

Categorical Exclusion Determination

Bonneville Power Administration
Department of Energy



Proposed Action: Small-Scale Research to Test Self-Lubricating, Oil-Free Bushings

Project Manager: George Brown-PGA-6

Location: Portland, Oregon

Categorical Exclusion Applied (from Subpart D, 10 C.F.R. Part 1021): B3.6 Small-scale research and development, laboratory operations, and pilot projects

Description of the Proposed Action: BPA proposes to fund a research project to test the durability and effectiveness of self-lubricating bushings from different manufacturers for use in oil-free Kaplan hydroelectric turbines. Hydroelectric turbine bushings typically use oil lubricants which have the risk of leaking into rivers. This proposed testing would seek to verify the performance, standards, and longevity of the current commercially available oil-free bushings technology and materials. Additionally, BPA proposes to fund the translation of the laboratory test results into specification guides.

Specifically, required work under the proposed funding would include the following:

- The design and construction of a test stand, approximately 3 feet by 3 feet, assembled and placed inside a large testing room.
- The procurement and preparation of test bushings (max length of 7 to 8 inches), test sleeves and all required test accessories.
- Bushing and test stand testing

All project activities would be performed at an existing, self-contained test-laboratory facility or in an office setting, and with no foreseeable physical modifications to the existing facilities and not requiring any ground disturbing activities.

Findings: In accordance with Section 1021.410(b) of the Department of Energy's (DOE) National Environmental Policy Act (NEPA) Regulations (57 FR 15144, Apr. 24, 1992, as amended at 61 FR 36221-36243, Jul. 9, 1996; 61 FR 64608, Dec. 6, 1996, 76 FR 63764, Nov. 14, 2011), BPA has determined that the proposed action:

- (1) fits within a class of actions listed in Appendix B of 10 CFR 1021, Subpart D (see attached Environmental Checklist);
- (2) does not present any extraordinary circumstances that may affect the significance of the environmental effects of the proposal; and
- (3) has not been segmented to meet the definition of a categorical exclusion.

Based on these determinations, BPA finds that the proposed action is categorically excluded from further NEPA review.

/s/ Usha Mohan

Usha Mohan, ECP-4

Environmental Protection Specialist

Concur:

/s/ Katey Grange

Katey Grange
NEPA Compliance Officer

Date: August 19, 2019

Attachment(s): Environmental Checklist

Categorical Exclusion Environmental Checklist

This checklist documents environmental considerations for the proposed project and explains why the project would not have the potential to cause significant impacts on environmentally sensitive resources and would meet other integral elements of the applied categorical exclusion.

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Project Site Description

Project site would be an existing, self-contained test facility in the US or Canada and an office facility in Portland.

Evaluation of Potential Impacts to Environmental Resources

Environmental Resource Impacts	No Potential for Significance	No Potential for Significance, with Conditions
1. Historic and Cultural Resources	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<u>Explanation:</u> No impact to historic and cultural resources as all project activities to be completed inside an existing test or office facility and with no foreseeable physical modifications and not involving any ground disturbing activities		
2. Geology and Soils	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<u>Explanation:</u> No impact to geology and soils as all project activities would be completed inside an existing test or office facility requiring no physical modifications and would not involve any ground disturbing activities		
3. Plants (including Federal/state special-status species and habitats)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<u>Explanation:</u> No plants would be impacted as all project work would be completed inside an existing test facility or an existing office space not requiring physical modifications and would not involve any ground disturbing activities.		
4. Wildlife (including Federal/state special-status species and habitats)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<u>Explanation:</u> No wildlife would be impacted as all project work would be completed inside an existing test or office facility.		
5. Water Bodies, Floodplains, and Fish (including Federal/state special-status species, ESUs, and habitats)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<u>Explanation:</u> No water bodies, floodplains, and fish are likely to be impacted by this project as all work would be completed within an existing test or office facility not requiring any significant amount of water.		
6. Wetlands	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<u>Explanation:</u> No wetlands would be impacted by this project as all project work would be completed inside an existing test or an office facility.		
7. Groundwater and Aquifers	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<u>Explanation:</u> No groundwater and aquifers would be affected by this project as all work is to be completed inside an existing test or office facility.		

8. **Land Use and Specially-Designated Areas**



Explanation: No land use and specially- designated areas would be impacted from this project since all project work would be completed inside an existing test or office facility.

9. **Visual Quality**



Explanation: There would be no change to the visual quality as all activities related to the project would be completed within an existing test or office facility.

10. **Air Quality**



Explanation: There would be no impact to air quality from this project as all project activities would be completed inside an existing test or office facility.

11. **Noise**



Explanation: There would be no impact on noise from this project all project activities would be conducted inside an existing test or office facility.

12. **Human Health and Safety**



Explanation: There would be no impact on human health and safety from this project.

Evaluation of Other Integral Elements

The proposed project would also meet conditions that are integral elements of the categorical exclusion. The project would not:

- Threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, or similar requirements of DOE or Executive Orders.

Explanation, if necessary:

- Require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities (including incinerators) that are not otherwise categorically excluded.

Explanation, if necessary:

- 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.

Explanation, if necessary:

- Involve genetically engineered organisms, synthetic biology, governmentally designated noxious weeds, or invasive species, unless the proposed activity would be contained or confined in a manner designed and operated to prevent unauthorized release into the environment and conducted in accordance with applicable requirements, such as those of the Department of Agriculture, the Environmental Protection Agency, and the National Institutes of Health.

Explanation, if necessary:

Landowner Notification, Involvement, or Coordination

Description: Because the proposed action does not involve activities directly or indirectly affecting any particular real property, notification and involvement of any specific land owner is not required.

Based on the foregoing, this proposed project does not have the potential to cause significant impacts to any environmentally sensitive resource.

Signed: /s/ Usha Mohan
Usha Mohan, ECP-4

Date: August 19, 2019