

**GENERIC CATEGORICAL EXCLUSION FOR AVIATION ACTIVITIES,
PACIFIC NORTHWEST NATIONAL LABORATORY,
RICHLAND, WASHINGTON**

Proposed Action

The U.S. Department of Energy (DOE) Pacific Northwest Site Office (PNSO) proposes to perform aviation activities to support research activities.

Location of Action

Actions covered by this generic categorical exclusion (CX) may occur at the Pacific Northwest National Laboratory (PNNL) campuses in Richland and Sequim, Washington, or at other research or operations sites throughout the United States and its territories. This CX is applicable to activities within the United States, activities outside of the United States are exempted from environmental review under the National Environmental Policy Act (NEPA) per Executive Order 12114 (44 FR 1957).

Description of the Proposed Action

The proposed action is to perform aviation activities such as Unmanned Aircraft Systems (UAS) flights that support research, environmental monitoring, and radiation detection. Aviation activities can include, but are not limited to, performing in situ aerial observations, mapping, taking photos or video, sample collection, data collection, sensor deployment, or testing features or new technologies. Other related activities include, but are not limited to, training; equipment and systems maintenance, modifications, upgrades, and qualifications for use; calibration of sensors or other equipment; and testing to support aviation activities. Aviation activities would comply with Federal Aviation Administration (FAA) regulations and relevant state or local regulations.

The proposed action would also include reasonably foreseeable actions necessary to implement aviation activities such as personnel and material staging, small scale excavation for support equipment such as landing pads or charging stations, management of temporary piles of dirt/debris from excavation, temporary support structures, deployment of vehicles or boats to retrieve devices, and award of grants and contracts. Any excavation would comply with requirements for excavation safety and protection of the environment. For example, requirements to avoid underground utilities, protect cultural and biological resources, and implement excavation safety requirements would be followed.

Biological and Cultural Resources

It is not likely that aviation activities would result in any impacts to sensitive biological or cultural resources. However, biological and/or cultural resource reviews would be conducted when projects have the potential to impact resources to ensure that impacts to sensitive resources are avoided or minimized.

The biological resources review will identify the occurrence of federally and state-protected species and habitats in the project area such as avian species protected under the Migratory Bird

Treaty Act (MBTA); species protected by the Marine Mammal Protection Act (MMPA); essential fish habitat as defined by the Magnuson-Stevens Fisheries Conservation and Management Act (MSA); plant and animal species and critical habitat protected under the Endangered Species Act (ESA), including candidates for such protection; and state species listed as threatened or endangered. Resource review recommendations will be followed during aviation activities to ensure there are no adverse impacts to sensitive species and resources.

DOE will conduct a cultural resources review as part of the Section 106 process of the National Historic Preservation Act (NHPA). The Section 106 process assesses undertakings to determine if the undertaking will have an adverse impact to historic properties.

If the biological and/or the cultural resources review determines that resources may be adversely impacted, the use of this CX would be reevaluated. Potential options could be, but are not limited to, changing the proposed activity location, the development of mitigation measures to render the impacts not significant, or the performance of additional NEPA analysis and review.

Categorical Exclusion to Be Applied

Because the proposed action is to perform aviation activities, the following CX, as listed in the DOE NEPA implementing procedures, 10 CFR 1021, would apply:

B3.2 Aviation activities for survey, monitoring, or security purposes that comply with Federal Aviation Administration regulations.

Generic CXs are authorized by 10 CFR 1021.410(f) for recurring activities to be undertaken during a specified time period, after considering potential aggregated impacts.

Eligibility Criteria

The proposed activity meets the eligibility criteria of 10 CFR 1021.410(b) because the proposed action does not have any extraordinary circumstances that might affect the significance of the environmental effects, is not connected to other actions with potentially significant impacts, is not related to other actions with individually insignificant but cumulatively significant impacts, and is not precluded by 10 CFR 1021.211 concerning limitations on actions during environmental impact statement preparation.

The "Integral Elements" of 10 CFR 1021 are satisfied as discussed in the table below:

INTEGRAL ELEMENTS, 10 CFR 1021, SUBPART D, Appendix B (1)-(5)	
<i>Would the Proposed Action:</i>	Evaluation:
Threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health?	The proposed action would not threaten a violation of regulations or DOE or Executive Orders. All aviation activities will be operated in compliance with applicable FAA regulations.

Require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities?	No waste management facilities would be constructed under this CX. Any generated waste would be managed in accordance with applicable regulations in existing facilities. Waste disposal pathways would be identified prior to generating waste and waste generation would be minimized.
Disturb hazardous substances, pollutants, or contaminants that preexist in the environment such that there would be uncontrolled or unpermitted releases?	No preexisting hazardous substances, pollutants, or contaminants would be disturbed in a manner that results in uncontrolled or unpermitted releases.
Involve genetically engineered organisms, synthetic biology, governmentally designated noxious weeds, or invasive species?	The proposed action would not involve the use of 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).
Have the potential to cause significant impacts on environmentally sensitive resources, including, but not limited, to: <ul style="list-style-type: none"> • protected historic/archaeological resources • protected biological resources and habitat • jurisdictional wetlands, 100-year floodplains • Federal- or state-designated parks and wildlife refuges, wilderness areas, wild and scenic rivers, national monuments, marine sanctuaries, national natural landmarks, and scenic areas. 	<p>No environmentally sensitive resources would be adversely affected by the proposed actions. The proposed action would not adversely affect floodplains, wetlands regulated under the Clean Water Act, national monuments, or other specially designated areas, prime agricultural lands, or special sources of water. Operation of UAS within a federal or state designated park, wildlife refuge, wilderness area, marine sanctuary, scenic area, or monument will be in accordance with applicable rules and regulations for that designated area.</p> <p>Potential impacts to Biological or Cultural resources would be addressed as described above.</p>

Summary of Environmental Impacts

The following table summarizes environmental impacts considered when preparing this CX determination.

Environmental Impacts Considered when Preparing this CX	
<i>Would the Proposed Action:</i>	Evaluation:
Result in more than minimal air impacts?	The proposed activities could have air emissions that would be temporary and limited to the life of each project.

Increase offsite radiation dose measurably?	The proposed activities would not measurably increase offsite radiation dose.
Require a radiological work permit?	Although the proposed activities would not involve source, special nuclear, or byproduct materials, projects might involve encapsulated sources or other radiological materials or occur within outdoor areas that require a radiological work permit. Activities would be performed in compliance with as low as reasonably achievable principles (ALARA), applicable state and federal regulations, DOE Orders, and PNNL guidelines. The radiation received by workers during the performance of activities would be administratively controlled below DOE limits as defined in 10 CFR 835.202(a). Under normal circumstances, those limits control individual radiation exposure to below an annual effective dose equivalent of 5 rem.
Discharge any liquids to the environment?	The proposed activities would not include any planned discharge of liquids to the environment.
Require a Spill Prevention, Control, and Countermeasures plan?	The proposed activities would not require a Spill Prevention, Control, and Countermeasures plan.
Use carcinogens, hazardous, or toxic chemicals/materials?	The proposed activities might involve the use of carcinogens, hazardous and/or toxic chemicals and materials, including fuel and maintenance fluids. Cleaning solvents and other chemicals used to maintain equipment may be used. Sealed sources used for calibration and testing could present a carcinogenic risk to staff if stored or handled improperly. Project inventories would be maintained at the lowest practicable levels, and chemical wastes would be recycled, neutralized, or regenerated if possible. Product substitution (use of less toxic chemicals in place of more toxic chemicals) would be considered where reasonable.
Involve hazardous, radioactive, polychlorinated biphenyl, or asbestos waste?	The proposed activities could generate hazardous waste such as used oil, solvents, and batteries. If unrecyclable, such wastes would typically be characterized, handled, packaged, transported, treated, stored, and/or disposed of in treatment, storage, and disposal facilities in accordance with applicable regulations.
Cause more than a minor or temporary increase in noise level?	There could be temporary noise increases during aviation activities over flight areas that could be notable in quite, unpopulated areas; this would be short-term, minor, and within applicable limits.

Create light / glare, or other aesthetic impacts?	Performing aviation activities in an undeveloped area may result in temporary aesthetic impacts.
Require an excavation permit (e.g., for test pits, wells, utility installation)?	Excavation activities may occur and activities might require an excavation permit, such as a PNNL or Hanford Site excavation permit. Stipulations in the excavation permit to minimize potential impacts to safety and the environment would be followed.
Disturb an undeveloped area?	Although unlikely, it is possible that a building, pad, or trailer might be erected in support of aviation activities. Any permanent building, pad, or trailer would be sited on or adjacent to previously developed areas. Additional NEPA would be required if disturbances would significantly impact sensitive species and/or habitats; cultural resources, including historic buildings and Traditional Cultural Properties; or other resources.
Result in more than minimal impacts on transportation or public services?	The proposed activities are not expected to cause more than minimal impacts to transportation or public services.
Disproportionately impact low-income or minority populations?	The proposed activities would not disproportionately impact low-income or minority populations.
Require environmental or other permits from federal, state, or local agencies?	All FAA regulations will be followed as applicable. Aviation activities may require notifications to or permits from local, state, or federal authorities or agencies. Activities will abide by all applicable permit requirements.

Compliance Action

I have determined that the proposed action satisfies the DOE NEPA eligibility criteria and integral elements, does not pose extraordinary circumstances, and meets the requirements for the CX referenced above. Therefore, using the authority delegated to me, I have determined that the proposed action may be categorically excluded from further NEPA review and documentation. This determination must be reviewed at least once every 5 years.

Signature: _____
Tom McDermott
PNSO NEPA Compliance Officer

cc: ES Norris, PNNL