

Advanced Photon Source

User Policies and Procedures

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User Electrical Equipment Inspections

Changes made in this revision:

- Changed review period from 1 year to 3 years
- Changed author from Steve Davey to Bruce Glagola (User Safety Officer); added Technical Operations Specialist as a reviewer; added XSD/DD and PSC/ESH-QA Coordinator as approvers; and removed AES/ADD-MIS, AES/DD, and APS/Director as reviewers/approvers
- Revised 5th paragraph in Policy
- Removed 2nd bulleted item in Section 1.2

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POLICY

To protect the safety of personnel and equipment, electronic and electrical equipment at the APS shall be inspected to ensure compliance with NEC, OSHA, DOE, and ANL standards. This requirement for inspections includes electrical equipment brought to the APS by users.

Electrical equipment that is brought to the APS by APS users must be inspected by an Argonne Designated Electrical Equipment Inspector (DEEI) before the equipment can be used. The APS has personnel that have been trained to be DEEIs.

In some cases, this inspection will be quite simple, e.g., if the equipment has already been inspected by a Nationally Recognized Testing Laboratory (NRTL) and is used for its designed purpose. Other equipment will require a more thorough inspection (this may include NRTL inspected equipment if it is assembled into apparatus with other components). Additional details about the inspections (including what type of equipment has to be inspected, inspection criteria, and a list of DEEIs) may be found in the documents available at:

http://www.aps.anl.gov/Safety_and_Training/Electrical_Safety/index.html.

The need for an electrical equipment inspection will be noted through the APS Experiment Safety Assessment Form (ESAF). It is the responsibility of the user and the beamline staff to contact a DEEI or the User Safety Officer and arrange for an inspection at least three (3) days in advance. Inspections will normally be performed during regular business hours. Requests with less than three days' notice or for inspections not during regular business hours will be dealt with on a case-by-case basis.

If the inspection finds that the equipment does not meet electrical safety standards, it may not be used at the APS until the deficiency has been corrected. While it is the user's responsibility to rectify the deficiency, the Sector and the APS may assist the user. Users will be responsible for services provided by non-APS personnel, overtime costs for APS personnel, and the costs for APS-supplied parts. Users with electrical equipment that has not been inspected by a DEEI will not be allowed to proceed with their experiments and may result in the loss of the user's scheduled beam time.

User Electrical Equipment Inspections

1 INTRODUCTION – PURPOSE, SCOPE, AND APPLICABILITY

1.1 Purpose

To protect the safety of personnel and equipment, electronic and electrical equipment at the APS shall be inspected to ensure compliance with ANL Standards, including NEC, OSHA, and DOE requirements.

1.2 Scope

This procedure:

- describes the process for making the arrangements for inspections for electrical equipment and electronics brought by users to the APS

1.3 Applicability

This procedure applies to APS user electrical equipment brought to the APS by the user.

1.4 References

Argonne Laboratory Management System

2 ARRANGING FOR THE INSPECTION OF USER ELECTRICAL/ELECTRONIC EQUIPMENT

2.1 Experiment Safety Assessment Form (ESAF)

The need for an electrical equipment inspection will be noted through the APS Experiment Safety Assessment Form (ESAF). When a user checks the Electrical Equipment, High Voltage, or Electric Furnace and the Bringing to APS checkboxes on the Equipment page of the ESAF the user will then complete the Electrical Inspection page. If an inspection is required it is requested from this page by the user and the details sent to the APS DEEIs.

2.2 Scheduling Inspections

It is the responsibility of the user and the beamline staff to arrange with either one of the DEEIs or the User Safety Officer for the actual date and time of the inspection. This notification is to be given at least three (3) days in advance of the actual inspection date. The APS will make an effort to honor requests that are received less than three (3) days in advance but due to work assignments and scheduling conflicts may not be able to complete the inspection at the date and time requested. In this case the equipment may not be used until a DEEI is available, the inspection is completed, and the equipment is approved for use by the DEEI.

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2.3 Off-hours Inspections

Requests for off-hours inspections (weekday evenings and nights or weekends) will be handled on a case-by-case basis. If notification of a request for off-hours inspections is given less than three (3) days in advance of the requested date the user will be responsible for any overtime charges. DEEI coverage cannot be guaranteed on a timely basis during weekends. If an experiment is to begin on the weekend, it is strongly recommended that the user has the equipment available for inspection before the weekend.

3 CLOSEOUT OR POST-PERFORMANCE ACTIVITY

The inspecting DEEI will record inspections according to Laboratory procedures.

4 FEEDBACK AND IMPROVEMENT

If you are using this procedure and have comments or suggested improvements for it, please go to the [APS Policies and Procedures Comment Form](#)* to submit your input to a Procedure Administrator. If you are reviewing this procedure in workflow, your input must be entered in the comment box when you approve or reject the procedure.

Instructions for execution-time modifications to a policy/procedure can be found in the following document: Field Modification of APS Policy/Procedure ([APS 1408152](#)).

* <https://www1.aps.anl.gov/Document-Central/APS-Policies-and-Procedures-Comment-Form>