

**U.S. Department of Energy
Finding of No Significant Impact
Enhanced Operations of the Advanced Photon Source
At Argonne National Laboratory-East
Argonne, Illinois**

AGENCY: U.S. Department of Energy

ACTION: Finding of No Significant Impact

SUMMARY:

The U.S. Department of Energy (DOE) has prepared an Environmental Assessment (EA) DOE/EA-1455, evaluating continued and enhanced operations of the Advanced Photon Source (APS) at Argonne National Laboratory-East, Argonne, Illinois. Based on the analysis in the EA, DOE has determined that the proposed action does not constitute a major Federal action significantly affecting the quality of the human environment within the meaning of the National Environmental Policy Act of 1969 (NEPA).

DESCRIPTION OF THE PROPOSED ACTION:

The proposed action includes continued and enhanced operations of the APS. The APS is a national synchrotron-radiation light source research facility. Members of the international synchrotron-radiation research community use high-brilliance x-ray beams from the APS to conduct basic and applied research in the fields of biology, chemistry, physics, geology, materials science, and others. Continued operations at the APS would include continued research at the APS and ongoing maintenance of the facility. Enhanced operations would include construction and operation of an additional experimental unit, a Center for Nanoscale Materials (CNM) and initiation of Biosafety Level-3 (BSL-3) work in an existing area at the APS constructed for such work. The CNM would include a parking lot and storm water management features that would minimize any impacts on a nearby wetland due to storm water runoff from the CNM and the parking lot.

ALTERNATIVES:

DOE considered alternative locations and designs for the parking lot associated with the proposed CNM as subalternatives to the proposed action.

DOE also evaluated a no action alternative. Under the no action alternative, current APS operations would continue. However, initiation of BSL-3 research would not occur and the proposed CNM research facility would not be constructed.

ENVIRONMENTAL IMPACTS:

Areas of potential environmental impact evaluated in the EA included those associated with continued operation of the APS, the proposed construction and operation of the CNM, and initiation of BSL-3 work. Potential effects to the environment are primarily related to ecological effects during construction and operation of the proposed CNM and human health effects during BSL-3 activities.

The potential ecological effects of construction and operation of the CNM would be impacts of storm water runoff into a restored wetland to the north of the CNM. Potential wetland impacts during construction include erosion of disturbed soil into the wetland. Potential wetland impacts during operation include surges of storm water from impervious areas and runoff of dirt, petroleum products, and road salt from the CNM parking lot. DOE would minimize storm water impacts during construction of the CNM by ensuring adequate erosion control before and during construction. These impacts would be minimized during operation of the CNM by collecting and pumping to the south, away from the restored wetland, most of the runoff from the CNM parking lot and by providing adequate detention and treatment for roof runoff and overflow runoff from the parking lot. Adverse ecological impacts are not expected to result from implementing the Proposed Action.

The potential human health effects of the proposed BSL-3 activities would be the same as those demonstrated for similar laboratories that are required to implement the guidelines established mutually by the Centers for Disease Control and Prevention (CDC) and the National Institutes of Health (NIH). The CDC and NIH define four levels of BSL work, in increasing levels of precaution, BSL-1, BSL-2, BSL-3, and BSL-4. BSL levels are specific combinations of work practices, safety equipment and facilities that are designed to minimize the exposure of workers and the environment to infectious agents. BSL-3 applies to agents that may be transmitted by the respiratory route and which can cause serious infections. BSL-3 work at the APS would be limited to one BSL-3 hazard at a time. The amount of BSL-3 samples at the APS at any time would be limited to 10 milliliters. Samples would be either pre-frozen or mounted in quartz capillaries. Human health information gathered from ANL's past experience with BSL-1 and BSL-2 laboratories, from the U.S. Bureau of Labor Statistics and from anecdotal information in published reports, indicates that while laboratory-acquired or laboratory-associated infections sometimes occur, they should be considered abnormal events due to their infrequency.

Radiological impacts from APS operations would not change and would remain very much below applicable standards and regulations.

DETERMINATION: Based on the analysis in the EA, DOE has determined that the continued operation of the APS, the proposed construction and operation of the CNM, and initiation of BSL-3 work at the APS in Argonne, Illinois, does not constitute a major Federal action significantly affecting the quality of the human environment within the

meaning of NEPA. Therefore, an environmental impact statement on the proposed action is not required.

PUBLIC AVAILABILITY: Copies of the EA (DOE/EA-1455) are available by contacting:

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U.S. Department of Energy
Argonne Area Office
9800 S. Cass Avenue
Argonne, Illinois 60439
(630) 252-2264

A copy may be viewed online at: <http://www.ch.doe.gov>

Copies of the EA are also available for review at the following locations:

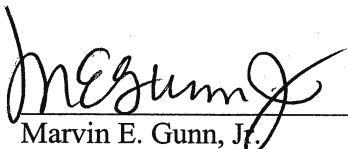
Lemont Public Library
50 East Wend Street
Lemont, IL 60439

Indian Prairie Public Library
Reference Section
401 Plainfield Road
Darien, IL 60561

For further information regarding the DOE NEPA process, contact:

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