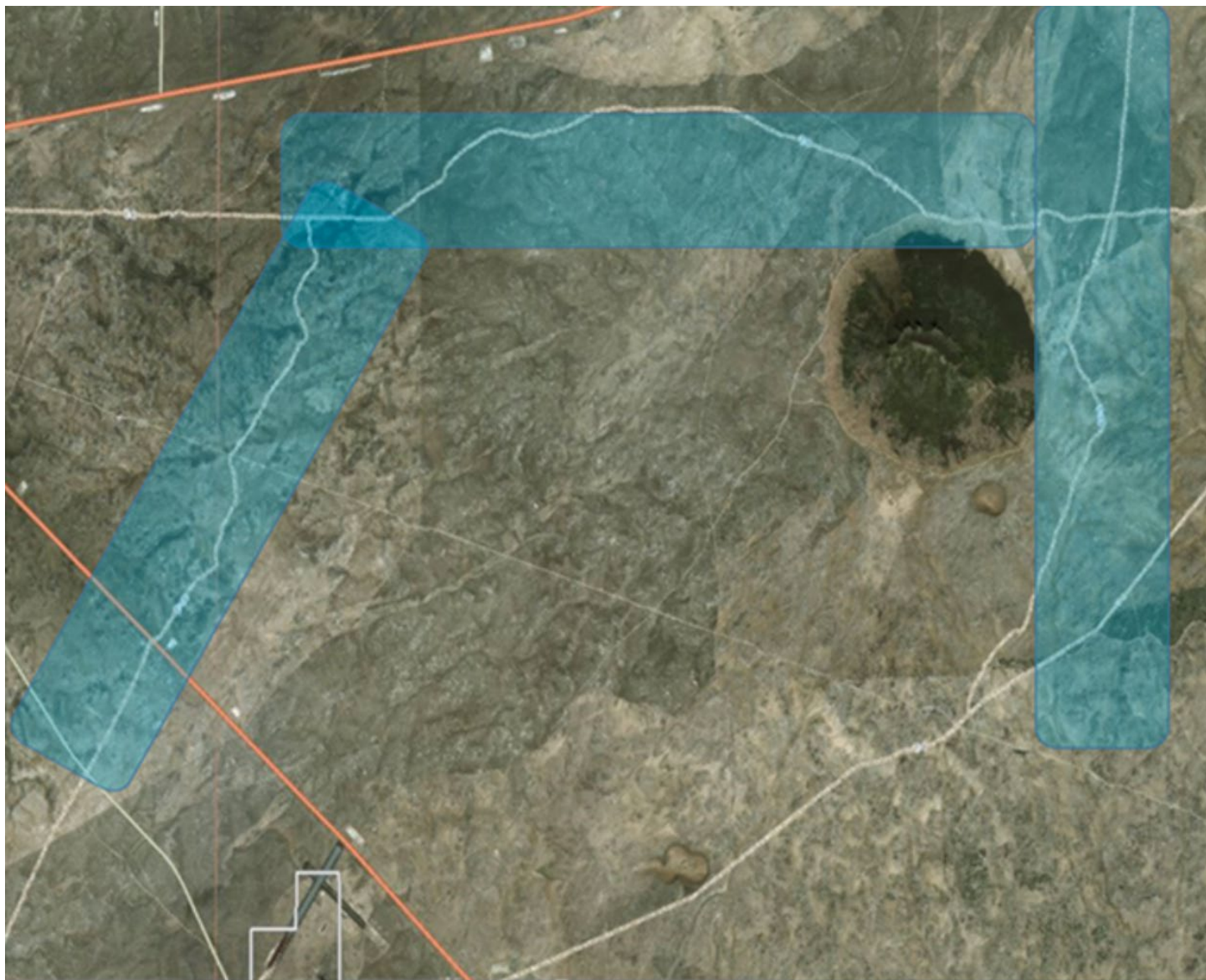
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Figure 1-1. PBF locations.



The second area is located near Middle Butte. The testing will utilize the T-roads surrounding Middle Butte. The Troads involved are T-4, T-6 or T-19. The transmitter will use a deployable 25-ft tall mast that use the transport vehicle as a counterweight. A 3 KW portable generator, in the bed of the truck, will provide power. The corresponding receiver will be an antenna buried in the ground just off the T-road. The area of disturbance is approximately 0.5 ft² and approximately 6 inches deep. The distance between the transmitter and receiver will be varied between 0.5 to 1.5 miles. See Figure 1-2 for detail on the potential locations.

Figure 1-2. Middle Butte Locations.



Original EC:

The goal of this research and development effort is to verify customer equipment and perform RF measurements. INL support will be logistical and technical. Normal hours of operation are planned from 0700 - 1800 hours.

The test includes a customer provided, telescoping 25 ft antenna deployed by driving a vehicle over the stand. The mast is hand deployed. The transmitter and mast will be located at the top of East Butte. A 2KW generator, placed in an approved metal pan designed for accidental spill containment, powers the transmitter. The antenna will be removed after test completion. To conduct testing, two receivers will be mounted to trucks that will stop at various points along the testing route(s) to take measurements. The vehicles will not leave the road. Potential routes for the vehicles/receivers are:

1. T-3 road east of Taylor Blvd
2. T-24 road west of the intersection with T-3 to Fillmore Blvd
3. T-6 from State Hwy 26 to the intersection with T-19
4. T-18 from State Hwy to the intersection of T-6.

A backup transmitter utilizing a 106 ft. tower will be placed on the paved road surface at the south end of Fillmore Blvd (ARA-I Area) as shown in Figure 1. This location is about 3 km from the nearest sage grouse lek buffer area but is within the Sage-grouse Conservation Area (SGCA) as shown in Figure 2. A grounding rod will be required at this location and we placed as close to the road as possible. A subsurface investigation and cultural and biological resource review are required for insertion of the grounding rod. A trailer mounted gas 7KW generator will be used to raise the tower mast. A smaller generator would

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be used for actual operation of the transmitter. All activities associated with the tower will be in accordance with the equipment owner's (Rich Watson, LSC) laboratory instruction. The project must remove the tower when the proposed activity is completed.

Figure 1. Location of backup transmitter on Fillmore Blvd near ARA-I.



Figure 2. Distance of backup transmitter from nearest lek.



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SECTION C. Environmental Aspects or Potential Sources of Impact:

Air Emissions

Gas-fueled portable electrical generators will release air emissions. These portable sources will be in place for less than a year. These emissions are exempt from air permitting evaluations.

Discharging to Surface-, Storm-, or Ground Water

NA

Disturbing Cultural or Biological Resources

There is the potential for this work to impact vegetation and for project personnel to interact with various wildlife species. A Biological Resource Review will be arranged within two weeks prior to the initiation of any activities that might disturb soil or vegetation and again following completion of project activities. A nesting bird survey is included with the Biological Resource Review for actions occurring between April 1 - October 1 per compliance with the Migratory Bird Treaty Act. Bat surveys are also included with the Biological Resource Review in accordance with the INL Bat Protection Plan. Please refer to the completed cultural resource report BEA-22-32 regarding this project. Activities described in the scope have the potential to disturb biological and cultural resources.

Generating and Managing Waste

This work is expected to generate small amounts of common office trash. Trash will be disposed in WGS-provided containers at CFA.

Releasing Contaminants

Typical construction chemicals such as fuels, lubricants, adhesives, concrete, concrete cure, asphalt, etc., will be used and will be submitted to chemical inventory lists with associated Safety Data Sheets (SDSs) for approval in the vendor data system prior to use. The facility Chemical Coordinator will enter these chemicals into the INL Chemical Management Database. All chemicals will be managed in accordance with laboratory procedures. When disposition in surplus chemicals, project personnel must contact the facility Chemical Coordinator for disposition instructions.

Although not anticipated, there is a potential for spills when using chemicals or fueling equipment. In the event of 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.

Using, Reusing, and Conserving Natural Resources

All materials would be reused and/or recycled where economically practicable. All applicable waste would be diverted from disposal in the landfill where conditions allow.

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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:

B1.19 "Microwave, meteorological, and radio towers", B3.11 "Outdoor tests and experiments on materials and equipment components"

Justification:

B1.19 Microwave, meteorological, and radio towers. Siting, construction, modification, operation, and removal of microwave, radio communication, and meteorological towers and associated facilities, provided that the towers and associated facilities would not be in a governmentally designated scenic area (see B(4)(iv) of this appendix) unless otherwise authorized by the appropriate governmental entity.

B3.11 Outdoor tests and experiments on materials and equipment components. Outdoor tests and experiments for the development, quality assurance, or reliability of materials and equipment (including, but not limited to, weapon system components) under controlled conditions. Covered actions include, but are not limited to, burn tests (such as tests of electric cable fire resistance or the combustion characteristics of fuels), impact tests (such as pneumatic ejector tests using earthen embankments or concrete slabs designated and routinely used for that purpose), or drop, puncture, water-immersion, or thermal tests. Covered actions would not involve source, special nuclear, or byproduct materials, except encapsulated sources manufactured to applicable standards that contain source, special nuclear, or byproduct materials may be used for nondestructive actions such as detector/sensor development and testing and first responder field training.

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: 4/11/2023.