

# Advanced Photon Source

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ICMS Content ID:	APS_1258434
DNS#:	APS-PPR-ADM-000-A020-000024
Revision #:	6
Issue Date:	4/16/20
Review Period:	2 years
Supersedes:	Rev. 5, 4/19/18
Last Reviewed:	6/14/22

## User Training

### Changes made in this revision:

- No changes made to this procedure since its last review

### Prepared by:

S. White-DePace, PSC/User Program Manager  
N. Moonier, AES/EFOG Group Leader

### Reviewed by:

ESH AES/ESH Coordinator  
ESH XSD/ESH Coordinator

### Approved by:

XSD/Division Director  
PSC/Deputy ALD, Operations  
PSC/Deputy ALD, Science  
PSC Safety Manager

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## User Training

### 1 APPLICABILITY

APS User Training Policies and Procedures apply to beamline personnel, experimenters, and other support personnel using Collaborative Access Team (CAT), Collaborative Development Team (CDT), and/or APS/X-ray Science Division (XSD) beamlines and associated facilities (e.g., Laboratory/Office module labs). This policy applies to both Argonne employees and non-Argonne users.

### 2 POLICY

Training is required for any hands-on activity/work at the APS. Training must be completed before the start of the any activity/work.

### 3 TRAINING REQUIRED FOR ALL ON-SITE APS USERS

All APS users, including XSD staff, resident users, general users, etc., must complete the five courses listed below before doing any hands-on work at the APS. The courses may be taken online at the link shown, or in the User Training Room (Building 401, Room B-1147C).

#### 3.1 Core courses required of all APS Users

The following core courses are required of all APS Users and, with the exception of Sector Orientation, are available here: <https://www.aps.anl.gov/Safety-and-Training/Training/For-Users-and-Employees/Required-Training-for-Users>

1. APS101: Advanced Photon Source User Orientation (*all users, 2 year retraining*)
2. ESH100U: Argonne National Laboratory User Facility Orientation (*non-resident users, 2 year retraining*); ESH1000: General Employee Training (*staff and resident users, 1 year retraining*)
3. ESH223U: Cyber Security Cyber Security Awareness for Non-Resident Users (*non-resident users, 1 year retraining*); ESH223: Cyber Security Annual Education and Awareness (*staff and resident users, 1 year retraining*)
4. ESH738: GERT: General Employee Radiation Training (*all users, 2 year retraining*)  
Current GERT training from another DOE facility will be accepted for this requirement. Users should submit a current GERT card or training record from home institution to the [APS User Office](#) to receive credit.
5. ESH 408: Basic Electrical Safety Awareness

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6. APS 2xx, Sector-specific Orientation  
Must be completed for each beamline where a user will work. This training is provided by beamline staff and can be arranged through sector personnel. (Course number APS 2xx where xx refers to the sector number) (*all users, 2 year retraining*)

*Note: A User or Argonne employee badge number is required to take the on-line core courses.*

## 3.2 Sector-Specific Orientation

All APS users must receive sector-specific orientation for each sector where they will be doing hands-on work. This orientation is provided by the beamline staff and must be completed before the user begins work in the sector.

Each sector tailors the orientation to its operations and potential hazards. The orientation must cover the topics outlined in the model Sector Orientation Record form (see [Appendix A](#)); and other sector-specific safety topics as specified in the sector's Beamline Safety Plan.

The orientation is recorded on Sector Orientation Record form. A model form is available to the beamlines from the APS; if a sector uses a form other than the APS model, a sample copy of the sector-specific form should be provided to the User Safety Officer for review and approval.

After sector-specific orientation or refresher orientation is completed the trainer enters course completion in TMS by utilizing the [Credit for Sector Orientation](#) web link or providing the completed form to the User Office for entry into the system.

## 3.3 Additional training for APS Users

In addition to the five required courses and sector orientation, certain activities may require specific additional training. The Experiment Safety Assessment will identify experiment-specific training requirements. Resident Users have additional training described in the next section.

## 4 TRAINING REQUIRED FOR ALL APS RESIDENT USERS

Resident users are CAT members and staff who have been assigned work space at the APS and/or have CAT safety responsibilities assigned to them, but are not Argonne employees.

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## 4.1 Core courses required of all APS Resident Users

The following additional courses are required of resident users:

1. ESH409, Advanced Electrical Safety Awareness Training (*resident users and staff, 3 year retraining*)
  2. [Building Safety Orientation](#) for ALL buildings in which individuals have assigned space (*resident users and staff, 1 year retraining*)
- ### 4.2 Additional training for APS Resident Users

In addition to the required courses, certain activities may require specific additional training. APS Resident Users complete an online Argonne Job Hazard Questionnaire (e-JHQ) to identify if their activities require further training. The JHQ should be completed in consultation with the CAT/CDT Safety Coordinator. (A typical JHQ for LOM residents is available for reference from the AES ESH Coordinator.)

Upon completing the e-JHQ, a training profile will be generated for the Resident User. The profile showing required courses, the titles and dates of courses taken, and the dates for required refresher training can be viewed through the Argonne Training Management System (TMS).

Resident Users can enroll in Web-based courses through the TMS Web pages or by contacting the User TMS representative in the user office at 630-252-1783. An Argonne domain account is required to access TMS and the Web-based training. To reset domain account name and password, send a message containing your telephone number to [apsuser@aps.anl.gov](mailto:apsuser@aps.anl.gov).

## 5 TRAINING REQUIRED FOR REMOTE USERS

A remote user is one who is **not** present at the APS for the experiment but manipulates the beamline remotely.

1. [ESH 223U](#), Cybersecurity Annual Education and Awareness (*1 year retraining*)

## 6 TRAINING REQUIRED FOR MAIL-IN AND OFF-SITE USERS

A mail-in user is one who is **not** present at the APS and mails in samples for beamline staff to run. An off-site user is one who is **not** present at the APS but is a collaborator or research participant for the experiment.

No training is required for mail-in and off-site users.

## 7 TRAINING REQUIRED FOR OBSERVERS

**An observer is a person that is present at the APS to only observe an experiment. The person may not do any work and must be escorted at all times.**

1. APS 2xx, Sector-specific Orientation  
Must be completed for each beamline where a user will work. This training is provided by beamline staff and can be arranged through sector personnel. (Course number APS 2xx where xx refers to the sector number) (*all users, 2 year retraining*)
2. APS 101: : Advanced Photon Source User Orientation (*all users, 2 year retraining*)

## 8 ASSISTANCE

Address any questions or concerns about training to the User Safety Officer, Nena Moonier ([nmoonier@anl.gov](mailto:nmoonier@anl.gov))

## 9 DOCUMENTS/RECORDS CREATED BY THIS PROCEDURE

The documents/records listed below will be created in the execution of this procedure and must be retained as indicated.

Description of Document/Record (include ID number, if applicable)	Custodian	Storage Location and Medium	Retention Requirement
APS Model Sector Orientation Record	APS User Office	Maintained on paper by the CAT	Until training is logged in Training Management System (TMS)

## 10 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://www.aps.anl.gov/Document-Central/APS-Policies-and-Procedures-Comment-Form>

## Appendix A – APS Model Sector Orientation Record

Name (Last, First)                      User Badge Number                      CAT or APS XSD Sector Number(s)

<b>SECTOR ORIENTATION RECORD</b>
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<b>Safety Policies and Resources</b>	
<input type="checkbox"/>	Explanation of the general policies pertaining to the control of hazards
<input type="checkbox"/>	Introduction to the CAT Safety Coordinator, the Beamline Safety Technician and the Manager and an affirmation of the importance of bringing all safety and environmental problems and concerns to their attention
<b>General Safety Information</b>	
<input type="checkbox"/>	Location of safety equipment (fire extinguisher, shower, eyewash station, etc.)
<input type="checkbox"/>	Emergency phone numbers (911 or from cell phone 630-252-1911)
<input type="checkbox"/>	Location and requirements for the use of safety eyewear and other personal protective equipment
<input type="checkbox"/>	Proper storage of chemicals and gas cylinders
<input type="checkbox"/>	Procedure for obtaining and using liquid nitrogen
<input type="checkbox"/>	Recent safety communications i.e. Safety Notices, Lessons Learned etc.
<input type="checkbox"/>	Locations of Sector tornado shelters and evacuation assembly area
<b>Beamline safety information</b>	
<input type="checkbox"/>	Orientation to implementation of the APS Shielding Configuration Policy
<input type="checkbox"/>	Locations of the utility shutoffs for electricity, water and compressed gases
<input type="checkbox"/>	General and beamline-specific operation of the Personnel Safety Systems
	User's signature: _____ Date: _____
	Trainer: _____ Date: _____

Submit a copy of this form to the APS User Office upon completion of training. If the user does not receive the beamline safety information at the time of initial training, submit another photocopy of this form to the User Office when that information is provided. Credit for training can be entered at:  
[https://beam.aps.anl.gov/pls/apsweb/sst\\_entry\\_pkg.start\\_page](https://beam.aps.anl.gov/pls/apsweb/sst_entry_pkg.start_page)