DOE-ID NEPA CX DETERMINATION
IDAHO NATIONAL LABORATORY

CX Posting No.: DOE-ID-ICP-18-002

SECTION A. Project Title: INTEC – Detention Basin Construction

SECTION B. Project Description

The proposed action will expand an existing storm water detention basin and improve drainage of the area south of CPP-653 which will prevent storm water run-off from entering the roadway on Ash Avenue. Improving the storm water drainage from this area will allow uninterrupted fuel transfers and mitigate safety concerns. Currently storm water run-off is channeled to a depression directly south of Ash Avenue. However, the existing depression is not capable of holding a large quantity of run-off that is typical after a high precipitation event and storm water will pond on the roadway. The proposed detention basin will be located at the site of the existing depression on the south side of the road near CPP-653 within the Idaho Nuclear Technology and Engineering Center (INTEC) at the Idaho National Laboratory.

Specific Actions:

- Excavate and remove soil at the existing depression site. The approximate area will be 40 ft x 45 ft x 5 ft deep with a 3:1 slope on all sides.
- Cover the sides of the detention basin with a material (i.e. rip-rap) to prevent erosion into the basin. The basin bottom will remain bare to allow storm water to infiltrate into the subsurface.
- Grade/excavate the immediate area to drain towards the detention basin and extend current water channels.
- Place barriers around basin to prevent vehicles from entering the area.

SECTION C. Environmental Aspects / Potential Sources of Impact

1. Air Pollutants - Fugitive dust emissions will be generated from excavation, grading, transport, and other soil disturbance activities. All fugitive dust emissions will be controlled.

Mobile equipment includes excavators and transport vehicles, which are powered by diesel and unleaded fuels. Mobile equipment is considered mobile internal combusiton engines per IDAPA 58.01.01.222.02.e and is exempt from State of Idaho air permiting requirements.

Radionuclide Emissions – Soils disturbed during the detention basin excavation will be screened for the potential presence of radionuclides. While no radiological contamination is expected, the results of soil gamma screeening analyses will be used to determine if reporting of fugitive radionuclide emissions from these activities is warranted.

3. Radionuclide Release/Protection of the Public and the Environment – The detention basin excavation could release radionuclides to the environment however, the potential is very low. Releases would not exceed as low as reasonably achievable goals as the releases will likely be far below applicable regulatory standards (e.g., NESHAPS) and satisfy the exemption criteria**.**

4. Chemical Use and Storage - Chemicals will include petroleum products. As applicable, project personnel will use non-hazardous chemical substitutes in place of hazardous chemicals as long as the non-hazardous substitutes meet the requirements/specifications of the project. Spill prevention/ minimization measures will be employed during storage and chemical use.

5. Contaminated Sites Disturbance - The excavation of the detention basin will disturb soil. Soil disturbances at INTEC require the completion of a Notice of Soil Disturbance. Soil disturbance will be coordinated with appropriate personnel (see Section E., Conditions #1 for additional guidance).

7. Discharge to Wastewater Systems or Groundwater - There is a potential for discharge of petroleum products to the surface or groundwater during project activities. However, spill prevention/minimization measures will be employed during removal activities (i.e. secondary containment, absorbent pads, etc.) thereby any potential discharge to a wastewater system or groundwater is highly unlikely.

The construction of the detention basin and improvements to the drainage of the surrounding area are to better manage storm water run-off. It is anticipated that the drainage area is approximately five feet deep and constructed using native

soil and gravel, allowing storm water to infiltrate into the subsurface. Because its largest surface dimension is greater than five feet, the drainage area is not classified as a shallow injection well.

The detention basin and drainage areas are located outside the CERCLA-designated recharge control zone and a sufficient distance from adjacent wells. The detention basin will be designed to divert storm water that currently ponds on the road south of the CPP-653. As the activity will only divert storm water and is not intended for other wastewater discharges as defined in IDAPA 58.01.16, this detention basin is not classified as a wastewater system.

9. Waste Generation and Management – Although unlikely any hazardous waste generated during the proposed project (i.e. petroleum-contaminated soil) will be stored, treated, and/or disposed in compliance with applicable RCRA regulations at an EPA permitted treatment, storage, and disposal facilitiy in accordance with the facility's waste acceptance criteria.

Although not expected, radiological-contaminated soil may be encountered resulting in radioactive waste. Any contaminated soil would be isposed of at the Idaho CERCLA Disposal Facility (ICDF)

Construction debris (i.e. rip rap) and excess clean soil will be recycled when possible. If it cannot be recycled, then it can be disposed of as nonhazardous, nonradioactive waste at the INL Landfill Complex.

10. Material or Waste Handling and Transportation - A hazardous waste determination will be performed per MCP-1390 for all waste streams to develop the appropriate management practices. Waste streams will be evaluated to determine if any of the materials can be recycled or reused and to implement actions for minimizing waste entering the landfill.

16. Use, Reuse and Recycling of Resources - INL borrow sources may be used to provide backfill (soil and gravel). Backfill taken from INL borrow sources must be coordinated through the BEA Road and Grounds Manager and completion of required documentation.

17. Work within area Subject to Flooding – The proposed detention basin will be located within the Big Lost River 100-year floodplain. The dimensions given for this detention basin result in a reservoir volume of about 4,125 cubic feet or about 0.09 acre feet. This will be a very small detention basin which is expected to have an insignificant impact on the floodplain. The detention basin will improve drainage by creating a focal point for snowmelt and rainfall to collect and infiltrate in a location that will reduce the nuisance ponding caused by the previous widespread accumulations of snowmelt and rainfall at INTEC.

The work described is not expected to have a significant inplact on the 100-year floodplain discussed above as the work is not expected to disrupt floodplain dimensions, elevations, flow volumes, or velocities of the Big Lost River. If the hypothetical flood were to occur, access to the work areas may be interupted. All actions would be taken to ensure that any petroleum product is not released into waters of the United States. Work can resume after floodwaters subside as access allows.

SECTION D. Determine the Level of Environmental Review (or Documentation) and Reference(s): Identify the applicable categorical exclusion from 10 CFR 1021, Appendix B, give the appropriate justification, and the approval date.

Note: 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, including requirements of DOE orders; 2) require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities; 3) disturb hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products that pre-exist in the environment such that there would be uncontrolled or unpermitted releases; 4) adversely affect environmentally sensitive resources. In addition, no extraordinary circumstances related to the proposal exist which would affect the significance of the action, and the action is not "connected" nor "related" (40 CFR 1508.25(a)(1) and (2), respectively) to other actions with potentially or cumulatively significant impacts.

References: B1.6, Installation/modification of retention tanks, small basins to control runoff, spills

Justification: The detention basin construction will improve storm water drainage. The basin construction does not extend the life or the capacity of INTEC. The action will not result in significant effect to the human environment.

Is the project funded by the American Recovery and Reinvestment Act of 2009 (Recovery Act) ☐ Yes ☒ No

Approved by Jason Sturm, DOE-ID NEPA Compliance Officer on July 25, 2018.