Environmental Review Form for Argonne National Laboratory

Form:	ANL-985
Version:	4
Your Form ID:	ANL-985-743
Form Status:	Approved
Date:	5/27/2016 8:22:11 AM
Created By:	McGhee, Jeffery

Creator

Badge:	**44645**	Name:	**McGhee, Jeffery**
Cost Center:	**206**	Division:	**NWM**
Job Title:	**Sr. Principal Safety and Compliance Specialist**	Employee Type:	**Regular Full-Time Exempt**
Building:	**212**	Lab Extension:	**2-5712**

General Information

Project/Activity Title: Building 350 Legacy Project

ASO NEPA Tracking No.: 2451 Type of Funding: SLI

B & R Code: N/A Identifying Number: 01626

SPP Proposal Number: N/A CRADA Proposal Number: N/A

Work Project Number: 82616 ANL Accounting Number: N/A (Item 3a in Field Work Proposal)

Other (explain): This is an FMS OPM excess facilities Project # FMS-EXF-350-001

List appropriate NEPA Owners:

Division: FMS NEPA Owner:

Division: OTD NEPA Owner:

Cost Code

Task: Center: Project: Activity:

Description of Proposed Action

The Building 350 Legacy Project requires the de-inventory of approximately 20,000 prepared Certified Reference Materials (CRM) which will be packaged and shipped to other DOE sites for resale and reuse along with the focused removal of systems, structures and components that have future programmatic value and will be relocated, or are obsolete, or no longer needed for future radiological operations within the building. The overall focus of the project is to prepare the structure for limited refurbishment, allowing for the reuse of the building rather than demolishing it. Building 350 is an 85,372 ft2 building and the useable space is 45,553 ft2 of laboratory, office, and fabrication area work space. The project will be cleaning out ~ 60 offices (10,942 ft2), 56 labs (18,728 ft2), 1 high bay (5,221 ft2), 18 storage areas (9,870 ft2). In total, the project will be removing 72 guantleted / unguantleted gloveboxes, ~57 hoods, ~ 30 large equipment, and ~2039 feet of ductwork. Refurbishment is planned once the de-inventory, removal and remediation and characterization of the facility have been completed, however these activities will be covered under a separate NEPA determination.

Description of Affected Environment

The described activities will be occurring largely within the building 350 structure, which is equipped with HEPA filtration systems in the areas where work is to be performed. The primary potential environmental impact is NESHAP air contaminate release. Because the work will be done within the building, nearly half of which has a unique HEPA filtration system that filters all exhausted air even from general spaces this potential is very low. The refurbishment phase of work will have limited exterior work activities that will be covered under a separate NEPA determination.

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		◉	○	The scope of this project is designed to allow the reuse or resale of nearly 20,000 radioactive material items from the former New Brunswick Laboratory Certified Reference Materials program rather than dispositioning these materials as waste. Additionally the project is aimed at reuse of a facility as a radiological facility rather than demolition of the structure and erection of a new one.
2.	Air Pollutant Emissions		◉	○	Radiological emissions and asbestos emissions are the two items that have been identified as NESHAP potentials for this project. This is mitigated by work largely within the facility in areas that are already equipped with engineering controls such as HEPA ventilation and air exhaust systems that are filtered and designed to ensure maintenance of negative pressure from the environment. Additionally approximately one half of the structure has a unique HEPA system that is designed to filter the general work space air. In phases where there are point disturbance of NESHAP materials local HEPA systems will be used, such as during asbestos tile removal and limited glove bag and tent work for piping insulation that may need to be remediated as part of this project. The NWSHAP radionuclides that are potentially possible would be consistent with the already in place air emissions control permit. Greg Barrett is the Argonne SME for NESHAP reporting and will be available if there are discoveries that are not covered by the existing permit.
3.	Noise		○	◉	
4.	Chemical/Oil Storage/Use		◉	○	Chemicals will be needed during the decontamination and fixing of radioactive materials within structures, systems and components along with use during the removal of contaminated floor coverings. Where possible more environmentally friendly products and processes will be utilized.
5.	Pesticide Use		○	◉	
6.	**Toxic Substances Control Act (TSCA) Substances**				
	6a.	Polychlorinated Biphenyls (PCBs)	○	◉	
	6b.	Asbestos or Asbestos Containing Materials	◉	○	Asbestos will be removed or disturbed during this project. It will be done in accordance with the controls if the IEPA permit and notification and using the Argonne procedures and controls established by the NWM division conducted by licensed staff under the observation of the Argonne Industrial Hygiene group. Work will utilize supplemental HEPA air filtration systems along with containment systems. In all cases these supplemental systems will remain in place until full clearances are given for each area consistent with the applicable regulations and guidelines. Notifications to the Illinois Environmental Protection Agency for start of asbestos work will be done consistent with the current Argonne procedures in consultation with Bob Utesch and the ESQ Division Industrial Hygiene support team.
	6c.	Other TSCA Regulated Substances	○	◉	
	6d.	Import or Export of Chemical Substances	○	◉	
7.	Biohazards		○	◉	
8.	Effluent/Wastewater (If yes, see question #12 and contact Peter Lynch (FMS-SEP) at 2-4582 or lynch@anl.gov)		○	◉	
	Waste				

9.	**Management**				
	9a.	Construction or Demolition Waste	◉	○	These wastes will be limited to those generated by the removal of some building features needed to facilitate the removal of gloveboxes and related systems. Largely in the form of doors, door frames and portions of non structural block walls. Some waste will be produced during the rehabilitation to be done near the end of the project and will be limited to some concrete and steel debris from dock repairs along with glass from window replacement. All non-contaminated waste generated will be handled according to the Argonne process for construction debris. Where appropriate waste will be characterized for radioactive material contamination using a combination of process knowledge or other accepted methods. Any waste characterized as contaminated will be further evaluated for the need to dispose of the material as low level radioactive waste. Non-contaminated wastes generated will be disposed of in a certified industrial landfill.
	9b.	Hazardous Waste	◉	○	Cleanup of chemicals left from the CRM program that are no longer needed will be packaged according to the applicable regulation for each material and disposed of at an appropriate EPA regulated RCRA permitted TSDF. This will be done throughout the project and is aided by the presence of on site waste specialists to do characterization, planning and packaging in near real time throughout every phase to eliminate the potential for mishandled material and ready disposition of unneeded materials.
	9c.	Radioactive Mixed Waste	◉	○	Waste materials that are both radioactively contaminated and meet the definition of RCRA waste will be generated as part of this project. These will be handled as required by the disposal site's Waste Acceptance Criteria, will be characterized by the on site waste specialists assigned to the project and will be prepared for storage in the appropriately permitted area at Argonne. Disposition of these materials will be done in accordance with the applicable regulations and the DOE directives. Radioactive mixed wastes characterized to determine if it meets the MLLW, CH-TRU or RH-TRU. It will be disposed of at the appropriate DOE or commercial site where it meets all acceptance criteria
	9d.	Radioactive Waste	◉	○	These wastes will be generated within the building, and will be prepared to minimize the chance for release when systems are removed from service and dismantled. This will be accomplished by decontamination, dismantlement by tools rather than cutting, and fixing contamination in place where possible to reduce the potential for an environmental release during transit from installed locations to packaging locations. Size reduction will be accomplished whenever possible to lessen the number of shipments needed, thus reducing the potential risk to the public and the environment. Characterization will be done to determine if the waste is LLW, CH-TRU or RH-TRU with disposition pathways identified at DOE or commercial sites as appropriate to ensure that the waste meets all applicable waste acceptance criteria.
	9e.	Asbestos Waste	◉	○	Removal of contaminated floor coverings will involve the removal of asbestos tile, and there will be limited removal of piping insulation that as asbestos containing. These tasks will be accomplished in accordance with the IEPA notification to the state and permits, by licensed staff and supervisors, using locally erected engineering controls to reduce the potential for spread and release of a NESHAP material into the environment. Currently all removal and disturbance work activities are planned to be within the building where additional HEPA ventilation systems will continue to operate as well. These activities will be monitored by the Argonne Industrial Hygiene group both for personnel exposure and controls, but also environmental and free release monitoring. While not expected, it is possible that some asbestos will have radioactive material contamination, in which case the characterization using process knowledge or other applicable methods for radioactively contaminated asbestos is appropriate, and a disposal pathway leading to the DOE NNSS site.
	9f.	Biological Waste	○	◉	
	9g.	No Path to Disposal Waste	○	◉	
	9h.	Nano-material Waste	○	◉	
10.	Radiation		◉	○	Radiation is controlled largely by activities being done within the building. The highest potential for radiation exposure outside the building is during shipment of materials to disposition sites. This risk will be minimized by the use of efficient packaging allowing higher amounts of activity per package, thus reducing packages, and further reducing the number of shipments on the road. This overall reduces the potential for a motor vehicle accident and release of material and radiation exposure. All work plans are being prepared under the Argonne work planning and control an the Argonne RPP is being applied to these tasks in the building including ALARA reviews where needed, and Radiation Work Permits being issued all coupled with an experienced staff that work efficiently and rapidly thus reducing overall dose.

11.	Threatened Violation of ES&H Regulations or Permit Requirement	○	◉	
12.	New or Modified Federal or State Permits	◉	○	IEPA permit for removal of asbestos may be needed. This will be facilitated through the existing process at Argonne and administered though the Industrial Hygiene group.
13.	Siting, Construction, or Major Modification of Facility to Recover, Treat, Store, or Dispose of Waste	○	◉	
14.	Public Controversy	○	◉	
15.	Historic Structures and Objects	○	◉	
16.	Disturbance of Pre-existing Contamination	◉	○	Removal of instruments, systems structures and components along with floor coverings will all include disturbance of contamination. The environmental impact will be limited by the use of decontamination methods being employed first, then fixing of contamination in place along with the the dismantlement of many parts with tools rather than saws, thus reducing the vibration and potential displacement energy being applied to the contaminated systems.
17.	Energy Efficiency, Resource Conserving, and Sustainable Design Features	◉	○	Refer to Item 1.
Section B (For Projects that Occur Outdoors)		**Yes**	**No**	
18.	Threatened or Endangered Species, Critical Habitats, and/or other Protected Species	○	◉	
19.	Wetlands	○	◉	
20.	Floodplain	○	◉	
21.	Landscaping	○	◉	
22.	Navigable Air Space	○	◉	
23.	Clearing or Excavation	○	◉	
24.	Archaeological Resources	○	◉	
25.	Underground Injection	○	◉	
26.	Underground Storage Tanks	○	◉	
27.	Public Utilities or Services	○	◉	
28.	Depletion of a Non-Renewable Resource	○	◉	
Section C (For Projects Outside of ANL)		**Yes**	**No**	
29.	Prime, Unique, or Locally Important	○	◉	

	Farmland			
30.	Special Sources of Groundwater (such as sole source aquifer)	○	◉	
31.	Coastal Zones	○	◉	
32.	Areas with Special National Designations (such as National Forests, Parks, or Trails)	○	◉	
33.	Action of a State Agency in a State with NEPA-type Law	○	◉	
34.	Class I Air Quality Control Region	○	◉	

Categorical Exclusion

Other (Use field below to enter other categorical exclusion)

The proposed actions are similar to those occurring under the existing Categorical Exclusion granted to the New Brunswick Laboratory under NBL-17 (see attachment). Given the recent changes to NBL operations on site, is recommended that this project receive a new, successor CX that replaces NBL-17 but allows these same proposed activities to occur going forward.

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?	○	◉
Is the project connected to other actions with potentially significant impacts or related to other proposed action with cumulatively significant impacts?	○	◉
If yes, is a categorical exclusion determination precluded by 40 CFR 1506.1 or 10 CFR 1021.211?	○	○
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?	◉	○
If yes, indicate the class or classes of action from Appendix A or B of Subpart D under which the project may be excluded: 10 CFR 1021-NEPA Implementing procedures, Subpart D, Appendix B B1.16 Asbestos removal B1.24 Property transfers B1.28 Placing a facility in an environmentally safe condition B1.30 Transfer actions		
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: NBL-17 View Attachment

Comments

DOE Approval of the Building 350 Legacy Project---De-inventory and Cleanup actions is tracked under ASO-CX-329

Add Approver

Approver Name	Approver Badge	Reason	Delete
Rock, Cynthia M.	48996	PM	

Pfingston, Manjula Rani	40376	PM	

Notifications

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

Badge	Name	Division	Delete
48996	Rock, Cynthia M.	FMS	
40376	Pfingston, Manjula Rani	FMS	

ASO-CX Number

ASO-CX- 329

Comments:

DOE approval of the Building 350 Legacy Project is tracked under ASO-CX-329.

Approval

Approver	Action	Date Routed	Action Date	Approval Reason / Comments	Approval Type
McGhee, Jeffery	APPROVED	2016-07-05	2016-07-05 14:07:25.0	Creator :	PRIMARY
McGhee, Jeffery	APPROVED	2016-07-05	2016-07-05 14:07:25.0	Allows access to the form :	PRIMARY
McGhee, Jeffery	APPROVED	2016-07-05	2016-07-05 14:07:25.0	Project Manager :	PRIMARY
Pfingston, Manjula Rani	APPROVED	2016-07-05	2016-07-09 14:13:18.0	PM :	PRIMARY
Rock, Cynthia M.	APPROVED	2016-07-05	2016-07-05 14:32:38.0	PM :	PRIMARY
Matton, Philip B.	APPROVED	2016-07-09	2016-07-12 09:46:52.0	NEPA Owner Approval for Argonne Environmental Review :	PRIMARY
Kosky, Karen M.	APPROVED	2016-07-09	2016-07-13 15:33:31.0	NEPA Owner Approval for Argonne Environmental Review :	PRIMARY
Kosky, Karen M.	APPROVED	2016-07-13	2016-07-13 15:34:40.0	ANL NEPA Reviewer :	PRIMARY
Hellman, Karen B.	APPROVED	2016-07-13	2016-07-15 17:13:15.0	ANL-985 Review and Approval :	PRIMARY
Hellman, Karen B. for Stine, Gail Y.	APPROVED	2016-07-15	2016-07-15 17:15:13.0	ANL-985 Review and Approval :	DELEGATE
Kearns, Paul K.	APPROVED	2016-07-15	2016-07-18 09:20:25.0	ANL-985 ANL COO Review and Approval :	PRIMARY
Joshi, Kaushik N.	APPROVED	2016-07-18	2016-07-18 14:29:35.0	ANL-985 DOE-ASO Review and Approval : **ASO-CX-329**	PRIMARY
Siebach, Peter R.	APPROVED	2016-07-18	2016-07-19 15:47:44.0	ANL-985 DOE NEPA Compliance Officer Review and Approval :	PRIMARY