



Environmental Review Form for Argonne National Laboratory

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<b>Created By:</b>	Ptak, Jill S.

**Creator**

Badge:	<b>220875</b>	Name:	<b>Ptak, Jill S.</b>
Cost Center:	<b>208</b>	Division:	<b>PMO</b>
Job Title:	<b>Campus Planner</b>	Employee Type:	<b>Regular Full-Time Exempt</b>
Building:	<b>214</b>	Lab Extension:	<b>2-2723</b>

**General Information**

Project/Activity Title: Site-wide Generic Categorical Exclusion for Biosafety Level-1 and Biosafety Level-2 Research

ASO NEPA Tracking No.: \_\_\_\_\_ Type of Funding: \_\_\_\_\_

B & R Code: \_\_\_\_\_ Identifying Number: 0

SPP Proposal Number: \_\_\_\_\_ CRADA Proposal Number: \_\_\_\_\_

Work Project Number: \_\_\_\_\_ ANL Accounting Number: (Item 3a in Field Work Proposal)

Other (explain): \_\_\_\_\_

List appropriate NEPA Owners:

Division: CLS NEPA Owner: \_\_\_\_\_

Division: PSC NEPA Owner: \_\_\_\_\_

Division: OTD NEPA Owner: \_\_\_\_\_

Division: EGS NEPA Owner: \_\_\_\_\_

**Financial Plans**

To select a Financial Plan, click the magnifying glass icon to open a search window.

Cost Center: Project: Phase: Task:

**Description of Proposed Action**

SEE ATTACHED FOR FULL DESCRIPTION. This ERF will serve as a site-wide generic categorical exclusion (CX) to update and replace the approved DOE-Argonne Site Office (ASO), ASO-CX-298, dated August 9, 2013 for BSL-1 and BSL-2 Research at Argonne. This categorical exclusion determination does NOT apply to the following activities: Research activities that require major building renovations or additions. Research activities that take place in areas or laboratories of historical significance, unless excluded by the Argonne Cultural Resources Management Plan with the Illinois Historical Preservation Agency. Research activities that require either: for nuclear facilities, a new or revised Documented Safety Analysis(es), or for accelerator facilities a new or revised Safety Assessment Document(s). Research activities that generate "No Path Forward" wastes. Research activities that emit a radioactive emission not included in the Argonne Title V permit. Construction of new emissions sources that are not bench-scale R&D or that involves radioactive emissions. Research activities that require new or modified regulatory permits. Research activities that use more than 10 liters of culture or more than 5 gallons of hazardous liquid chemicals or 5 pounds of hazardous solid chemicals. See the storage and use requirements in the Potential Environmental Effects. Pilot-scale or production activities to verify a concept or demonstrate a process. Research activities including sample collection that occurs outdoors that may have significant environmental impact(s). The scope of this site-wide generic CX is bench-scale Biosafety Level (BSL)-1 and BSL-2 research in laboratories on the Argonne site. The National Institutes of Health (NIH) guidelines define bench scale as, not production scale and using less than 10 liters of culture. The proposed research would be restricted to that which has been determined by the Argonne Institutional Biosafety Committee (IBC) to be unambiguously BSL-1 or BSL-2 and within the work scopes described below. The proposed research also must comply with the requirements outlined in the Argonne National

Laboratory (ANL) Biosafety Manual, ANL Bloodborne Pathogens Occupational Exposure Control Plan and applicable LMS Procedures. Laboratories and equipment must also pass inspection by a Biological Safety Officer or SME prior to initiation of research. See attached.

## Description of Affected Environment

BSL-1 and BSL-2 bench-scale research would be performed in various indoor, existing laboratories at Argonne National Laboratory.

## Potential Environmental Effects

- Attach explanation for each "yes" response near bottom of form.
- **See Instructions for Completing Environmental Review Form.**

Section A (Complete For All Projects)		Yes	No	Explanation
1.	Project evaluated for Pollution Prevention and Waste Minimization opportunities and details provided under items 2, 4, 6, 7, 8, 16, and 20 below, as applicable	<input checked="" type="radio"/>	<input type="radio"/>	Experiments will use the smallest cultures sizes as practical. The Illinois EPA requires that the autoclaves used to process potentially infectious medical waste have a monthly biological indicator testing procedure to ensure they are working properly. For BSL-2 work, biological safety cabinets (BSC) would be used for all transfers and general manipulations of biohazardous materials which pose a splash or aerosol hazard. For ANL IBC approved operations outside of a BSC, such materials would be moved in sealed secondary containers that would completely contain the material in the event of a failure of the primary container. Centrifugations would be carried out in sealed centrifuge rotors, specially vented centrifuges, or sealed safety cups or sealed buckets that fully contain the primary centrifuge tube.
2.	Air Pollutant Emissions	<input type="radio"/>	<input checked="" type="radio"/>	Some bench-scale research activities may emit low levels of hazardous air pollutants or criteria pollutants but are considered an insignificant activity under the Argonne Title V permit. Radionuclides may be used if they are currently permitted for use.
3.	Noise	<input type="radio"/>	<input checked="" type="radio"/>	
4.	Chemical/Oil Storage/Use	<input checked="" type="radio"/>	<input type="radio"/>	The proposed activities may involve the use and storage of chemicals. The amount of chemicals used in a single experiment, measurement, or test will be limited to five gallons of hazardous liquid and five pounds of hazardous solid. The production, acquisition, storage, or use of chemicals will follow the requirements outlined in applicable LMS procedures. This includes following the import/export requirements under the TSCA procedures.
5.	Pesticide Use	<input type="radio"/>	<input checked="" type="radio"/>	
6.	<b>Toxic Substances Control Act (TSCA) Substances</b>			
6a.	Polychlorinated Biphenyls (PCBs)	<input type="radio"/>	<input checked="" type="radio"/>	
6b.	Asbestos or Asbestos Containing Materials	<input type="radio"/>	<input checked="" type="radio"/>	
6c.	Other TSCA Regulated Substances	<input type="radio"/>	<input checked="" type="radio"/>	
6d.	Import or Export of Chemical Substances	<input type="radio"/>	<input checked="" type="radio"/>	
7.	Biohazards	<input checked="" type="radio"/>	<input type="radio"/>	For bench-scale BSL-2 work, the biohazardous materials that fall under this ERF are described in the Description of the Proposed Action. Only small, non-product ion size quantities are allowed (i.e., below roller bottle or spinner bottle quantity or below 10 liters). All cultures, stocks and other regulated solid and liquid wastes are disinfected by an OSHA, EPA, or CDC approved disinfection method, such as autoclaving, incineration, or chemical decontamination before disposal. An agent such as 1/10 freshly diluted bleach solution or Clidox are commonly used. These are processes which have been validated as effective at destroying any biological hazards that may be present.
	Effluent/Wastewater			Typical effluents from bench-scale BSL-2 work would be from the steam autoclaves. Any

8.	(If yes, see question #12 and contact Peter Lynch (HSE) at 2-4582 or lynch@anl.gov)	<input checked="" type="radio"/>	<input type="radio"/>	discharge from the autoclaves after treatment would be to the sanitary sewer. All autoclaves will be tested monthly with biological indicators to ensure that they are working properly. Tests would be performed according to the autoclave manufacturer's instruction and by the BSO or SME. Waste water must be disinfected before it can be disposed into the sanitary sewer. Other effluents would be handled as waste according to the Waste Handling Procedures Manual and the LMS Procedures.
9.	<b>Waste Management</b>			
9a.	Construction or Demolition Waste	<input type="radio"/>	<input checked="" type="radio"/>	No construction under this sitewide CX
9b.	Hazardous Waste	<input checked="" type="radio"/>	<input type="radio"/>	Small quantities of hazardous waste such as acids, bases, oxidizers, carcinogens, inorganic salts and solvents would be generated that are typical to bench scale research activities and would be stored and disposed of according to the Waste Handling Procedures Manual and LMS Procedures.
9c.	Radioactive Mixed Waste	<input type="radio"/>	<input checked="" type="radio"/>	
9d.	Radioactive Waste	<input type="radio"/>	<input checked="" type="radio"/>	
9e.	Asbestos Waste	<input type="radio"/>	<input checked="" type="radio"/>	
9f.	Biological Waste	<input checked="" type="radio"/>	<input type="radio"/>	Biological waste from the cell lines and derived material proteins, or genetic material would be autoclaved at 121 degrees Celsius and 21 psi for one hour prior to disposal in the regular trash. Some materials may require disposal through the Waste Management Division for off-site incineration through a state permitted, potentially infectious medical waste (PIMW) treatment, storage or transfer operation.
9g.	No Path to Disposal Waste	<input type="radio"/>	<input checked="" type="radio"/>	
9h.	Nano-material Waste	<input type="radio"/>	<input checked="" type="radio"/>	
10.	Radiation	<input type="radio"/>	<input checked="" type="radio"/>	
11.	Threatened Violation of ES&H Regulations or Permit Requirement	<input type="radio"/>	<input checked="" type="radio"/>	
12.	New or Modified Federal or State Permits	<input type="radio"/>	<input checked="" type="radio"/>	
13.	Siting, Construction, or Major Modification of Facility to Recover, Treat, Store, or Dispose of Waste	<input type="radio"/>	<input checked="" type="radio"/>	
14.	Public Controversy	<input type="radio"/>	<input checked="" type="radio"/>	
15.	Historic Structures and Objects	<input type="radio"/>	<input checked="" type="radio"/>	
16.	Disturbance of Pre-existing Contamination	<input type="radio"/>	<input checked="" type="radio"/>	
17.	Energy Efficiency, Resource Conserving, and Sustainable Design Features	<input type="radio"/>	<input checked="" type="radio"/>	
<b>Section B (For Projects that Occur Outdoors)</b>		<b>Yes</b>	<b>No</b>	
18.	Threatened or Endangered Species, Critical Habitats, and/or other Protected Species	<input type="radio"/>	<input checked="" type="radio"/>	

19.	Wetlands	<input type="radio"/>	<input checked="" type="radio"/>	
20.	Floodplain	<input type="radio"/>	<input checked="" type="radio"/>	
21.	Landscaping	<input type="radio"/>	<input checked="" type="radio"/>	
22.	Navigable Air Space	<input type="radio"/>	<input checked="" type="radio"/>	
23.	Clearing or Excavation	<input type="radio"/>	<input checked="" type="radio"/>	
24.	Archaeological Resources	<input type="radio"/>	<input checked="" type="radio"/>	
25.	Underground Injection	<input type="radio"/>	<input checked="" type="radio"/>	
26.	Underground Storage Tanks	<input type="radio"/>	<input checked="" type="radio"/>	
27.	Public Utilities or Services	<input type="radio"/>	<input checked="" type="radio"/>	
28.	Depletion of a Non-Renewable Resource	<input type="radio"/>	<input checked="" type="radio"/>	
<b>Section C (For Projects Outside of ANL)</b>		<b>Yes</b>	<b>No</b>	
29.	Prime, Unique, or Locally Important Farmland	<input type="radio"/>	<input checked="" type="radio"/>	
30.	Special Sources of Groundwater (such as sole source aquifer)	<input type="radio"/>	<input checked="" type="radio"/>	
31.	Coastal Zones	<input type="radio"/>	<input checked="" type="radio"/>	
32.	Areas with Special National Designations (such as National Forests, Parks, or Trails)	<input type="radio"/>	<input checked="" type="radio"/>	
33.	Action of a State Agency in a State with NEPA-type Law	<input type="radio"/>	<input checked="" type="radio"/>	
34.	Class I Air Quality Control Region	<input type="radio"/>	<input checked="" type="radio"/>	

**Categorical Exclusion**

Other (Use field below to enter other categorical exclusion)

**ANL NEPA Reviewer Use Only**

- My approval is the final approval necessary
- This form requires additional approval from DOE

**To be Completed by DOE/ASO**

Section D	Yes	No
Are there any extraordinary circumstances related to the proposal that may affect the significance of the environmental effects of the proposal?	<input type="radio"/>	<input checked="" type="radio"/>
Is the project connected to other actions with potentially significant impacts or related to other proposed action with cumulatively significant impacts?	<input type="radio"/>	<input checked="" type="radio"/>
If yes, is a categorical exclusion determination precluded by 40 CFR 1506.1 or 10 CFR 1021.211?	<input type="radio"/>	<input type="radio"/>
Can the project or activity be categorically excluded from preparation of an Environment Assessment or Environmental Impact Statement under Subpart D of the DOE NEPA Regulations?	<input checked="" type="radio"/>	<input type="radio"/>

If yes, indicate the class or classes of action from Appendix A or B of Subpart D under which the project may be excluded:

If no, indicate the NEPA recommendation and class(es) of action from Appendix C or D to Subpart D to Part 1021 of 10 CFR.

**Attachments****File Description:** BSL Description of Action [View Attachment](#)**Comments**

Stakeholder and NEPA Owner review of the previous BSL sitewide CX occurred on 10/18/18

**Add Approver**

Approver Name	Approver Badge	Reason	Delete
Schabacker, Daniel S.	55154	Bio Safety Officer	<input type="checkbox"/>
Moonier, Nena P.	51595	IBC Co Chair	<input type="checkbox"/>

**Notifications**

The approval notification email will be copied to the people listed below.

Badge	Name	Division	Delete
71691	Turnquest, Eric M.	DOE	<input type="checkbox"/>

**ASO-CX Number****ASO-CX- DOE-ASO-CX-358**

Comments:

ASO-CX-358 supersedes DOE-ASO-CX-298

**Approval**

<u>Approver</u>	<u>Action</u>	<u>Date Routed</u>	<u>Action Date</u>	<u>Approval Reason / Comments</u>	<u>Approval Type</u>
Ptak, Jill S.	APPROVED	2018-11-09	2018-11-09 14:06:31.0	Creator :	PRIMARY
Ptak, Jill S.	APPROVED	2018-11-09	2018-11-09 14:06:31.0	Allows access to the form :	PRIMARY
Ptak, Jill S.	APPROVED	2018-11-09	2018-11-09 14:06:31.0	Project Manager :	PRIMARY
Moonier, Nena P.	APPROVED	2018-11-09	2018-11-12 12:14:13.0	IBC Co Chair :	PRIMARY
Schabacker, Daniel S.	APPROVED	2018-11-09	2018-11-12 09:32:36.0	Bio Safety Officer :	PRIMARY
Brocker, William A.	APPROVED	2018-11-12	2018-11-21 05:22:36.0	NEPA Owner Approval for Argonne Environmental Review :	PRIMARY
Rodi, Diane J.	APPROVED	2018-11-12	2018-11-12 12:20:29.0	NEPA Owner Approval for Argonne Environmental Review :	PRIMARY
Rossi, Paul	APPROVED	2018-11-12	2018-11-14 11:32:54.0	NEPA Owner Approval for Argonne Environmental Review :	PRIMARY
Patchak, Raymond J.	APPROVED	2018-11-12	2018-11-13 16:25:16.0	NEPA Owner Approval for Argonne Environmental Review :	PRIMARY
Ptak, Jill S.	APPROVED	2018-11-21	2018-11-21 09:55:27.0	ANL NEPA Reviewer :	PRIMARY
Hellman, Karen B.	APPROVED	2018-11-21	2018-11-30	ANL-985 Review and Approval :	PRIMARY

Stine, Gail Y.	APPROVED	2018-11-30	09:14:25.0 2018-12-03 15:29:48.0	ANL-985 Review and Approval :	PRIMARY
Kearns, Paul K.	APPROVED	2018-12-03	2018-12-03 15:50:37.0	ANL-985 ANL COO Review and Approval :	PRIMARY
Joshi, Kaushik N.	APPROVED	2018-12-03	2018-12-17 15:21:01.0	ANL-985 DOE-ASO Review and Approval : <b>This will supersede DOE-ASO-CX-298.</b>	PRIMARY
Turnquest, Eric M.	APPROVED	2018-12-17	2018-12-20 14:42:53.0	Added: :	PRIMARY
Joshi, Kaushik N.	APPROVED	2018-12-20	2018-12-20 15:21:16.0	Returned after added approver : <b>This will supersede DOE-ASO-CX-298.</b>	PRIMARY
Siebach, Peter Rudolf	APPROVED	2018-12-20	2018-12-20 15:58:05.0	ANL-985 DOE NEPA Compliance Officer Review and Approval :	PRIMARY

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## Argonne Sitewide Categorical Exclusion Biosafety Level-1 and Biosafety Level 2 Research

### Description of Proposed Action:

This ERF will serve as a site-wide generic categorical exclusion (CX) to update and replace the approved DOE-Argonne Site Office (ASO), ASO-CX-298, dated August 9, 2013 for Bio Safety Level (BSL)-1 and Bio Safety Level-2 Research at Argonne.

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The scope of this site-wide generic CX is bench-scale Biosafety Level (BSL)-1 and BSL-2 research in laboratories on the Argonne site. The National Institutes of Health (NIH) guidelines define bench scale as, not production scale and using less than 10 liters of culture. The proposed research would be restricted to that which has been determined by the Argonne Institutional Biosafety Committee (IBC) to be unambiguously BSL-1 or BSL-2 and within the work scopes described below. The proposed research also must comply with the requirements outlined in the Argonne National Laboratory (ANL) Biosafety Manual, ANL Bloodborne Pathogens Occupational Exposure Control Plan and applicable LMS Procedures. Laboratories and equipment must also pass inspection by a Biological Safety Officer or SME prior to initiation of research.

### Scope of BSL-1 Research

Bench-scale BSL-1 research would involve material or microorganisms that are not known to consistently cause disease in healthy human adults. A typical BSL-1 laboratory has a sink, eyewash station and chemical-resistant work surfaces. Work is performed on the open bench, there is no specific recommendation that the laboratory be isolated from other parts of the building and standard microbiological practices are used. A variety of bench-scale BSL-1 research would be conducted under the supervision of principal investigators and with the oversight of the Division ES&H Coordinators.

### Scope of BSL-2 Research

Bench-scale BSL-2 research would involve material or microorganisms listed below that are known to cause disease in healthy humans, but do not pose an inhalation hazard. Proposed bench-scale BSL-2 research would be conducted by laboratory personnel who have specific training in the handling of the material under their control and are directed by competent scientists. All bench-scale BSL-2 work under this CX would be performed under an approved ANL IBC protocol that establishes operational and engineering controls. Work areas in continuous laboratories would be inspected by a Biological Safety Officer or SME no less than annually; temporary bench-scale BSL-2 areas would be inspected by a Biological Safety Officer or SME prior to initiation of research.

BSL-2 laboratories are BSL-1 areas, supplemented with engineering controls and physical containment equipment (such as biosafety cabinets (BSC) and sealed rotor heads) required by the ANL IBC. Requirements for BSL-2 areas also include limited access to the room and agent/ toxin storage areas. BSL-2 laboratories must have facility

specific manuals or Standard Operating Procedures (SOPs) which include specific training for each agent, PPE requirements and other protocols to reduce the risk of accidental occupational exposure via inoculation through the skin or mucous membrane. Infectious or toxic waste must be decontaminated by treating with chemical disinfectants, steam autoclaving or offsite incineration.

BSL-2 research under this CX would involve material in the following categories: human/non-human primate (NHP) material, i.e. blood, tissue or cells or any products derived from these types of materials which poses a low-level infectious hazard; Biological toxins; Prions; Work involving Risk Group 2 human/NHP pathogens and material derived therefrom Risk Group 2 agents are associated with human diseases which are rarely serious and for which preventive or therapeutic interventions are often available; and Other biological material, which may pose either a zoonotic infection hazard such as animal or insect derived material, or an environmental hazard such as parasitic plants, noxious weeds, animal or plant pathogens or insects.

Research NOT within the scope of this ERF also includes activities that are assessed by the ANL IBC as unambiguously BSL-3 or requiring BSL-3 containment, i.e. constitute an aerosol or splash hazard which cannot be readily handled by a certified BSC.