

ENVIRONMENT, SAFETY & HEALTH DIVISION

Chapter 2: [Work Planning and Control](#)

Construction Work Planning and Control Procedure

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URL: <https://www-group.slac.stanford.edu/esh/eshmanual/references/wpcProcedConstruct.pdf>

1 Purpose

The purpose of this procedure is to ensure adequate protection of workers, the public, and the environment, through the consistent application of *work planning and control* to construction work. It covers all construction work performed at SLAC; it does not cover project management, scheduling, or budgeting. It applies to workers, general and sub-tier subcontractors, SLAC project and field construction managers, area and building managers, and Environment, Safety and Health.

For information on the safety-related aspects of qualifying and managing contractors, see [Chapter 42, “Subcontractor Safety”](#).

1.1 Work Planning and Control

Work planning and control (WPC) is the use of formal, documented processes for identifying and mitigating risks when planning, authorizing, releasing, and performing work. It covers the seven core functions of SLACs’ integrated safety and environmental management system (ISEMS):

1. Define the work
2. Identify and analyze hazards
3. Develop and implement controls
4. Authorize work
5. Release work
6. Perform work within controls
7. Feedback and continuous improvement

Three key concepts of work planning and control are planning, authorization, and release. Before beginning actual work, all work must first be planned, then authorized, and finally released.

Planning consists of defining the scope of work, identifying and analyzing the hazards, and developing and implementing controls. Identifying and analyzing hazards and controls related to both the activity and the work area where the activity will occur are the responsibility of the person authorizing the work. A visit to the job site may be warranted, as well as a discussion with the area or building manager and review of any *area hazard analysis (AHA)*. The results are documented in some form of *work plan*, which forms the basis for authorization and release.

Authorization means that the person who authorizes the work

1. Is sufficiently knowledgeable of the hazards to plan and authorize such work
2. Has determined the work falls within his or her area of responsibility
3. Is satisfied with the content of the work plan
4. Has determined that the persons assigned to perform work are qualified
5. Has discussed hazards and controls with those persons

The person who authorizes work is accountable for its performance. Work is typically authorized by the supervisor of the person performing the work. The key, unvarying, requirement for authorizing work is that the person authorizing the work ensures that the persons doing the work

1. Understand the scope of work and the task-specific hazards and controls
2. Are qualified

Release means permission to proceed with authorized work in a given area or on a given project. Release is granted after the person granting the release has made sure that

1. Hazards unique to the area have been communicated
2. Affected persons have been notified
3. Work has been coordinated to avoid conflict and minimize risk

Details on authorizing and releasing construction work are given below. For more on the general concepts of work planning and control and the details of non-construction work planning and control, see [Chapter 2, “Work Planning and Control”](#).

2 Roles and Responsibilities

Functional roles and general responsibilities for each are listed below. More detailed responsibilities and when they apply are provided in the procedures and requirements.

The roles may be performed by one or more individuals and one individual may play more than one role, depending on the structure of the organizations involved. Responsibilities may be delegated.

2.1 Project Manager

- Manages overall project
- Ensures general and sub-tier subcontractors are following SLAC processes

2.2 Field Construction Manager

- Is the SLAC point of contact in the field for general and sub-tier subcontractors
- Reviews job safety analysis (JSA) forms and daily tailgate forms approved by the general subcontractor
- Releases construction subcontractor work on designated construction sites
- Receives permit forms approved by the general subcontractor

2.3 Area / Building Manager

- Releases construction subcontractor work in occupied buildings
- May delegate release of construction subcontractor work in designated areas of occupied buildings to the FCM

2.4 ESH Division

- Reviews subcontractor JSAs as needed
- Receives plans and permits from FCM that have been submitted by the sub-tier subcontractor and approved by the general subcontractor

2.5 General Subcontractor

- Provides qualified sub-tier subcontractors
- Ensures sub-tier subcontractors follow SLAC's construction WPC process
- Ensures all subcontractor work is thoroughly planned
- Approves JSAs, daily tailgates, and required permit forms submitted by sub-tier subcontractors and provides to SLAC field construction manager (FCM)
- Conducts daily tailgate meetings

2.6 Sub-tier Subcontractor

- Provides qualified workers
- Foreman authorizes subcontractor work by signing the JSA and daily tailgate forms
- Develops JSAs, daily tailgates, and required permit forms and submits to the general subcontractor for review and approval

2.7 Worker

- Completes required training
- Understands scope, hazards, and controls of planned work by reviewing and signing JSAs and daily tailgates and reviewing plans and permits
- Performs only work within the scope that has been authorized by foreman, approved by the general subcontractor, and released by the FCM
- Works within established controls documented in JSA, daily tailgates, and plans and permits
- Stops work and notifies supervisor if conditions change or work details differ from the plan

3 Procedures

All work must be thoroughly planned and performed according to plan, as documented in JSAs, tailgate forms, and permits. The process is summarized below and illustrated in Figure 1.

3.1 Training

3.1.1 Worker

All construction workers must take ESH Course 375, Construction Safety Orientation ([ESH Course 375](#)) (See [Chapter 55, "Site Access Control"](#), for more information on site access and on-boarding.)

Based on the tasks and hazards identified during planning, subcontractors may be required to complete additional SLAC-specific ESH training courses as determined by the project manager or FCM.

3.1.2 Supervisor

All construction subcontractor supervisors (foremen and superintendents) must attend Facilities Course 101, Subcontractor Safety Management Training ([FAC Course 101](#)), before approving any JSAs for work to be performed. The course will be presented by Field Construction Management.

3.1.3 Field Construction Manager

All FCMs must complete

- ESH Course 120, Work Planning and Control Overview ([ESH Course 120](#))
- ESH Course 392, Construction Work Planning and Control (WPC) ([ESH Course 392](#))

3.1.4 Area / Building Manager, Project Manager, Health and Safety Services

All building and area managers, project managers, and Health and Safety Services staff involved with construction activities must complete ESH Course 392, Construction Work Planning and Control (WPC) ([ESH Course 392](#)).

3.2 Authorization

Subcontractor work will be authorized by the foreman running the work for that trade. Work will be authorized by the foreman's approval and signature on the JSA and daily tailgate form.

No work can be performed unless the foreman has included the job on the daily tailgate form and authorized the work.

3.3 Approval

General subcontractors will approve work to be performed by their representative's signature on the JSA and daily tailgate form.

3.4 Release

The field construction manager for the job will provide daily release to the subcontractor by signing the daily tailgate form. There are three different types of release:

1. **Dedicated Construction Site.** This is a site that involves only construction. In this case, the FCM is the sole source for release of work on the job site.
2. **Work in an Occupied Building.** Involves work in currently occupied buildings where construction could impact building operation. In these cases the FCM must obtain release from the building or area manager before release of any work and must notify the building or area manager of any changes in planned work. The daily release must be a signature from the identified building or area manager or e-mail confirmation of the release.
3. **Work in a Designated Area of an Occupied Building.** This involves work in currently occupied buildings, but in a specific area or room. In these cases the building or area manager can turn over the area to the FCM who can then release work in that designated area for the duration of the project without the need for daily building/area manager release.

3.5 Complex or Unfamiliar Operations

When complex or unfamiliar operations are identified by SLAC, additional meetings will be required to ensure SLAC, the general subcontractor, and the sub-tier subcontractor performing the work clearly understand the work to be performed and the control measures needed to address the hazards.

The additional meeting(s) must be conducted before work release from the FCM.

3.6 Stop Work

All subcontractors must stop work in any of the following situations:

- When an imminent danger is discovered during the work
- When in the course of work it is discovered that proper planning has not been completed for the task
- When planned conditions have changed
- When work does not have the proper authorization, approval or release

Work cannot resume until the situation has been corrected and the FCM releases the revised work. Stopping work in these conditions is the responsibility of every worker, SLAC and subcontractor, on-site. (See [Work Planning and Control: Stop Work Procedure](#) for details.)

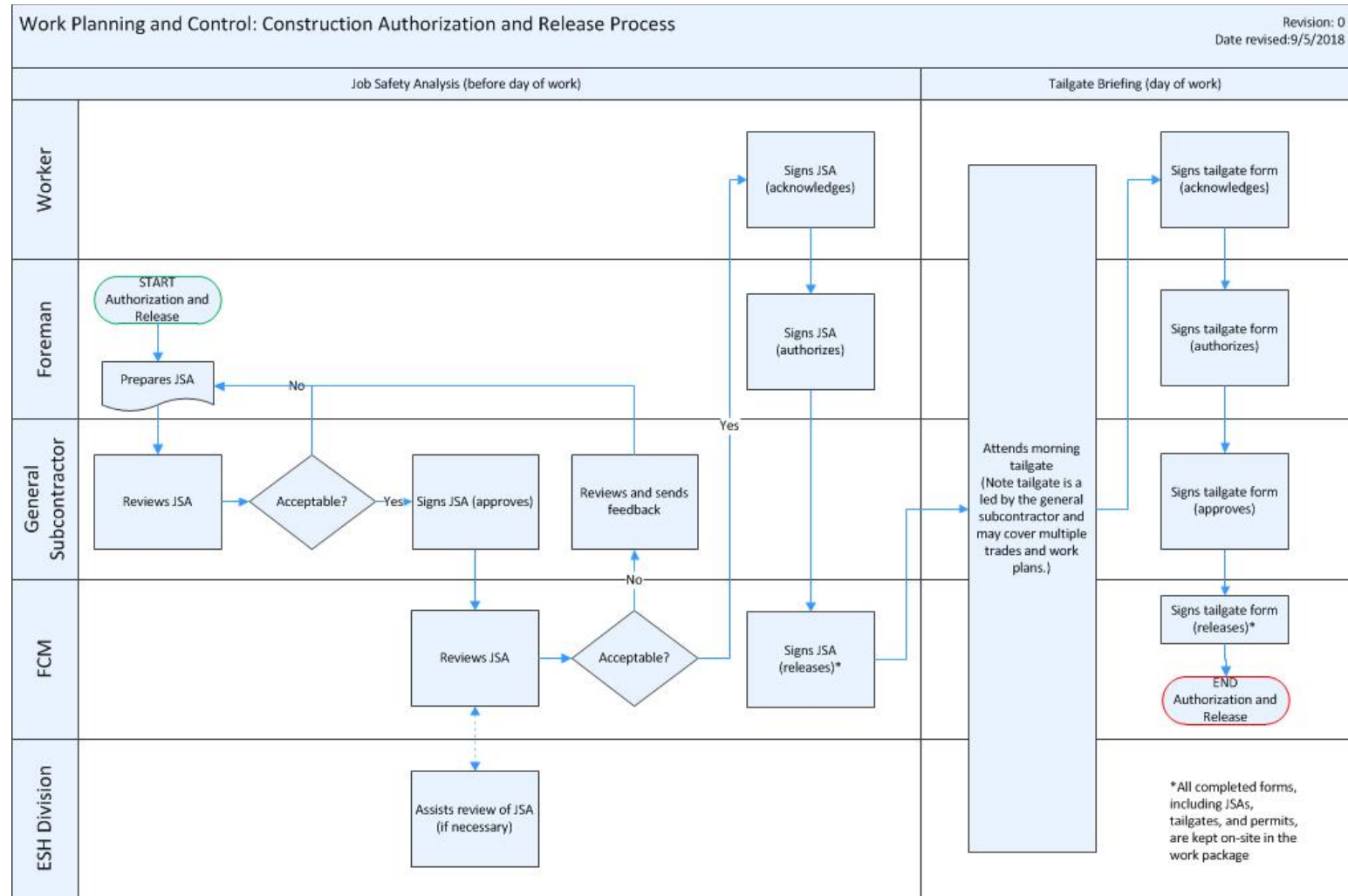


Figure 1 Construction Authorization and Release Process

4 Forms

The following forms and systems are required by this procedure:

- [Work Planning and Control: Job Safety Analysis Form](#) (SLAC-I-730-0A21J-034). Form for documenting authorization and release of yellow, red, and construction work
- [Work Planning and Control: Construction Tailgate/Release Form](#) (SLAC-I-730-0A21J-037). Form for documenting final release of construction work
- [Work Planning and Control: SLAC Receipt of Subcontractor Form](#) (SLAC-I-730-0A21J-057). Form for documenting the receipt by SLAC of approved subcontractor forms. (It is not to be used for SLAC forms completed by or for subcontractors; those forms include signature lines for SLAC personnel where needed.)
- [Hazard Evaluation and Planning eTool](#). Tool for identifying SLAC ESH permits, plans, and other requirements

5 Recordkeeping

The following recordkeeping requirements apply for this procedure:

- Approved forms are to be kept in the work package; work packages are to be kept for 90 days after completion of the work by the FCM.

6 References

[SLAC Environment, Safety, and Health Manual](#) (SLAC-I-720-0A29Z-001)

- [Chapter 2, “Work Planning and Control”](#)
 - [Work Planning and Control: Work Planning and Control Procedure](#) (SLAC-I-720-0A21C-002)
 - [Work Planning and Control: Stop Work Procedure](#) (SLAC-I-720-0A21C-003)
 - [Work Planning and Control](#) (includes online tools)
- [Chapter 42, “Subcontractor Safety”](#)
- [Chapter 55, “Site Access Control”](#)

Other SLAC Documents

- ESH Course 120, Work Planning and Control Overview ([ESH Course 120](#))
- ESH Course 375, Construction Safety Orientation ([ESH Course 375](#))
- ESH Course 392, Construction Work Planning and Control (WPC) ([ESH Course 392](#))
- Facilities Course 101, Subcontractor Safety Management Training ([FAC Course 101](#))

Other Documents

- Occupational Safety and Health Administration (OSHA). Job Safety Analysis ([OSHA Publication 3071](#))