This chapter was last reviewed for currency 5/10/2021.
The next thorough review is due 5/10/2024.
See the COVID-19 Resource Center for modifications.

ENVIRONMENT, SAFETY & HEALTH DIVISION

Chapter 2: Work Planning and Control

Quick Start Summary

Product ID: 511 | Revision ID: 2332 | Date published: 10 May 2021 | Date effective: 10 May 2021
URL: https://www-group.slac.stanford.edu/esh/eshmanual/references/wpcQuickstart.pdf

1 Who needs to know about these requirements

The requirements of Work Planning and Control apply to all persons, including SLAC employees, subcontractors, and users, performing any *activity*-level work in or on facilities managed by SLAC, including technical and administrative activities, construction, experiments, operations, maintenance, and service. The chapter covers the stop work process as part of performing work within controls.

2 Why

Inconsistent and inadequate work planning, authorization, and control puts at risk adequate protection of workers, the public, and the environment.

3 What do I need to know

All work must first be planned, then authorized, and finally released. How this happens depends on the type of work, categorized by complexity: green, yellow, red. Work is authorized generally by the supervisor of the person performing the work. (Subcontractor supervisors authorize work, but a SLAC employee must confirm the authorization). Work is typically released by either the supervisor, for work performed in a person's resident area, or, for non-resident area work, the area or building manager. Documentation requirements vary by type of work, but generally there must be evidence in some form of scope of work, authorization, and release to communicate critical steps, hazards, and controls to workers.

Every worker performing any work in or on facilities managed by SLAC has the authority and responsibility to stop work for conditions that threaten imminent danger. Stop work actions take precedence over all other priorities and procedures.

4 When

These requirements take effect 10 May 2021.

5 Where do I find more information

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

- Chapter 2, "Work Planning and Control"

Or contact the program manager.

ENVIRONMENT, SAFETY & HEALTH DIVISION

Chapter 2

Work Planning and Control

Product ID: 3 | Revision ID: 2331 | Date published: 10 May 2021 | Date effective: 10 May 2021
URL: https://www-group.slac.stanford.edu/esh/eshmanual/pdfs/ESHch02.pdf

1 Purpose

Work planning and control (WPC) is the use of formal, documented processes for identifying and mitigating risks when planning, authorizing, releasing, and performing work. The purpose of WPC is to ensure adequate protection of workers, the public, and the environment, which would otherwise be put at risk by inconsistent and inadequate planning, authorization, and control.

Following the principles of integrated safety and environmental management, WPC uses a graded approach to the level of coordination required to identify and mitigate hazards: the process varies according to the type of work (*green*, *yellow*, *red*), which is in turn based on the complexity and risk of the work.

This program covers the seven core functions of SLAC's 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

For all *activity*-level work performed in or on facilities managed by SLAC, including technical and administrative activities, construction, experiments, operations, maintenance, and service. It does not cover project management, scheduling, or budgeting. The program also covers the stop work process as part of performing work within controls. It does not cover project management, scheduling, or budgeting.

It applies to all workers (including SLAC employees, subcontractors, and users), supervisors, field construction and service managers and points of contact, project managers, subcontractors, area and building managers, ESH coordinators, department and division heads, associated laboratory directors, the chief safety officer, ESH, and the work planning and control program manager.

2 Roles and Responsibilities

Functional roles and general responsibilities for each under this program 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.

For detailed roles and responsibilities for construction work planning and control, see Work Planning and Control: Construction Work Planning and Control Procedure.

2.1 Worker

- Completes required training
- Understands scope of work, hazards, and controls (based on training and authorization and release)
- Performs only work within the scope of work, for which hazards, controls, authorization, and release have been granted
- Ensures that controls are in place and hold points, if any, are clearly understood and validated before starting work
- Works within controls
- Stops the work and notifies supervisor if conditions change or work details differ from the work plan to the point that a concern arises about safety, quality, or damage to property or the environment
- Provides feedback, as appropriate, to improve work procedures or WPC processes

2.2 Work Planner

- Defines scope of work
- Identifies work groups necessary to fulfill scope of work
- Assists in preparation of work plans, including coordinating the work details and requisite reviews and identifying required permits and approvals
- Ensures that the work that is being planned will meet the requirements of the work request

2.3 Supervisor

The SLAC employee functioning as the supervisor:

- Reviews work requests, as appropriate, assigns work, and ensures work plans are developed
- Ensures the assigned task(s) is documented as needed to minimize unintended consequences

  Requirements for documentation vary with the type of work. It is important to remember that the purpose of documentation is to address and communicate to the worker unique or specific hazards resulting from the condition of the equipment being worked on, the location of the work, the significance of negative consequences if an intermediate step is omitted or performed out of sequence, and so on. (See Work Planning and Control: Work Planning and Control Procedure for more detail on required and recommended documentation.)
- Understands not only the activity-level hazards, but the hazards associated with the location where the work will be performed, and, if necessary, works with the area or building manager who will be releasing the work

- Authorizes work by ensuring
  - Coordination with the functional or administrative supervisor, as appropriate

    The *administrative supervisor* is accountable for ensuring his or her workers are authorized, either by granting the authorization or delegating that responsibility to a *functional supervisor*. The authorizer must be sufficiently knowledgeable to understand the work, the hazards, how to identify controls, the experience necessary to carry out such work, and the competence of the worker.
  - Work planning is current and complete
  - Persons assigned to perform work are qualified

    Supervisors are required to ensure workers are properly trained before authorizing them to perform work and to review training assignments annually and when job activities or workplace hazards change. Current training can be checked using the SLAC Training Assignment (STA).
  - Persons assigned to perform the work understand the hazards and controls

    The Stanford University Administrative Guide Memo 7.5.1, "Health and Safety Performance Standards and Discipline", which SLAC follows, requires supervisors to communicate clearly health and safety practices to all employees and to make good health and safety practices part of employees' job expectations and evaluations.
  - Adequate controls are in place or will be in place before executing the work
- Releases resident area work, if he or she controls the area (otherwise release by the area or building manager is required)
- Ensures a *tailgate briefing*, if required, is held
- Ensures that work is performed as planned
- Reviews changes, brought to his or her attention, to work scope and determines the level of re-authorization and re-release required. Partners with functional or administrative supervisor, as needed.
- For imminent danger stop work, ensures appropriate parties are notified, situation resolved, hazards and controls updated, and any necessary re-authorization and re-release obtained
- Reviews completed work for potential process improvements or lessons learned

2.4 Field Construction Manager / Service Manager / Point of Contact

- The subcontractor's foreman/supervisor authorizes work but a SLAC employee confirms the authorization: a field construction manager (FCM) for construction subcontractor work, a service manager (SM) for high-risk service subcontractor work, or a point of contact (POC) for all other types of subcontractor work
- FCMs releases construction subcontractor work directly (see Work Planning and Control: Construction Work Planning and Control Procedure); SMs and POCs first obtain the release from the area or building manager then release the subcontractors

2.5 Subcontractor

- Follows the applicable SLAC work planning and control process (Work Planning and Control: Work Planning and Control Procedure or Work Planning and Control: Construction Work Planning and Control Procedure)
- The subcontractor's foreman/supervisor authorizes work but a SLAC employee confirms the authorization
- Subcontractor work is released by a SLAC FCM, SM, or POC, depending on the type of work
- Provides qualified workers

2.6 Area / Building Manager

- Releases work in areas where work is to be performed by non-resident workers

  For construction projects, the area or building manager releases the work to the FCM, who then has release authority until the project is complete. Once the construction project is complete, the building or area is handed back to the building or area manager. (See Work Planning and Control: Construction Work Planning and Control Procedure for details.)

  For other types of subcontractor work, the area or building manager releases the SM or POC, who in turn releases the subcontractor.

2.7 ESH Coordinator

- Reviews and approves work plans as appropriate for hazards and adequate controls
- For imminent danger stop work, or upon request, concurs with restart of work if satisfied with updated controls

2.8 Department / Division Head

- Implements WPC within his or her respective organization
- Ensures implementation of WPC requirements is documented, with concurrence from the WPC program manager, if local implementation differs from this program (for example, see Work Planning and Control: SSRL User Implementation for User Experiments)
- Ensures a mechanism is in place to encourage and document feedback for continuous improvement
- For imminent danger stop work, notifies the chief safety officer (CSO) and associate laboratory director (ALD), ensures investigation is initiated within one work day, concurs with restart of work if satisfied with updated controls, and uses and shares information to prevent similar situations from happening again. Ensures that appropriate division/department communication occurs to inform workers of the stopped work, reasons for it and a path forward.

2.9 Associate Laboratory Director

- Is accountable for effective WPC implementation within his or her directorate

- Approves planning of projects with lab-wide impact (for example projects that if inadequately planned may cause 911 phone service to go down, interruption of major scientific programs/operations, and so on)
- When notified about stop work, ensures adequate communication throughout appropriate departments within directorate. If imminent danger stop work, or upon request, authorizes restart of work if satisfied with updated controls; confirms a new release has been granted before work is started; and informs laboratory director and the DOE Bay Area Site Office of status.

2.10 ESH Division

- Supports line management with hazard identification and evaluation and implementation of appropriate controls

2.11 ESH Division Director / Chief Safety Officer

- For imminent danger stop work, or upon request, concurs with restart of work if satisfied with updated controls

2.12 Work Planning and Control Program Manager

- Is accountable for the program
- Manages the program and assists line organization with implementation
- Develops program requirements, provides guidance on all issues within program, and interprets requirements
- Keeps program current and accurate; reviews program and related documentation for currency at least every three years
- Conducts periodic assessments of program
- Concurs with local implementation of WPC requirements if different from this program

3 Procedures, Processes, and Requirements

These documents describe the detailed requirements for this program and how to implement them:

- Work Planning and Control: Work Planning and Control Procedure (SLAC-I-720-0A21C-002). Describes process for planning, authorizing, and releasing non-construction work
- Work Planning and Control: Construction Work Planning and Control Procedure (SLAC-I-720-0A21C-005). Describes process for planning, authorizing, and releasing construction work
- Work Planning and Control: Stop Work Procedure (SLAC-I-720-0A21C-003). Describes process for initiating and restarting imminent danger stop work
- Work Planning and Control: Area Hazard Analysis Procedure (SLAC-I-730-0A21C-026). Describes process for developing and using area hazard analyses

These are the forms and tools for this program:

- Work Planning and Control: Activity Training and Authorization Form (SLAC-I-730-0A21J-033). Form for documenting authorization and release of resident yellow work. Its use is not required.
- 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: SOP Authorization and Release Form (SLAC-I-730-0A21J-035). Form for documenting authorization and release of yellow, red, and construction work
- Work Planning and Control: Work Integration Plan Form (SLAC-I-730-0A21J-036). Form for documenting planning, coordination, and release of complex/red work
- Work Planning and Control: Non-construction Tailgate/Release Form (SLAC-I-730-0A21J-038). Form for documenting final release of red 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
- Work Planning and Control: Stop Work Form (SLAC-I-720-0A21J-002). Form for documenting stop work
- Area Hazard Analysis eTool. Tool for creating, approving, and storing/viewing AHAs
- Hazard Evaluation and Planning eTool. Tool for identifying SLAC ESH permits, plans, and other requirements
- Term Release and Notification Tool. Tool for requesting term releases and notifying area and building managers of status

These are other program documents and resources:

- Work Planning and Control (includes online tools)

4 Training

4.1 Worker

The following course is mandatory for SLAC employees who perform non-green work:

- ESH Course 120, Work Planning and Control Overview (ESH Course 120)

The following course is mandatory for SLAC employees who perform green work in non-office areas:

- ESH Course 121, WPC Overview for Green Workers in Non Office Areas (ESH Course 121)

Users, department associates, students, and subcontractors are not required to take these courses. The SLAC employee who authorizes their work must take one of the courses, as appropriate.

4.2 Authorizer / Releaser

The following course is mandatory for all area and building managers, project managers, FCMs, SMs, and POCs, direct supervisors of SLAC employees who perform non-green work, and those SLAC employees who authorize the work of any other worker at SLAC:

- ESH Course 120, Work Planning and Control Overview (ESH Course 120)

The following course is mandatory for all area and building managers, project managers, FCMs, and Health and Safety Services staff involved with construction activities:

- ESH Course 392, Construction Work Planning and Control (WPC) (ESH Course 392) (every 36 months)

5 Definitions

activity. A subset of a project describing floor-level work, comprising one or more tasks

activity and training authorization (ATA). Document describing activities, boundary conditions, hazards, controls, and training requirements

activity/work planner. Individual who assists with the development of the work plan, including coordinating the work details and requisite reviews and identifying required permits and approvals

area hazard analysis (AHA). A process for identifying, documenting, and communicating area manager and building manager contact information; PPE, training and green release access requirements; and hazards and controls that require a worker's action in order to enter the area or to consider during planning of work in the area

authorization. Affirmation by a supervisor that a worker is trained and qualified and has been informed of the hazards and controls of activities he or she has been assigned. (See also *release.*)

control. Preventative measure – hazard elimination, engineered, administrative, or personal protective equipment – applied to an activity for the purpose of protecting people, the environment, and property

danger, imminent. A hazard or situation which, if allowed to persist, is likely to cause an accident that will result in death, serious injury, significant property damage, or environmental impairment

danger, non-imminent. A hazard or situation which, if allowed to persist, is unlikely to cause an accident that will result in death, serious injury, significant property damage, or environmental impairment. However, the potential outcome of allowing the hazard or situation to continue is unacceptable.

hazard. Anything with the potential to cause harm to people, the environment, or property

job safety analysis (JSA). Technique (and document) that identifies the tasks associated with a job and the related hazards and the controls to eliminate or reduce them to an acceptable risk level. The analysis focuses on the relationship between the worker, the task, the tools, and the work environment.

manager, area. Person designated by line management who is responsible for a defined area of a given building. These areas generally contain experimental and/or industrial equipment and are associated with

special hazards. Not all buildings have an area manager, and other buildings, such as the linac accelerator housing and klystron gallery, may have several.

manager, building. Designated SLAC employee who serves as the point of contact for all activities that affect the conventional facilities of the assigned building. The building manager also has oversight responsibility for ESH requirements related to the non-programmatic facilities and activities of that building.

qualified. Having the practical skills necessary to perform an activity in a safe and environmentally responsible manner and being trained, certified, and licensed as required

release. Acknowledgement that proposed work activities do not interfere with programmatic or conventional facilities; have been coordinated with adjacent area/building managers, as appropriate; affected occupants have been informed of potential disruption or inconvenience; worker(s) have been informed of unique hazards, controls or limitations of the area; any boundary conditions have been communicated. (See also *authorization.*)

requester. Individual who requests work to be done

resident area. Area, inside or outside a building, where a worker performs much of his or her day-to-day activities and where the supervisor typically has authority to release work

risk. Quantitative or qualitative expression of possible harm or loss that considers both the probability that an event will occur and the consequence of that event

SLAC Training Assignment (STA). A tool to assign and track SLAC training. The STA allows both employees and management to quickly understand training requirements, ensure that training is completed in a timely manner, and ensure that training remains current

standard operating procedure (SOP). A pre-approved, job-specific procedure that describes the complete work scope; necessary work instructions, precautions, and prerequisites; hazards associated with the job; and the hazard controls to be implemented in order to prevent accidents, injuries, and property damage

stop work. A definitive statement made openly that an imminent danger is present and all related activities must stop immediately or that an assigned task poses risk of death or serious injury and will not be performed. Stop work may also be executed for non-imminent danger situations that may be resolved by an informal discussion with or without authorizing supervisor's involvement.

supervisor. Knowledgeable SLAC employee responsible for authorizing and overseeing work. In the case of users, students, and so on, a knowledgeable SLAC employee functions as the supervisor for purposes of authorizing work and ensuring that the worker understands release requirements. The authorizing supervisor may be the administrative or functional one, but it must be documented and clear to the worker who it is.

supervisor, administrative. Designated manager or supervisor who manages performance and assigns training. Responsible for authorizing work, unless delegated to a functional supervisor in such a manner that it is clear to the worker who is authorizing their work.

supervisor, functional. A SLAC employee who has the knowledge or skill to identify hazards and controls and to provide oversight of work. A worker may be temporarily assigned to a functional supervisor to support a specific project or for a specified time period.

tailgate briefing. Review by workers and their supervisor of an activity immediately before release to ensure worker understanding of the interdependent hazards and controls, hold points, unique area hazards, and agreement on how to execute the work. Work planning meetings where multiple work groups' or departments' work activities are coordinated and released.

user. A scientific researcher engaged on approved research projects using DOE-designated user facilities (for example, SSRL, LCLS, FACET)

work group. A trade, for example, riggers, vacuum technicians, electricians, or group of workers who have the same supervisor

work integration plan (WIP). Document summarizing planning and coordination of red work and granting release

work plan. Compendium of documents required to direct the execution of the work, including scope of work, project plans, hazards, controls, authorizations, and releases. Examples are an ATA; a JSA including a release; or SOP, permits and a release.

work, green. Work limited to those technical or administrative activities commonly performed by the public, posing well known hazards, with controls that may be implemented without permits or special ESH training, excluding training required to simply access an area. Examples are performing routine office work, using office supplies, reviewing schematics or specifications, using GPS or Hilti measuring devices, using a microscope, taking photos, performing field verifications or ESH observations, and operating break room appliances. (Also referred to as *office work*.)

work, yellow. Non-green work performed in one's resident area. Also work performed outside one's resident area requiring two or fewer work groups working simultaneously or requiring two or fewer permits or plans. Work performed outside one's resident work area is typically initiated by a supervisor or through a work request.

work, red. Work that requires detailed planning and coordination because of the number of interdependent controls and/or different work groups required to complete the scope of work. Red work is any that requires three or more permits or plans, or three or more work groups working simultaneously. Also referred to as *complex work*. Examples are projects involving 1) coordination among three or more departments, crews, and/or craft types that must work simultaneously; 2) a complex and relatively infrequent task (like moving a huge piece of marble onto a beam line); 3) tree trimming, servicing elevators, and environmental remediation.

worker. Individual who will perform an activity. Individuals include SLAC employees, subcontractors, users, students, interns, department associates, Department of Energy (DOE) employees, or anyone performing any activity in or on facilities managed by SLAC

6 References

6.1 External Requirements

The following are the external requirements that apply to this program:

- The contract (DE-AC02-76SF00515) between the US Department of Energy and Stanford University for operation of SLAC, in particular clauses H.4.0.2, "DEAR 970.5204-2 – Laws, Regulations, and DOE Directives", and I.143, "DEAR 970.5223-1 – Integration of Environment, Safety and Health into Work Planning and Execution"
- Title 10, *Code of Federal Regulations*, "Energy", Chapter 3, "Department of Energy", Part 851, "Worker Safety and Health Program" (10 CFR 851) (as described in SLAC Injury and Illness Prevention Program [SLAC-I-720-0A21B-001])
- Department of Energy Policy 450.4A, Change 1, "Integrated Safety Management Policy" (DOE P 450.4A, Chg 1 [MinChg])

The following are external guidance documents that apply to this program; their use is not mandatory:

- Department of Energy Handbook 1211, "Activity Level WPC Implementation" (DOE-HDBK-1211)

6.2 Related Documents

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

- Chapter 1, "General Policy and Responsibilities"
- Chapter 42, "Subcontractor Safety"

Other SLAC Documents

- Work Planning and Control: SSRL User Implementation for User Experiments (ESRD-WPC-001)
- SLAC Injury and Illness Prevention Program (SLAC-I-720-0A21B-001)
- SLAC Training Assignment (STA)

Other Documents

- Stanford University. Administrative Guide Memo 7.5.1, "Health and Safety Performance Standards and Discipline"

NATIONAL ACCELERATOR LABORATORY

ENVIRONMENT, SAFETY & HEALTH DIVISION

Chapter 2: Work Planning and Control

Work Planning and Control Procedure

Product ID: 451 | Revision ID: 2333 | Date published: 10 May 2021 | Date effective: 10 May 2021
URL: https://www-group.slac.stanford.edu/esh/eshmanual/references/wpcProced.pdf

1 Purpose

The purpose of this procedure is to ensure adequate protection of workers, the public, and the environment, through the consistent, effective, planning, authorization, and release of activity-level 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

For all *activity*-level work performed in or on facilities managed by SLAC, including technical and administrative activities, experiments, operations, maintenance, and service. It does not cover project management, scheduling, or budgeting. For construction, see Work Planning and Control: Construction Work Planning and Control Procedure.

It applies to workers (including SLAC employees, subcontractors, and users), supervisors, field construction and service managers and points of contact, project managers, subcontractors, area and building managers, ESH coordinators, and associate laboratory directors.

2 Procedures

2.1 Planning, Authorization, and Release

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. The following section defines these concepts; Section 2.2 summarizes how they are implemented for different types of work; and Sections 2.3 and 2.4 provide detailed procedures.

2.1.1 Planning

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.

2.1.2 Authorization

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.

Most work at SLAC is authorized by a knowledgeable SLAC employee supervising other SLAC employees. For construction subcontractor or high-risk service subcontractor work, the subcontractor's foreman/supervisor authorizes the work but the SLAC field construction manager (FCM) or the service manager (SM), respectively, confirms the authorization. (See Work Planning and Control: Construction Work Planning and Control Procedure for details on construction.) The SLAC point of contact (POC) confirms all other types of subcontractor work.

Note *For workers matrixed to another organization, a clear hand off of authorization responsibilities must be initiated by the* administrative supervisor *to ensure that both the* functional supervisor *and the worker know who is responsible for authorizing work. Workers who are unclear as to who is authorizing their work should ask their administrative supervisor for direction.*

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

Note *Supervisors are required to ensure workers are properly trained before authorizing them to perform work and to review training assignments annually and when job activities or workplace hazards change. The Stanford University Administrative Guide Memo 7.5.1, "Health and Safety Performance Standards and Discipline"), which SLAC follows, requires supervisors to communicate clearly health and safety practices to all employees and to make good health and safety practices part of employees' job expectations and evaluations.*

2.1.2.1 Documentation

Requirements for documenting authorization vary with the type of work (see Section 2.2). It is important to remember that the purpose of documenting authorization is to address and communicate to the worker unique or specific hazards resulting from the condition of the equipment being worked on, the location of the work, the significance of negative consequences if an intermediate step is omitted or performed out of sequence, and so on.

When deciding how and whether to document authorization, the following factors should be considered, regardless of the type or location of the work:

- Injury and illness rates at SLAC (see CAS Dashboards)
- Potential to cause severe or disabling injuries or illness, even if there are no previous events
- Possibility of one, simple human error leading to a severe event
- Familiarity with the process/changes in process
- Complexity of the task(s)
- Frequency of encountering the hazards or controls
- Existence of specific or unique personal protective equipment (PPE) requirements

2.1.3 Release

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

Work performed in a person's *resident area* is typically released by the supervisor; non-resident area work by the area or building manager. For work in a resident area not under the supervisor's control, release is also granted by area or building manager.

For construction work, the area or building manager typically transfers responsibility for daily release to the FCM, who then releases work to the subcontractor. (See Work Planning and Control: Construction Work Planning and Control Procedure for details.)

2.2 Authorization and Release by Type of Work

How work is planned, authorized, and released depends on the type (*green*, *yellow*, or *red*) and the location (office/non-office and resident/non-resident area). The following is a summary of requirements; detailed procedures are given in Sections 2.3 and 2.4.

1. Green work is administrative or technical in nature and does not require any permits or special ESH training (for example, for fall protection). Green work is authorized by the completion of required new employee/worker safety training. Green work in office areas is released with the same required new employee/worker safety training. Green work in a non-office area (that is, an *industrial area*) requires release by the area or building manager, if required on the *area hazard analysis (AHA)* or other

postings. Otherwise, if the worker is familiar with the area, has read the AHA, has no ESH concerns, and adheres to all postings, he or she may enter the area to perform green work.

2. Yellow work in the worker's *resident area* is authorized and released with an up-to-date SLAC Training Assignment (STA) and supervisor acknowledgment of worker's ability to carry out assigned work. Documenting routine hazards and controls is not required. Supervisors are free to use a *job safety analysis (JSA)*, *standard operating procedure (SOP)*, or *activity and training authorization (ATA)*, but they do not have to.

   When a worker is dispatched outside his or her resident area, a JSA or SOP is typically required for authorization, and the work is released by the area manager, if there is one, otherwise by the building manager. (Release by an area or building manager is also required for work in resident areas, if the area is not under the control of the worker's supervisor.) For work involving subcontractors, a *tailgate briefing* is also required as a final release before beginning any activity.

   Some simple activities performed outside a worker's resident area may be authorized without a JSA or SOP, as determined by the supervisor. For example, climbing a ladder (which is yellow work) to perform green work. For activities like this workers are expected to show sound judgment; requiring written authorization in the field would not add value and might even distract the worker's focus on the hazards and controls for the task at hand (see Section 2.1.2.1). A work release is, however, still required from the appropriate area or building manager.

3. Red work is authorized at the activity level like non-resident yellow work (that is, by the supervisor of the workers involved, using a JSA or SOP). In addition, the planning efforts are documented by the work planner with a *work integration plan (WIP)*; a coordination meeting is held to discuss the activities, timing, permits, and so on until the area manager is satisfied that release may be granted; and, unless all workers are present at the coordination meeting, a *tailgate briefing* is required to release work for each worker before beginning any activity. For work that is considered to have lab-wide impact, the associate laboratory director (ALD) of the planner must indicate concurrence of adequate planning by signing the WIP. For the authorization and release of construction work, see Work Planning and Control: Construction Work Planning and Control Procedure.

2.3 Green Work Procedure

Green work is authorized and released by workers and their supervisors following this procedure.

Step	Person / Function	Action
Authorization		
1.	Worker	Completes required new employee/worker safety training (see Site Access Control: General Requirements) Completes New Employee Information Sheet and Checklist (or equivalent for users and subcontractors)
2.	Authorizer	Ensures all required training completed before starting work
Release		
3.	Worker	For green work in an office area, completing training serves as the release For green work in a non-office area (that is, an *industrial area*): ▪ In areas posted with access/release/training (and additional ESH/PPE requirements, including area hazard analyses [AHAs]), adherence to the

Step	Person / Function	Action

		posted requirements serves as the release (unless release by an area/building manager is required in the postings).
		▪ In the absence of an AHA or similar posting:
		  ▪ If familiar with the hazards of the area, new employee/worker safety training serves as the release. Examples of SLAC organizations that are expected to be aware of such hazards include Radiation Protection Field Operations staff, Facilities electricians/mechanics, and Power Conversion technicians.
		  ▪ If not familiar with the area hazards or has questions, worker contacts the area manager, if there is one, or the building manager, before entry, who will inform the worker of unique hazards and subsequent controls, as well as potential conditions of entry, before granting a release.
		For green work in areas designated as construction sites, a release is granted by adhering to the construction site access requirements.
		For groups of visitors, tour groups, photo opportunities, lab-wide events (for example, Kids Day and holiday parties) and other activities similar to these, a release is required from the area manager, if there is one, otherwise the building manager.

Perform the Work within Controls		
4.	Worker	Regardless of how release is granted, pays attention to ongoing activities in the area and the hazards they may present If at any time a safety concern arises, stops the work and notifies supervisor
Feedback and Continuous Improvement		
5.	Worker and Authorizer	Worker provides feedback, as appropriate, to improve work procedures or WPC processes Supervisor solicits and reviews feedback to determine if a lessons learned item or an opportunity for continuous improvement has been identified.

2.4 Yellow and Red Work Procedure

Step	Person / Function	Action
Define the Work		
1.	Requester	Identifies the need for work to be done and submits a request for the work to be performed to service provider, with the following information: ▪ Name and department of requester ▪ Location of work to be performed ▪ Description of service/work needed ▪ Any special instructions, considerations, known area hazards, and access requirements/training ▪ Charge number, if required

Step	Person / Function	Action
Plan - Identify and Analyze Hazards and Develop and Implement Controls		
2.	Planner	Develops work plan by ▪ Determining how best to perform the work, involving, where practical, workers likely to perform the work and, as appropriate, subject matter experts (SMEs) ▪ Defining procedures required by manufacturers of specialized equipment or specialized installation sequences ▪ Defining testing and acceptance criteria ▪ Evaluating those steps that may pose unacceptable consequences if performed out of sequence, if omitted, or if an undesired outcome occurs (for example, a part gets jammed or equipment breaks) ▪ Ensuring the work plan is reviewed for ESH concerns Steps, hazards, and controls are documented as follows **For yellow resident work** Not required **For yellow non-resident work** Job safety analysis (JSA) or standard operation procedure (SOP), plus required permits. (At the discretion of the authorizing supervisor, an ATA may be used in place of a JSA or SOP.) Note some simple activities performed outside a worker's resident area, such as climbing a ladder to perform otherwise green work, may not require documentation, as determined by the supervisor (see Section 2.2). **For red work** JSA or SOP for the work + work integration plan (WIP). Note for work that is considered to have lab-wide impact, the ALD of the planner must indicate concurrence of adequate planning by signing the WIP. Plus all required permits, plans, and other specifications (see the Hazard Evaluation and Planning eTool for identifying SLAC ESH permits, plans, and other requirements)
3.	Authorizer	Ensures the work plan is current and that the following actions occur: ▪ Affirming the planned work has been reviewed and approved, as appropriate ▪ Ensuring the analysis of relevant hazards is current ▪ Obtaining the necessary permits and ensuring conditions have been met ▪ Identifying qualified workers ▪ Identifying necessary material and equipment Note walking the specific area and surrounding areas where the work is to be performed may be required to understand fully the hazards and necessary controls.
Authorization and Release		
4.	Authorizer	**Authorization** Reviews and authorizes work, if satisfied that ▪ The work plan is complete and current

Step	Person / Function	Action
		▪ The persons assigned to perform work as defined in the plan are appropriately trained, qualified, certified, and licensed and he or she has discussed the hazards and controls with them The person who authorizes the work is accountable for its performance. Authorization is documented by **For yellow resident work** **Supervisor** is not required to document hazards and controls provided the worker is current with STA requirements and understands scope of work, hazards and controls of assigned work (but see Section 2.1.2.1 for guidance on when documentation may be appropriate) **For yellow non-resident work** JSA or SOP **Evidence of authorization:** JSA or SOP cover sheet signed by the supervisor and each worker. For subcontractor work, the foreman or superintendent authorizes the work. The SLAC POC confirms the authorization by reviewing the JSA or SOP cover sheet. JSA or SOP cover sheet only needs to be signed once for each job, unless it is changed. Note some simple activities performed outside a worker's resident area, such as climbing a ladder to perform otherwise green work, may be authorized without a JSA or SOP, as determined by the supervisor (see Section 2.2). **For red work** **Evidence of authorization:** JSA or SOP cover sheet signed by the supervisor and each worker. For subcontractor work, the foreman or superintendent authorizes work. The SLAC SM confirms the authorization by reviewing the JSA or SOP cover sheet. JSA or SOP cover sheet only needs to be signed once for each job, unless it is changed. Plus all required permits, plans, and other specifications (see the Hazard Evaluation and Planning eTool for identifying SLAC ESH permits, plans and other requirements)
5.	Releaser	**Release** **For yellow resident work** **Supervisor** releases work, if he or she controls the area, via a valid STA and discussion of work tasks and associated hazards and controls with worker. **For yellow non-resident work** **Area or building manager** releases work either orally or in writing. If orally, worker must annotate the JSA/SOP cover sheet with release information. If there is an area manager, he or she releases the work. If there is no area manager where work is taking place, then the building manager releases work. For subcontractor work, the POC secures a release from the area manager, if there is one, otherwise the building manager, and subsequently holds a documented tailgate meeting to release the subcontractors. **For red work**

Step	Person / Function	Action
		Area or building manager reviews the WIP, coordinates release-related details, and concurs that work may proceed by signing the WIP. Any boundary conditions, such as calling the Accelerator Control Center or duty operator or attending daily coordination meetings for a release, must be noted on the WIP. Evidence of a signed WIP must be available to document coordination and area or building manager concurrence. If there is a delay in the start of work after release, and new hazards or controls are identified, reauthorization is required before continuing. A re-release is required if the delay is outside the boundary conditions set forth by the initial release.
6.	Worker and authorizer	**Authorizer** ensures a tailgate briefing occurs before start of work with workers and others as appropriate, to ensure that workers understand the work underway in the area and its hazards and controls, including when to verify controls are in place before continuing work activity. Repeats this briefing for any worker who arrives after the initial one. If any worker does not agree that the hazard controls are adequate or if there are any other scheduling or ESH concerns, work must not be started. On completion of the tailgate briefing, further releases the work for his or her workers to execute. Evidence of a tailgate briefing must be available for all red work to document that individuals who attend the meeting understand the work and its inherent hazards and controls: ▪ Non-construction Tailgate/Release Form is used to document final release by SLAC of red work
Perform the Work within Controls		
7.	Worker and authorizer	**Work Execution** **Worker** ensures that controls are in place and hold points, if any, are clearly understood and validated before starting work. Only work that is part of the scope of work, for which hazards, controls, authorization, and release have been granted, may be performed. **Authorizer** ensures that work is performed as detailed in the work plan **Authorizer** ensures that the complete work plan, with all pertinent documentation, is available for reference at or near the work site
8.	All workers	**Stop Work** Anyone observing unsafe conditions or actions should approach and notify the worker in a way that minimizes a potential startle hazard. When requested to stop work, worker should safely stop the activity being executed. If at any time conditions change or work details differ from the work plan to the point that a safety concern arises, workers must stop the work and notify their supervisor. Examples of such changes are ▪ Change in work scope (change in sequence or footprint, different parts, intermediate outcomes not as expected) ▪ Change in start or stop dates or times ▪ Change in work location

Step	Person / Function	Action
		▪ Changes that increase or introduce new hazards or environmental impacts **If the change does not create an imminent danger,** work may be restarted after work plan documents have been updated and the work re-authorized and re-released, as deemed appropriate by the supervisor. See the Work Planning and Control: Stop Work Procedure. **If the change creates an imminent danger, or a serious hazard that requires immediate attention is observed or a task is assigned that poses risk of death or serious injury,** an imminent danger stop work must be initiated, as described in Work Planning and Control: Stop Work Procedure.
9.	Worker	**Hazard Control** At the completion of each day's work, ensures that any hazards to others remaining in the work area where the work was performed are controlled This can be done by the application of an administrative lock, posting and/or barricading the area, or performing housekeeping to return the area to a secure state.
10.	Authorizer	**Final Completion of Work** Ensures the work site is left in a clean and safe condition
Feedback and Continuous Improvement		
11.	Worker and authorizer	**Lessons Learned** **Supervisor** should solicit and review feedback to determine if a lessons learned item or an opportunity for continuous improvement has been identified. If a lessons learned item is identified, incorporates it into the SLAC lessons learned database. Worker should provide feedback, as appropriate, to improve work procedures or WPC processes.
12.	Authorizer / project manager / requester	**Closeout** Once all work activities have been completed **For yellow resident work** Not required **For yellow non-resident work** **Supervisor** closes out work plan and retains for 90 days to enable review for lessons learned and WPC process improvements **For red work** **Project manager/requester** closes out and retains for 90 days to enable review for lessons learned and WPC process improvements

3 Forms

Documentation requirements vary by type of work, but generally there must be evidence in some form of scope of work, authorization, and release. Such evidence includes meeting notes, a signed release, or even a phone conversation, with the result noted on some document. Leaving a voice mail or sending an e-mail, without obtaining a response, does not constitute evidence of a release.

Whether documentation is required or not, no one should forget that the purpose of the documentation is to ensure adequate planning, meet regulatory requirements, and most of all communicate critical steps, hazards, and controls to minimize unacceptable consequences.

These documents together with any others required to direct the execution of the work constitute the *work plan*. Note work plan requirements are cumulative, starting with the minimum documentation, adding JSAs or SOPs and permits for non-resident work, and work integration plans and tailgate briefings for high-risk yellow and all red work.

The following forms and tools support this procedure:

- Work Planning and Control: Activity Training and Authorization Form (SLAC-I-730-0A21J-033). Form for documenting authorization and release of resident yellow work. Not required
- 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: SOP Authorization and Release Form (SLAC-I-730-0A21J-035). Form for documenting authorization and release of yellow, red, and construction work
- Work Planning and Control: Work Integration Plan Form (SLAC-I-730-0A21J-036). Form for documenting planning, coordination, and release of complex/red work
- Work Planning and Control: Non-construction Tailgate/Release Form (SLAC-I-730-0A21J-038). Form for documenting final release of red work
- Hazard Evaluation and Planning eTool. Tool for identifying SLAC ESH permits, plans, and other requirements
- Term Release and Notification Tool. Tool for requesting term releases and notifying area and building managers of status
- SLAC Training Assignment (STA). System for assigning and tracking training

4 Recordkeeping

The following recordkeeping requirements apply for this procedure:

- Red work packages must be kept by the project manager or FCM/SM for 90 days after the job is complete. Yellow work packages must be kept by the authorizing supervisor for 90 days after the job is complete.

5 References

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

- Chapter 2, “Work Planning and Control”
  - Work Planning and Control: Construction Work Planning and Control Procedure
  - Work Planning and Control: Stop Work Procedure
  - Work Planning and Control: Area Hazard Analysis Procedure
  - Work Planning and Control (includes online tools)

- Chapter 55, "Site Access Control"
  - Site Access Control: General Requirements (SLAC-I-720-0A04S-001)

Other SLAC Documents

- New Employee Information Sheet and Checklist
- Work Planning and Control: SSRL User Implementation for User Experiments (ESRD-WPC-001)
- Human Resources: Policies and Guidelines
- CAS Dashboards
- Lessons Learned

Other Documents

- Occupational Safety and Health Administration (OSHA). Job Safety Analysis (OSHA Publication 3071)
- Department of Energy Handbook 1211, "Activity-Level WPC Implementation" (DOE-HDBK-1211)
- Stanford University. Administrative Guide Memo 7.5.1, "Health and Safety Performance Standards and Discipline"

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ENVIRONMENT, SAFETY & HEALTH DIVISION

Chapter 2: Work Planning and Control

Activity Training and Authorization Form

Product ID: 512 | Revision ID: 2334 | Date Published: 10 May 2021 | Date Effective: 10 May 2021

URL: https://www-group.slac.stanford.edu/esh/eshmanual/references/wpcFormATA.pdf | docx

This form is used to document the authorization and release of resident yellow work. Its use is not required. (See Work Planning and Control: Work Planning and Control Procedure [SLAC-I-720-0A21C-002].)

ATA Title:		ATA # (optional):	Start Date:	Valid Through (not to exceed 12 months):
Department / Group Name:	Resident Bldg / Area Location(s):	Term Release(s) (if applicable):	Other Information or References:	

Activity	Basic Hazards	Basic Controls (including boundary conditions) (engineering, administrative, or PPE)	ESH Training, Qualifications, Skills, Certifications

Acknowledgement (worker): I will maintain compliance with my STA training requirements, including staying current with recertifications. I understand the type of activities I am authorized to perform and the associated hazards, controls, and boundary conditions. If I am unclear, I will ask my administrative supervisor.		
Name (print):	Signature:	Date:
Name (print):	Signature:	Date:
Name (print):	Signature:	Date:

Authorization (administrative supervisor): I have reviewed the basic steps, hazards, controls, and boundary conditions described in this ATA with all workers listed above. Workers listed above possess the skills, knowledge, training, and qualifications to perform work as described in this ATA and are, therefore, authorized to carry out such work. Workers are also released to carry out such work as defined in this ATA. Work not adequately addressed by this ATA will be authorized with a JSA or SOP.		
Name (print):	Signature:	Date:
Review (functional supervisor, required if workers matrixed): I have reviewed this ATA and expect all training to be in compliance with SLAC requirements. Work not adequately addressed by this ATA will be authorized with a JSA or SOP.		
Name (print):	Signature:	Date:

Chapter 2: Work Planning and Control

Job Safety Analysis Form

Product ID: 513 | Revision ID: 2335 | Date Published: 10 May 2021 | Date Effective: 10 May 2021
URL: https://www-group.slac.stanford.edu/esh/eshmanual/references/wpcFormJSA.pdf | docx

See the COVID-19 Resource Center for modifications.

This form is used to document the job safety analysis (JSA) required for the authorization and release of non-resident yellow, red, and construction work. Note red and construction work requires final release through a tailgate briefing. Approved forms are to be kept in the work package; work packages are to be kept for 90 days after completion of the work, yellow by the authorizing supervisor; red and construction by the project manager or field construction manager (FCM)/service manager (SM). (See Work Planning and Control: Work Planning and Control Procedure [SLAC-I-720-0A21C-002] and Work Planning and Control: Construction Work Planning and Control Procedure [SLAC-I-720-0A21C-005].)

Job / Activity:		JSA # (optional):	Start Date:	Valid Through:
Department / Group / Subcontractor:	Bldg / Area Location(s):	Type of Work: ☐ yellow, resident ☐ red ☐ yellow, non-resident ☐ construction	Other Information or References:	
Scope of Work (☐ attached):				

Sample form, see URL at top of page

Step Number	Step	Hazard	Control
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			

Acknowledgement (worker): I understand and will adhere to the steps, hazards, and controls in this JSA. I understand that performing steps out of sequence may pose hazards that have not been evaluated nor authorized. I will contact the person who authorized my work prior to continuing, if the scope of work changes or new hazards are introduced. I understand my stop work authority and responsibility.		
Name (print):	Signature:	Date
Name (print):	Signature:	Date:
Name (print):	Signature:	Date:
Name (print):	Signature:	Date:
Name (print):	Signature:	Date:
Name (print):	Signature:	Date:
Name (print):	Signature:	Date:
Name (print):	Signature:	Date:
Name (print):	Signature:	Date:
Name (print):	Signature:	Date:

Approval (general subcontractor's representative, required for construction work): I have reviewed and approve the work indicated in this JSA.		
Name (print):	Signature:	Date:
Review (ESH representative, if requested): I have reviewed this JSA.		
Name (print):	Signature:	Date:
Authorization (supervisor ☐ administrative ☐ functional; ☐ foreman for subcontractor work): I have reviewed the steps, hazards and controls described in this JSA with all workers listed above and authorize them to perform the work. Workers are qualified (that is, licensed or certified, as appropriate, and in full compliance with training requirements) to perform this activity.		
Name (print):	Signature:	Date:
Confirmation (☐ FCM ☐ SM ☐ POC, required for subcontractor work): I have confirmed that this JSA has been properly developed, reviewed, and approved.		
Name (print):	Signature:	Date:
Release (☐ area manager ☐ building manager ☐ FCM ☐ SM ☐ POC): I have communicated unique area hazards, boundary conditions, and so on with the authorizer and/or listed worker(s) and have coordinated this job with affected occupants. Listed workers are released to perform described scope of work. (If work is red or construction, document final release with tailgate meeting, and also an WIP for red work.)		
Boundary conditions, notes (☐ attached):		
Name (print):	Signature:	Date:

See the COVID-19 Resource Center for modifications.

NATIONAL ACCELERATOR LABORATORY

ENVIRONMENT, SAFETY & HEALTH DIVISION

Chapter 2: Work Planning and Control

SOP Authorization and Release Form

Product ID: 514 | Revision ID: 2336 | Date Published: 10 May 2021 | Date Effective: 10 May 2021
URL: https://www-group.slac.stanford.edu/esh/eshmanual/references/wpcFormSOP.pdf | docx

This form is used to document the authorization and release of non-resident yellow, red, and construction work using an attached standard operating procedure (SOP). Note red and construction work requires final release through a tailgate briefing. Approved forms are to be kept in the work package; work packages are to be kept for 90 days after completion of the work, yellow by the authorizing supervisor; red and construction by the project manager or field construction manager (FCM)/service manager (SM). (See Work Planning and Control: Work Planning and Control Procedure [SLAC-I-720-0A21C-002] and Work Planning and Control: Construction Work Planning and Control Procedure [SLAC-I-720-0A21C-005].)

SOP Title:		SOP # (optional):	Start Date:	Valid Through:
Department / Group / Subcontractor:	Bldg / Area Location(s):	Type of Work: ☐ yellow, resident ☐ red ☐ yellow, non-resident ☐ construction	Other Information or References:	
Scope of Work (☐ attached):				

Sample form, see URL at top of page

Acknowledgement (worker): I understand and will adhere to the steps, hazards, and controls in the attached SOP. I understand that performing steps out of sequence may pose hazards that have not been evaluated nor authorized. I will contact the person who authorized my work prior to continuing, if the scope of work changes or new hazards are introduced. I understand my stop work authority and responsibility.

Name (print):	Signature:	Date:
Name (print):	Signature:	Date:
Name (print):	Signature:	Date:
Name (print):	Signature:	Date:
Name (print):	Signature:	Date:
Name (print):	Signature:	Date:
Name (print):	Signature:	Date:
Name (print):	Signature:	Date:
Name (print):	Signature:	Date:
Name (print):	Signature:	Date:

Approval (general subcontractor's representative, required for construction work): I have reviewed and approve the work indicated in the attached SOP.		
Name (print):	Signature:	Date:
Review (ESH representative, if requested): I have reviewed the attached SOP.		
Name (print):	Signature:	Date:
Authorization (supervisor ☐ administrative ☐ functional; ☐ foreman for subcontractor work): I have reviewed the steps, hazards and controls described in the attached SOP with all workers listed above and authorize them to perform the work. Workers are qualified (that is, licensed or certified, as appropriate, and in full compliance with training requirements) to perform this activity.		
Name (print):	Signature:	Date:
Confirmation (☐ FCM ☐ SM ☐ POC, required for subcontractor work): I have confirmed that this SOP has been properly developed, reviewed, and approved.		
Name (print):	Signature:	Date:
Release (☐ area manager ☐ building manager ☐ FCM ☐ SM ☐ POC): I have communicated unique area hazards, boundary conditions, and so on with the authorizer and/or listed worker(s) and have coordinated this job with affected occupants. Listed workers are released to perform described scope of work. (If work is red or construction, document final release with tailgate meeting, and also a WIP for red work.)		
Boundary conditions, notes (☐ attached):		
Name (print):	Signature:	Date:

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Work Integration Plan Form

Product ID: 515 | Revision ID: 2337 | Date Published: 10 May 2021 | Date Effective: 10 May 2021
URL: https://www-group.slac.stanford.edu/esh/eshmanual/references/wpcFormWIP.pdf

This form is used to document planning, coordination, and release of complex/red work. This form is to be completed by the work planner and approved by the area or building manager (and others as indicated below); completed forms are maintained in the work package. (See Work Planning and Control: Work Planning and Control Procedure [SLAC-I-720-0A21C-002].)

Part 1: General Information

Project			Date
Work location	Start date	End date	Tracking no.
Requester	Dept / group		Phone
Work planner	Dept / group		Phone
Planner line manager	Dept / group		Phone
General comments			

Part 2: Authorized Individuals / Groups Supporting Scope of Work

WIP field manager / SM		Phone
Dept / group	Contact point	Phone
Dept / group	Contact point	Phone
Dept / group	Contact point	Phone

Part 3: Scope, Hazards, Safety Controls, Permits, and Plans

Planning (check if attached)		
☐ Scope of work (required)	☐ Hazard Evaluation and Planning eTool summary	☐ SLAC Site Specific Safety Plan
Other controls (check if required and describe)		
☐ Other		☐ Hold point?
☐ Other		☐ Hold point?

Part 4: Planning Review

Complete	NA	Position	Name	Signature	Date	Hold Point?
☐		Work planner				☐
☐		ESH coordinator				☐
☐	☐	Contractor Assurance				☐
☐	☐	Building Inspection Office				☐
☐	☐	Accelerator Operations				☐
☐	☐	ALD (lab-wide impact)				☐
☐		Area / building manager				☐
☐	☐	Other				☐

Part 5: Feedback and Improvement

Post-job review conducted? ☐ Yes ☐ No	Name	Date

See the COVID-19 Resource Center for modifications.

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Non-construction Tailgate / Release Form

Product ID: 517 | Revision ID: 2338 | Date Published: 10 May 2021 | Date Effective: 10 May 2021
URL: https://www-group.slac.stanford.edu/esh/eshmanual/references/wpcFormTailgateNonconstruct.pdf | docx

This form is used to document final release of red work. 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 project manager or service manager (SM) or point of contact (POC). (See Work Planning and Control: Work Planning and Control Procedure [SLAC-I-720-0A21C-002].)

Project:	Bldg / Area Location(s):
Date:	
Project manager / SM / POC / supervisor:	Cell Phone:

Task identification by Department / Group / Subcontractor

Task	Department / Group / Subcontractor	Number of Workers on Crew

Required Permits / Plans *(check all that apply)*

☐ None	☐ Energy Isolation Plan (CoHE)	☐ Penetration Permit
☐ Confined Space Entry Permit	☐ Excavation Permit	☐ Radiological Work Permit
☐ Electrical Work Plan (EWP)	☐ Hoisting and Rigging Plan	☐ Stormwater BMP
☐ Elevated Surface Work Plan (ESWP)	☐ Hot Work Permit-Fire (flame or sparks)	☐ Other:

Discussion of Hazards *(check all that apply)*

☐ Chemical	☐ Hazardous materials (lead, asbestos, etc	☐ Radiological
☐ Confined space	☐ Hosting and rigging	☐ Stored energy
☐ Congested work area	☐ Hot work	☐ Traffic control
☐ Elevated work	☐ Material handling	☐ Weather and/or temperature extremes
☐ Ergonomics	☐ Noise pollution	☐ Waste generation
☐ Emergency egress	☐ Oxygen deficiency	☐ Other:

Required PPE *(check all that apply)*

Are there minimum requirements for working in the affected area? ☐ No ☐ Yes *(if yes, check all that apply)*

☐ Eye protection	☐ Flashlight	☐ Steel toed boots
☐ Face shield	☐ Gloves	☐ Welding shields
☐ Fall protection	☐ Hard hat	☐ Other:
☐ Flame retardant CAT 1	☐ Hearing protection	☐ Other:
☐ Flame retardant CAT 2	☐ Reflective vest	☐ Other:

Important Highlights / Notes / Topics

Item	Discussion

Emergency Procedures

If life-threatening, call 911. Also call SLAC Site Security (ext. 5555) to report the incident. If non-life-threatening, contact the supervisor and PM and SLAC Site Security (ext. 5555) to report the incident. Seek first-aid treatment from the SLAC Occupational Health Center (Building 028). (See Emergency Management: Emergency Notification, Response, and Reporting Procedures.)

Work Release

Evidence of area/building manager release is available and all work is released *(choose one):*

☐ Fully and until the tasks are complete

☐ Until a specific hold point and/or a specific time period: *(provide details):*

☐ This specific portion/task is not released *(provide details)*:

☐ None of the work is released *(provide details)*:

As the ☐ project manager ☐ SM ☐ POC ☐ supervisor (or designee), I conducted this tailgate meeting, reviewed aforementioned topics, and addressed unique hazards of today's work with the list of personnel below.

Final release to work is granted based on the stipulations noted above.

Name (print):	Signature:	Date:

Worker Acknowledgment

I understand today's scope of work and associated hazards and will ensure controls are implemented. I understand I have the authority to stop work, should I have questions or recognize a hazard that may not be adequately controlled.

Name (print)	Initial	Department / Group / Subcontractor	Name (print)	Initial	Department / Group / Subcontractor

ENVIRONMENT, SAFETY & HEALTH DIVISION

Chapter 2: Work Planning and Control

Construction Work Planning and Control Procedure

Product ID: 700 | Revision ID: 2667 | Date published: 21 February 2024 | Date effective: 21 February 2024
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 planning, authorization, and release of all construction work performed at SLAC; it does not cover project management, scheduling, or budgeting. It applies to workers, prime and sub-tier subcontractors, SLAC project and 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 SLAC's 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 prime and sub-tier subcontractors are following SLAC processes

2.2 Construction Manager

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

- Receives permit forms approved by the prime 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 CM

2.4 ESH Division

- Reviews subcontractor JSAs as requested
- Receives plans and permits from the CM that have been submitted by the sub-tier subcontractor and approved by the prime subcontractor

2.5 Prime 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 the CM
- 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 prime 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 prime subcontractor, and released by the CM
- 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 CM.

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 Construction Management.

3.1.3 Construction Manager

All CMs 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, Construction Safety Services

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

3.2 Pre-job Briefings

Pre-job briefings are required for construction work under the following conditions:

- Start of construction
- Start of a new subcontractor on the project
- Replacement of the superintendent
- Significant changes to work scope

The briefings are to be conducted by the CM; attended by the prime and sub-tier subcontractors; and documented by the CM using the Work Planning and Control: Construction Pre-job Briefing Checklist.

3.3 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.

3.4 Approval

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

ESH representatives will review JSAs as requested. CMs will confirm that JSAs have been properly developed, reviewed, and approved.

3.5 Release

The CM 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 CM 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 CM 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 CM who can then release work in that designated area for the duration of the project without the need for daily building/area manager release.

3.6 Complex or Unfamiliar Operations

When complex or unfamiliar operations are identified by SLAC, additional meetings will be required to ensure SLAC, the prime 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 CM.

3.7 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 CM 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.)

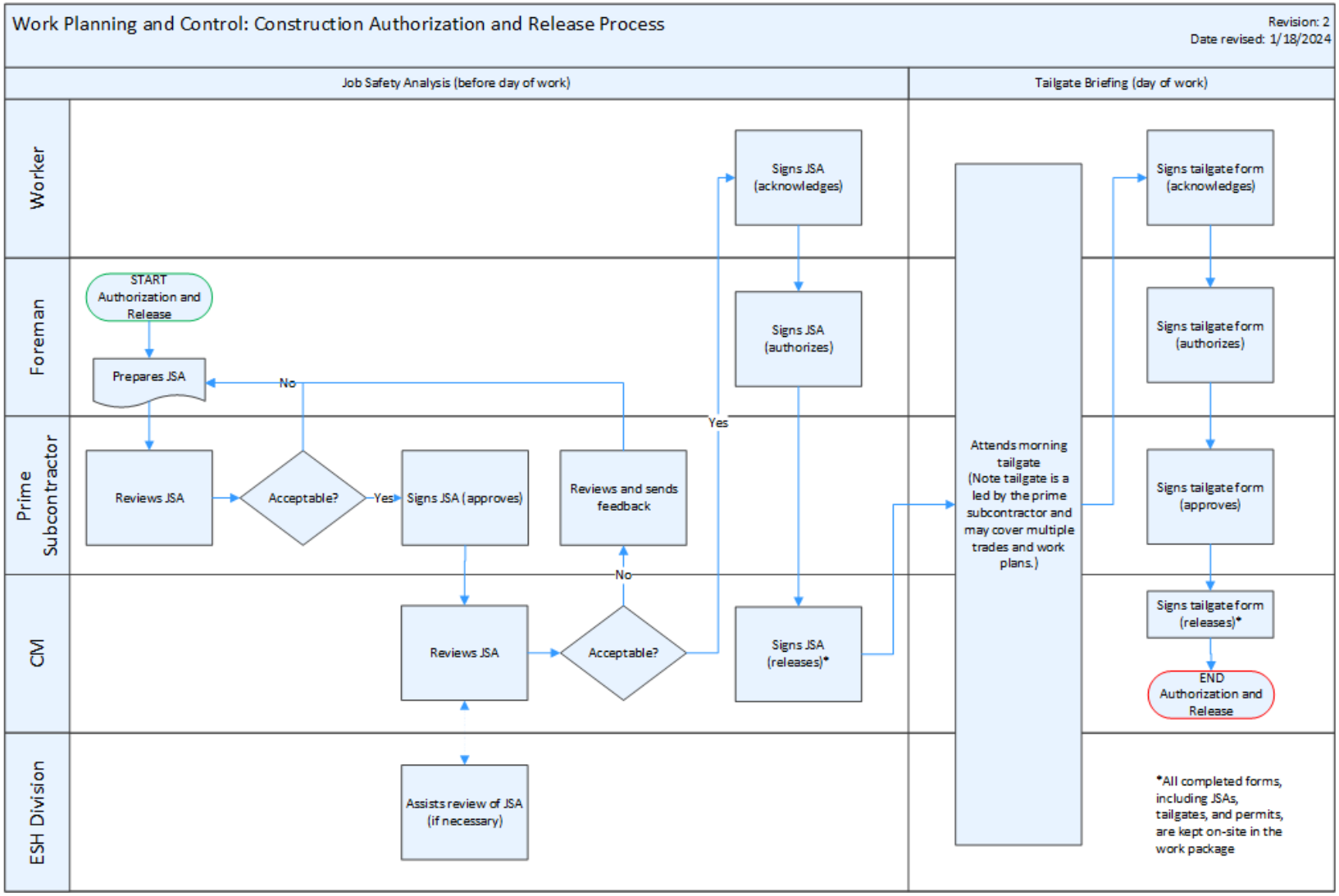

Figure 1 Construction Authorization and Release Process

4 Forms

The following forms and systems are required by this procedure:

- Work Planning and Control: Construction Job Safety Analysis Form (SLAC-I-730-0A21J-062). Form for documenting authorization and release of construction work
- Work Planning and Control: Construction Pre-job Briefing Checklist (SLAC-I-730-0A21J-063). Checklist for guiding and documenting pre-job briefings for 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 CM.

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)

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ENVIRONMENT, SAFETY & HEALTH DIVISION

Chapter 2: Work Planning and Control

Construction Job Safety Analysis Form

Product ID: 769 | Revision ID: 2662 | Date Published: 30 January 2024 | Date Effective: 30 January 2024
URL: https://www-group.slac.stanford.edu/esh/eshmanual/references/wpcFormJSAConstruct.pdf | docx

This form is used to document the job safety analysis (JSA) required for the authorization and release of construction work. Note construction work requires final release through a tailgate briefing. 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 project manager or construction manager (CM). (See Work Planning and Control: Construction Work Planning and Control Procedure [SLAC-I-720-0A21C-005].)

Job / Activity:		JSA # (optional):	Start Date:	Valid Through:
Department / Group / Subcontractor:	Bldg / Area Location(s):	Type of Work: ☒ Construction	Other Information or References:	
Scope of Work (☐ attached):				

Step Number	Step	Hazard	Control
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			

Acknowledgement (worker): I understand and will adhere to the steps, hazards, and controls in this JSA. I understand that performing steps out of sequence may pose hazards that have not been evaluated nor authorized. I will contact the person who authorized my work prior to continuing, if the scope of work changes or new hazards are introduced. I understand my stop work authority and responsibility.		
Name (print):	Signature:	Date
Name (print):	Signature:	Date:
Name (print):	Signature:	Date:
Name (print):	Signature:	Date:
Name (print):	Signature:	Date:
Name (print):	Signature:	Date:
Name (print):	Signature:	Date:
Name (print):	Signature:	Date:
Name (print):	Signature:	Date:
Name (print):	Signature:	Date:

Approval (prime subcontractor's representative): I have reviewed and approve the work indicated in this JSA.		
Name (print):	Signature:	Date:
Review (ESH representative, if requested): I have reviewed this JSA.		
Name (print):	Signature:	Date:
Authorization (subcontractor foreman): I have reviewed the steps, hazards and controls described in this JSA with all workers listed above and authorize them to perform the work. Workers are qualified (that is, licensed or certified, as appropriate, and in full compliance with training requirements) to perform this activity.		
Name (print):	Signature:	Date:
Confirmation (CM): I have confirmed that this JSA has been properly developed, reviewed, and approved.		
Name (print):	Signature:	Date:
Release (☐ area manager ☐ building manager for occupied buildings, ☐ CM for designated construction sites or designated areas in occupied buildings): I have communicated unique area hazards, boundary conditions, and any precautions or limitations with the CM and will coordinate with affected occupants. Note: final released for construction work comes after the daily tailgate briefing and CM work release.		
Boundary conditions, notes (☐ attached):		
Name (print):	Signature:	Date:

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Construction Pre-job Briefing Checklist

Product ID: 770 | | Revision ID: 2666 | Date Published: 21 February 2024 | Date Effective: 21 February 2024
URL: https://www-group.slac.stanford.edu/esh/eshmanual/references/wpcChecklistPJBConstruct.pdf

This checklist is used to guide and document pre-job briefings for construction work. The briefings are to be conducted by the SLAC construction manager (CM) and attended by the prime and sub-tier subcontractors. Pre-job briefings are required under the following conditions:

- Start of construction
- Start of a new subcontractor on the project
- Replacement of the superintendent
- Significant changes to work scope

Completed checklists are to be kept in the construction binder and kept for 90 days after completion of the work by the CM. (See Work Planning and Control: Construction Work Planning and Control Procedure [SLAC-I-720-0A21C-005].)

Project (name)			
SLAC project manager	Name (print)	Cell phone	E-mail
SLAC CM	Name (print)	Cell phone	E-mail
SLAC CM manager	Name (print)	Cell phone	E-mail
SLAC CSS representative	Name (print)	Cell phone	E-mail

- ☐ Standard PPE: safety glasses, safety toe boots, hardhat, hi-vis vest, ear plugs in high-noise areas, and gloves when handling materials.
- ☐ Construction binder is to be kept at the job site. Explain contents.
- ☐ Explain what a job safety analysis (JSA) is, where to find it, and when to revise it.
- ☐ Tailgate expectations / CM work release. Permits should be validated at the daily tailgate.
- ☐ Emergency/non-emergency event reporting. **In an emergency, call 911 / (650) 926-5555.**
- ☐ Assembly area location.
- ☐ Anyone can **stop work** to address safety concerns or near miss.
- ☐ If your see a Radiation sign, **do not** cross unless trained.
- ☐ **Do not** operate SLAC equipment. Contact your CM if you need something manipulated.
- ☐ If you are 6 feet high or more and not on a ladder, you need an elevated surface work permit (ESWP).
- ☐ Understand the waste you generate and sort it into the correct bin. Hazardous waste has special container and labeling requirements.
- ☐ **Do not** bring radioactive density gauges on site without CM and Radiation Protection (RP) approval.
- ☐ **Do not** allow any water other than rain to enter the storm drains. No truck washing.
- ☐ Turn in badges / dosimeters.
- ☐ Poll the workers individually for questions.

Pre-job Briefing Performed by (SLAC CM): I have reviewed topics above with all workers.		
Name (print)	Signature	Date

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Construction Tailgate / Release Form

Product ID: 516 | | Revision ID: 2660 | Date Published: 30 January 2024 | Date Effective: 30 January 2024
URL: https://www-group.slac.stanford.edu/esh/eshmanual/references/wpcFormTailgateConstruct.pdf | docx

This form is used to document final release of construction work. 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 construction manager (CM). (See Work Planning and Control: Construction Work Planning and Control Procedure [SLAC-I-720-0A21C-005].)

Description / title of work:	
Work location:	Date:
Subcontractor / work group:	
Subcontractor foreman:	Cell phone:
Prime subcontractor's rep:	Cell phone:
SLAC CM:	Cell phone:
JSA / SOP title (if any):	JSA / SOP # (if any):

Permits / Plans in Effect

- ☐ None
- ☐ Confined Space Entry Permit
- ☐ Construction Project Air Permit
- ☐ Electrical Work Plan (EWP)
- ☐ Elevated Surface Work Plan (ESWP)
- ☐ Energy Isolation Plan (CoHE)
- ☐ Excavation Permit
- ☐ Fire Protection Impairment
- ☐ Hoisting and Rigging Plan
- ☐ Hot Work Permit-Fire (flame or sparks)
- ☐ Penetration Permit
- ☐ Radiological Work Permit
- ☐ Stormwater BMP
- ☐ Traffic Control Plan
- ☐ Other:

Criteria for Performing Pre-job Briefings

- ☐ Start of construction
- ☐ Start of a new subcontractor on the project
- ☐ Replacement of the superintendent
- ☐ Significant changes to work scope

Daily Tailgate Questions

- ☐ Under what conditions would you pause today's work?
- ☐ What are the critical steps or risk important steps for today's work?
- ☐ Is there anything new or different (new trades present, new superintendent, etc.) about the work we are going to perform today?
- ☐ Will there be changes in LOTO boundaries today?
- ☐ Even though we have performed this task before, is there some reason we should do some aspect or part of it differently? Lessons we have learned from previous tasks?

Additional Checks

- ☐ Plans for changing or extreme weather reviewed
- ☐ Flaggers to control vehicle or pedestrian traffic understand duties
- ☐ Hazardous/non-hazardous waste disposal procedures understood and bins/containers in place
- ☐ Work coordinated within and between adjacent work groups
- ☐ Workers are aware of potential impact and mitigation measures of adjacent work activities
- ☐ Emergency procedures reviewed

Steps or tasks of today's work	What can go wrong	What can we do to prevent this
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		

Construction Subcontractor Notifications

- Subcontractor employees must report to their company's designated representative any hazards not previously identified or evaluated.
- The designated representative must immediately notify the SLAC CM of any previously unidentified hazards brought to their attention.
- Subcontractor ensures workers acknowledge being informed of the hazards and controls associated with assigned work.

Worker Acknowledgment

I understand today's scope of work and associated hazards and will ensure controls are implemented. I understand I have the authority to stop work, should I have questions or recognize a hazard that may not be adequately controlled.

Name (print)	Initial	Subcontractor (if different than page 1)	Name (print)	Initial	Subcontractor (if different than page 1)

Authorization (subcontractor foreman): I have reviewed the steps, hazards and controls described above with all workers listed above and authorize them to perform the work. Workers are qualified (that is, licensed or certified, as appropriate, and in full compliance with training requirements) to perform this activity.		
Name (print):	Signature:	Date:
Approval (prime subcontractor's representative): I have conducted a tailgate briefing at which the steps, hazards and controls described above were reviewed and unique area hazards, boundary conditions, and so on communicated.		
Name (print):	Signature:	Date:
Release (☐ area manager ☐ building manager for occupied buildings, ☐ CM for designated construction sites or designated areas in occupied buildings): I have communicated unique area hazards, boundary conditions, and any precautions or limitations with the CM and will coordinate with affected occupants.		
Boundary conditions, notes (☐ attached):		
Name (print):	Signature:	Date:

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Construction Site Entry Form

Product ID: 759 | Revision ID: 2663 | Date Published: 30 January 2024 | Date Effective: 30 January 2024
URL: https://www-group.slac.stanford.edu/esh/eshmanual/references/wpcFormConstructionSiteEntry.pdf

This form is used to document visits to construction sites by non-subcontractor personnel. The SLAC construction manager (CM) completes the access requirements; each visitor then contacts the subcontractor company representative before arrival, reviews the access requirements, and signs in and out. The form is to be kept at the work site for the duration of the project. (See Work Planning and Control: Construction Work Planning and Control Procedure [SLAC-I-720-0A21C-005].)

Project	
Work location / building	Start date
SLAC CM	Phone
Access requirements *(CM check all that apply)* ☐ GERT ☐ Dosimeter	☐ Escort
Company	
Company designated representative	Phone

Acknowledgement *(worker)*: I contacted the company designated representative listed above and been granted access to this site; have fulfilled the access requirements above, have all required PPE, and will adhere to all signage. I understand that I may perform only *green work* on this site. I will direct any questions about project status to the CM.

Name (print)	Signature	Date	Time in	Time out	Type of visit (check one)
					☐ ESH ☐ Vendor ☐ SSO ☐ Visitor ☐ Other_____
					☐ ESH ☐ Vendor ☐ SSO ☐ Visitor ☐ Other_____
					☐ ESH ☐ Vendor ☐ SSO ☐ Visitor ☐ Other_____
					☐ ESH ☐ Vendor ☐ SSO ☐ Visitor ☐ Other_____
					☐ ESH ☐ Vendor ☐ SSO ☐ Visitor ☐ Other_____

Acknowledgement (worker): I contacted the company designated representative listed above and been granted access to this site; have fulfilled the access requirements above, have all required PPE, and will adhere to all signage. I understand that I may perform only *green work* on this site. I will direct any questions about project status to the CM.

Name (print)	Signature	Date	Time in	Time out	Type of visit (check one)
					☐ ESH ☐ Vendor ☐ SSO ☐ Visitor ☐ Other___________
					☐ ESH ☐ Vendor ☐ SSO ☐ Visitor ☐ Other___________
					☐ ESH ☐ Vendor ☐ SSO ☐ Visitor ☐ Other___________
					☐ ESH ☐ Vendor ☐ SSO ☐ Visitor ☐ Other___________
					☐ ESH ☐ Vendor ☐ SSO ☐ Visitor ☐ Other___________
					☐ ESH ☐ Vendor ☐ SSO ☐ Visitor ☐ Other___________
					☐ ESH ☐ Vendor ☐ SSO ☐ Visitor ☐ Other___________
					☐ ESH ☐ Vendor ☐ SSO ☐ Visitor ☐ Other___________
					☐ ESH ☐ Vendor ☐ SSO ☐ Visitor ☐ Other___________
					☐ ESH ☐ Vendor ☐ SSO ☐ Visitor ☐ Other___________
					☐ ESH ☐ Vendor ☐ SSO ☐ Visitor ☐ Other___________

ENVIRONMENT, SAFETY & HEALTH DIVISION

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SLAC Receipt of Subcontractor Form

Product ID: 701 | Revision ID: 2664 | Date Published: 30 January 2024 | Date Effective: 30 January 2024
URL: https://www-group.slac.stanford.edu/esh/eshmanual/references/wpcFormContractorReceipt.pdf

This form is used to document 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.) It is to be completed by the SLAC construction manager and a Construction Safety Services representative and attached to the completed form. (See Work Planning and Control: Construction Work Planning and Control Procedure [SLAC-I-720-0A21C-005].)

SLAC Construction Manager		
I have received and reviewed the attached, completed subcontractor form.		
Name (print):	Signature:	Date:

Construction Safety Services Representative		
I have received and reviewed the attached, completed subcontractor form.		
Name (print):	Signature:	Date:

Sample form, see URL at top of page

NATIONAL ACCELERATOR LABORATORY

ENVIRONMENT, SAFETY & HEALTH DIVISION

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Stop Work Procedure

Product ID: 452 | Revision ID: 2342 | Date published: 10 May 2021 | Date effective: 10 May 2021
URL: https://www-group.slac.stanford.edu/esh/eshmanual/references/wpcProcedStopWork.pdf

1 Purpose

The purpose of this procedure is to establish a uniform method for *stopping work*.

Every worker performing any work in or on facilities managed by SLAC has the authority and responsibility to stop work for conditions that threaten *imminent danger*. SLAC considers no activity to be so urgent or important that its standards for environmental protection, safety, or health may be compromised. Employees have the right and responsibility not to perform tasks or activities they feel pose undue risk to themselves, co-workers, or the environment. Stop work actions take precedence over all other priorities and procedures.

Title 10, *Code of Federal Regulations*, "Energy", Chapter 3, "Department of Energy", Part 851, "Worker Safety and Health Program" (10 CFR 851.20[b][8]) and the SLAC Injury and Illness Prevention Program specifically give every worker the right to decline to perform an assigned task because of a reasonable belief the task poses an imminent risk of death or serious physical harm to the worker. Further, the worker has the right to stop work when they discover any exposure to imminently dangerous conditions or serious hazards. This procedure is used for either of these conditions.

If an imminent danger stop work is necessary, worker(s) must safely stop their work and notify their supervisor(s), who will initiate steps below. In this context, supervisor is the knowledgeable SLAC employee (for example, functional supervisor, administrative supervisor, or point of contact) who authorized the work. For subcontractor construction or high risk work, the subcontractor whose work was stopped must notify their company designated representative who is to promptly notify the SLAC facility construction manager or program manager.

For non-imminent danger stop work, normal supervisory procedures, staff communication, and referral to ESH staff, as appropriate, should be used. For non-imminent danger stop work, line management in the area where the work was stopped and of the workers who were stopped must decide on the appropriate level of communication with other staff. The condition that caused a stop work to be initiated must be evaluated to determine if the controls that are in place will adequately protect people and the environment. If it is unclear as to whether the controls are adequate or if the scope changes, workers must contact their supervisor to discuss the situation and have their work re-authorized as appropriate. It may also be necessary to secure another release.

2 Procedures

For an illustration of this procedure, see Figure 1.

Step	Person	Action
Observation of an Unsafe Situation		
1.	Individual initiating stop work	If an imminent danger is observed or a task is assigned that poses risk of death or serious injury, promptly ▪ Warns any person who is at risk ▪ Asks the person in a manner that minimizes creating an additional hazard to stop work and discuss the hazardous situation
2.	Individual performing work	If directed to stop work, even if it is only a perceived hazard, worker must safely stop
3.	Individual initiating stop work and Individual performing work	Discuss reason for stop work. If considered an imminent danger, continue to step 4. Otherwise, evaluate the reason for the stop work and determine if work is still within scope or if new hazards have been introduced that are not adequately controlled. If unresolved, unsure or if work plans need to be updated, continue to step 4.
Reporting Stop Work to the Supervisor or FCM / PM		
4.	Person performing work	Promptly reports the stop work to supervisor. For construction or high risk subcontractor work, promptly reports to their company designated representative who then notifies the SLAC facility construction manager (FCM) or program manager (PM).
5.	Worker's supervisor or FCM / PM	If considered an imminent danger, continues to step 6. Otherwise, resolves unsafe situation and re-authorizes work, as necessary. Obtains a re-release if required. Ensures appropriate level of communication to their staff, line management and ESH based on why work was stopped, how long it was stopped, etc. For non-imminent danger stop work, the supervisor must understand and adhere to the re-start expectations of their line management and ESH Division.
Reporting Imminent Danger Stop Work to Lab Management		
6.	Worker's supervisor or FCM / PM	Calls ext. 5555 and reports an imminent danger stop work; notifies department / division head
7.	Worker's supervisor or FCM / PM	If the hazard has already caused an injury or property damage, begins incident investigation process (see Incident Reporting and Investigation Process for more information) Addresses extent of condition
8.	Area / building manager	Evaluates equipment status and takes action to ensure equipment is placed in a safe state. Suitable warning labels, barricades, administrative lock and tag, and so on will be used as needed to warn anyone not familiar with the stop work.
9.	Department / division head	Ensures appropriate communication within their division / department and notifies associate laboratory director (ALD)
10.	Worker's supervisor or FCM / PM	Initiates stop work form (completes sections 1 and 2) for imminent danger and distributes copies to ▪ Area / building manager ▪ Department / division head

Step	Person	Action
		▪ Directorate ESH coordinator ▪ ALD ▪ CSO
11.	ALD	Notifies laboratory director and DOE Bay Area Site Office
Enforcement		
12.	Worker's supervisor or FCM / PM	Ensures work does not resume until properly authorized and released
Investigation of Imminent Danger Stop Work (or upon request of lab management)		
13.	Department / division head	Follows up on incident investigation (see Incident Reporting and Investigation Process for more information)
Restart of Imminent Danger Stop Work (or upon request of lab management)		
14.	Worker's supervisor or FCM / PM	Ensures hazards and controls are updated with investigation results (see Work Planning and Control: Procedure) Ensures that a job safety analysis (JSA) or standard operating procedure (SOP) for the activity is completed and reviewed by directorate ESH coordinator
15.	Worker's supervisor or FCM / PM	Sends stop work form with follow-up actions described (Section 3) and supporting documentation to the following for concurrence: ▪ Department / division head ▪ Directorate ESH coordinator ▪ CSO
16.	Department / division head, directorate ESH coordinator, and CSO	If satisfied with updated controls, concurs with restart of work and signs stop work form (Section 4). If not, contacts worker's supervisor to revise controls.
17.	ALD	Authorizes the restart of activities and signs stop work form (Section 5)
18.	Area / building manager	Grants a release if they are satisfied with the investigation and follow up measures, and signs stop work form (Section 6) Ensures lock and tag of any equipment that creates the hazard or imminent danger
19.	ALD	Confirms a new release has been granted before starting work Informs the laboratory director and the DOE Bay Area Site Office
20.	Worker's supervisor or FCM / PM	Provides copies of the completed stop work form and supporting documentation to the following: ▪ Area or building manager ▪ Division/department head ▪ Directorate ESH coordinator ▪ ALD ▪ CSO

Step	Person	Action
Disputes and Appeals		
21.	All involved	If anyone in the process believes that the restart authorization or release is not justified, or that modifications imposed as a precondition to the operation's restart are inadequate, appeals the restart decision to the ALD and CSO
Lessons Learned		
22.	ALD	Following resolution of a stop work issue, should consider submitting a lessons learned item

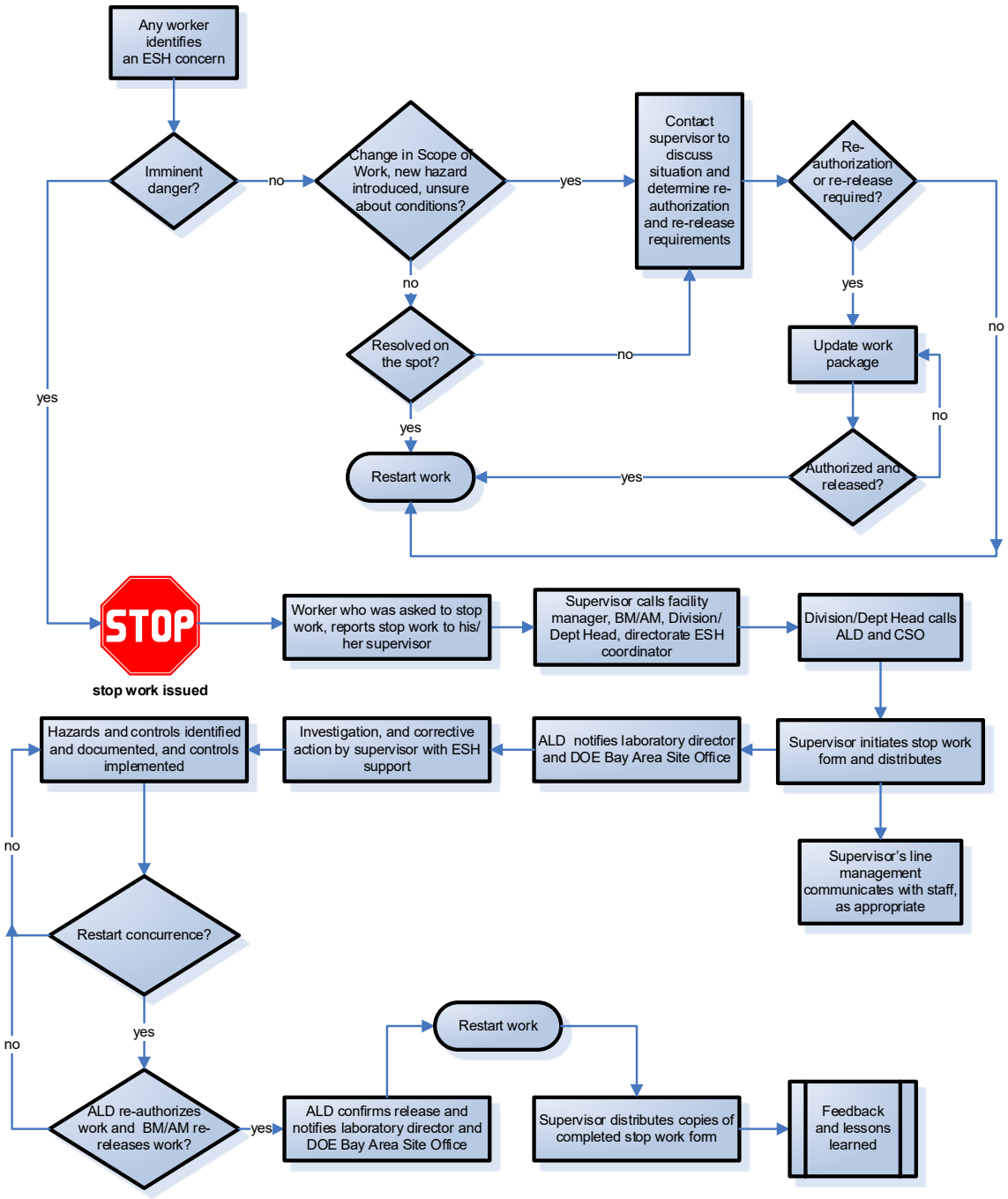

Figure 1 Stop Work Flow Chart

3 Forms

The following forms and systems are required by this procedure:

- Work Planning and Control: Stop Work Form (SLAC-I-720-0A21J-002). Form for documenting stop work

4 Recordkeeping

Completed stop work forms must be kept for 90 days by the department / division head identified in Section 4 of the form.

5 References

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

- Chapter 2, "Work Planning and Control"
  - Work Planning and Control: Procedure (SLAC-I-720-0A21C-002)
  - Work Planning and Control: Construction Work Planning and Control Procedure (SLAC-I-720-0A21C-005)

Other SLAC Documents

- SLAC Injury and Illness Prevention Program (SLAC-I-720-0A21B-001)
- Incident Reporting and Investigation Process (SLAC-I-701-O03-006-00)
- Lessons Learned

Other Documents

- Title 10, *Code of Federal Regulations*, "Energy", Chapter 3, "Department of Energy", Part 851, "Worker Safety and Health Program" (10 CFR 851) (as described in SLAC Injury and Illness Prevention Program [SLAC-I-720-0A21B-001])

Chapter 2: Work Planning and Control

Stop Work Form

Product ID: 453 | Revision ID: 2343 | Date Published: 10 May 2021 | Date Effective: 10 May 2021
URL: https://www-group.slac.stanford.edu/esh/eshmanual/references/wpcFormStopWork.pdf | docx

When an imminent risk stop work has been issued, the supervisor (that is, the SLAC employee who authorized work) of the person whose work has been stopped must make sure this form is completed and observation recorded in as complete and objective a manner as possible. Upon request by the facility manager, ALD, or CSO, this form will also be used for non-imminent risk stop work.

When completed, copies of this form are to be sent to

1. Area / building manager
2. Department / division head
3. Directorate ESH coordinator
4. Associate laboratory director (ALD)
5. Chief safety officer (CSO)

Work may not be resumed until this form is signed, indicating re-authorization by the ALD and re-release by the area or building manager.

For additional information, see Work Planning and Control: Stop Work Procedure (SLAC-I-720-0A21C-003).

Sample form, see URL at top of page

Section 1: Stop Work Issuance			
Directorate		Department	
Location of operation		Date / time	
Supervisor		Phone	
Individual initiating stop work			
Individual performing work			
Work operation or condition (include names of individuals performing work)			
Hazard (as stated by individual initiating stop work)			
Additional observations			

Section 2: Date / Time Informed			
Supervisor		Directorate ESH coordinator	
Building / area manager		Associate laboratory director	
Division / department head		Chief safety officer	
Facility manager			

Section 3: Follow-up Action

Section 4: Restart Concurrence			
Division / department head		Date	
Directorate ESH coordinator		Date	
CSO		Date	
Section 5: Restart Authorization			
ALD		Date	
Section 6: Restart Release			
Area / building manager		Date	

ENVIRONMENT, SAFETY & HEALTH DIVISION

Chapter 2: Work Planning and Control

Area Hazard Analysis Procedure

Product ID: 518 | Revision ID: 2344 | Date published: 10 May 2021 | Date effective: 10 May 2021
URL: https://www-group.slac.stanford.edu/esh/eshmanual/references/wpcProcedAHA.pdf

1 Purpose

The purpose of this procedure is to ensure that the complex or unique hazards and particular controls (training, PPE/equipment, and access requirements) associated with working in or entering a specific area are adequately identified and communicated. The procedure covers the development and use of *area hazard analyses (AHAs)*. It applies to area managers, ESH coordinators, and associate laboratory directors.

All *industrial areas* (defined as an area where some level of hazard, for example, moving machinery, noise, electrical, chemical, may exist), accelerator areas, and areas with radiation controls at SLAC must have an AHA. The AHA must be reviewed at least annually and when the training requirements or level or types of hazards change.

In some cases hazards may have been addressed in supporting safety documents (safety assessment documents, citizen committee reviews, fire hazard analyses, independent safety reviews), referencing the supporting document and completing the PPE/equipment and training requirements sections is adequate.

1.1 Program Introduction

Maintaining a safe workplace is the responsibility of everyone at SLAC. Identifying and understanding hazards, the risks they present, and mitigating those hazards is an essential foundation for achieving excellence in environment, health, and safety performance.

When entering an area to observe or conduct work, it is important to consider area hazards. During the planning of any work, one must consider the impact of such hazards. Some may require PPE or training, while others may require a permit.

The AHA program will serve

1. Anyone by providing relevant information about hazards, personal protective equipment (PPE), and access and training requirements for entry
2. Supervisors or those authorizing work by providing information that enhances planning for work conducted by their workforce

1.1.1 Supporting Programs

Work planning and control (WPC) addresses the activity level hazards and controls associated with work conducted anywhere on the SLAC site (see Work Planning and Control: Work Planning and Control Procedure). Furthermore, WPC addresses the authorization and release of activity-level work. The AHA should be referenced during planning, prior to authorization, to ensure that area specific hazards are

considered and that the training and PPE associated with entry are addressed. However, the AHA should not be used to document task-specific controls, such as arc flash protection, lockout/tagout (LOTO), or activity-specific training. Hazards such as compressed gas cylinder storage and ventilation hood velocity measurements are also not addressed by an AHA.

2 Roles and Responsibilities

2.1.1 Area Manager

- Prepares AHA for his or her area
- Reviews AHA at least annually

2.1.2 ESH Coordinator

- Assists line organizations in completing an AHA for all areas requiring one
- Periodically reviews AHAs to ensure that SLAC addresses hazards appropriately and consistently

2.1.3 Associate Laboratory Director

- Is responsible for ensuring this policy is implemented within his or her unit. In all areas for which he or she is accountable, each associate laboratory director is responsible for ensuring that a person is assigned to develop and maintain AHAs.

2.1.4 ESH Division

- Owns and is responsible for administering the AHA program, including providing a lab-wide tool for storing and accessing AHAs

3 Procedure

The AHA must include and clearly communicate the following information:

1. Date
2. Area and building identifier; area and building manager name and contact information
3. Minimum PPE/equipment required to enter the area
4. Training required to enter the area
5. WPC green work release requirements
6. Area-related hazards and associated controls

SLAC NATIONAL ACCELERATOR LABORATORY	**Area Hazard Analysis** **Created by**	Date: Approved by: [name] or blank
Building Number:	**Building Manager Name**: _____ Extension:_____ Cell phone: _____	**Alternate Building Manager**: _____ Extension:_____ Cell phone: _____
Area Name/Number:	**Area Manager Name**: _____ Extension:_____ Cell phone: _____	**Alternate Area Manager**: _____ Extension:_____ Cell phone: _____
Reference "Control" column for additional PPE/equipment required, but this is the minimum required for access: ☐ none ☐ safety glasses ☐ safety shoes ☐ hard hat ☐ reflective vest ☐ long pants ☐ hearing protection ☐ closed toe street shoes ☐ head lamp or flashlight ☐ other _____	**Training required for access**: ☐ none ☐ GERT ☐ RWT I * ☐ RWT II * * - dosimeter required ☐ other _____ [Up to 15 lines]	
Green Release requirements: ☐ Adhere to postings and signage. Area Manager release not required. ☐ Remain within marked boundaries, such as taped or painted floors, or other hazard barriers. ☐ If your work takes you outside marked boundaries, such as taped or painted floors, or other hazard barriers, then a release is required, contact the Area Manager. ☐ Contact the Area Manager to release all green work. ☐ See Additional Information section	**Additional Information**: [FREE TEXT FIELD]	

Figure 1 Sample AHA Screen

Step	Person	Action
1.	Area manager	Goes to the Area Hazard Analysis eTool
2.	Area manager	Selects Create AHA button
3.	Area manager	Selects approver's name, if approval is required by division or department. This is an optional field. (If a name is entered in the 'to be approved by' field, the tool will auto generate an e-mail with a link to the identified person for approval.)
4.	Area manager	Selects building identifier (only those buildings with areas will be listed) Verifies auto-populated building manager name and contact information
5.	Area manager	Selects area identifier (only those areas within the selected building will be listed) Verifies auto-populated area manager name and contact information
6.	Area manager	Selects minimum PPE, equipment, and training requirements for entry to area (Job-specific PPE must be documented in an ATA or JSA) (Up to 15 training classes may be listed)
7.	Area manager	Selects requirements for releasing green work
8.	Area manager	Enters additional information, if applicable
9.	Area manager	Lists up to 30 area-related hazards and their associated controls
10.	Area manager	Chooses hazards from the pre-defined list (the associated control will auto populate)
11.	Area manager	If finished, Select Submit button; if not finished, Select Draft button. *Note: when submitted, the AHA is posted in an uneditable format (except by the area manager) in the Area Hazard Analysis Library. If in draft, AHA is listed as pending.*

Step	Person	Action
12.	Area manager	Reviews AHA at least annually and when the training requirements or level or types of hazards change

4 Forms

The following forms and systems are required by this procedure:

- Area Hazard Analysis eTool. Tool for creating, approving, and storing/viewing AHAs

5 Recordkeeping

The following recordkeeping requirements apply for this procedure:

- Completed AHAs are stored in the Area Hazard Analysis Library.

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: Construction Work Planning and Control Procedure (SLAC-I-720-0A21C-005)
  - Work Planning and Control (includes online tools)

Other SLAC Documents

- Building Management Manual (SLAC-I-708-403-005-00)

851>Cal/OSHA Implementation Plan: Work Planning and Control

This form is for documenting changes to a program and the program's supporting resources (ESH Manual chapter or similar program description, training courses, databases, and so on) resulting from the adoption of the model Revolutionary Working Group (RWG) contract (see below) and the associated DOE variance from 10 CFR 851, "Worker Safety and Health Program". The purpose is to ensure consistent, concise descriptions of the resulting changes. The form is to be completed by the program manager and sent to the DOE as a cover sheet with the revised documents. The general process is as follows:

1. Program manager completes form
2. Changes to program resources made and reviewed following normal revision processes
3. DOE sent draft form and revisions
4. Changes to program resources published
5. DOE sent final form and revisions

1 Introduction

The RWG model contract and 10 CFR 851 variance are intended to simplify and improve the implementation of worker safety and health requirements by tailoring the laws, regulations, and standards that apply while achieving a level of protection equivalent to the requirements of 10 CFR 851. This mostly entails replacing federal Occupational Safety and Health Administration (OSHA) regulations (29 CFR 1910 and 1926) with Cal/OSHA regulations (8 CCR) as external requirements to be complied with but may also involve other laws and regulations and either different versions of industry standards than those cited in 10 CFR 851 or entirely different standards. (One purpose of this form is to capture the specific changes in external requirements for each program.) (For more information on this effort, see the variance application in 851>Cal/OSHA resources.)

2 Plan

Field Number	Field Name	Field
1.	Program name	Work Planning and Control
2.	Program manager	Poliak, Rich
3.	LBNL counterpart	Heim, John (SME list) (LBNL Phonebook)
4.	Program documents	*The following is a list of existing program documents, to be reviewed by the program manager to determine which will need to be revised to reflect 851>Cal/OSHA changes.* ▪ ESH Manual Chapter 2: Work Planning and Control ▪ Work Planning and Control: Quick Start Summary ▪ Work Planning and Control: Work Planning and Control Procedure ▪ Work Planning and Control: Activity Training and Authorization Form ▪ Work Planning and Control: Job Safety Analysis Form ▪ Work Planning and Control: SOP Authorization and Release Form ▪ Work Planning and Control: Work Integration Plan Form

Field Number	Field Name	Field
		▪ Work Planning and Control: Non-construction Tailgate/Release Form ▪ Work Planning and Control: Construction Work Planning and Control Procedure ▪ Work Planning and Control: Construction Tailgate/Release Form ▪ Work Planning and Control: SLAC Receipt of Subcontractor Form ▪ Work Planning and Control: Stop Work Procedure ▪ Work Planning and Control: Stop Work Form ▪ Work Planning and Control: Area Hazard Analysis Procedure
5.	Training courses	*The following is a list of existing training courses, to be reviewed by the program manager to determine which will need to be revised to reflect 851>Cal/OSHA changes.* *Course materials are available for review.* ▪ ESH Course 120, Work Planning and Control Overview (ESH Course 120) ▪ ESH Course 121, WPC Overview for Green Workers in Non Office Areas (ESH Course 121) ▪ ESH Course 392, Construction Work Planning and Control (WPC) (ESH Course 392) ▪ Facilities Course 101, Subcontractor Safety Management Training (FAC Course 101)
6.	Other program resources	*The following is a list of existing program resources, to be reviewed by the program manager to determine which will need to be revised to reflect 851>Cal/OSHA changes.* ▪ Work Planning and Control ▪ Hazard Evaluation and Planning eTool ▪ Area Hazard Analysis eTool ▪ LCLS-II Work Planning and Control
7.	Current external requirements	*The following is a list of current external requirements for this program, as identified in the program documents above.* ▪ Department of Energy Contract DE-AC02-76SF00515 ▪ Title 10, Code of Federal Regulations, "Energy", Chapter 3, "Department of Energy", Part 851, "Worker Safety and Health Program" (10 CFR 851) ▪ Department of Energy Policy 450.4A, Change 1, “Integrated Safety Management Policy” (DOE P 450.4A, Chg 1 [MinChg]) ▪ Department of Energy Order Quality Assurance DOE D 414.1D *The following is a list of current external reference/guidance documents.* ▪ Stanford University. Administrative Guide Memo 7.5.1, “Health and Safety Performance Standards and Discipline” ▪ Department of Energy Guide 450.4-1C, "Integrated Safety Management System Guide" (DOE G 450.4-1C) ▪ DOE Handbook – Activity Level Work Planning and Control Implementation DOE-HDBK-1211-2014
8.	Proposed external requirements	*List all the external requirements that will apply to this program. To determine, start by looking up existing external requirements in 851>Cal/OSHA resources (variance, gap analysis, and contract) and finding replacements (for example a specific section in 29 CFR 1910 to a specific section in 8 CCR or a current version of an industry standard).Where Cal/OSHA requirements are less stringent than those of 10 CFR 851, check with Jeremy Sawyer on which to use.* ***Enter “no changes” if none.***

Field Number	Field Name	Field
		▪ The contract (DE-AC02-76SF00515) between the US Department of Energy and Stanford University for operation of SLAC, in particular clauses H.4.0.2, "DEAR 970.5204-2 – Laws, Regulations, and DOE Directives", and I.143, "DEAR 970.5223-1 – Integration of Environment, Safety and Health into Work Planning and Execution" ▪ Title 10, *Code of Federal Regulations*, "Energy", Chapter 3, "Department of Energy", Part 851, "Worker Safety and Health Program" (10 CFR 851) (as described in SLAC Injury and Illness Prevention Program [SLAC-I-720-0A21B-001]) ▪ Department of Energy Policy 450.4A, Change 1, "Integrated Safety Management Policy" (DOE P 450.4A, Chg 1 [MinChg])
9.	Proposed substantive changes	*Describe (list) the substantive changes to be made in the program, based on the new external requirements.* ***Enter "no changes" if none.*** ▪ No changes
10.	Additional proposed substantive changes	*Describe (list) the substantive changes to be made in the program, in addition to those based on the new external requirements. For example, those due to stakeholder input, other reviews and audits, operating experience.* ***Enter "no changes" if none.*** ▪ Detail has been added to the subcontractor role and responsibilities section making it explicit that subcontractors must follow the appropriate SLAC work planning and control procedure
11.	Affected program documents	*List program documents affected by the changes above.* ***Enter "no changes" if none.*** ▪ ESH Manual Chapter 2: Work Planning and Control ▪ Work Planning and Control: Stop Work Procedure
12.	Affected training courses	*List training courses affected by the changes above.* ***Enter "no changes" if none.*** ▪ No changes
13.	Other affected program resources	*List other program resources affected by the changes above.* ***Enter "no changes" if none.*** ▪ No changes
14.	Comments/Questions/Issues	*Add any comments or questions regarding applicable requirements or changes.* ▪ No changes
15.	Status	☒ Initial draft (proposed changes) ☒ Draft (for DOE review) ☒ Final (published changes)
16.	Date completed	9/3/2020 (revised 3/4/2021) 3/25/2021 5/10/2021