

DOE-ID NEPA CX DETERMINATION

Idaho National Laboratory

SECTION A. Project Title: IF-685 (ESL) Cooling Tower Drain Tie In

SECTION B. Project Description and Purpose:

The IF-685 (ESL) facility has a cooling tower that periodically releases cooling water in summer months when conductivity in water becomes too high. This cooling water pools up around the concrete pad and steel support structure which is resulting in degradation of the support steel. The proposed work would extend the cooling water drain piping out approximately 4 ft. and tie into a nearby underground storm water roof drain pipe. This storm water roof drain piping eventually discharges to a 280 ft. X 10 ft. x 6 ft. bioswale with underground perforated piping, located on the west side of ESL. This bioswale is considered a shallow injection well (SIW) as it is considered a subsurface fluid distribution system and is on the inventory of SIW's with the Idaho Department of Water Resources (IDWR). The SIW is currently classified on the IDWR inventory for storm water runoff (5D2). With the addition of the summer month cooling water, the inventory form needs to be updated to include the cooling water classification (5A19). The primary discharge will remain storm water runoff.

ESL is a leased facility and this SIW was constructed and inventoried by the building owner. INL (BEA) is considered the operator of the SIW and would be responsible for submitting to IDWR, the addition/description of cooling water injectate on the SIW inventory form. Once IDWR approves the form, line extension/tie-in will take place.

SECTION C. Environmental Aspects or Potential Sources of Impact:

Air Emissions

Fugitive dust may be generated while digging down to the existing roof drain tie in.

Discharging to Surface-, Storm-, or Ground Water

Cooling tower blowdown water will be tied into existing roof drain (storm water) piping that ultimately discharges to a bioswale (registered shallow injection well) on the west side of ESL. The structure of the SIW itself will not be changed, however the injectate will now include cooling water in addition to the current storm water. This requires an update to the Shallow Injection Well (SIW) inventory form.

Storm water discharges are contained in the ESL building lot bioswales and french drains and do not discharge to the City of Idaho Falls MS4 system.

Disturbing Cultural or Biological Resources

N/A

Generating and Managing Waste

N/A

Releasing Contaminants

Small amounts of scale/corrosion inhibitor (C-324) and biocide (C-120) will be present in the cooling tower water. This discharge would not result in a unreasonable contamination of an underground source of drinking water (USDW) or cause a violation of the ground water quality standards at a place of beneficial use.

Using, Reusing, and Conserving Natural Resources

N/A

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: 10 CFR 1021, Appendix B to subpart D, item B1.5 "Existing steam plants and cooling water systems."

Justification: The proposed activity is consistent with CX B1.5: Minor improvements to existing steam plants and cooling water systems (including, but not limited to, modifications of existing cooling towers and ponds), provided that the improvements would not: (1) Create new sources of water or involve new receiving waters; (2) have the potential to significantly alter water withdrawal rates; (3) exceed the permitted temperature of discharged water; or (4) increase introductions of, or involve new introductions of, hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products.

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: 10/18/2021