DOE-ID NEPA CX DETERMINATION
Idaho National Laboratory

CX Posting No.: DOE-ID-INL-21-139

SECTION A. Project Title: RRTR- Radiological Response Training Range

SECTION B. Project Description and Purpose:

Radiological response training needs at RRTR continue to evolve with new emerging threats. Current and potentially new customers, which include military, law enforcement, homeland security, and emergency responders, indicate the need for radiological training in an environment around structures simulating a city environment. To support this need, an unmined area in the gravel pit in the south-west corner of RRTR would be graded. Reconfigurable structures would be utilized to establish a training scenario to meet the customer needs- see Figure 1 for location.

No changes in radiological materials or quantities are proposed beyond those described in EA-2063 "Final Environmental Assessment for Expanding Capabilities at the National Security Test Range and the Radiological Response Training Range at Idaho National Laboratory." Short half-life isotopes would typically be dispersed in a 'contained detonation' as described in EA-2063; although uncontained dispersals could be performed depending on potential impacts to the other training locations within RRTR. There will also be 4 shade covers that will be located within RRTR that are displayed in Figure 2 and Figure 3. The project will be purchasing cargo containers for the cityscape. The work will take place in both grubbed (purple shaded area) and ungrubbed (orange shaded) areas shown in Figure 1. The cityscape will be constructed in the grubbed area and sealed sources will be used in the ungrubbed area.

This action does not expand the size of RRTR and does not disturb areas not previously analyzed in the EA 2063.

Upgrades would include:

- Grading of the pad as shown in the map (graded material would remain within the RRTR). This would involve loss of previously disturbed vegetation which has already been analyzed as a loss in EA-2063.

- Training scenario materials such as metal beams, equipment, vehicles, cargo containers, etc.,) would be relocated from other training pads at RRTR or NSTR, from other site locations, from INL property excess, or procured from off-site vendors. All would be absent of hazardous materials that could impact the environment. Stacked cargo containers and other taller structures would be anchored (typically using cables and concrete blocks) to prevent the tipping due to high winds.

- Background sampling, once the site is leveled, would be performed to establish background levels in the area shown in Figure 1 as required by EA-2063.

Figure 1. Location of Radiological Response Training.

Figure 2. Display of shade cover.

Figure 3. Shade cover base.

Construction and operation of the RRTR was analyzed in the "Final Environmental Assessment for Expanding Capabilities at the National Security Test Range and the Radiological Response Training Range at Idaho National Laboratory (DOE/EA-2063, December 2019). The training materials that will be relocated and removed is authorized under the EA-2063 with proper disposal procedures (DOE/EA-2063 p. 63).

The proposed action has the potential to generate particulate emissions (i.e., dust) from bulldozing, grading, excavating, and dumping during construction and additional grading for road maintenance. To reduce the potential for fugitive dust, construction crews apply water during soil disturbance. In addition, the proposed action covers soils, replants after construction before erosion becomes advanced, and uses engineering controls (e.g., geotextiles) or other methods to prevent fugitive dust and blowing sand. All portable/mobile generators used during construction and operations activities would be removed

within 1 year of installation. To minimize dispersals and areas of effect, weather conditions are monitored at the Ranges, and testing and training are postponed as necessary. Project activities are subject to air permitting applicability determinations and additional reviews to limit environmental impacts. The proposed action does not allow releases that exceed the limitations of the EA (e.g., require an air permit, exceed the CERCLA reportable quantity, exceed groundwater or drinking water standards in the aquifer, or exceed CERCLA screening levels in soil. The proposed action does not install any stationary air pollution sources but does produce air contaminants from construction and operations activities(DOE/EA-2063 p.42).

The Final Idaho National Laboratory Radiological Response Training Range Environmental Assessment and FONSI (DOE-ID, 2010) analyzed effects to air quality from initial operations of RRTR such as fugitive dust, criteria pollutants, and toxic pollutants and found only minimal impacts to air quality (DOE/EA 2063 p. 45).

Soils monitoring at the Ranges will take place at least every 2 years for at least two rounds of monitoring. Based on the results, monitoring frequency may be either increased to annually or decreased. Soil monitoring and sampling will also be performed no less than every 5 years to verify radionuclide, chemical, and explosive constituent concentrations do not approach ecological screening levels or PRGs. If concentrations approach ecological screening levels or Preliminary Remediation Goals (PRGs), soils will be removed and placed in a licensed disposal facility. Using the ecological screening levels and residential PRG verifies human health and the environment will be protected when training at the Ranges is complete. Monitoring and sampling will continue to be evaluated at a minimum of every 5 years to determine whether a release or substantial threat of a release of testing and training constituents poses an imminent and substantial threat to human health or the environment. Cumulative impacts to soils are not anticipated (DOE/EA-2063 p. 80).

Soil sampling at the INL Site is completed on a 5-year rotation to evaluate long-term accumulation trends and to estimate environmental radionuclide inventories. Data from previous years of soil sampling and analysis on the INL Site show no evidence of detectable concentrations depositing onto surface soil from ongoing INL Site releases (DOE, 2018). Figure 2 displays the RRTR soil survey completed in the EA-2063 (DOE/EA-2063 p. 35).

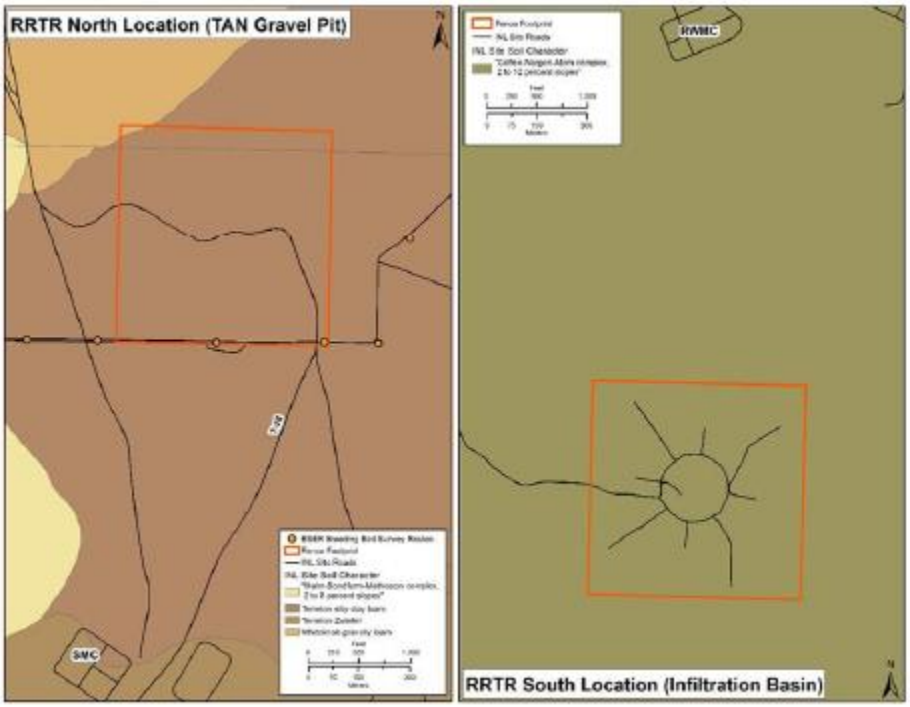

Figure 2. Soils at RRTR locations (DOE/EA-2063 p. 37).

The waste that will be generated at RRTR (DOE/EA-2063, p. 73,74):

- Hazardous Waste Management. Operational changes at NSTR and RRTR have the potential to generate the following types of waste: (1) common trash, (2) low-level radioactive waste, and (3) liquid waste. Routine office trash and non-radioactive personal protective equipment are disposed of at the state regulated INL Site landfill.
- Non-liquid, low-level radioactive waste includes personal protective equipment used during radiological response training and sample material generated during radiological response training (i.e., analytical waste, soil, and wipes). Non-liquid low-level radioactive waste is disposed according to DOE procedures.
- Liquid low-level radioactive waste includes water used to decontaminate personnel exiting the radiological response training area, liquid laboratory analytical waste, and sewage. Low-level decontamination water is stored per DOE procedures to allow decay to background levels of the radioactive constituents.
- After decay, decontamination wastewater is disposed at the CFA Sewage Treatment Plant (STP), since requirements do not allow disposal of decontamination wastewater off the INL Site. Laboratory analytical waste is solidified, allowed to decay if radioactive, and disposed of at the state-regulated INL Site landfill; none of the waste is expected to be classified as hazardous waste.

SECTION C. Environmental Aspects or Potential Sources of Impact:

Air Emissions

There will be emissions from the heavy equipment and generators. Since the generator is temporary (in place for less than 12 months) it is not regulated. Fugitive dust will be generated during construction of the project. Radiological emissions will be generated during the training. In addition, under Federal regulation 40 CFR 61 Subpart H, airborne radionuclide emissions from all INL Site operations must not exceed amounts that would cause any member of the public to receive an annual ED equivalent of 10 mrem/year.

Discharging to Surface-, Storm-, or Ground Water

N/A

Disturbing Cultural or Biological Resources

When ground disturbing activities are performed, even in previously disturbed soils, there is potential to impact cultural resources. Mowing is a ground disturbing activity and removes vegetation impacting biological resources. Surveying will need to be conducted to follow Migratory Bird Act guidelines in refraining from impacting biological resources.

Generating and Managing Waste

Operational changes at RRTR have the potential to generate the following types of waste: common trash, low-level radioactive waste, and liquid waste. Routine office trash and non-radioactive personal protective equipment are disposed of at the state-regulated INL Site landfill. Non-liquid, low-level radioactive waste includes personal protective equipment use during radiological response training and sample material generated during radiological response training (i.e., analytical waste, soil, and wipes). Non-liquid low-level readioactive waste is disposed according to DOE procedures. Laboratory analytical waste is solidified, allowed to decay if radioactive, and disposed of at the state-regulated INL Site landfill; none of the waste is expected to be classified as hazardous waste.

Releasing Contaminants

Liquid low-level radioactive waste includes water used to decontaminate personnel exiting the radiological response training area, liquid laboratory analytical waste, and sewage. Low-level decontamination water is stored per DOE procedures to allow decay to background levels of the radioactive constituents. Decontamination wastewater is disposed at the CFA Sewage Treatment Plant (STP), since requirements do not allow disposal of decontamination wastewater off the INL Site.

Using, Reusing, and Conserving Natural Resources

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

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)).

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References: Final Environmental Assessment for Expanding Capabilities at the National Security Test Range and the Radiological Response Training Range at Idaho National Laboratory (DOE/EA-2063).
The R&D activities identified in this ECP are covered by B1.2 "Training excercises and simulations." and B3.11 Outdoor tests and experiments on materials and equipment components.

Justification: Project activities with range enhancements described in this ECP were analyzed in "Final Environmental Assessment for Expanding Capabilities at the National Security Test Range and the Radiological Response Training Range at Idaho National Laboratory (DOE/EA-2063), and

B1.2 Training exercises and simulations. Training exercises and simulations (including, but not limited to, firing-range training, small-scale and short-duration force-on-force exercises, emergency response training, fire fighter and rescue training, and decontamination and spill cleanup training) conducted under appropriately controlled conditions and in accordance with applicable requirements, and

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: 12/2/2021