

Advanced Photon Source

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Contractor and Construction Services

Changes made in this revision:

- Edits to clarify/tailor requirements for contracted construction service for accelerator and beamline facilities.
- Section 2 limited to conventional plant facilities construction.
- Clarified that the APS Site Operations Group Manger can approve the designs for *minimal consequence* Service Request Orders (SRO) and minor edits for clarity.
- Inserted a new Section 3 for contracted construction services for the installation, modification, and/or removal of beamlines or accelerator systems (i.e., technical systems).

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Contractor and Construction Services

1 Contractors Working On-Site at the APS

For the purposes of this policy, a contractor is any worker, hired by Argonne or an APS User, to provide services at the APS, and the worker is not:

- An Argonne employee or
- A User whose work is covered by an APS User Agreement

Work Planning and Control - For a contractor to work on-site at the APS both a fully executed [APS Work/Project Checklist, Form UO-38](#) (form including instructions [APS_1259683](#)) and an APS Work Entry Clearance (WEC) are required. Depending on the potential safety consequences of the work, a Job Safety Analysis (JSA) may be required. See [Work Planning and Control \(APS_1432773\)](#) for additional details including requirements for approvals and authorizations.

For services contracted through Argonne Procurement, these documents will be developed as part of the purchase requisition process – safety approval in the Laboratory’s procurement system PARIS will require the Work Project Checklist to be complete.

The Work Project Checklist is an integral part of the ESH screening process and documents:

- Work/Project description (scope, location, schedule, and identification of the project requestor and coordinator).
- Risk classification and contractor access requirements.
- ESH and design review approvals and pre-start requirements (including mandatory NEPA reviews).
- Project management information (e.g., requisition number, contract/contractor information, authorization to proceed).

The responsibilities and interface points between plant facilities (overseen by Argonne Infrastructure Services Group) and APS technical systems (overseen by APS personnel) are detailed in the [Memorandum of Understanding Between the Photon Sciences Directorate \(PSC\) and the Infrastructure Services \(IS\) Directorate for the Advanced Photon Source \(APS\) Complex](#) (PSC/IS MOU).

Initiating contractor work:

Type of work	Requestor's Point of Contact
Plant facilities contractor working in a beamline's sector or LOM	Floor Coordinator
Plant facilities construction not in a beamline's sector or LOM	Argonne Facilities Division, APS Site Operations Group Manager
Accelerator or beamline construction work	Designated Contract Technical Representative
All other contractor work	APS ESH Coordinator

The WEC identifies contractors that will be working at the APS and where and when they will be working. Prior to site access, the completed WEC must be submitted to the Building Manager and approved.

For contractor work provided for a User, beamline personnel shall assist with oversight and ensuring that contractors conform to ESH requirements.

2 Plant Facilities Construction

Argonne provides plant facilities construction services to the APS and to APS Users through Argonne trades, on-site Time and Material contractors, and contracted construction.

For the purposes of this document:

- Construction refers to traditional construction activities including:
 - Erection and painting of buildings, rooms, and walls within buildings;
 - Installation of facility electrical service and building lighting;
 - Plumbing of facility gas and liquid distribution piping; and
 - Installation of HVAC systems.
- Plant Facilities construction does not include:
 - Installation of accelerator, beamline, or experiment instrumentation;
 - Plug-in connection of technical equipment to facility electrical service and interconnection of technical equipment; and
 - Connection of accelerator, beamline, or experiment instrumentation to facility gas and liquid distribution system.

To ensure compliance with Argonne-required building codes/standards, labor requirements, and construction safety requirements, and for coordination with other plant activities, Argonne's Facilities Division, APS Site Operations Group will be the point of contact for construction at the APS and work will be managed according to Argonne's Manual of Construction.

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Only Argonne can contract for on-site construction work. Non-Argonne User's home institutions cannot directly contract for construction on the Argonne site, Argonne will contract on the User's behalf. Non-construction, technical work may be done by APS personnel, Users, or contractors.

Responsibilities

Requestor

- Obtain design approvals according to [APS Design Review](#) Policy and Procedure

Smaller Service Request Orders (SRO) for work that has little potential to impact facility operations, for design review purposes, maybe of minimal consequence (see [APS Design Review](#) Policy and Procedure) and with the approval of the APS Site Operations Group Manger, such work may not require a PSC Design Review Committee review. Such work may include routine limited scope installation and maintenance work.

- Provide an Argonne cost code or a funded user account to pay for the construction
- Monitor the construction, ensuring work meets requirements

ANL/Infrastructure/Facilities' APS Site Operations Group

- Assist in developing a scope of work and specifications.
- Completes the Work Project Checklist and Work Entry Clearances.
- Verify that designs have been reviewed and approved according to [APS Design Review](#) Policy and Procedure.
- Ensure pre-start documentation, training, and authorizations completed.
- Provide the Contract Technical Representatives and engineering services to ensure work meets applicable codes and functional requirements.
- Provide a *Coordinator* to provide the day-to-day ESH oversight. Personnel providing ESH oversight shall have completed the 10-hour OSHA training for General Industry and/or Construction.
- When all pre-start requirements (e.g., documentation, training) are met, authorize the start of work by completing the Work Project Checklist Authorization to Proceed.
- Coordinate with the APS Design & Drafting Group to ensure that documents required for transfer to operations (e.g., as-built drawings, occupancy permits, etc.) are available for uploading to the APS.

APS Floor Operations Group/Floor Coordinators

- For construction in an experiment hall sector or the associated LOM, assist in coordinating /scheduling and overseeing construction activities.

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Accelerator Systems Machine Managers

- For construction in an accelerator facility, assist in coordinating /scheduling and overseeing, construction activities.

3 Accelerator or Beamline (Technical System) Construction

For the purposes of this document, accelerator or beamline construction will be referred to as *technical system* construction and include traditional construction trades, such as electricians, plumbers, and carpenters, contracted for installation, modification, or removal of accelerator and beamlines facilities (i.e., not building and utility infrastructure per the PSC/IS MOU).

Technical system construction contracts are to ensure, as appropriate, compliance with Argonne-required codes/standards, labor requirements, and construction safety requirements. For coordination with plant activities, Argonne's Facilities Division, APS Site Operations Group will be the point of contact for construction at the APS and work will be managed according to Argonne's Manual of Construction.

Responsibilities

Requestor

- Obtain design approvals according to [APS Design Review](#) Policy and Procedure.
- Identify the project account to pay for the construction.
- Monitor the construction, ensuring work meets requirements.

The project team

- Develop a scope of work and specifications.
- Complete and submit the Work Project Checklist and Work Entry Clearances.
- Ensure pre-start documentation, training, and authorizations have been completed.
- Provide a project coordinator
 - When all pre-start requirements (e.g., documentation, training) are met, sign Work Project Checklist, Authorization to Proceed
 - Will ensure that documents required for transfer to operations (e.g., as-built drawings, occupancy permits, etc.) are available for uploading to the APS.

PSC ESH Personnel

- Provide day-to-day ESH oversight. Personnel providing ESH oversight shall have completed the 10-hour OSHA training for General Industry and/or Construction

APS Floor Operations Group/Floor Coordinators

- For technical construction in an experiment hall sector or the associated LOM, assist in coordinating /scheduling and overseeing construction activities.

Accelerator Systems Machine Managers

- For technical construction in an accelerator facility, assist in coordinating /scheduling and overseeing, construction activities.

4 Users and Third-Party Contractors

For the purposes of this policy, a *third-party contract* is an agreement between a non-Argonne User's home institution and a service provider for contractor work at the APS - Argonne is not a party to the contract.

In addition to the Work Project Checklist, WEC, and JSA, if required, third party contracts require:

- The User's home institution has a current APS User Agreement
- Argonne approval:
 - Argonne will routinely allow third party contracts if the scope is limited to:
 - Installation incidental to the User's purchase of a piece of technical equipment (goniometer, computer, mirror, vacuum chamber, etc.).
 - or
 - Installation, maintenance, or repair of User-owned office equipment (such as repairing a copying machine or assembling furniture).
 - If the work goes beyond the above limited scopes, approval of the contract by Argonne Procurement is required prior to site access by the contractor. Procurement will identify requirements in areas such as on-site labor, site access/security, and ESH requirements.
- No construction in the scope of work.
- The User to be responsible for ensuring that the third-party contractor complies with the APS, Argonne (including site access requirements), and DOE ESH standards for on-site work.
- Prior to site access, contractor training, inspection, and permitting requirements must be completed.
- If the work involves the use of a rider-operated forklift, this scope of work must be provided by Argonne rigging services

5 Closeout or Post-performance Activity

The APS person overseeing any construction activity must update facility records as appropriate and/or verify drawings/specification of the work are placed in the APS document system.

6 References

Work Planning and Control at the APS (APS document [APS_1432773](#))

PSC National Environmental Policy Act (NEPA) Reviews, Procedure 1110-00210 (2015) (APS document [APS_1419836](#))

[Argonne Manual of Construction](#)

[Facilities Design Guide, JSTD-128-W-Tool](#)

Contractor Safety, ANL procedure [LMS-PROC-123](#)

Technical Representative and Contractor ESH Representative. [Argonne procedure LMS-PROC-221](#)

[Memorandum of Understanding Between the Photon Sciences Directorate \(PSC\) and the Infrastructure Services \(IS\) Directorate for the Advanced Photon Source \(APS\) Complex](#)

6 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 7D number, if applicable)	Custodian	Storage Location and Medium	Retention Requirement
Contracts	Argonne Procurement	PARIS	Use Argonne Procurement standards
APS Work/Project Checklist (Form UO-38)	1) For construction projects: ANL/IS APS Site Operations Group Leader 2) For non-construction work: ESH Coordinator	ICMS	11 years 1 year (assuming <1 year to complete) plus 10-year retention (DOE Admin Records Schedule 17, Engineering and Facility Management Records, section 30c2 Project Planning and design files)
Work Entry Clearance (Form)	Building Manager	ICMS	3 years

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7 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>