



# **Associate Laboratory Directorate for Environment, Safety, Health, Quality, Safeguards and Security**

## **Exhibit F, Revision 3: Subcontractor Site-Specific Environmental, Safety, and Health Plan Guide and Evaluation Criteria**

**OSH-ISH-PR-0003 (Rev 1)  
October 2019  
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**Revision History**

<b>Document Number and Revision</b>	<b>Effective Date</b>	<b>Description of Changes</b>
OSH-ISH-PR-003 Rev. 0	8/25/2019	Initial development of this guide and evaluation criteria
OSH-ISH-PR-003 Rev. 1	10/XX/2019	Updated F40, Work within the Boundary of a Consent Order Site and F43, Storm Water Management and their respective evaluation criteria for SWPPP and NPDES permit requirements.  Updated F23 Fall Prevention/Protection evaluation criteria to specify LANL fall protection qualified person as fall protection plan reviewer.

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**Los Alamos National Laboratory  
Subcontractor Site-Specific Environmental, Safety, and Health Plan (SSESHP) Guide**

**General Expectations when Working at Los Alamos National Laboratory**

Los Alamos National Laboratory (LANL) expects its subcontract holders to protect all workers, our community, environment, and mission while delivering the work LANL hired them to perform.

Working for the Department of Energy (DOE) at a DOE-owned, contractor-operated, facility is quite different than working in general industry. In general industry, a business *may* have Occupational Safety and Health Administration (OSHA), Environmental Protection Agency (EPA), or the New Mexico Environment Department (NMED) regulators perform an inspection and identify regulatory compliance issues. For LANL, if there is a single instance where processes, permits, or worker exposures are out of compliance with legal requirements, LANL is expected to proactively report this non-compliance to the DOE National Nuclear Security Administration-Los Alamos (NNSA-LA) Field Office. Additionally, LANL works to correct this issue to bring the situation back into regulatory compliance. The DOE expects this of LANL as well as of all LANL subcontractors.

The Subcontractor Site-Specific Environmental, Safety, and Health Plan (SSESHP) is intended to work in tandem with integrated work documents (IWD) for subcontracted work. The SSESHP is where subcontractors demonstrate they understand and will abide by LANL’s 1) regulations, in addition to DOE- and LANL-adopted consensus standards; and 2) mandates for notifications, reporting, forms, etc. While the SSESHP is written at a relatively high-level, the IWDs focus on safe work execution in the form of detailed-specific tasks, hazards, and required controls (e.g., mandatory hold points). Both the SSESHP and the project IWDs are expected to be fundamental tools used in the safe and environmentally compliant conduct of work.

When submitting a SSESHP to LANL, subcontractors are to:

- Tailor the plan to the work that will be conducted at LANL;
- Have corresponding content in the SSESHP for every Exhibit F clause in the subcontract; and
- Describe how federal, state, local, DOE, and LANL-specific requirements will be met.

Once the SSESHP has been approved by LANL, subcontractors have the sole responsibility for implementing the plan for its employees as well as any lower-tier suppliers or subcontracted employees. Changes to the SSESHP require re-submittal and LANL’s approval. This can include situations when information in the plan is no longer applicable. Upon option year award, the subcontractor will coordinate with LANL to verify the SSESHP is still adequate for the work scope.

***Worker Health and Safety***

LANL subcontractors are expected to know OSHA regulations that apply to their scope of work. Limited content in this SSESHP guide and corresponding evaluation criteria is taken directly from OSHA requirements, rather the document focuses on emphasizing requirements unique to LANL or the DOE. Subcontractors are expected to communicate they understand OSHA, LANL, and/or DOE requirements in their submitted SSESHPs.

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For work involving radiological hazards, subcontractors will work under the requirements established by LANL’s Radiation Protection Program, and as specified in P121 *Radiation Protection*. In these cases, LANL will work with subcontractors to help ensure they understand and follow requirements concerning radiological hazards.

**Environmental Protection**

Depending on the nature of the work, subcontractors will be working under LANL permits or New Mexico-approved plans. This will require subcontractors to collaborate closely with LANL to ensure their actions do not deviate from LANL’s obligations. LANL expects subcontractors to maintain their own environmental regulatory requirements when applicable (e.g., equipment certification through NMED), as well as have knowledge in applicable federal, state, and local environmental regulations. In cases where expertise is mandated (e.g., refrigerant work, implementation of storm water permit requirements, etc.), LANL expects subcontractors to have appropriate experience and certifications for the work.

In cases when there are established Best Management Practices (e.g., storm water management), LANL can assist subcontractors in understanding what these practices entail. However, subcontractors need to understand the resource needs, time restrictions, and potential financial consequences of a formal violation associated with these practices and plan accordingly.

The nature of LANL’s environment as well as historical land use drives environmental protection measures that some subcontractors might not have encountered. In cases where subcontracted tasks involve highly-unique work (i.e., working on or near a cultural site, endangered species habitat or other biological resource protection areas, consent order site, or disposing of specialized hazardous waste), LANL will work with subcontractors to help ensure they understand and follow requirements.

**How to Use this Guide**

This guide is not mandatory and does not establish requirements. Subcontractors can choose how they want to meet the requirements established in their subcontract’s Exhibit F.

This guide provides a clause-by-clause summary of the SSESHP content areas and associated submissions that are expected to be addressed when a given clause is included in a subcontract Exhibit F. It does not cover all the requirements put forth in the Exhibit F clauses. Rather it focuses on those needed in preparing to safely conduct work and protect the environment.

**Note:** *Depending on the nature of work, subcontractors will receive, as part of the request for quote package, one or more Attachment F1-0, FOD Exhibit F Site Hazard Analysis and Coordination Requirements forms, a Waste Characterization Strategy Form, and a draft CGP Storm Water Pollution Prevention Plan. The information in these forms and plan is intended to provide subcontractors with details on the location and waste hazards associated with the work, and identifies potential sources of storm water pollution, describes practices to reduce these pollutants and identifies procedures and control measures to comply with permit requirements, which can help subcontractors in bidding on and planning for the work. Information from either of the forms do not create new contractual requirements outside of the subcontract Exhibit F. Nor do they need to be addressed in the SSESHP.*

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The clause-by-clause content of this guide is organized primarily into two elements. One being the content a subcontractor is expected to address in a given clause, the other is the SSEHP-related submissions associated with each clause. A detailed description of each of these elements is provided below.

**Subcontractor will have content that speaks to:** These items are summarized from the Exhibit F clause, which the subcontractor is expected to cover in their SSESHP. These items that range from including a LANL requirement (e.g., submit form in 7-days) to providing procedures that demonstrate how the subcontractor will comply with regulatory requirements (e.g., OSHA, EPA, NMED).

**Submit:** These are submissions that are specified in the clauses. Depending on the item, LANL may require the submission with the SSESHP or prior to the start of a task.

**WRITTEN PLAN:** Plans or procedures developed and submitted by the subcontractors in order to be in compliance with clause requirements. Some may require updating if the work scope or location’s conditions change during the period of performance.

**TRAINING:** Training requirements called out in the clauses. LANL expects subcontractors to submit training completion documentation for workers when the training requirements apply. This documentation does not need to be submitted as part of the SSESHP, but must be submitted to LANL via the submittal system for the subcontract. LANL will track completion of LANL-provided training; however, subcontractors are highly advised to keep their own records of LANL-provided training.

**NAMED ROLE:** Persons who are required to be qualified, competent, have credentials or certifications in order to meet regulatory or LANL requirements to perform a specific role in support of Exhibit F requirements.

**Note:** Within any of the above items, there may be italicized notes (e.g., Note: *it is highly recommended that testing be scheduled several days prior to anticipated use*). These are not mandates stemming from Exhibit F, but rather suggestions to help execute ES&H requirements.

If there is a LANL policy or form referenced as a requirement, the Subcontractor Technical Representative (STR) will provide this document to the subcontractor.

This SSESHP guide contains corresponding evaluation criteria for each Exhibit F clause with a link posted in each section. This criteria is intended provide a standardized approach for LANL subject matter experts in reviewing SSESHPs to determine if the content is acceptable and providing feedback to subcontractors when changes are needed. Subcontractors are highly encouraged to review both the SSESHP guide and corresponding evaluation criteria when creating their SSESHPs.

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## Exhibit F Clauses and Content Information

### F1. General Requirements

[\(Evaluation Criteria\)](#)

**Subcontractor will have content that speaks to:**

- Providing a workplace free from recognized hazards that have the potential to cause worker death or serious harm, and taking actions to avoid harming the environment.
- Recognizing that when performing work at sites controlled by LANL or the U.S. Government, the subcontractor will comply with applicable federal, state, and local laws protecting workers and the environment.
- Confirming that the subcontractor will comply with the requirements set forth in 10 CFR 851, the standards cited within 10 CFR 851, and any additional requirements necessary to protect safety and health of workers.

### F2. Content from this clause is not expected to be in the SSESHP

### F3. Content from this clause is not expected to be in the SSESHP

### F4. Subcontractor ES&H Representative Duties and Responsibilities

[\(Evaluation Criteria\)](#)

**Note:** *The intent for this clause is for a subcontractor to explain to LANL how they will provide ESH oversight for all phases of the tasks conducted under the statement of work. This includes both task-specific specialists and general ESH representation. LANL expects these persons to be named in the SSESHP and qualifications submitted for review and approval. Some roles may not be documented in AP-850-300-FM06, Technical Subcontractor Management Subcontract Training Matrix.*

**NAMED ROLE:** The ESH Representative is considered a Key Personnel and qualifications are to be **submitted prior to award** of subcontract.

**WRITTEN PLAN:** LANL has the following minimum requirements for the initial submission of the ESH Oversight Plan. LANL ESH personnel will review and approve the plan and qualifications.

- Lists the tasks associated with the statement of work that require competent and/or qualified individuals, or other named roles present in Exhibit F clauses (e.g., National Pollutant Discharge Elimination System Construction General Permit-designated ESH Representative).
- NAMED ROLE: Role these individuals will fill.
- How these roles will provide project support/oversight. See examples below.
  - For those with an on-site role, LANL expects the person fulfilling the role to do so in a manner that allows them to provide active engagement, regular evaluation of hazards and changes, and pause work as needed. A single individual can fill more than one role (e.g., primary ESH Representative and Fall Protection Competent Person) as long as all responsibilities for those roles are per the expectations listed in the previous sentence and LANL approves.

- Name of primary ESH Representative.

**Note:** Except for the primary ESH Representative, the individuals who will fill the named roles do not need to be specified when the ESH Oversight Plan is submitted. However, their names are to be documented and qualifications approved by LANL before they start work on the project.

For subcontracts where the work involves a one- or two-person team (e.g., autoclave maintenance and calibration), a subcontractor team member can serve as the on-site primary ESH Representative. Subcontractor-provide training on the technical and safety aspects of tasks addressed in the Exhibit D can serve as the starting point for ESH Representative qualifications.

LANL recognizes the ESH Oversight Plan may be a living document that will be updated and resubmitted to LANL for review and approval as often as needed to keep the plan current. For example, persons named for specific roles change or modifications are made to the statement of work. For projects where it's anticipated that persons filling some of NAMED ROLES may be changed several times over the period of performance, subcontractors may consider developing a standalone list of NAMED ROLES and the individuals filling those roles. This list would be a dynamic part of the ESH Oversight Plan and resubmitted as often as needed to ensure those in NAMED ROLES are current and correct.

The examples below show how the ESH Oversight Plan may be developed.

**Example 1. Multi-Phase Construction Project with Multiple Work Fronts**

XYZ, LLC. ESH Oversight Plan for PR12345			
Task	Role	Name	How Oversight Will be Provided
	Primary ESH representative	Sean Donnery	On-site at all times work conducted and will be dedicated solely supporting PR12345. Will rotate through all work fronts supervising and coordinating with designated competent personnel, qualified personnel, and other task-specific ESH representatives.
Wearing respirators	Respiratory protection program administrator	Diane Niven	Develop and oversee implementation of XYZ, LLC's respiratory protection program. All off-site work.
Excavations	Excavation competent person	TBD	On-site at excavation site during all phases of planning, execution, and monitoring.
Excavations	Air monitoring operator	George Lazenbe TBD	On-site at excavation site to evaluate and monitor air quality prior to entry into any excavation. Will do other tasks associated with excavation when not air monitoring.
Exposure assessment	Qualified industrial hygienist	Roger More	Develop exposure assessment plan. Coordinate with ESH technician on exposure monitoring. Analyze results and implement controls. All off-site work.
Exposure assessment	ESH technician	TBD	On-site exposure monitoring per exposure assessment plan.

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**Example 2. One- or Two-Person Programmatic Equipment Servicing Team**

**Microscope, Inc. ESH Oversight Plan** – Daniella Craig, Service Engineer, will serve as the ESH Representative for PR45678, and will be present whenever warranty work on Microscope BX is being planned or conducted. She will ensure hazards and controls are correctly documented in the Integrated Work Document and control measures implemented before work begins. She will participate in the LANL site and safety orientation and lead daily briefings for the Microscope, Inc. team on multiday projects.

She is qualified to serve as the ESH Representative based on the following:

- Service Engineer for Microscope, Inc. since 2010
- Microscope, Inc. Microscope BX Safety Training (February 1, 2019)
- LANL Lockout/Tagout, Course 53493 (June 10, 2018)
- LANL Demonstration of Proficiency for Lockout/Tagout Course 43990 (June 10, 2018)

**F5. Incident Reporting**

[\(Evaluation Criteria\)](#)

**Subcontractor will have content that speaks to:**

- Notifying the STR immediately of an on-site event. Providing written notification within 24 hours, and submitting a complete investigation report using DOE Form 5484.3 within two working days of the event.
  - An on-site event or condition includes but is not limited to: employee injury; fire; any accident, incident, or near-miss; property damage to equipment, facilities, or motor vehicles; non-compliance with safety, health, or environmental requirements; non-permitted release to the environment; or any other unplanned event that could affect LANL’s or the U.S. Government’s reputation.
- How the scene for an on-site event will be preserved for an investigation as long as it does not interfere with keeping the area safe.
- How accidents trends and lessons learned will be analyzed.
- Participating in LANL or DOE investigations or similar activities.
- Notifying the STR immediately in writing when an employee or lower-tier subcontractor is suspended or terminated for unsafe acts while working at LANL.
- Submitting weekly Productive Man-Hour Reports using Attachment 6-1.  
**Note:** This report assists LANL with tracking various injury and illness rates.

**F7. Employee Training**

[\(Evaluation Criteria\)](#)

**Subcontractor will have content that speaks to:**

- Ensuring all workers are properly trained and qualified in safety to perform assigned responsibilities prior to starting work. This includes LANL facility-specific training.
- The process in which employees will keep current with training required in the *Technical Subcontractor Management Subcontract Training Matrix*, AP-850-300-FM06\_FMT, and how training records will be managed.
- Having workers’ training records on-site during the period of performance.

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## F8. ES&H Meetings/Pre-Job Briefings/Daily Briefings

([Evaluation Criteria](#))

**Subcontractor will have content that speaks to:**

- Attending a LANL site and safety orientation prior to work kick-off. If subcontractor or lower-tier personnel join the team after the initial LANL site and safety orientation occurred, the subcontractor will provide information communicated during the LANL orientation.  
**Note:** *This orientation may occur in part during the subcontract kick-off meeting, the pre-job briefing, or as a stand-alone event.*
- Documenting attendance at the orientation and any subsequent briefings.
- How the subcontractor will provide pre-task planning and daily briefings to its workers, which address the hazards and control measures for work to be performed that task and/or that day.
  - Keeping documentation of pre-task planning and daily briefing at the work location and available to LANL upon request.
- How the subcontractor will conduct employee ES&H meetings.
  - Keeping ES&H meetings documentation that includes topic(s); attendees; questions posed by workers and responses; and hazards identified by workers, subcontractor's ES&H Representative, and/or subcontractor management.
- Attending any LANL-hosted subcontractor ES&H forums.

## F9. ES&H Inspections

([Evaluation Criteria](#))

**Subcontractor will have content that speaks to:**

- The steps that will be taken to conduct initial and periodic inspections of work areas in order to monitor compliance with ES&H requirements, and submitting written inspection reports to LANL.  
**Note:** *Attachment F9-1 Samples of Inspection Checklist for Subcontractors, may serve as a helpful resource.*
- Promptly correcting identified hazards, deficiencies, or compliance issues, and taking protective measures until the issues are corrected.
- Reporting to LANL all hazards, deficiencies, or compliance issues not under the subcontractor's control.
- Understanding 10 CFR 851.20(b)(6), and that workers have the right, without reprisal, to request and receive results of investigations and inspections.
- Recognizing that LANL can perform announced and unannounced inspections of subcontractor operations, equipment, and material to verify compliance with subcontract requirements.
- Notifying LANL if the New Mexico Environment Department or U.S. Environmental Protection Agency makes an unannounced visit to the work area.

## F10. Housekeeping

([Evaluation Criteria](#))

**Subcontractor will have content that speaks to:**

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- How work areas will be kept neat and orderly at all times.  
**Note:** Attachment F10-1, Safety/Housekeeping Inspection Checklist may be a useful tool.
- Providing water for employees in a safe and hygienic manner at all worksites.
- Unless specified in the subcontract that LANL will provide sanitary toilet facilities, the subcontractor will provide and maintain toilet facilities in a manner acceptable to LANL.

## F11. Emergency Preparedness Requirements

[\(Evaluation Criteria\)](#)

**Subcontractor will have content that speaks to:**

- TRAINING** Complying with LANL’s site-specific emergency response requirements. Training on these requirements is covered in General Employee Training and at facilities/buildings where the subcontractors will work.
- Briefing employees who do not receive initial briefings (e.g., General Employee Training, facility/building) and documenting the briefings.
- Communicating emergency procedures to employees, and participating in LANL emergency response drills occurring during the period of performance.
- Conducting and documenting an annual evacuation drill when subcontractors have a sustained presence at LANL. **Note:** In this case, a sustained presence would be considered a multi-person team working several continuous months on-site or a multi-person team working for one week on-site eight or more times a year.

**Submit:**

- WRITTEN PLAN** Subcontractor procedures that cover, at a minimum, notifications and methods for personnel accountability.  
**Note:** In the event of an emergency on LANL property, subcontractors having the ability to notify and account for all subcontract personnel will greatly assist emergency responders.

## F12. Personal Protective Equipment

[\(Evaluation Criteria\)](#)

**Subcontractor will have content that speaks to:**

- How the subcontractor will determine what personal protective equipment will be worn by workers.
- The requirement for all subcontracted employees to wear long pants and a suitable shirt with no less than 4-inch sleeves at the worksite.
- Wearing high visibility reflective vests when working on active construction, demolition, highway, or remediation sites.

**Submit:**

- TRAINING** Names of those who received personal protective equipment training. Training can be accomplished through either OSHA 10-hour training or through subcontractor-provided training.

*For those operations involving radiological work:*

**Subcontractor will have content that speaks to:**

- Understanding that LANL will direct the personal protective equipment worn to protect against radiological hazards. This may include specific types of respiratory protection.

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**Note:** If a subcontractor is not sure if their existing respirators will be accepted into LANL's radiation control program, the subcontractor should contact the STR.

### F13. Respiratory Protection

[\(Evaluation Criteria\)](#)

**Submit:**

- WRITTEN PLAN & TRAINING** Written Respiratory Protection Program addressing the required elements of both 29 CFR 1910.134 and ANSI Z88.2.
- NAMED ROLE** In the ESH Oversight Plan associated with F4 Subcontractor ES&H Representative Duties and Responsibilities, list the task, role of respiratory protection program administrator, and how oversight will be provided. The name of the administrator and documentation showing how qualifications are must be provided and approved prior to that person starting work on the project.

### F14. Hearing Conservation Program

[\(Evaluation Criteria\)](#)

**Subcontractor will have content that speaks to:**

- The steps to determine if subcontracted workers are exposed to hazardous noise that exceeds the ACGIH threshold limit values for an 8-hour exposure and/or 140 dB or dBC for impulse-impact noise. This may be addressed as part of a comprehensive exposure assessment as detailed in F52 Exposure Assessment.

**Submit:**

- WRITTEN PLAN & TRAINING** If exceeding the ACGIH threshold limit values for an 8-hour exposure and/or 140 dB or dBC for impulse-impact noise, submit a written Hearing Conservation Program that meets the requirements of 20 CFR 1910.95 and/or 29 CFR 1926.52 as appropriate.

### F15. Occupational Health Services

[\(Evaluation Criteria\)](#)

**Subcontractor will have content that speaks to:**

- The name(s) of and contact information for medical provider(s) who will provide medical evaluations when required.
- Keeping a work history log for each worker who performs work on LANL property.
- Recognizing that LANL's Occupational Health Office will provide initial treatment (when requested) of non-emergency work-related injury or illness for subcontracted workers for events that occur on LANL property, and that the subcontractor supervisor will accompany subcontractor workers to the Occupational Health Office.

**Submit:**

- List of known medical evaluations to be applicable to subcontracted work.  
**Note:** Exhibit F Attachment-F15-1, Medical Surveillance for Toxic and Hazardous Substances Requirements is a helpful reference. Also medical surveillance requirements may be triggered from results associated with an exposure assessment plan as detailed in F52 Exposure Assessment.

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## F16. Motor Vehicles and Powered Industrial Equipment

### (Evaluation Criteria)

If using LANL leased or owned motor vehicles or if using powered industrial equipment:

#### **Subcontractor will have content that speaks to:**

- Ensuring operators have appropriate licensing, are healthy and unimpaired, and will not use cellular devices or hand-held communications while operating equipment.
- Ensuring subcontractor vehicles and mobile equipment is registered/licensed, maintained, and operated in accordance with government, manufacturer, and jobsite requirements or recommendations.

#### **Submit:**

- WRITTEN PLAN** Motor Vehicle Safety Program as part of the SSESHP that includes:
  - Seat belt use, rollover protection, back-up alarms, lifting and hauling, scissor points, training, operational use, general vehicle maintenance, and inspections.
  - Immediately reporting to the STR any mishap leading to damage of a motor vehicle on LANL or U.S. Government property.
  - Operators' commitment to the safety of passengers and stability of transported materials.
  - Shutting down vehicles and equipment before refueling, and setting parking breaks when leaving vehicles and equipment unattended.
  - For trucks, ensuring drivers are not in or near the cab when the truck is being loaded by power equipment unless the truck is equipped with a cab shield.

If using major equipment including but not limited to, heavy equipment, large vehicles, off-road vehicles, compressors, generators, cranes, hoists, derricks, stationary and portable fuel tanks:

#### **Subcontractor will have content that speaks to:**

- How equipment will be inspected prior to use to ensure compliance with OSHA, ANSI, NFPA requirements and/or manufacturers' recommendations. Also, how maintenance and inspection records will be made available to LANL per request.
- The process for taking any equipment or machinery out of service and removing it from LANL if is not in compliance with regulatory requirements.
- Ensuring dozer blades, end loader buckets, forklift forks, or similar equipment parts are lowered to the ground before operators exit the equipment.

#### **Submit:**

- Attachment F16-1, *Major Equipment Declaration*, before using equipment at LANL.
  - Completed Safety Review Checklist.

If using an All-Terrain Vehicle (ATV):

#### **Subcontractor will have content that speaks to:**

- TRAINING** Having operators trained by the Motorcycle Safety Foundation (MSF), MSF-endorsed organization, or equivalent state-approved ATV training.
- ATV operators' use of personal protective equipment, and not allowing passengers unless the ATV is designed to accommodate them.

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## F17. Tools and Equipment

(Evaluation Criteria)

**Subcontractor will have content that speaks to:**

- The process for and frequency of inspecting power equipment and tools, as well as how these inspections will be documented.
- Not using job-made tools unless approved in writing by LANL.
  - All electric power tools using and delivering 60 Hz AC power are to be listed by a Nationally Recognized Testing Laboratory (NRTL) or approved by LANL electrical Authority Having Jurisdiction or an Electrical Safety Officer. LANL electrical Authority Having Jurisdiction will inspect any NRTL-listed power tool that was repaired.
- If using powder-actuated tools, then methods for training employees, using tools, and storing and using powder charges.
- If using temporary electrical applications (including task lighting), then ground fault circuit interrupters will be used.
- If portable, vehicle-mounted electric generators are used, then bonding and grounding requirements.

For work where engineered ventilation controls are used:

**Subcontractor will have content that speaks to:**

- Understanding that LANL requires all subcontractor-owned high-efficiency particulate air filtration systems (HEPA), ventilated enclosures, confinement systems, and/or local exhaust ventilation systems to be tested and certified prior to use and annually thereafter. HEPA systems must also be certified after maintenance that disturbs the HEPA filter.

**Note:** The LANL Ventilation Team can provide this service to subcontractors.

**Submit:**

- Documentation that engineered ventilation controls have been tested and certified prior to use and annually thereafter. The LANL Ventilation Team can provide this service to subcontractors.

**Note:** It is highly recommended that testing be scheduled several days prior to anticipated us.

## F18. Inclement Weather

(Evaluation Criteria)

**Subcontractor will have content that speaks to:**

- Protective actions employees will take in lightning or high wind conditions.
- TRAINING** All field employees being trained on heat or cold stress-related disorders as well as control measure to reduce the possibility of these disorders.
- Ensuring employees have access to adequate sanitary potable fluids throughout the day.

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## F19. Chemical and Hazardous Materials Management

(Evaluation Criteria)

**Subcontractor will have content that speaks to:**

- Describing the mechanism that will be used to maintain an inventory—for each location—of all hazardous chemicals, the quantities or each, location of storage, and their SDSs.

**Note:** *The inventory is expected to be kept current; this means that all hazardous chemicals brought onto LANL will have an SDS submitted to [safetydatasheets@lanl.gov](mailto:safetydatasheets@lanl.gov) and be noted in the inventory.*

**Submit:**

- Safety data sheets (SDS) to [safetydatasheets@lanl.gov](mailto:safetydatasheets@lanl.gov) prior to bringing any chemical onsite.
- List of chemicals or other hazardous materials for which subcontractor will be conducting worker exposure assessments and submitting sampling results.
- WRITTEN PLAN & TRAINING** Written Hazard Communication Program compliant with 29 CFR 1910.1200. Worker training is required in order for a program to meet requirements in 29 CFR 1910.1200.

## F20. Work Management

(Evaluation Criteria)

**Subcontractor will have content that speaks to:**

- Line management committing to being responsible for the protection of employees, public, and the environment.
- How clear and unambiguous lines of authority and responsibility for ESH matters are established. This should include line management, the designated person-in-charge (PIC), any lower-tier subcontractors, etc.
- NAMED ROLE** Designating a PIC who will ensure the quality of the integrated work document (IWD) and managing the work. This will be documented in the ESH Oversight Plan associated with F4 Subcontractor ES&H Representative Duties and Responsibilities.
- For IWDs
  - Developing IWDs for electrical work in accordance with LANL's Guide for Electrical IWDs.
  - Incorporating LANL-provided site-specific hazard information.
  - Including LANL Integrated Review Tool (e.g., PRID) information, if provided by LANL.
  - Incorporating required hold points. During the course of work, subcontractors must obtain approval from LANL prior to proceeding past each hold point.

**Note:** *Attachment F20-4, Subcontractor IWD Mandatory Hold Points provides details on how to navigate each mandatory hold point.*

  - Including LANL's Attachment F1-0, *FOD Exhibit F Site Hazard Analysis and Coordination Requirements* with the IWD. For each work location, there will be a separate Attachment F1-0.
  - Participating in field walk-down(s) of the work activity to validate the IWD tasks/steps, hazards, and controls are in place.
- Having the project document onsite: written scope of work, IWDs, Exhibit F checklist, and daily pre-job briefing documentation IWDs.

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- All subcontractors and LANL employees having the right and responsibility to pause or stop work without fear of reprisal. Notifying the STR anytime work is paused or stopped.
- If work is paused for an ESH-related matter, restarting only when a LANL ESH representative approves of the resolution.
- If work is stopped, restarting only after completing a Form 2181 *Stop-Work Action Worksheet* and LANL approves of the follow up actions.

## F21. Fire Protection and Prevention

[\(Evaluation Criteria\)](#)

**Subcontractor will have content that speaks to:**

- Storing combustible materials away from heaters, lamps, hot pipes, and equipment.
- Actions that will be taken to keep doors, stairwells, aisles, means of egress, fire suppression equipment, fire lanes, fire hydrants, and the space 18+ inches below sprinkler heads clear and unobstructed at all times.
- Housekeeping measures for combustible waste containers, storage of combustible material, and cable trays and raceways.
- Not allowing open fires.
- Smoking only in approved areas.

**Submit:**

- WRITTEN PLAN** Fire Protection and Prevention Plan that includes
  - Details on the number, type, and plan for placement of portable fire extinguishers.
  - Dialing 911 and initiating a Fire Department response for any fire, suspected fire, unexplained smoke in the work area, or discharge of fire extinguisher.
  - Handling, storage, use, and disposal of flammable and combustible liquids and gasses.
- TRAINING** When portable fire extinguishers are used, provide fire extinguisher training document for each employee.

## F22. Welding, Cutting, Brazing and Grinding

[\(Evaluation Criteria\)](#)

**Subcontractor will have content that speaks to:**

- Submitting to LANL Form 1563, *Spark of Flame-Producing Operations Permit*, two working days before doing work that involves spark or flame-producing operations.
- Posting the approved Form 1563 in the immediate work area.
- Looking at housekeeping conditions, fire extinguishers, fire alarms, emergency exit locations, and ventilation conditions before starting spark or flame-producing work.
- Measures to protect incidental exposure by observers.

**Note:** DOE mandates that welding PPE is to be certified as flame resistant to either ASTM F1506 and/or NFPA 2112 standards. PPE manufacturers and/or distributors sometimes state their items are ASTM F1506 or NFPA 2112 "compliant". This means the manufacturer is indicating that its PPE could pass the certification standard tests, but have not gone through the formal testing and certification process. "Compliant" does not meet DOE and LANL requirements. LANL developed a list of authorized, certified welding PPE for LANL

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personnel and it is posted on the LANL Welding website. If interested, subcontractors can request a copy of the welding PPE list through their STRs.

## F23. Fall Prevention/Protection

[\(Evaluation Criteria\)](#)

### Submit:

- NAMED ROLE & TRAINING** In the ESH Oversight Plan associated with F4 Subcontractor ES&H Representative Duties and Responsibilities, list the task, role of fall prevention/protection competent person, and how oversight will be provided. The names and documentation showing how the competent person requirement is met must be provided and approved prior to person(s) starting work on the project.
- NAMED ROLE & TRAINING** In the ESH Oversight Plan associated with F4 Subcontractor ES&H Representative Duties and Responsibilities, list the task, role of fall prevention/protection qualified person, and how oversight will be provided. The names and documentation showing how the qualified person requirement is met must be provided and approved prior to person(s) starting work on the project.
- TRAINING** Names of supervisors and fall protection users and documentation showing training in the care, use, and inspection of fall protection devices.
- WRITTEN PLAN** Fall Prevention/Protection Plan.

## F24. Scaffolding

[\(Evaluation Criteria\)](#)

### Subcontractor will have content that speaks to:

- Submitting a LANL Penetration Permit when scaffolds will be secured to a facility.
- The onsite documentation that must be present when using wooden scaffolds.

### Submit:

- WRITTEN PLAN** Scaffolding procedure that meets requirements in 29 CFR 1926.450 and 451.
- NAMED ROLE & TRAINING** In the ESH Oversight Plan associated with F4 Subcontractor ES&H Representative Duties and Responsibilities, list the task, role of competent scaffold builder, and how oversight will be provided. The names of competent scaffold builders and documentation showing how the competent person requirement is met must be provided and approved prior to the individual(s) starting work on the project.
- TRAINING** Names of scaffold users and documentation of user training.

## F25. Portable Ladders

[\(Evaluation Criteria\)](#)

### Subcontractor will have content that speaks to:

- Using only industrial or heavy-duty work rated ladders.
- Inspecting ladders before each use and annually.
- Actions ladder users will take, or be prohibited from taking, to be in compliance with 29 CFR 1926.1053, *Ladders*.

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**Submit:**

- TRAINING** Names of ladder users and documentation of user training.  
**Note:** *This can be accomplished by taking LANL Ladder Safety Training (UTrain course 12985, through OSHA-10 hour training or subcontractor-provided training).*

**F26. Barricades**

[\(Evaluation Criteria\)](#)

**Subcontractor will have content that speaks to:**

- How barricades will be erected, access into barricaded areas controlled, and when barricades will be removed.
- Using only yellow and black rope or tape for warning barricades that call attention to hazards but offer no physical protection.
- Using protective barricades (hard barricades) that meet the requirements of 29 CFR 1926.203, and/or 29 CFR 1926.502(b), depending on application.

**F28. Excavations and Trenching**

[\(Evaluation Criteria\)](#)

**Subcontractor will have content that speaks to:**

- The person in charge (PIC) being on-site whenever excavation work is taking place, including work in an excavation.
- Steps necessary when changing PICs.
- Submitting an *Excavation/Soil Disturbance Permit*, and allowing seven working days before doing work that involves excavation, fill, soil disturbance/transfer, trenching work, or drilling operations. Include air monitor operator qualification records and calibration records for the monitoring instrument to be used.
- Not working until the permit has been issue by LANL, following the requirements in the permit, and keeping the permit at the jobsite at all times.
- Steps to take if the excavation and trenching area changes from what was authorized in the permit.
- Stopping work if unanticipated utilities, radiological liquid waste, infrastructure, cultural, or biological resources are encountered.
- How excavated debris, equipment and material (to include material from a LANL Consent Order Site formerly known as a Potential Release Site) will be handled.
- Ensuring fill material is free from contamination and not transporting fill without obtaining written approval from the STR first.
- How subcontractor will work with LANL to maintain utility locate markings. LANL will revalidate these every 30 days or earlier if no longer in place.
- Following OSH-ISH-FSD-OP-003, *Potholing Procedures*, and notifying the STR when potholing is complete so locations can be confirmed or updated.
- Following LANL policy P101-17, *Excavation/Fill/Soil Disturbance*, and erecting barricades and signage in accordance with this policy.
- Describing cave-in protection systems when trenches or excavations will exceed five-feet in depth.
- Steps to monitor air quality prior to entering any excavation that may have a hazardous atmosphere.
- Roles and responsibilities of the spotter(s).

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**Submit:**

- NAMED ROLE & TRAINING** In the ESH Oversight Plan associated with F4 Subcontractor ES&H Representative Duties and Responsibilities, list the task, role of excavation competent person, and how oversight will be provided. The names of excavation competent person who will be on the jobsite and who will classify all soils, and perform inspections daily and after each rain, snow, freeze, and/or thaw and documentation showing how the excavation competent person requirement is met must be provided and approved prior to the individual(s) starting work on the project.
  - The LANL OSH-ISH [Soil Disturbance Review Team](#) Lead will approve the qualifications of subcontractor excavation competent person.
- NAMED ROLE & TRAINING** In the ESH Oversight Plan associated with F4 Subcontractor ES&H Representative Duties and Responsibilities, list the task, role of air monitoring operator, and how oversight will be provided. The names of air monitoring operator(s) and documentation showing how the qualifications are met must be approved prior to the individual(s) starting work on the project.
- TRAINING** Names of employees and supervisors involved in any excavation, fill, soil disturbance/transfer, or trenching work activity, and documentation of having completed LANL Excavation Self-Study Training annually.

## F29. Confined Spaces

[\(Evaluation Criteria\)](#)

For work where a subcontractor enters a greenfield project and confined spaces are not yet turned over to LANL:

**Subcontractor will have content that speaks to:**

- TRAINING** Understanding the subcontractor's responsibility to conduct air monitoring in the confined space, keeping monitoring equipment calibrated, and training employees on monitor use.
- Submitting a confined space entry permit form and receiving LANL approval before initial entry, posting the completed permit at the confined space, having entrants sign a log upon entering and existing, and informing LANL of any additional hazards encountered or created during the entry. Rescue procedures must be approved by LANL before working in a confined space requiring such procedures.

**Submit:**

- WRITTEN PLAN** OSHA-compliant Permit-Required Confined Space Program. This must include the subcontractor's process for evaluating and permitting confined spaces (to include template permit examples), and training and qualifying personnel.
 

**Note:** *The written program will be approved by a LANL personnel qualified as both a confined space evaluator and a confined space entry supervisor.*

  - Part of the subcontractor's Confined Space Program includes rescue procedures and emergency rescue capabilities (e.g., proof of rescue entry training, qualifications for personnel, equipment used).

**Note:** *LANL has approved Roco Rescue as the Laboratory's stand-by rescue service provider. If subcontractors would like to hire Roco Rescue to support rescue procedure and emergency rescue capabilities, the STR can provide contact information.*

- NAMED ROLE** In the ESH Oversight Plan associated with F4 Subcontractor ES&H Representative Duties and Responsibilities, list the task, role of entrant, and how oversight will be provided. The names of entrants will be listed in the confined space permit.
- NAMED ROLE** In the ESH Oversight Plan associated with F4 Subcontractor ES&H Representative Duties and Responsibilities, list the task, role of attendant, and how oversight will be provided. The names of attendants will be listed in the confined space permit.
- NAMED ROLE** In the ESH Oversight Plan associated with F4 Subcontractor ES&H Representative Duties and Responsibilities, list the task, role of entry supervisor, and how oversight will be provided. The name of the entry supervisor will be listed in the confined space permit.  
**Note:** For construction work this person must also meet the definition of qualified person.

For work where a subcontractor enters a LANL-owned confined space with LANL workers:

**Subcontractor will have content that speaks to:**

- When LANL and subcontractors work simultaneously in a permit-required confined space, LANL procedures take precedence.
- Following LANL's confined space procedures, completing LANL confined space training, using LANL's approved stand-by rescue service provider, and using LANL confined space permits and forms. Additionally, the subcontractor will have its own Confined Space Program which demonstrates that subcontractor workers are qualified to conduct confined space work.  
**Note:** Completed permits must be turned into [msp@lanl.gov](mailto:msp@lanl.gov) or mailed to Confined Space at mailstop K403.

**Submit:**

- WRITTEN PLAN** OSHA-compliant Permit-Required Confined Space Program. This must include the subcontractor's process for evaluating and permitting confined spaces (to include template permit examples), and training and qualifying personnel.  
**Note:** The written program will be approved by a LANL personnel qualified as both a confined space evaluator and a confined space entry supervisor.
- NAMED ROLE** In the ESH Oversight Plan associated with F4 Subcontractor ES&H Representative Duties and Responsibilities, list the task, role of entrant, and how oversight will be provided. The names of entrants will be listed in the confined space permit.  
**Note:** In this scenario, LANL will provide the attendants and entry supervisors/evaluators.
- TRAINING** Names of employees and documentation of having taken LANL Confined Space Training. The training course required depends on the individuals' role.

Role	Course 19613 Confined Space Evaluation	Course 40439 Confined Space Entrant/Attendant Live	Course 26941 Confined Space Entry Supervisor Self-Study	Course 40438 Confined Space Non-Entry Rescue Gear Training	Course 55707 Confined Space Air Monitoring Instrumentation (ALTAIR 5)	Course 43562 CPR/AED & Course 3574 First Aid
PRCS Entrant/Attendant Using Non-Entry Rescue Equipment		R		R	S*	R
PRCS Entrant/Attendant NOT using Non-Entry Rescue Equipment		R			S*	
Confined Space Entry Supervisor for NPCCS, Temporary Reclassification as NPCCS and Alternate Entry Procedures		R	R	S	R	
Confined Space Entry Supervisor for PRCS		R	R	R	R	R
Confined Space Evaluator	R	R	S	S	S	
Air Monitor		R			R	
NPCCS Entrant		S				

*R = Required one time before the worker is first assigned to serve in a role as a confined space authorized worker. If there is a change in roles, additional training may be necessary in accordance with the training requirements above.*

*S = Suggested*

*\*At least one air monitor trained individual is required to be present for the duration to support the entry. Having all confined space workers trained to use the monitoring equipment provides the greatest flexibility to ensure the necessary air monitoring support is readily available.*

For work where a subcontractor enters a LANL-owned confined space without LANL workers:

**Subcontractor will have content that speaks to:**

- Using the subcontractor’s Confined Space Program, with the exception of following LANL’s confined space classification for LANL confined spaces.  
**Note:** Completed permits in this case remain with the subcontractor.
- Not reclassifying LANL confined space designations without prior approval from LANL.
- TRAINING** Understanding the subcontractor’s responsibility to conduct air monitoring in the confined space, keeping monitoring equipment calibrated, and training employees on monitor use.

**Submit:**

- WRITTEN PLAN** OSHA-compliant Permit-Required Confined Space Program. This must include the subcontractor’s process for evaluating and permitting confined spaces (to include template permit examples), and training and qualifying personnel.

**Note:** The written program will be approved by a LANL personnel qualified as both a confined space evaluator and a confined space entry supervisor.

- Part of the subcontractor's Confined Space Program includes rescue procedures and emergency rescue capabilities (e.g., proof of rescue entry training, qualifications for personnel, equipment used).

**Note:** LANL has approved Roco Rescue as the Laboratory's stand-by rescue service provider. If subcontractors would like to hire Roco Rescue to support rescue procedure and emergency rescue capabilities, the STR can provide contact information.

- NAMED ROLE** In the ESH Oversight Plan associated with F4 Subcontractor ES&H Representative Duties and Responsibilities, list the task, role of entrant, and how oversight will be provided. The names of entrants will be listed in the confined space permit.
- NAMED ROLE** In the ESH Oversight Plan associated with F4 Subcontractor ES&H Representative Duties and Responsibilities, list the task, role of attendant, and how oversight will be provided. The names of attendants will be listed in the confined space permit.
- NAMED ROLE** In the ESH Oversight Plan associated with F4 Subcontractor ES&H Representative Duties and Responsibilities, list the task, role of entry supervisor, and how oversight will be provided. The name of the entry supervisor will be listed in the confined space permit.

**Note:** For construction work this person must also meet the definition of qualified person.

### F30. Lockout Tagout

#### [\(Evaluation Criteria\)](#)

When providing advisory services or conducting work near equipment that is/will be locked out/tagged out, but not conducting the lockout/tagout procedures:

**Subcontractor will have content that speaks to:**

- Assisting the LANL-designated lead authorized worker in identifying all equipment hazardous energy sources and associated energy isolating devices.

When performing work as defined by 29 CFR 1910.147 or 29 CFR 1926.417:

**Subcontractor will have content that speaks to:**

- Following LANL's P101-3, *Lockout/Tagout for Hazardous Energy Control*, including only using LANL provided locks, tags, and lockout devices.
- Getting authorization from LANL equipment owner-operators before performing lockout/tagout.
- Assisting the LANL-designated lead authorized worker in identifying all equipment hazardous energy sources and associated energy isolating devices.

**Submit:**

- TRAINING** Names of employees having taken Curricula 127, "LO/TO Authorized Worker," which includes LO/TO Self-Study, LO/TO Hands-On, and LO/TO Demonstration of Proficiency.

**Note:** Workers may not be required to take all courses in Curricula 127; this will be specified in the subcontract-specific training matrix.

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For work involving the commissioning of new facilities, electrical systems, and distribution equipment, or for work involving the construction of acceptance of new or extensively revised electrical systems:

**Submit:**

- Form 3058, *Lockout/Tagout Partial Energization Plan* to LANL’s Chief Electrical Inspector for review.

**F31. Blind Penetrations**

[\(Evaluation Criteria\)](#)

**Subcontractor will have content that speaks to:**

- The requirement for understanding of LANL’s categorization for Class 1 and Class 2 penetrations, and how these are documented on LANL Form 2074, *Penetration Permit*.
- Teaming with LANL to visually inspect the proposed location of both sides of the penetration.
- Teaming with LANL to review and sign the completed Form 2074, and along with workers performing the task, confirming all controls are in place prior to starting penetration operations.

**F32. Cranes and Material Handling Equipment**

[\(Evaluation Criteria\)](#)

**Note:** A lift in the context of F32 applies to operations that involve attachment of a rigging devices such as a sling, shackle, or attachment affixed to a lifting devices such as a mobile crane, bridge crane, or hoist attached to an anchor point, excavator with a lifting point, forklift with a lifting point or attachment or any other equipment designed for lifting applications that are used to lift or lower equipment/materials from one position to another.

**Subcontractor will have content that speaks to:**

- Requirements for all crane and material handling operations are performed per applicable sections of 29 CFR 1910 and 29 CFR 1926, the American Society of Mechanical Engineers B30 series documents, the DOE Standard 1090-2011, *Hoisting and Rigging*, and the manufacturer’s instructions.
- Recognizing that LANL will serve as the controlling entity ensuring subcontractors comply with ground conditions.
- Designating a crane operations superintendent in writing when two or more mobile or fixed cranes share a limited work area, and the superintendent’s responsibilities.
- Whether or not subcontractor will be using LANL’s stationary cranes, hoists, lifting devices, and rigging equipment. If so, then LANL Incidental Crane Operators and Riggers (ordinary lifts) and Qualified Crane Operators and Riggers (high consequence lifts) requirements apply.
- Submitting all training, licenses, certificates, inspections, qualifications, records, and other documents requested by LANL at least 2-working days prior to planned crane operations. Cranes and other material handling equipment may not be used before written approval from the LANL STR.
- Steps to classify all lifts as ordinary, moderate risk, or critical and the LANL requirements associated with each. LANL qualified person(s) must agree to the lift classification.
- Tagging rigging equipment with its capacity, ensuring rigging equipment passes annual and pre-use inspection per 29 CFR 1926.1400, and making inspection records available per LANL request and at contract closeout.

- Steps subcontractor will take to have qualified and competent persons (as required) inspect and performance-test all mobile cranes, overhead cranes, hoists, and mechanized equipment. Conducting inspections prior to on-site operation, annually, and after major repairs or modifications. Documenting inspections to address requirements in 29 CFR 1926.1412, *Inspections* and 29 CFR 1926.1413, *Wire Rope-Inspection* and making documentation available to LANL per request.
  - Mobile crane inspection is to occur pre-shift, monthly, and annually. Inspection documentation will be provided to STR each month or upon request.
- Performing maintenance on equipment per manufacturer's recommendations.
- Requirements when using special hoisting and rigging devices such as track-hoes with lifting attachments and forklifts with booms.

**Submit:**

- NAMED ROLE & TRAINING** In the ESH Oversight Plan associated with F4 Subcontractor ES&H Representative Duties and Responsibilities, list the task, role of mobile crane operators, and how oversight will be provided. The names of mobile crane operators will be in the permit. Operation qualifications must be approved before working on the project: DOE Standard 1090-2011, operator training course for the type and classification of crane to be used, a current medical certificate, and State of New Mexico Mobile Crane Operator License.
- NAMED ROLE & TRAINING** In the ESH Oversight Plan associated with F4 Subcontractor ES&H Representative Duties and Responsibilities, list the task, role of assembly/disassembly director, and how oversight will be provided. Names of assembly/disassembly director will be the permit. Qualifications for this person must be approved prior to moving any equipment to the project site.
- NAMED ROLE & TRAINING** When two or more mobile or fixed cranes share the same limited space, in the ESH Oversight Plan associated with F4 Subcontractor ES&H Representative Duties and Responsibilities, list the task, role of crane operations superintendent, and how oversight will be provided. Names of crane operations superintendent and documentation showing how the superintendents are qualified and knowledgeable of mobile crane activities.
- NAMED ROLE & TRAINING** In the ESH Oversight Plan associated with F4 Subcontractor ES&H Representative Duties and Responsibilities, list the task, role of riggers, and how oversight will be provided. Names of riggers and documentation of qualification must be approved prior to starting rigging operations at the project site.
- NAMED ROLE & TRAINING** In the ESH Oversight Plan associated with F4 Subcontractor ES&H Representative Duties and Responsibilities, list the task, role of signal person, and how oversight will be provided. Names of signal persons and documentation of qualification must be available onsite.
- NAMED ROLE & TRAINING** If using LANL's stationary cranes, hoists, lifting devices, and rigging equipment, provide names of those designated as Incidental Crane Operators and Riggers and Qualified Crane Operators and Riggers along with documentation showing how the operators meet the training requirements.
- If using special hoisting and rigging devices submit the following:
  - Past year's maintenance records on the subject equipment and attachment (annual inspection by a qualified person).
  - Documented training records of the operator on the specific equipment.

- Equipment and lifting attachment owners' manuals/specifications to assure of capacity/application and manufacturer authorization that attachment can be used as an assembly.
- Critical Lift Plan for critical lifts using Attachment F32-1, *Critical Lift Plan for Subcontractors* allowing at least 3-working days for LANL review and approval.
- Moderate Lift Plan for critical lifts using Attachment F32-2, *Ordinary/Moderate Risk Lift Procedure* allowing at least 3-working days for LANL review and approval.
- Attachment F32-3, *High Consequence Material Handling Activity*, when using a forklift with boom attachments.

### F33. Suspended Personnel Platforms

[\(Evaluation Criteria\)](#)

**Subcontractor will have content that speaks to:**

- Why using a suspended platform is the least hazardous way to perform work. If accepted by LANL, then submit a Lift Plan.

**Submit:**

- WRITTEN PLAN** Lift Plan that includes, but is not limited to employee training, pre-lift meetings, trial lifts, and platform and rigging inspections.
- TRAINING** Names of employees associated with the suspended personnel platform and documentation of training.

### F34. Aerial Work Platforms

[\(Evaluation Criteria\)](#)

**Subcontractor will have content that speaks to:**

- Operating and maintaining aerial work platforms according to manufacturer's instructions.
- Having 100% fall protection for all persons inside work platforms.
- Inspecting and testing equipment daily before each use.
- Not climbing or sitting on the guardrail or enclosure.
- Ensuring lifts are not used to rig/suspend items from the boom or platform.

**Submit:**

- TRAINING** Names of employees associated with the aerial work platform and documentation of training.

### F35. Pressure Safety

[\(Evaluation Criteria\)](#)

For work using compressed gas:

**Subcontractor will have content that speaks to:**

- Providing cradles and/or cages for lifting compressed gas cylinders and ensuring cylinders being transported are secured.

**Submit:**

- List of compressed gases to be brought on-site.
- WRITTEN PLAN** Gas cylinder use and storage procedures that include how the subcontractor will segregate cylinders by type, proper signage, protective isolation of flammable gases from oxygen, provisions to keep cylinder caps in place when cylinders are not in use, positive securing of bottles, and keeping safe distances from ignition sources, doors, and windows.
- TRAINING** Names of employees associated with the compressed gas use and documentation of training.

For work involving pressure system design, fabrication, installation, maintenance, test, repair, and other deliverable associated with pressure systems:

**Subcontractor will have content that speaks to:**

- Establishing and applying safety procedures that include ensuring trained and qualified personnel conduct work in accordance with 10 CFR 851, ASME engineering codes, and sound engineering principles.
- LANL reviewing and approving subcontractor designs, installations, and other deliverables.
- Recognizing test-specific procedures will need to be reviewed and approved by the LANL Chief Pressure Safety Officer or designee before testing can occur.

**Submit:**

- WRITTEN PLAN** Prior to conducting field pressure tests of piping, submit test-specific procedures that address specific safety requirements, clear identification of test boundaries, isolation points, system over pressurization protection, and a space to record test results and applicable drawings.

For work where relief devices and/or pressure vessels are purchased:

**Subcontractor will have content that speaks to:**

- LANL Chief Pressure Safety Officer or designee reviewing the procurement to ensure it meets LANL requirements.

## **F36. Electrical Safety**

[\(Evaluation Criteria\)](#)

**Subcontractor will have content that speaks to:**

- Implementing an electrical safety program appropriate for the activities at the worksite.
- Using only electrical equipment listed by a Nationally Recognized Testing Laboratory (NRTL), and using it as intended. Modifications, repairs or using equipment outside of its intended use are to be approved by a LANL Electrical Safety Officer.
- Having a LANL Electrical Safety Officer approve the use of equipment containing an electrical hazard that has not been listed by a NRTL.
- Ensuring any worker subject to electrical shock (other than static electricity) or possible arc flash burn from proximity electrical discharge will be evaluated by medical personnel and LANL will be notified.
- For work involving facility electrical installations, LANL's Chief Electrical Inspector will grant an Authorization to Energize before energizing.

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- Recognizing LANL has specific requirements for electrical safety training, which LANL will dictate to subcontractors based on the electrical hazards associated with the work or work area. Also, that subcontractor-provided training may be approved by LANL Electrical Safety Officers and documentation of approval will occur via Attachment F36-0, *Electrical Training Documentation for Subcontractors*.

For work on or near exposed electrical hazards or when workers interact with the equipment when conductors or circuit parts are not exposed but an increased likelihood of injury from an exposure to an arc flash hazard (e.g., zero energy checks, adjustments, troubleshooting, and maintaining and/or repairing electrical equipment):

**Subcontractor will have content that speaks to:**

- The requirement to perform a risk assessment and document controls for electrical hazards in an Integrated Work Document (IWD). The risk assessment/hazard evaluation and controls listed in the IWD must meet requirements of both NFPA 70E and LANL. The IWD will be approved by a LANL ESO.

For work involving exposed energized electrical conductors or circuit parts for which an electrically safe work condition has not been established:

**Submit:**

- An Energized Electrical Work Permit.
  - Note:** *This does not apply to work on:*
    - Batteries where controls against battery electrical hazards are documented in an IWD
    - Testing, troubleshooting, and measuring voltage
    - Thermography and visual inspections if the restricted approach boundary is not crossed
    - Access to and egress from an area with energized electrical equipment if no electrical work is performed and the restricted approach boundary is not crossed
    - General housekeeping and miscellaneous non-electrical tasks if the restricted approach boundary is not crossed

### F37. Traffic and Pedestrian Control

[\(Evaluation Criteria\)](#)

**Subcontractor will have content that speaks to:**

- Performing routine day and night inspections of temporary traffic control elements.

**Submit:**

- WRITTEN PLAN** For each phase of a multi-phase project, a Traffic Control Plan aligns with federal, state, and Manual on Uniform Traffic Control Devices (MUTCD).

**Note:** *A LANL Traffic Engineer will approve the Traffic Control Plan.*

**Note:** *MUTCD Part 6 has example content that could be incorporated into the Traffic Control Plan. The following should be considered when developing the plan:*

- Basic safety principles associate with temporary traffic control zones.
- Public notice, adjacent facilities, emergency service, and local transit.
- Drawings with temporary traffic control devices including work suspensions

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- Placement and use of traffic control devices and flaggers.
  - Actions to set up, maintain, operate, and take down traffic control devices.
  - Strategies for traffic operations and how vehicles and pedestrians will be directed to use traffic paths.
- Daily inspection log.
  - If using any oversized vehicles, Form 2075, Requirements for Moving Heavy Equipment and Oversized Vehicles.
  - TRAINING** Names of flaggers and documentation of training in accordance with MUTCD Section 6E.01, *Qualifications for Flaggers Guidance*.

### F38. Pollution Prevention/Waste Minimization

[\(Evaluation Criteria\)](#)

**Subcontractor will have content that speaks to:**

- Managing work in a manner to minimize the generation of waste to include source reduction.
- Purchasing and using materials that support pollution prevention in at least the following areas: recycled construction products and materials, bio-based materials and products, and energy efficient products (i.e., Energy Star).

### F39. Waste Management

[\(Evaluation Criteria\)](#)

**Subcontractor will have content that speaks to:**

- Following the direction of LANL Waste Management Coordinator who will assist the subcontractor with the implement of LANL's waste management policy.
- Following the requirements in the Waste Characterization Strategy Form.
- For waste streams not on the Waste Characterization Strategy Form pausing the activity, notifying the Waste Management Coordinator via the STR. After this notification, not starting work involving the new stream until LANL provides an amended/approved Waste Characterization Strategy Form.
- Keeping waste containers and roll-off bins closed except when waste is being added, removed, or consolidated. This requirement does not apply to containers holding concrete washout.
- Not abandoning waste without LANL approval.
- Not transporting waste, including non-regulated construction and demolition debris, to Santa Fe County transfer stations or landfills.

**Submit:**

- TRAINING** For those subcontract employees who will be unaccompanied and manage waste in central accumulation areas they must submit documentation of training.

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#### **F40. Work within the Boundary of a Consent Order Site**

[\(Evaluation Criteria\)](#)

***Subcontractor will have content that speaks to:***

- Following the direction of LANL's Waste Management Coordinator who will assist the subcontractor in implementing LANL's waste management policy (as mandated in Exhibit F Clause F39 Waste Management).
- Managing all excavated soil, fill, and other material (e.g., concrete, asphalt, drain lines, etc.). This includes ensuring material are not dispersed.
- Returning the excavation to the point and depth of origin unless otherwise specified by LANL.
- If potholing, using LANL approved potholing methods (e.g., hand, mechanical/vacuum, etc.); and identifying how all potholing liquids, fluids, and sediment will be managed per Exhibit F Clause F39 Waste Management requirements.

#### **F41. Wastewater Discharges**

[\(Evaluation Criteria\)](#)

***Subcontractor will have content that speaks to:***

- Contacting the STR prior to discharging any wastewater in order to obtain a permit or discharge plan, etc.
- When applicable, capturing discarded washout and other materials (e.g., concrete, stucco, paint, etc.) in on-site, impervious containment areas designated by LANL.
- Complying with New Mexico Ground Water Discharge Permits 857 and 1589 for on-site sanitary wastewater storage and disposal.

If work involves potholing:

- For potholing within the boundary of a consent order site, procedures will follow requirements of Exhibit F Clause 40 Work within the Boundary of a Consent Order Site.
- For potholing outside the boundary of a consent order site, potholing washout materials will be stabilized and left on-site or managed as waste per Exhibit F Clause F39 Waste Management.

For wastewater discharges into LANL treatment facilities:

***Subcontractor will have content that speaks to:***

- Receiving approval from LANL prior to discharging and the explaining how the subcontractor will demonstrate compliance with applicable Waste Acceptance Criteria.

#### **F42. Spill Prevention, Reporting, and Response**

[\(Evaluation Criteria\)](#)

***Subcontractor will have content that speaks to:***

- The spill prevention, control, and countermeasure actions that will be taken while using and storing chemicals, petroleum, and other products on-site. LANL Best Management Practices must be included as part of the actions.
  - Establishing secondary containment, diversionary structures, or equipment to prevent the products from contaminating the environment should a spill or leak occur.

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- Locating storage facilities away from low-lying areas such as ditches, streams, and storm drains, facility drains, and storm sewers.
  - Maintaining nearby spill control equipment (i.e., spill kit).
  - Effectively containerizing and labeling all products. Storage containers must be in good working order. Ensuring material and waste storage bins on the project site are covered to prevent contact with storm water and off-site contaminant migration.
  - Not using aboveground fuel storage tanks designed for stationary use as mobile tanks.
- Immediately notifying the STR of any form of spill, leak, and discharge (including wastewater) into the environment regardless of quantity.
  - Reporting to the STR any incident regarding material/waste handling, storage, transportation, spills, or disposal.
  - Having spill kits available and taking action to protect human health and the environment.
  - Not storing or using Clean Air Act Section 112r or flammable chemicals in amounts that would trigger LANL having to have a Risk Management Plan.

**Submit:**

- An inventory of chemicals, petroleum, and other products to be brought to or stored at any LANL property/facility. Indicate all chemicals that will be stored or used in quantities of 500 pounds or greater.

For work involving oil-handling at facilities that have an aggregate aboveground storage capacity of 1,320 gallons or more of oil or other petroleum products:

- WRITTEN PLAN** Spill Prevention Control and Countermeasure Plan or coordinate with LANL Environmental Compliance Program via the STR for oil handling work on existing facilities subject to the SPCC Rule.

For work on an aboveground storage tank (1,320 – 55,000 gallons) and use to contain oil:

**Subcontractor will have content that speaks to:**

- Steps to comply with NM Petroleum Storage Tank Regulations, NMAC 20.5.

## F43. Storm Water Management

(Evaluation Criteria)

For work involving construction sites, NPDES-permitted industrial facilities, and NPDES-permitted solid waste management units:

**Subcontractor will have content that speaks to:**

For projects subject to the NPDES Construction General Permit (CGP):

- Committing to comply with the requirements of EPA’s CGP (<https://www.epa.gov/npdes/epas-2017-construction-general-permit-cgp-and-related-documents>).
- Committing to assist in finalizing the CGP Storm Water Pollution Prevention Plan.
- Obtaining permit coverage separate from LANL.
- How deficiencies will be self-identified and corrected.

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- When and how storm water controls (i.e., Best Management Practices) will be installed and maintained.

**Note:** See ([LA-UR-11-10371 LANL Storm Water BMP Manual](#)), construction specifications, good engineering practices, and industry standards.

**Note:** Subcontractors are not to commence earth-disturbing or pollutant-generating activities (e.g., clearing, grading, or other earth-disturbing activity, stockpiling fill material, or staging pollutants or other raw materials) until all personnel requiring storm water training have completed that training.

- When stabilization measures will be implemented (i.e., within 7-calendar days of pausing or stopping earth-disturbing activities).
- How recording keeping requirements identified in the CGP will be initiated, maintained and completed.
- For site projects within a SWMU and/or AOC boundary
  - No washout pits, potholing water pits, or storm water retention ponds within the boundary of a SWMU and/or AOC.
  - Installation of BMPs to prevent off-site migration of pollutants from a SWMU/AOC or run-on to a SWMU/AOC prior to soil disturbance activities.
  - Performing maintenance of storm water controls (i.e., Best Management Practices) to prevent storm water running into or out of SWMUs and/or AOCs.

**Submit:**

For projects subject to the NPDES CGP:

- Storm Water Pollution Prevention Plan subcontractor certification statement and signature page.
- Documentation demonstrating approval of the NOI.
- TRAINING** Names of employees associated with storm water management and documentation of training.
- NAMED ROLE & TRAINING** In the ESH Oversight Plan associated with F4 Subcontractor ES&H Representative Duties and Responsibilities, list the task, role of person responsible for NPDES CGP, and how oversight will be provided. Name(s) and qualifications must be approved by a representative of the EPC-CP Storm Water Permitting/Compliance Team before the individual(s) start on-site work on the project.

**Note:** LANL considers a person to be qualified for this role if they have:

- *Demonstrated project experience in the implementation of the NPDES Construction General Permit and knowledge in the principles and practices of sediment and erosion control and storm water management, or*
- *Related professional certifications (e.g., CISEC, CPESC), or*
- *Documentation of training courses related to NPDES Construction General Permit implementation and the ability to assess site conditions and the effectiveness of control measures that could impact storm water quality.*

For projects resulting in ground disturbance of 5000 ft<sup>2</sup> or more:

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**Subcontractor will have content that speaks to:**

- Committing to comply with the requirements in Section 438 of the Energy Independence and Security Act (EISA)
- Information about how the subcontractor will utilize low impact development features to maintain or restore pre-development site hydrology in accordance with LANL Engineering Standards, Chapter 3 Civil, G20GEN, 1.0, B.

For work within a watercourse subject to regulation by the U.S. Army Corps of Engineers:

**Subcontractor will have content that speaks to:**

- Committing to complying with the requirements in the applicable 404 Permit and the related New Mexico Section 401 Water Quality Certification.

For work potentially impacting designated wetlands or 100-year floodplains:

**Subcontractor will have content that speaks to:**

- Providing LANL with information that can be used to develop a wetland and/or floodplain assessment.

For work subject to a NPDES Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity (MSGP):

**Subcontractor will have content that speaks to:**

- Committing to comply with the requirements of EPA's MSGP [https://www.epa.gov/sites/production/files/2015-10/documents/msgp2015\\_finalpermit.pdf](https://www.epa.gov/sites/production/files/2015-10/documents/msgp2015_finalpermit.pdf).
- Obtaining a copy of LANL's MSGP facility SWPPP and following the requirements of the SWPPP.
- Providing LANL information needed to amend the facility MSGP SWPPP if the project modifies drainage, existing storm water controls, outfalls, monitoring locations, or additional BMP are required to comply with the permit.
- Taking appropriate stabilization measures.
- For conditions requiring corrective action as specified in the MSGP, language committing to notify the STR and complete any required follow-up actions within 14-calendar days.

**Submit:**

- NAMED ROLE & TRAINING** In the ESH Oversight Plan associated with F4 Subcontractor ES&H Representative Duties and Responsibilities, list the task, role of person responsible for NPDES MSGP, and how oversight will be provided. Name(s) and qualifications must be approved by a representative from the EPC-CP Storm Water Permitting/Compliance Team before the individual(s) start on-site work on the project.

**Note:** LANL considers a person to be qualified for this role if they have:

- Demonstrated project experience in the implementation of the NPDES Construction General Permit and knowledge in the principles and practices of sediment and erosion control and storm water management, or
- Related professional certifications (e.g., CISEC, CPESC), or

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- Documentation of training courses related to NPDES Multi-Sector General Permit implementation and the ability to assess site conditions and the effectiveness of control measures that could impact storm water quality.

For work potentially impacting designated wetlands or 100-year floodplains:

**Subcontractor will have content that speaks to:**

- Providing LANL with information that can be used to develop a wetland and/or floodplain assessment.

#### F44. Air Quality

[\(Evaluation Criteria\)](#)

**Subcontractor will have content that speaks to:**

- Obtaining all necessary air quality permits for subcontractor-owned equipment.
- Understanding the requirement to file permits, relocation notices, etc. to the New Mexico Environment Department.

**Submit:**

- Copies of permits, relocation notices, etc. to the STR.
- Using Attachment F16-1, Major Equipment Declaration
  - List of equipment that may emit air pollutants during the project.
  - List of equipment proposed to be temporarily installed in buildings.

For open burning operations:

**Subcontractor will have content that speaks to:**

- Complying with the Open Burning and Smoke Management requirements of NM Administrative Code Sections 20.2.60 and 20.2.65 as well as LANL's Title V Operating Permit.

#### F45. Biological Resources Protection

[\(Evaluation Criteria\)](#)

**Subcontractor will have content that speaks to:**

- Complying with all work restrictions identified by LANL for biological resource protection.

**Submit:**

- WRITTEN PLAN** As part of the SSESHP, actions to be taken to be in compliance with biological resource protection requirements.

#### F46. Cultural Resources Protection

[\(Evaluation Criteria\)](#)

**Subcontractor will have content that speaks to:**

- Complying with all work restrictions identified by LANL for cultural resource protection.
- Not entering marked boundaries of archaeological sites without written permission from the STR.

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- Stopping work if any bones, possible masonry walls, charcoal stains, or other artifacts are encountered. Immediately notifying the STR and not resuming work until authorized to do so in writing by the STR.

**Submit:**

- WRITTEN PLAN** As part of the SSESHP, actions to be taken to be in compliance with cultural resource protection requirements.

## F47. Pesticide and Herbicide Applications

(Evaluation Criteria)

**Subcontractor will have content that speaks to:**

- Not applying pesticides on LANL property unless authorized in writing by the STR.
- Complying with the NPDES Pesticides General Permit, New Mexico Department of Agriculture pesticide regulations, and the Federal Insecticide, Fungicide, and Rodenticide Act.

## F49. Radiation Protection

(Evaluation Criteria)

**Subcontractor will have content that speaks to:**

- Following LANL's Radiation Protection Program requirements, as specified in P121 *Radiation Protection* while conducting work involving, but not limited to:
  - Radioactive materials, sources, contamination, radiation generating devices, any areas posted for radiological hazards, or anywhere radiological controls are established.
- Prior to beginning work, contacting deployed ESH personnel via the STR to ensure radiological work is adequately supported with radiation protection staff and appropriate radiological controls are established.

**Submit:**

- TRAINING** Names of employees subject to LANL Radiation Protection Program training requirements and documentation of meeting these requirements.

When bringing a radioactive sealed source and/or radiation generating device onto LANL:

**Submit:**

- Form 2264, Radioactive Sealed Source/Radiation Generating Device Authorization for Use and receive approval from LANL at least 48-hours prior to bringing a radioactive sealed source or radiation generating device (e.g., industrial radiography) on-site.
- TRAINING** Names of employees using or responsible for radioactive sealed sources and/or radiation generating devices and documentation of meeting training requirements.

## F51. Asbestos Abatement-Demolition-Roofing Work

(Evaluation Criteria)

For work, such as custodial and maintenance activities (i.e., Class IV asbestos work) during which employees contact, but do not disturb, asbestos containing material (ACM) or presumed asbestos containing material (PACM):

**Submit:**

- TRAINING** Names of employees doing this work and documentation asbestos awareness training.

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For any asbestos abatement, renovation that may disturb greater than threshold quantities of asbestos contain material, demolition, or roofing work:

**Submit:**

- All applicable New Mexico Environment Department (NMED), Air Quality Bureau notifications/forms to LANL at least 15-working days before work begins. LANL will submit the required information to NMED 10-working days before work begins.

For conducting asbestos abatement work:

**Submit:**

- WRITTEN PLAN** Asbestos Abatement Plan that complies with the requirements on 29 CFR 1910.1001 and/or 29 CFR 1926.1101.
- Company abatement license.
- Names of personnel who will do abatement and records of qualifications/training/certificates.
- Personnel medical records (latest).
- Personnel respirator fit test (latest).
- Inspector accreditation certificate and inspection report.
- Designer accreditation certificate and designer report.

For work involving shipping asbestos waste:

**Subcontractor will have content that speaks to:**

- Only shipping asbestos waste to an NMED-approved disposal site, and providing the STR with copies of the signed waste shipment records within 10-working days of the shipment delivery.

## F52. Exposure Assessment

[\(Evaluation Criteria\)](#)

**Subcontractor will have content that speaks to:**

- Recognizing that the Department of Energy mandates 2016 ACGIH occupational exposure limits (OEL), which may be lower than what is stated in OSHA standards.

**Note:** *This can be accomplished by listing the appropriate OEL for the chemical in the Exposure Assessment Plan. For example the OSHA OEL for manganese is a maximum level of 5 mg/m<sup>3</sup> (i.e., ceiling level) and there is no 8-hour exposure limit; however, the 2016 ACGIH booklet requires workers not to be exposed to levels exceeding 0.02 mg/m<sup>3</sup> (respirable fraction of manganese fume) or 0.1 mg/m<sup>3</sup> (inhalable fraction of manganese fume) averaged over an 8-hour period.*

**Note:** *Occupational exposure limits are derived from 10 CFR 851.23 which requires contractors to use the 2016 ACGIH “Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices,” when the ACGIH Threshold Limit Values (TLVs) are lower (more protective) than OSHA permissible exposure limits (PELs) in 29 CFR 1910, with the exception of 10 CFR 850, Chronic Beryllium Disease Prevention Program. When the ACGIH TLVs are used as exposure limits, subcontractors must still meet other OSHA standards requirements (e.g., training, exposure monitoring frequency, medical surveillance, labeling).*

- Completing exposure assessments in accordance with procedures and frequencies established OSHA standards (as applicable) and as described in the Exposure Assessment Plan.

- Using an industrial hygienist with KSAs appropriate to the work hazards to develop the plan, provide oversight of exposure assessments, and interpretation of results. Using appropriately trained persons, as applicable, to assist with on-site exposure assessments (e.g., subcontractor ESH technician conducting personal monitoring).
- Implementing control measure based on the hierarchy of controls for all routes of entry, and incorporating exposure assessment results into task IWD(s).

**Submit:**

- WRITTEN PLAN** Exposure Assessment Plan that has the names/types of hazards to be evaluated during work; the OEL(s) for each hazard; an initial assessment of worker exposure risk; and whether worker exposure monitoring is required/will be done for each identified hazard.
- NAMED ROLE** In the ESH Oversight Plan associated with F4 Subcontractor ES&H Representative Duties and Responsibilities, list the task, role of industrial hygienist, and how oversight will be provided. Name(s) and qualifications must be approved before individual(s) start work on the project.
- NAMED ROLE** In the ESH Oversight Plan associated with F4 Subcontractor ES&H Representative Duties and Responsibilities, list the task, role of person assisting with exposure assessments (e.g., ESH technician), and how oversight will be provided. Name of person(s) assisting with exposure assessments and documentation of qualifications must be approved before starting work on the project
- Exposure monitoring results within 5-business days of receiving laboratory final results, and any new exposure assessments completed after submission of the initial Exposure Assessment Plan.
- If requested by LANL, subcontractor should be able to provide evidence of comprehensive programs when required by OSHA chemical-specific standards. For example, 1910.1025 or 1926.62, *Lead*; 1910.1048, *Formaldehyde*, etc.

**Note:** *Exhibit F Attachment-F15-1, Medical Surveillance for Toxic and Hazardous Substances Requirements is a helpful reference.*

### F53. Beryllium Activities Not Involving Airborne Beryllium

[\(Evaluation Criteria\)](#)

For work in potentially beryllium-contaminated areas:

**Subcontractor will have content that speaks to:**

- Understanding the requirement to comply with LANL's Chronic Beryllium Disease Prevention Program and that LANL may impose medical surveillance, registry reporting, personal protective equipment, or other requirements depending on the nature and location of subcontracted work.
- Receiving site-specific training before entering into designated beryllium areas or performing beryllium operations.
- Getting LANL confirmation that the subcontracted activity is not anticipated to generate airborne beryllium. If the work activity changes such that airborne beryllium may be generated, then pausing work and notifying the STR.
- Agreeing with LANL on the designated beryllium area postings to be used during the activity, and not modifying or removing the postings unless there is an emergency situation.

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**Submit:**

- TRAINING** Names of workers who will be entering into posted designated beryllium areas, performing beryllium operations, or performing work with beryllium allow tools, and provide documentation of each having completed beryllium training.

**F54. Explosives Storage/Use/Disposal**

[\(Evaluation Criteria\)](#)

**Subcontractor will have content that speaks to:**

- Following the current DOE Technical Standard DOE-STD-1212, Explosives Safety and P101-8, *Explosives Safety*.
- Notifying LANL and receiving approval prior to using explosives or blasting agents.
- The procedural steps for designing and monitoring explosive shot along with disposing of explosives and blasting agents.

**Submit:**

- WRITTEN PLAN** Blasting Plan.
- NAMED ROLE** In the ESH Oversight Plan associated with F4 Subcontractor ES&H Representative Duties and Responsibilities, list the task, role of certified/qualified blaster, and how oversight will be provided. The name the certified/qualified blaster and qualifications must be approved prior to that person starting work on the project.

**F56. Firearms Safety**

[\(Evaluation Criteria\)](#)

**Subcontractor will have content that speaks to:**

- Acknowledging security use of firearms at LANL is prohibited except for LANL-designated protective forces.
- Follow P101-2, *Non-Security Firearms Safety Program* when non-security firearms are used at LANL.

**F57. Biological Safety**

[\(Evaluation Criteria\)](#)

For work where any biological hazard exists, and for equipment maintenance and service work in a BSL-1 or BSL-2 laboratories:

**Subcontractor will have content that speaks to:**

- Receiving awareness briefing and site-specific training prior to entering into facilities.

For work where there is the potential exposure to blood and other potentially infectious materials:

**Subcontractor will have content that speaks to:**

- Recognizing the requirement to perform post-exposure evaluations and offering the hepatitis B vaccinations to workers.

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For work where there is the potential exposure to wastewater, blood, sewage, other potentially infectious materials, wildlife, rodents, rodent poo and nests:

**Submit:**

- WRITTEN PLAN** Exposure Control Plan per 20 CFR 1910.1030, *Bloodborne Pathogens*.
- TRAINING** Names of those whose work will potentially bring them into contact with blood or other potentially infectious material and documentation of completing LANL’s Bloodborne Pathogen course or equivalent if equivalent is approved by LANL Biological Safety Officer.

For programmatic or research work at a BSL-1 or BSL-2 laboratory:

**Subcontractor will have content that speaks to:**

- Understanding work must be approved by LANL’s Institutional Biosafety Committee.

**Submit:**

- TRAINING** Names of workers who will work in a BSL facility and documentation of completion of LANL course 31701, Principles of Biosafety (initial) and LANL course 37023, Principles of Biosafety On-Line Refresher (annually thereafter).
- Names of workers in medical surveillance because of BSL-1 and 2 laboratory entry requirements and documentation demonstrating compliance with these requirements.

**F58. Laser Safety**

[\(Evaluation Criteria\)](#)

**Submit:**

- WRITTEN PLAN & TRAINING** Laser Safety Program for any Class 3B or Class 4 lasers brought on-site or used at LANL. This plan is to be compliant with ANSI Z136.1 – 2014, *Safe Use of Lasers*, and will have worker training as a component.

**F60. Refrigerants**

[\(Evaluation Criteria\)](#)

**Subcontractor will have content that speaks to:**

- Using only EPA-certified recovery/recycle units.
- Not installing new equipment at LANL that uses refrigerants classified as ozone depleting substances including R-22 and R-123.
- Coordinating with LANL ([refrigerants@lanl.gov](mailto:refrigerants@lanl.gov)) via the STR prior to sending refrigerants off-site.
- Notifying LANL’s Meteorology and Air Quality Team via the STR of the installation of new equipment which uses flammable refrigerants.

**Submit:**

- NAMED ROLE** In the ESH Oversight Plan associated with F4 Subcontractor ES&H Representative Duties and Responsibilities, list the task, role of EPA-certified technician, and how oversight will be provided. The names of technicians and documentation of qualifications must be provided and approved prior to that person starting work on the project.
- LANL Refrigerant Service Record Form for each service, repair, maintenance or installation of refrigerant containing equipment.
- LANL Refrigeration Appliance Inventory form when installing new refrigerant-containing equipment.

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## F61. Demolition, Remodeling, or Renovation

### [\(Evaluation Criteria\)](#)

#### **Subcontractor will have content that speaks to:**

- Demonstrating an understanding of the requirements in 29 CFR 1926 Subpart T, *Demolition*.
- The steps being taken to comply with 29 CFR 1926.850, *Preparatory Operations*, and committing to creating written evidence the steps were followed prior to the start of demolition or remodeling.
- Following all requirements in LANL's Waste Characterization Strategy Form for the subcontracted work.

#### **Submit:**

- All applicable New Mexico Environment Department (NMED) notifications/forms to LANL at least 15-working days before work begins. LANL will submit the required information to NMED 10-working days before work begins.

## F62. Respirable Crystalline Silica

### [\(Evaluation Criteria\)](#)

**Note:** *Subcontractors will need to measure workers' exposure to respirable crystalline silica against the 2016 ACGIH threshold limit value occupational exposure limits and cannot only rely on control measures presented in 29 CFR 1926.1153, Table 1. Measuring workers' exposure is to be included in the Clause F4 Exposure Assessment, Exposure Assessment Plan unless objective data can be provided demonstrating employee exposure to respirable crystalline silica will remain below 25 µg/m<sup>3</sup> as an 8-hour TWA under any foreseeable conditions.*

For work with the potential to expose workers to respirable crystalline silica and 1) there is not acceptable objective data, or 2) exposure monitoring shows workers' exposures are above the 2016 ACGIH threshold limit values:

#### **Submit:**

- WRITTEN PLAN** Respirable Crystalline Silica Exposure Control Plan compliant with 29 CFR 1910.1053 or 29 CFR 1926.1153

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## **Los Alamos National Laboratory Subcontractor Site-Specific Environmental, Safety, and Health Plan (SSESHP) – Evaluation Criteria**

### **How to Use the Evaluation Criteria**

This Evaluation Criteria serves as a tool for LANL employees reviewing Subcontractor Site-Specific Environmental Safety and Health Plans (SSESHP) to help determine if a subcontractor met or provided the required Exhibit F elements for their subcontract SSESHP. While this criteria aligns with the SSESHP Guide, subcontractors are not required to follow the SSESHP Guide and may choose another approach for meeting SSESHP requirements established in their subcontract's Exhibit F.

Before applying the Evaluation Criteria, review the subcontract Exhibits D and F to gain an understanding of the nature of the work and associated hazards. It is unlikely that all Exhibit F clauses apply to a given subcontract. The SSESHP should be developed using a graded approach; however, subcontractors are expected to demonstrate through the SSESHP that they understand the requirements and have procedures, qualified staff, skills, etc. to comply.

For Exhibit F clauses, the Evaluation Criteria has a summary section augmented by key details. Not every detail from the Exhibit F clauses is captured in this summary and not every requirement from the Exhibit F clauses is appropriate for the SSESHP. There are certain areas where specific LANL subject matter experts are required to review a subcontractor SSESHP submission and these are called out in the criteria. However, at any time if a reviewer is not comfortable making the determination if SSESHP content meets requirements they are expected to contact a LANL subject matter expert for assistance.

The Evaluation Criteria has an area to document whether the SSESHP met requirements for a given clause. If not, the reviewer must provide feedback on changes needed. Additional pages can be added for feedback. The LANL team supporting the SSESHP review is expected to

- fill out the cover sheet;
- review the subcontractor SSESHP for content associated with each clause;
- make determination of: meets, does not meet, or not applicable if clause not incorporated in subcontract Exhibit F;
- give clear feedback if SSESHP does not meet clause requirements;
- provide STR with completed cover sheet and evaluation; and
- repeat if needed based on subcontractor revisions to the SSESHP.

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### **Subcontractor SSESHP Review Cover Sheet**

Subcontractor:

Requisition Number:

Subcontractor Technical Representative:

Date of Last Signature on Subcontract Exhibit F:

Subcontractor SSESHP Title:

SSESHP Date and/or Revision (list additional revisions):

<b>F1 General Requirements:</b> Subcontractor commits to providing a safe working environment; recognizes the work will fall under federal, state, and local laws, and other standards cited in 10 CFR 851.	
<b>Meets:</b> Yes No NA	<b>Feedback:</b>
<b>Reviewer Z#:</b>	

<b>F4 Subcontractor ES&amp;H Representative Duties and Responsibilities:</b> In ESH Oversight Plan, all mandatory named roles have been identified, descriptions of how the named roles will provide oversight appropriate for the scope of work, and each commitment for an on-site presence is appropriate to all phases of the tasks and task hazards.	
Primary ESH Representative is named and description of how oversight will be provided (e.g., dedicated, on-site status, etc.) is appropriate to the ESH requirements and scope of work	
<b>Meets:</b> Yes No NA	<b>Feedback:</b>
<b>Reviewer Z#:</b>	

<b>F5 Incident Reporting:</b> Notification steps and timelines, accident investigation obligations; submission of weekly productive man-hour reports.	
<b>Meets:</b> Yes No NA	<b>Feedback:</b>
<b>Reviewer Z#:</b>	

<b>F7 Employee Training:</b> Workers properly trained and qualified prior to starting work, including LANL specific training; process for keeping employees current training requirements per the <i>Technical Subcontractor Management Subcontractor Training Matrix</i> .	
Employee training records on-site	
<b>Meets:</b> Yes No NA	<b>Feedback:</b>
<b>Reviewer Z#:</b>	

<b>F8 ES&amp;H Meetings/Pre-Job Briefings/Daily Briefings:</b> System of pre-task planning and daily briefings to address hazards and control measures, employee ESH meetings and LANL ESH meetings, documentation	
All workers and lower-tier subcontractors attend a LANL site and safety orientation before starting work; subcontractor will provide LANL orientation information to employees not present at initial orientation; initial and subsequent briefings documented	
Explanation of how daily and/or pre-task planning briefings will occur: <ul style="list-style-type: none"> <li><input type="checkbox"/> Will include naming ES&amp;H representative(s) for each task at each work front</li> <li><input type="checkbox"/> Pre-task planning briefing documentation at work location</li> <li><input type="checkbox"/> Person in charge briefs using IWD Validation and Release Form 2102A</li> <li><input type="checkbox"/> Must involve employees who will conduct work; SMEs and supervisors as necessary</li> </ul>	
Employee ESH meetings and documentation to include topic(s); attendees; questions posed by workers and responses; and hazards identified by workers, subcontractor's ESH representative, and/or subcontractor management	
Attendance at mandatory LANL ESH forums	
<b>Meets:</b> Yes No NA	<b>Feedback:</b>
<b>Reviewer Z#:</b>	

<b>F9 ES&amp;H Inspections:</b> Initial and periodic inspection of the work area and submitting inspection reports; taking protective and corrective actions; reporting issues not under subcontractor's control; that LANL can perform announced and unannounced inspections; notifying LANL if NMED or EPA arrives on-site	
Steps for initial and periodic inspections, and submitting written inspection reports	
Taking protective measure and promptly correcting issues	
Workers have the right without reprisal to receive investigation or inspection results	
<b>Meets:</b> Yes No NA	<b>Feedback:</b>
<b>Reviewer Z#:</b>	

<b>F10 Housekeeping:</b> Housekeeping measures, provisions for toilet facilities and potable water	
<b>Meets:</b> Yes No NA	<b>Feedback:</b>
<b>Reviewer Z#:</b>	

<b>F11 Emergency Preparedness Requirements:</b> Complying with LANL site-specific emergency response requirements; GET, facility-specific, and/or subcontractor provided training; subcontractor-specific emergency procedures and communicating to employees; conducting and documenting annual evacuation drills, when applicable; participating in LANL drills.	
Emergency response procedures that cover at a minimum notifications and methods for personnel accountability.	
<b>Meets:</b> Yes No NA	<b>Feedback:</b>
<b>Reviewer Z#:</b>	

<b>F12 Personal Protective Equipment:</b> Process for determining what PPE will be worn; training; long pants and a suitable shirt with no less than 4-inch sleeves	
Demonstrates an understanding of OSHA PPE requirements as applicable to the work to be conducted at LANL. Consider referencing OSHA’s Small Business Guide: PPE & Clothing. <a href="https://www.osha.gov/Publications/smallbusiness/small-business.html#protect">https://www.osha.gov/Publications/smallbusiness/small-business.html#protect</a>	
High visibility reflective vests when working on active construction, demolition, highway, or remediation sites	
<b>Meets:</b> Yes No NA	<b>Feedback:</b>
<b>Reviewer Z#:</b>	

<b>F13 Respiratory Protection:</b> Demonstrates and understanding of 1910.134 and ANSI/ASSE Z88.2, American National Standard Practices for Respiratory Protection (2015); written respiratory protection program	
Written respiratory protection program, compliant with 1910.134 that includes, at a minimum:	
<ul style="list-style-type: none"> <li><input type="checkbox"/> Names of employees enrolled in the respiratory protection program for work at LANL</li> <li><input type="checkbox"/> Role of program administrator listed in F4 Subcontractor ES&amp;H Representative Duties and Responsibilities ESH Oversight Plan</li> <li><input type="checkbox"/> Respirator selection – hazard(s) for which respirator is providing protection, level of contaminant in relation to the APF of the respirator and/or decision on how that APF was selected (may be part of exposure assessment plan)</li> <li><input type="checkbox"/> Medical evaluation</li> <li><input type="checkbox"/> Fit-testing</li> <li><input type="checkbox"/> Use, maintenance, and care</li> <li><input type="checkbox"/> Breathing air quality and use (if supplied-air respirators are required)</li> <li><input type="checkbox"/> Training</li> <li><input type="checkbox"/> Program evaluation</li> </ul>	

<input type="checkbox"/> Recordkeeping Consider referencing the Small Entity Compliance Guide for OSHA’s Respiratory Protection Standard <a href="https://www.osha.gov/Publications/3384small-entity-for-respiratory-protection-standard-rev.pdf">https://www.osha.gov/Publications/3384small-entity-for-respiratory-protection-standard-rev.pdf</a>	
<b>Meets:</b> Yes No NA	<b>Feedback:</b>
<b>Reviewer Z#:</b>	

<b>F14 Hearing Conservation Program:</b> Demonstration of an understanding of 1910.95 or 1926.52;	
Steps to determine if workers will be exposed to hazardous noise that exceeds the ACGIH TLVs for an 8-hour exposure and/or 140 dB or dBC for impulse-impact noise <ul style="list-style-type: none"> <li><input type="checkbox"/> If yes, then a hearing conservation program is required</li> <li><input type="checkbox"/> If exposed to noise levels at 85 dBA or greater for any length of time, but not enough to exceed the ACGIH 8-hour TWA and/or 140 dB or dBC, then hearing protection is required, but a formal hearing conservation program is not</li> </ul>	
Written Hearing Conservation Program, compliant with 1910.95 and 1926.52 that includes, at a minimum: <ul style="list-style-type: none"> <li><input type="checkbox"/> Sampling strategy (may be part of exposure assessment plan) and selection of hearing protectors</li> <li><input type="checkbox"/> Employee notification</li> <li><input type="checkbox"/> Audiometric testing</li> <li><input type="checkbox"/> Training program</li> <li><input type="checkbox"/> Recordkeeping</li> </ul>	
<b>Meets:</b> Yes No NA	<b>Feedback:</b>
<b>Reviewer Z#:</b>	

<b>F15 Occupational Health Services:</b> Demonstrates an understanding of when medical surveillance is required for the work they will be doing at LANL; LANL OM will provide initial treatment (when requested) of non-emergency work-related events on LANL property and subcontract supervisor accompanies worker	
Name and contact for medical provider	
List of medical evaluations applicable to subcontracted work; this may change based on exposure assessment results	
<b>Meets:</b> Yes No NA	<b>Feedback:</b>
<b>Reviewer Z#:</b>	

<b>F16 Motor Vehicles and Powered Industrial Equipment:</b> Operators are appropriately licensed, unimpaired, and hand-held communications prohibited; equipment is licensed/registered, maintained, and operated per laws and recommendations	
Motor Vehicle Safety Program	
<input type="checkbox"/> Seat belt use, rollover protection, back-up alarms, lifting and hauling, scissor points, training, operational use, general vehicle maintenance, and inspections <input type="checkbox"/> Immediate reporting of damage to motor vehicle on LANL or government property <input type="checkbox"/> Committing to passenger safety and stability of transported materials <input type="checkbox"/> Vehicles and equipment off when refueling and parking breaks set when unattended <input type="checkbox"/> Truck drivers not in or near cab when truck is being loaded by power equipment unless truck is equipped with cab shield	
If using major equipment	
<input type="checkbox"/> Details on inspection protocols – prior to use, criteria evaluated against (e.g., OSHA, ANSI, NFPA, and/or manufacturer), inspector is to be authorized and qualified, documentation of findings and corrective actions <input type="checkbox"/> How out-of-compliance equipment will be labeled, removed from service, removed from LANL <input type="checkbox"/> Keeping dozer blades, end loader buckets, and similar parts lowered to the ground before operator exists equipment <input type="checkbox"/> Attachment F16-1, <i>Major Equipment Declaration</i> , verifying Safety Review Checklist portion is completed	
If using an ATV, then operators trained by Motorcycle Safety Foundation (MSF), MSF-endorsed organization, or state-approved ATV training; PPE for ATV and not allowing passengers unless ATV made for passengers	
<b>Meets:</b>	<b>Feedback:</b>
Yes No NA	
<b>Reviewer Z#:</b>	

<b>F17 Tools and Equipment:</b> Tool inspection process, frequency, and documentation; authorization by LANL; methods for using powder-actuated tools, employee training, and storing and using charges; testing HEPA systems, LEV, ventilation enclosures, confinement systems; bonding and grounding of portable, vehicle-mounted electric generators is required; GFCIs required on temporary electrical applications
All 60 Hz tools are to be listed by NRTL or approved by LANL AHJ/ESO
LANL AHJ inspects repaired NRTL-listed tools
For powder-actuated tools
<input type="checkbox"/> Only properly trained and certified employees shall be permitted to use these tools <input type="checkbox"/> Powder charges (cartridges) must be controlled, accounted for, and properly stored

<input type="checkbox"/> Live or spent cartridges must not be left on the ground or disposed of in trashcans or other unauthorized containers	
For portable, vehicle-mounted electric generators	
<input type="checkbox"/> Neutral conductor properly bounded to the generator case <input type="checkbox"/> All general purpose single phase 15, 20, and 30 amp receptacles are GFCI protected <input type="checkbox"/> Generators over 5kW must be connected to an approved grounding electrode system	
When HEPA system and other engineered ventilation controls are used at LANL they must be tested and certified prior to use, annually thereafter, and documentation submitted	
<input type="checkbox"/> Certification requirements apply after conducting maintenance that disturbs HEPA filters	
<b>Meets:</b> Yes No NA	<b>Feedback:</b>
<b>Reviewer Z#:</b>	

<b>F18 Inclement Weather:</b> Protective actions employees will take in lightning and high wind conditions to include work stoppage and sheltering when required; training of field employees on heat/cold stress disorders and measures to protect against; ensuring employees have access to fluids throughout the day	
<b>Meets:</b> Yes No NA	<b>Feedback:</b>
<b>Reviewer Z#:</b>	

<b>F19 Chemical and Hazardous Materials Management:</b> Demonstrates an understanding of what chemical hazards (pure and products) will be brought to LANL and in what quantity, where they will be stored, and compliance with 1910.1200	
Describing the mechanism that will be used to maintain an inventory—for each location—of all hazardous chemicals, the quantities or each, location of storage, and their SDSs	
Submitting SDS to <a href="mailto:safetydatasheets@lanl.gov">safetydatasheets@lanl.gov</a> prior to bringing any chemical onsite	
Written Hazard Communication Program, compliant with 1910.1200 that includes, at a minimum how the following will be communicated to workers:	
<input type="checkbox"/> List of hazardous chemical <input type="checkbox"/> Non-routine tasks <input type="checkbox"/> Labeling system <input type="checkbox"/> Hazards associated with the chemicals <input type="checkbox"/> Methods to detect the presence or release of chemicals <input type="checkbox"/> Means to protect themselves from these hazards	

Methods to communicate the following to LANL employees and other subcontractors present:

- Provide on-site access to SDS
- Precautionary measures to protect employees during norm operating conditions and foreseeable emergencies
- Labeling system

Consider referencing OSHA’s Small Business Guide: Hazardous Substances Communication  
<https://www.osha.gov/Publications/smallbusiness/small-business.html#hazsub>

<b>Meets:</b> Yes No NA	<b>Feedback:</b>
<b>Reviewer Z#:</b>	

**F20 Work Management:** Has clear lines of authority among all levels for ESH matters; captures LANL requirements for IWDs: electrical work, site-specific hazard information, PRID, hold points, Exhibit F checklist, and participating in field walk-downs

Line management committing to being responsible for protecting employees, public, and the environment

Designating a PIC who will ensure the quality of the integrated work document (IWD) and managing the work; role of PIC is to be listed in F4 Subcontractor ES&H Representative Duties and Responsibilities ESH Oversight Plan

Having the documentation onsite: written scope of work, IWDs, Exhibit F checklist, and daily pre-job briefing documentation IWDs

Work is paused for an ESH-related matter, restarting only when a LANL ESH representative approves of the resolution

Work is stopped, restarting only after completing a Form 2181 Stop-Work Action Worksheet and LANL approves of the follow up actions

<b>Meets:</b> Yes No NA	<b>Feedback:</b>
<b>Reviewer Z#:</b>	

**F21 Fire Protection and Prevention:** Demonstrates an understanding of general fire prevention practices appropriate to LANL work and the environment and LANL-specific requirements

Fire Protection and Prevention Plan that is applicable to the type of work subcontractor will conduct at LANL and includes, at a minimum:

- Dialing 911 and initiating a Fire Department response for any fire, suspected fire, unexplained smoke in the work area, or discharge of a fire extinguisher
- Ensuring fire protection equipment is placed and maintained in proper locations as work progresses

If flammable and combustible liquids and gasses are used

- Handling, storing, use, disposal of flammable and combustible liquids and gases
- Prohibiting open flames and smoking in designated storage areas
- Dispensing in safety cans manufactured to recognized standard and in areas designated for these activities

If temporary heating equipment is used

- Having procedures to minimize the fire hazard
- Using in accordance with manufacturer's recommendations
- Monitoring operation of heating equipment
- Refueling appropriately
- Locating away from combustible materials

Smoking, use of tobacco, or electronic smoking devices are prohibited in an LANL facility, but allowed in designated LANL-approved smoking areas

Open fires not allowed

Keeping doors, stairwells, aisles, and means of egress OSHA-compliant and unobstructed at all times

LANL may impose restrictions on smoking, ignition source restrictions for special areas, spark, and flame-producing activities

Access to all fire suppression or fighting equipment and infrastructure (e.g., hydrants) is kept clear and unobstructed

In facilities with sprinkler systems, maintain at least 18 inches of free space below sprinkler heads. If painting or other spray-applications, mask and protect sprinkler heads and fire detection or alarm devices

Type of fire protection and prevention equipment for subcontracted work; for portable fire extinguishers

- Number and type
- Maintained per manufacturer's recommendations, inspected monthly, and tested annually
- Employees trained on their proper use

If using, storing, etc. combustible materials

- Control the storage and loading of combustible materials to ensure safety and compliance with applicable fire code; material must be well arranged, and aisles shall be maintained open and clear of obstructions; stored material shall be kept away from heaters, lamps, hot pipes, equipment, and machinery and the use of extension cords minimized
- Combustible waste containers are emptied regularly; equipment, tables, and floors are free from oil or oily rags; and oily rag containers are kept covered and emptied regularly
- Electrical, mechanical, and communications rooms shall be kept in order and free of combustible storage materials

<input type="checkbox"/> Cable trays and raceways shall be free of combustible material, debris, or trash	
If furnishing portable field offices	
<input type="checkbox"/> They have appropriate separations from adjacent LANL structures	
<input type="checkbox"/> Are secured, all exits are clearly marked and adequately lighted	
<input type="checkbox"/> Exit paths are level across door openings	
<input type="checkbox"/> Stairs are properly constructed (treads and risers are within acceptable dimensional limitations) and handrails provided where required	
<input type="checkbox"/> Exit doors are not provided with exterior locking features that prevent personnel from exiting	
<input type="checkbox"/> If equipped, all emergency lights remain functional	
<b>Meets:</b> Yes No NA	<b>Feedback:</b>
<b>Reviewer Z#:</b>	

<b>F22 Welding, Cutting, Brazing and Grinding:</b> Looking at housekeeping conditions, fire extinguishers, fire alarms, emergency exit locations, and ventilation conditions before starting spark or flame-producing work; protecting incidental exposures by observers	
Submit LANL Form 1563, <i>Spark of Flame-Producing Operations Permit</i> , 2-working days before doing work that involves spark or flame-producing operations	
Posting approved form 1563 in the immediate work area	
<b>Meets:</b> Yes No NA	<b>Feedback:</b>
<b>Reviewer Z#:</b>	

<b>F23 Fall Prevention/Protection:</b> Plan must be reviewed by a LANL Fall Protection Competent Person	
Fall Prevention/Protection plan will have at a minimum	
<input type="checkbox"/> 29 CFR 1910 Subpart D or 29 CFR 1026 Subpart D requirements	
<input type="checkbox"/> Definitions for competent and qualified persons	
<input type="checkbox"/> Description of fall protection equipment	
<input type="checkbox"/> Inspection plan for equipment	
<input type="checkbox"/> How supervisors and users of fall protection equipment are trained in the care, use, and inspection of equipment	
OSHA has a sample fall protection plan that may serve as a reference ( <a href="https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926SubpartMAppE">https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926SubpartMAppE</a> )	

Role of qualified persons listed in F4 Subcontractor ES&H Representative Duties and Responsibilities ESH Oversight Plan	
Role of competent persons listed in F4 Subcontractor ES&H Representative Duties and Responsibilities ESH Oversight Plan	
<b>Meets:</b> Yes No NA	<b>Feedback:</b>
<b>LANL Fall Protection Qualified Person Z#:</b>	

<b>F24 Scaffolding:</b> Scaffolds will be erected, disassembled, or modified by competent scaffold builder	
If scaffolds will be secured to a facility, then submitting a LANL Penetration Permit	
Role of competent scaffold builders listed in F4 Subcontractor ES&H Representative Duties and Responsibilities ESH Oversight Plan	
Scaffolding procedures that comply with 29 CFR 1926.450 and 451; for questions contact a LANL competent scaffolding person, also the <a href="#">LANL Fall Protection program lead</a> may help identify resources	
All wooden scaffolds must have a structural engineer provided engineered drawings, specified material requirements, and down load and/or weight bearing calculations; this information must be present at the scaffold at all times	
<b>Meets:</b> Yes No NA	<b>Feedback:</b>
<b>Reviewer Z#:</b>	

<b>F25 Portable Ladders:</b> Inspection plans; using only industrial or heavy-duty ladders; removing defective ladders from service immediately	
<b>Meets:</b> Yes No NA	<b>Feedback:</b>
<b>Reviewer Z#:</b>	

<b>F26 Barricades:</b> Barricade set up; yellow and black rope or tape is for warning barricades	
Erecting and maintaining barricades in such a manner that they provide adequate warning/protection and do not impede the work of other workers	
Ensure any barricade is at least six feet away from an elevation drop of four or more feet	

No barricade shall be placed closer than three feet from the edge of the danger point; a rope or tape shall be hung 42 inches +/- 3 inches above the floor or ground level	
Barricades must have a designated entrance(s)	
<input type="checkbox"/> Entry or exit from an area shall only occur through the designated entrance(s) <input type="checkbox"/> Stepping over or ducking under the barricade is prohibited <input type="checkbox"/> Authorization to enter a barricade may only be obtained from the PIC working inside the barricade <input type="checkbox"/> Tags shall be placed at intervals of up to 30 feet around the entire barricade with at least one tag visible from each approachable side; where the size of the jobsite prevents such placement, one tag shall be placed on the most common approachable side so long as it is clearly visible from any approachable side <input type="checkbox"/> The requirements for access shall be stated on the tag together with identified hazards <input type="checkbox"/> Barricade shall be erected with a "Warning - No Entry without Permission" or similar tag before work is started	
Barricades must be promptly removed when no longer required	
<b>Meets:</b> Yes No NA	<b>Feedback:</b>
<b>Reviewer Z#:</b>	

<b>F28 Excavations and Trenching:</b> Procedures for handling excavated debris, equipment, and material (to include material from a LANL Consent Order Site); maintaining utility locate markings	
Submitting an <i>Excavation/Soil Disturbance Permit</i> , ten working days before doing work that involves excavation, fill, soil disturbance/transfer, trenching work, or drilling operations	
<input type="checkbox"/> Include air monitor operator qualification records and current calibration records for the monitoring instrument to be used	
Not working until the permit has been issue by LANL, following the requirements in the permit, and keeping the permit at the jobsite at all times	
In the event of a change to the excavation and trenching area from what was authorized in the permit	
<input type="checkbox"/> Notify the STR	
Do not excavate, fill, conduct soil disturbance/transfer, or trench in the newly identified area until LANL issues or modifies permit	
PICs will	
<input type="checkbox"/> Be on-site whenever work on or in an excavation is taking place <input type="checkbox"/> Hand-offs between the departing PIC and the incoming PIC includes a field review of the excavation site and briefing employees involved in the excavation of the change	

Incoming PIC performs a review of the Excavation/Soil Disturbance permit, utility locates, and the potholing plan	
Ensuring fill material is free from contamination and not transporting fill without obtaining written approval from the STR first	
For potholing <input type="checkbox"/> Notify the STR when completed  For potholing in a Consent Order Site, vacuum-, air-, or water-type potholing is not to be conducted without written instruction from LANL	
Excavation signage and barricades <input type="checkbox"/> Identify excavation area boundaries <input type="checkbox"/> Ensure segregation of potholing activities and areas approved for the introduction of mechanical excavation equipment <input type="checkbox"/> Control simultaneous excavation-related activities within the boundary area  Align with requirements in P101-17, <i>Excavation/Fill/Soil Disturbance</i>	
When trenches or excavations will exceed 5-feet in depth, there will be no more than 25 feet of lateral travel to an acceptable means of egress	
Role of air monitor operator(s) listed in F4 Subcontractor ES&H Representative Duties and Responsibilities ESH Oversight Plan	
Role of competent person listed in F4 Subcontractor ES&H Representative Duties and Responsibilities ESH Oversight Plan  This person will be on the jobsite and will classify all soils, and perform inspections daily and after each rain, snow, freeze, and/or thaw	
Spotter(s) are responsible for guiding the mechanical excavation equipment operator to avoid contact with utilities present within the excavation. <input type="checkbox"/> The spotter(s) must have no other responsibilities when performing these duties  The spotter must remain at least 5 feet from any moving excavation equipment	
<b>Meets:</b> Yes No NA	<b>Feedback:</b>
<b>Reviewer Z#:</b>	

<b>F29 Confined Spaces:</b> Submitting a confined space entry permit and receiving LANL approval before initial entry; posting the permit; entrants log; informing LANL of any additional hazards encountered or created during the entry; LANL procedures taking precedence during simultaneous work
Written Permit-Required Confined Space Program  OSHA's Small Entity Compliance Guide, <i>Protecting Construction Workers in Confined Space</i> , Chapter 6 Contents of Permit Space Program

<p>(<a href="https://www.osha.gov/pls/publications/publication.athruz?pType=Industry&amp;pID=45">https://www.osha.gov/pls/publications/publication.athruz?pType=Industry&amp;pID=45</a>) can serve as a helpful reference for the minimum expectations of the written program</p> <p>For welding, cutting, and heating in confined spaces, the requirements in 1926.353(b) must be met</p> <p>Subcontractor confined space programs and rescue procedures will be approved by a LANL person qualified as both a confined space evaluator and a confined space entry supervisor; the Confined Space Evaluator list on the <a href="#">Confined Space</a> website has the names of those duly qualified</p>	
<p>Rescue procedures must be approved by LANL before working in a confined space requiring rescue procedures</p> <p>See note on review and approval above.</p>	
<p>Conducting air monitoring, calibrating equipment, and training employees who will be given responsibility for air monitoring listed in F4 Subcontractor ES&amp;H Representative Duties and Responsibilities ESH Oversight Plan</p>	
<p>When working under their own program, role of entrant listed in F4 Subcontractor ES&amp;H Representative Duties and Responsibilities ESH Oversight Plan</p>	
<p>When working under their own program, role of attendant listed in F4 Subcontractor ES&amp;H Representative Duties and Responsibilities ESH Oversight Plan</p>	
<p>When working under their own program, role of entry supervisor, who will also meet the definition of qualified person for construction work listed in F4 Subcontractor ES&amp;H Representative Duties and Responsibilities ESH Oversight Plan</p>	
<p><b>Meets:</b></p> <p>Yes No NA</p>	<p><b>Feedback:</b></p>
<p><b>LANL Confined Space Evaluator and Entry Supervisor Qualified Person Z#</b></p>	

<p><b>F30 Lockout Tagout:</b></p>
<p>When providing advisory services or conducting work near equipment that is/will be locked out/tagged out, but not conducting the lockout/tagout procedures</p> <p>Helping LANL identify all equipment hazardous energy sources and associated energy isolating devices</p>
<p>When performing work as defined by 29 CFR 1910.147 or 29 CFR 1926.417</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Following P101-3; only using LANL locks, tags, and lockout devices; getting authorization from LANL equipment operators-owners before performing lockout/tagout</li> <li><input type="checkbox"/> Helping LANL identify all equipment hazardous energy sources and associated energy isolating devices</li> </ul>

<input type="checkbox"/> Completing required training per the subcontract-specific training matrix	
For work involving the commissioning of new facilities, electrical systems, and distribution equipment, or for work involving the construction of acceptance of new or extensively revised electrical systems Submitting Form 3058, <i>Lockout/Tagout Partial Energization Plan</i> to LANL's Chief Electrical Inspector	
<b>Meets:</b> Yes No NA	<b>Feedback:</b>
<b>Reviewer Z#:</b>	

<b>F31 Blind Penetrations:</b> Understanding LANL penetration categories; teaming with LANL to visually inspect penetration, teaming with LANL to review and sign the Form 2074 and confirming controls are in place before starting work	
Penetration - an opening made by drilling, cutting, or otherwise piercing a wall, ceiling, roof, floor, or other surface	
<input type="checkbox"/> Class 1 - penetrations 1 ½ inches or less <input type="checkbox"/> Class 2 - penetrations greater than 1 ½ inches in depth <input type="checkbox"/> Not a penetration - placement of thumbtacks, picture nails, or similar items in a hollow wall or ceiling that do not go beyond the thickness of the external material (e.g., sheetrock, wood, etc.)	
Not a blind penetration - the penetration is in a homogenous material with no hollow spaces (e.g., single layer of wood, metal, drywall, or concrete) where the other side of the material is visible or accessible, and it can be visually verified that no utilities are present within the material	
<b>Meets:</b> Yes No NA	<b>Feedback:</b>
<b>Reviewer Z#:</b>	

<b>F32 Cranes and Material Handling Equipment:</b> Meeting 29 CFR 1910, 29 CFR 1926, ASME B30, DOE Standard 1090-2011, and manufacturer's instructions; LANL is the controlling entity; performing maintenance on equipment per manufacturer's recommendations	
Identifying the following roles as appropriate to subcontracted work, providing qualifications at least 2-working days prior to craned operations, and not conducting operations with cranes or other material handling equipment before receiving written approval from LANL	
<input type="checkbox"/> Mobile Crane Operators <input type="checkbox"/> Assembly/Disassembly Director <input type="checkbox"/> Crane Operations Superintendent, needed when two or more mobile or fixed cranes share a limited work area <input type="checkbox"/> Riggers <input type="checkbox"/> Signal Persons	

<input type="checkbox"/> Incidental Crane Operators, Riggers, Qualified Crane Operators, when using LANL stationary cranes, hoists, lifting devices, and rigging equipment Role of above persons will also be listed in F4 Subcontractor ES&H Representative Duties and Responsibilities ESH Oversight Plan
Crane Operations Superintendent <input type="checkbox"/> Responsible to for the coordinating the placement and safe operation of cranes to ensure sufficient clearances are maintained between cranes, loads, structures, utilities and other mobile equipment to prevent interference, collision, and mishaps Will have no other duties unless agreed upon by in writing by the STR
If using special hoisting and rigging devices submit the following: <input type="checkbox"/> Past year’s maintenance records and annual inspection <input type="checkbox"/> Training records of the operator on the specific equipment Equipment and lifting attachment owners’ manuals and/or specifications
Complying with ground conditions includes <input type="checkbox"/> Meeting 29 CFR 1926.1402(b), ground conditions are firm, drained, and graded to a sufficient extent so that, in conjunction (if necessary) with the use of supporting materials, the equipment manufacturer’s specifications for adequate support and degree of level of the equipment <input type="checkbox"/> Receiving communication from LANL on the location of hazards beneath the equipment set-up area (such as voids, tanks, utilities) if those hazards are identified in documents (such as site drawings, as built drawings, and soil analysis) Contacting LANL in the operator or assembly director determines that ground conditions do not meet the requirements in 29 CFR 1926.1402 so suitable so that suitable supporting materials/devices (if necessary) are in compliance
Steps subcontractor will take to classify all lifts as ordinary, moderate risk, or critical and how subcontractor will meet the requirements associated with each <input type="checkbox"/> Critical Lifts must have a critical lift plan (Attachment F32-1, Critical Lift Plan for Subcontractors) approved by LANL qualified person and the subcontractors qualified person and person-in-charge before such lifts are performed <ul style="list-style-type: none"> <li>• Subcontractor shall conduct a documented pre-lift meeting to ensure all participants have a clear understanding of the plan and their responsibilities</li> <li>• Where LANL qualified person observation of critical lifts is required, subcontractor shall provide at least 4- working days’ notice</li> </ul> Moderate risk lift requires an Attachment F32-2, <i>Ordinary/Moderate Risk Lift Procedure</i>
Rigging equipment tagging with capacity; annual and pre-use inspections per 29 CFR 1926.1400; inspection records available to LANL and at contract closeout
Steps subcontractor will take to have qualified and competent persons (as required) inspect and performance-test all mobile cranes, overhead cranes, hoists, and mechanized equipment <input type="checkbox"/> Inspect prior to on-site operation, annually, and after major repairs or modifications

Document inspections per 29 CFR 1926.1412, Inspections and 29 CFR 1926.1413, Wire Rope-Inspection; documentation available to LANL

If using mobile cranes  
 Inspection pre-shift, monthly, and annually; and inspection documentation to STR each month or upon request

Note, OSHA’s resources may serve as helpful references. LANL-specific contacts and resources can be found on the Cranes, Hoists, Lifting Devices, and Rigging Equipment website  
[http://int.lanl.gov/safety/industrial\\_hygiene\\_and\\_safety/ihs\\_programs/cranes-hoists-rigging.shtml](http://int.lanl.gov/safety/industrial_hygiene_and_safety/ihs_programs/cranes-hoists-rigging.shtml)

Identifying the following roles as appropriate to subcontracted work, providing qualifications at least 2-working days prior to craned operations, and not conducting operations with cranes or other material handling equipment before receiving written approval from LANL

- Mobile Crane Operators
- Assembly/Disassembly Director
- Crane Operations Superintendent, needed when two or more mobile or fixed cranes share a limited work area
- Riggers
- Signal Persons
- Incidental Crane Operators, Riggers, Qualified Crane Operators, when using LANL stationary cranes, hoists, lifting devices, and rigging equipment

Role of above persons will also be listed in F4 Subcontractor ES&H Representative Duties and Responsibilities ESH Oversight Plan

<b>Meets:</b> Yes No NA	<b>Feedback:</b>
<b>Reviewer Z#:</b>	

**F33 Suspended Personnel Platforms:** LANL must approve subcontractor using a suspended personnel platform; platforms must be designed by a registered professional engineer and built in accordance with 29 CFR 1926.143

Lift Plan that contains at least

- Employee training
- Pre-lift meetings
- Trial lifts

Platform and rigging inspections

<b>Meets:</b> Yes No NA	<b>Feedback:</b>
<b>Reviewer Z#:</b>	

<b>F34 Aerial Work Platforms:</b> Operating per manufacturer’s instructions; 100% fall protection mandated; inspecting and testing daily; not climbing or sitting on guardrail or enclosures; not using lifts to suspend items from the boom or platform.	
OSHA Fact Sheet on Aerial Lifts provides a summary of requirements <a href="https://www.osha.gov/Publications/aerial-lifts-factsheet.html">https://www.osha.gov/Publications/aerial-lifts-factsheet.html</a>	
<b>Meets:</b> Yes No NA	<b>Feedback:</b>
<b>Reviewer Z#:</b>	

<b>F35 Pressure Safety:</b>	
If using compressed gas <ul style="list-style-type: none"> <li><input type="checkbox"/> Providing cradles/cages for lifting cylinders and ensuring cylinders</li> <li><input type="checkbox"/> Measures to secure cylinders for transport</li> <li><input type="checkbox"/> The list of compressed gases to be brought onsite</li> </ul> <p>Gas cylinder use and storage procedures that includes how the subcontractor will complete segregation by type, proper signage, protective isolation of flammable gases from oxygen, provisions to keep cylinder caps in place when cylinders are not in use, positive securing of bottles, and maintenance of safe distances from ignition sources, doors, and windows</p>	
For work involving design, fabrication, installation, maintenance, test, repair, and other deliverable associated with pressure systems <ul style="list-style-type: none"> <li><input type="checkbox"/> Establishing and applying safety procedures</li> <li><input type="checkbox"/> Using trained and qualified personnel conduct work</li> <li><input type="checkbox"/> Conducting work in accordance with 10 CFR 851, ASME engineering codes, and sound engineering principles</li> <li><input type="checkbox"/> LANL reviewing and approving subcontractor designs, installations, tests, and other deliverables</li> <li><input type="checkbox"/> Submit general testing safety requirements</li> </ul> <p>Recognizing procedures for field pressure testing of piping will need to be submitted to and approved by the LANL Chief Pressure Safety Officer (or designee) prior to testing, and include: safety requirements, clear identification of test boundaries, isolation points, system over pressurization protection, and a space to record test results and applicable drawings</p>	
For work where relief devices and/or pressure vessels are purchased <ul style="list-style-type: none"> <li><input type="checkbox"/> LANL Chief Pressure Safety Officer or designee reviewing the procurement</li> </ul>	
<b>Meets:</b> Yes No NA	<b>Feedback:</b>
<b>Reviewer Z#:</b>	

**F36 Electrical Safety:** Implementing an electrical safety program; using only NRTL listed equipment; having repaired, modified, or outside of intended use NRTL listed equipment approved by LANL ESO; LANL ESO approving non-NRTL equipment; workers subject to electrical shock or possible arc flash will be evaluated by medical personnel and LANL notified; complying with LANL electrical safety requirements according to the work and work area hazards

For work involving facility electrical installations, LANL's Chief Electrical Inspector will grant an Authorization to Energize before energizing

For work on or near exposed electrical hazards or when the worker interacts with the equipment when conductors or circuit parts are not exposed but an increased likelihood of injury from an exposure to an arc flash hazard

- Conducting a risk assessment on the electrical hazards and documenting controls in IWD to be approved by an ESO

For work involving exposed energized electrical conductors or circuit parts for which an electrically safe work condition has not been established

- Submitting an Energized Electrical Work Permit

<b>Meets:</b> Yes No NA	<b>Feedback:</b>
<b>Reviewer Z#:</b>	

**F37 Traffic and Pedestrian Control:** Daily day and night inspections of temporary traffic control elements

For each phase of a multi-phase project, a Traffic Control Plan aligns with federal, state, and Manual on Uniform Traffic Control Devices.

Traffic Control Plans will be reviewed and approved by a LANL [ES-UI](#) Traffic Engineer

<b>Meets:</b> Yes No NA	<b>Feedback:</b>
<b>LANL Traffic Engineer Z#:</b>	

**F38 Pollution Prevention/Waste Minimization:** Minimizing waste generation including source reduction; purchasing and using materials that support pollution prevention in recycled construction products and materials, bio-based materials and products, and energy efficient products (i.e., Energy Star)

<b>Meets:</b> Yes No NA	<b>Feedback:</b>
<b>Reviewer Z#:</b>	

**F39 Waste Management:** Following LANL Waste Management Coordinator’s directions and requirements in the Waste Characterization Strategy Form; for waste streams not on the form: pausing work, notifying the STR, and resuming work only after receiving an updated form/approval; keeping waste containers and roll-off bins closed unless in use; not abandoning waste without LANL permission; not transporting waste, including non-regulated construction and demolition debris to Santa Fe County transfer stations or landfills

<b>Meets:</b> Yes No NA	<b>Feedback:</b>
<b>Reviewer Z#:</b>	

**F40 Work within the Boundary of a Consent Order Site:** Following LANL Waste Management Coordinator’s directions; managing all materials to ensure they are not dispersed; retuning excavations to the original point and depth unless specified by LANL; potholing per LANL-approved mechanical/vacuum methods and managing waste per LANL waste management requirements

<b>Meets:</b> Yes No NA	<b>Feedback:</b>
<b>Reviewer Z#:</b>	

**F41 Wastewater Discharges:** Contacting LANL before discharging wastewater, obtaining a permit, discharge plan, etc.; capturing discarded materials in LANL-designated areas; complying with NM permits for on-site sanitary wastewater storage and disposal

If work involves potholing

In the boundary of a Consent Order Site, following F40

For others, potholing washout materials will be stabilized and left on site or managed as waste per F39

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For wastewater discharges into LANL treatment facilities

Receiving approval from LANL prior to discharge

Means to demonstrate compliance with applicable Waste Acceptance Criteria, which can include existing water quality data or sampling and analysis

<b>Meets:</b> Yes No NA	<b>Feedback:</b>
<b>Reviewer Z#:</b>	

**F42 Spill Prevention, Reporting, and Response:** Spill prevention, control, and countermeasure actions while using and storing chemicals, petroleum, and other products on-site; notifying the STR of any quantify of discharge, spill, or material/waste handling, storage, transportation, or disposal incident; having spill kits

Submitting an inventory of chemicals, petroleum, and other products brought or stored at LANL property; and indicating all chemicals that will be stored or used in quantities of 500 pounds or greater	
<input type="checkbox"/> Not storing or using chemicals that would trigger LANL having to have a Risk Management Plan	
For work involving oil-handling at facilities that have an aggregate aboveground storage capacity of 1,320 gallons or more of oil or other petroleum products:	
<input type="checkbox"/> Submit a Spill Prevention Control and Countermeasure Plan or coordinate with LANL Environmental Compliance Program via the STR via for oil handling work on existing facilities subject to the SPCC Rule	
For work on an aboveground storage tank (1,320 – 55,000 gallons) and use to contain oil	
Subcontractor will have content that speaks to	
<input type="checkbox"/> Steps to comply with NM Petroleum Storage Tank Regulations, NMAC 20.5.	
<b>Meets:</b> Yes No NA	<b>Feedback:</b>
<b>Reviewer Z#:</b>	

<b>F43 Storm Water Management:</b>	
For work involving construction sites, NPDES-permitted industrial facilities, and NPDES-permitted solid waste management units	
<input type="checkbox"/> Using Best Management Practices ( <a href="#">LA-UR-11-10371 LANL Storm Water BMP Manual</a> ), construction specifications, good engineering practices, and industry standards <input type="checkbox"/> Taking stabilization measures within 7-calendar days of pausing or stopping earth-disturbing activities	
For work subject to NPDES Construction General Permit (CGP)	
<input type="checkbox"/> Complying with the EPA's CGP <input type="checkbox"/> SWPPP finalized and certified (i.e., signed by subcontractor authorized rep) <input type="checkbox"/> Approval of NOI by EPA has been obtained <input type="checkbox"/> Explaining how CGP recordkeeping requirements will be met <input type="checkbox"/> Role of ESH representative(s) responsible for the oversight of the NPDES CGP listed in F4 Subcontractor ES&H Representative Duties and Responsibilities ESH Oversight Plan	
For site projects within a SWMU and/or AOC boundary	
<input type="checkbox"/> No washout pits, potholing water pits, or storm water retention ponds will be within the boundary of a SWMU and/or AOC <input type="checkbox"/> BMPs will be installed to prevent run-on to the SWMU/AOC and/or prevent off-site migration of pollutants from a SWMU/AOC prior to soil disturbance activities <input type="checkbox"/> BMPs within the boundary of a SWMU/AOC will be maintained	

For work within a watercourse subject to regulation by the U.S. Army Corps of Engineers	
<input type="checkbox"/> Complying with the applicable 404 permit and NM Section 401 Water Quality Certification	
For work subject to a NPDES Multi-Sector General Permit for Storm water Discharges Associated with Industrial Activity (MSGP)	
<input type="checkbox"/> Complying with the EPA's MSGP <input type="checkbox"/> Following site-specific MSGP SWPPP requirements <input type="checkbox"/> Notifying the STR of conditions requiring corrective action <input type="checkbox"/> Completing corrective actions within 14 days and notifying STR of completion <input type="checkbox"/> Providing LANL with project information needed to amend the MSGP SWPPP <input type="checkbox"/> Taking appropriate stabilization measures <input type="checkbox"/> Role of ESH representative(s) responsible for the implementation of MSGP requirements listed in F4 Subcontractor ES&H Representative Duties and Responsibilities ESH Oversight Plan	
For work that disturbs 5000 ft <sup>2</sup> of ground	
<input type="checkbox"/> Complying with Section 438 of the Energy Independence and Security Act <input type="checkbox"/> Using low impact development features to maintain or restore pre-development site hydrology per LANL's Engineering Standards	
For work potentially impacting designated wetlands or 100-year floodplains	
<input type="checkbox"/> Providing LANL with sufficient project information to develop a wetland and/or floodplain assessment	
<b>Meets:</b>	<b>Feedback:</b>
Yes No NA	
<b>Reviewer Z#:</b>	

<b>F44 Air Quality:</b> Getting air quality permits for subcontractor-owned equipment; providing LANL with permits, relocation notices, etc.	
Submitting Attachment F16-1, Major Equipment Declaration listing equipment that may emit air pollutants and/or be temporarily installed in buildings	
<input type="checkbox"/> Equipment includes, but is not limited to: generators, boilers, hot water heaters, cooling towers, storage vessels or tanks, degreasers, parts washers, refrigerant containing equipment, rock crushers, asphalt plants, concrete plants, plug mills, etc.	
For open burning	
<input type="checkbox"/> Complying with the Open Burning and Smoke Management requirements of NM Administrative Code Sections 20.2.60 and 20.2.65 as well as LANL's Title V Operating Permit	
<b>Meets:</b>	<b>Feedback:</b>
Yes No NA	

<b>Reviewer Z#:</b>	
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<b>F45 Biological Resources Protection:</b> Complying with work restrictions identified through the LANL biological SME work plan review, PRID comments, and/or excavation permit comments	
List of actions to be taken to comply with biological resource protection (e.g., timing restrictions, biological assessment, mitigation requirements, location restrictions, etc.)	
<b>Meets:</b> Yes No NA	<b>Feedback:</b>
<b>Reviewer Z#:</b>	

<b>F46 Cultural Resources Protection:</b> Complying with work restrictions identified through the LANL biological SME work plan review, PRID comments, and/or excavation permit comments; not entering marked boundaries of archaeological sites without written authorization from the STR	
Stopping work if any bones, possible masonry walls, charcoal stains, or other artifacts are encountered; immediately notifying STR and not resuming work until authorized to do so in writing by the STR	
List of actions to be taken to comply with cultural resource protection (e.g., marking and avoidance of archeological sites, protection of significant historic buildings and structures, etc.)	
<b>Meets:</b> Yes No NA	<b>Feedback:</b>
<b>Reviewer Z#:</b>	

<b>F47 Pesticide and Herbicide Applications:</b> Not applying pesticides on LANL property unless authorized by STR; complying with NPDES Pesticides General Permit, New Mexico Department of Agriculture pesticide regulations, and the Federal Insecticide, Fungicide, and Rodenticide Act	
<b>Meets:</b> Yes No NA	<b>Feedback:</b>
<b>Reviewer Z#:</b>	

<b>F49 Radiation Protection:</b> Following LANL's Radiation Protection Program requirements; contacting deployed radiation protection personnel via the STR to ensure radiological work is adequately supported by radiation protection staff and appropriate controls are established	
Note, LANL may require subcontractors to wear specific PPE, to include certain types of respiratory protection; this may drive subcontractors to have to stand up a respiratory protection program	
For work where a subcontractor will bring a RSS/RGD onto LANL	

<input type="checkbox"/> Submitting Form 2264, RSS/RGD Authorization for Use and receiving LANL approval at least 48-hours in advance	
<b>Meets:</b> Yes No NA	<b>Feedback:</b>
<b>Reviewer Z#:</b>	

<b>F51 Asbestos Abatement-Demolition-Roofing Work:</b>	
For custodial and maintenance activities where subcontractors contact, but do not disturb, ACM or PACM	
<input type="checkbox"/> Completing required training per the subcontract-specific training matrix	
For any asbestos abatement, renovation that disturbs ACM, demolition, or roofing work	
<input type="checkbox"/> Submit NMED Air Quality Bureau notifications/forms to LANL at least 15-working days before work begins	
For conducting asbestos abatement work	
<input type="checkbox"/> An Asbestos Abatement Plan that complies with the requirements on 29 CFR 1910.1001 and/or 29 CFR 1926.1101; it will address the requirements in the contract and the procedures (including materials, chemicals, tools, and equipment involved) that will be used to perform asbestos work and disposal of asbestos-containing waste.	
<input type="checkbox"/> Abatement license	
<input type="checkbox"/> Names of persons who will do the abatement and qualification documentation, personnel medical records, personnel respirator fit tests	
<input type="checkbox"/> Inspector and/or designer accreditation certificate and inspection and/or designer report	
OSHA's Asbestos Standard for the Construction Industry (3096) can serve as a resource, especially the Quick Reference of Provisions by Work Class table <a href="https://www.osha.gov/Publications/OSHA3096/3096.html">https://www.osha.gov/Publications/OSHA3096/3096.html</a>	
For work involving shipping asbestos waste	
<input type="checkbox"/> Using only an NMED-approved disposal site and giving STR signed shipment records within 10-working days of delivery	
<b>Meets:</b> Yes No NA	<b>Feedback:</b>
<b>Reviewer Z#:</b>	

<b>F52 Exposure Assessment:</b> Recognizing DOE OELs may be different than OSHA OELs	
Submit an Exposure Assessment Plan that contains	
<input type="checkbox"/> Hazards	
<input type="checkbox"/> OEL(s)	
<input type="checkbox"/> Initial determination of worker exposure risk	

Whether exposure monitoring will be conducted on the hazard	
Using an industrial hygienist (qualified to evaluate the tasks' chemical, biological, and physical hazards) to develop an exposure assessment plan, oversee execution, and interpretation of results; this role will be listed in F4 Subcontractor ES&H Representative Duties and Responsibilities ESH Oversight Plan	
All exposure assessment results are to be submitted to LANL (5-business days), data can be from on-site exposure monitoring, objective data, or a combination	
An example of adequate objective data is described in 29 CFR 1926.1153, <i>Respirable Crystalline Silica</i>	
<i>Objective data</i> means information, such as air monitoring data from industry-wide surveys or calculations based on the composition of a substance, demonstrating employee exposure to respirable crystalline silica associated with a particular product or material or a specific process, task, or activity. The data must reflect workplace conditions closely resembling or with a higher exposure potential than the processes, types of material, control methods, work practices, and environmental conditions in the employer's current operations.	
If exposure monitoring results trigger requirements of OSHA chemical/hazard-specific standards, (e.g., training, medical surveillance, hearing conservation program, etc.), then the subcontractor should provide available evidence of complying with these requirements or commit to providing evidence available; this is not part of the SSESHP	
<b>Meets:</b> Yes No NA	<b>Feedback:</b>
<b>Reviewer Z#:</b>	

<b>F53 Beryllium Activities Not Involving Airborne Beryllium:</b> Complying with LANL's CBDPP; site-specific training; confirming with LANL that the activity is not expected to generate airborne beryllium; if the work changes and it might generate airborne beryllium, then pausing; agreeing with LANL on postings and not changing postings unless there is an emergency	
<b>Meets:</b> Yes No NA	<b>Feedback:</b>
<b>Reviewer Z#:</b>	

<b>F54 Explosives Storage/Use/Disposal:</b> Complying with DOE-STD-1212 and P101-8; receiving approval from LANL before using explosives or blasting agents	
The procedural steps for designing, monitoring, and disposing of explosives and blasting agents will address	
<input type="checkbox"/> Designing explosive shot - minimize potential for vibration, sonic blast, fragment production, and overpressure damage <input type="checkbox"/> Monitoring explosive shot - with a seismograph and retain records for the life of the project	
Disposing of unused explosives or damaged explosives and blasting agents - in accordance with all applicable federal and state laws	

A Blasting Plan will contain

- Specific procedures for notifying the proper authorities prior to a blast;
- Procedures for guarding the blast site to ensure the area is free of personnel during firing operations;
- A detailed description of the blasting method (shot design, loading, initiation, delay patterns, blasting patterns, use of blasting mats, etc.);
- Specific description of all explosive materials to be used;
- Specific procedures describing the process to be used during elevated fire danger; and
- Role of certified/qualified blaster listed in F4 Subcontractor ES&H Representative Duties and Responsibilities ESH Oversight Plan

Blast Plan and qualifications of certified/qualified blaster is to be reviewed and approved by LANL's [Explosives Safety Authority Having Jurisdiction](#)

<b>Meets:</b> Yes No NA	<b>Feedback:</b>
<b>Explosives Safety AHJ Z#:</b>	

**F56 Firearms Safety:** Acknowledging security use of firearms at LANL is prohibited except for LANL-designated protective forces; recognizing subcontractors will follow P101-2, *Non-Security Firearms Safety Program* when non-security firearms are used at LANL

<b>Meets:</b> Yes No NA	<b>Feedback:</b>
<b>Reviewer Z#:</b>	

**F57 Biological Safety:**

For work where any biological hazard exists and for equipment maintenance and service work in BSL-1 or BSL-2 laboratories

- Getting awareness briefing and site-specific training prior to entering into facilities

For work where there is the potential exposure to blood and other potentially infectious materials

- Recognizing the requirement to perform post-exposure evaluations and offer the hepatitis B vaccinations

For work where there is the potential exposure to wastewater, blood, sewage, other potentially infectious materials, wildlife, rodents, rodent poo and nests

- Exposure Control Plan per 20 CFR 1910.1030, *Bloodborne Pathogens*

Section 14 in OSHA's Quick Reference Guide to the Bloodborne Pathogens Standard details what is to be included in a written ECP ([https://www.osha.gov/SLTC/bloodbornepathogens/bloodborne\\_quickref.html](https://www.osha.gov/SLTC/bloodbornepathogens/bloodborne_quickref.html))

For work at a Biosafety Level (BSL) laboratory

<input type="checkbox"/> Work must be approved by LANL's Institutional Biosafety Committee Names of workers in medical surveillance because of BSL-1 and 2 laboratory entry requirements and documentation demonstrating compliance with these requirements	
<b>Meets:</b> Yes No NA	<b>Feedback:</b>
<b>Reviewer Z#:</b>	

<b>F58 Laser Safety:</b>	
A written Laser Safety Program For any Class 3B or Class 4 laser brought to or used at LANL <input type="checkbox"/> Laser hazard evaluation <input type="checkbox"/> Hazard controls <input type="checkbox"/> Laser safety training <input type="checkbox"/> Requirements specific to the subcontracted work	
<b>Meets:</b> Yes No NA	<b>Feedback:</b>
<b>Reviewer Z#:</b>	

<b>F60 Refrigerants:</b> Using only EPA-certified recovery/recycle units; no ozone-depleting substances in new equipment; coordinating with LANL before sending refrigerants off-site or installing new equipment with flammable refrigerants	
Role of EPA-certified technicians listed in F4 Subcontractor ES&H Representative Duties and Responsibilities ESH Oversight Plan	
LANL Refrigeration Appliance Inventory Form when installing new refrigerant-containing equipment	
LANL Refrigerant Service Record Form for each service, repair, maintenance or installation of refrigerant containing equipment	
<b>Meets:</b> Yes No NA	<b>Feedback:</b>
<b>Reviewer Z#:</b>	

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<b>F61 Demolition, Remodeling, or Renovation:</b> Understanding requirements of 29 CFR 1926 Subpart T, Demolition; following LANL's WCSF	
An explanation of the steps a subcontractor will take to comply with 29 CFR 1926.850, <i>Preparatory Operations</i> , and a process for creating written evidence that the steps will be followed prior to the start of work	
Submit NMED notifications/forms to LANL at least 15-working days before work begins	
<b>Meets:</b> Yes No NA	<b>Feedback:</b>
<b>Reviewer Z#:</b>	

<b>F62 Respirable Crystalline Silica:</b>	
For worker exposures that exceed 2016 ACGIH TLVs, a written Respirable Crystalline Silica Exposure Control Plan compliant with 29 CFR 1910.1053 or 29 CFR 1926.1153	
<input type="checkbox"/> A description of the tasks that involve exposure to respirable crystalline silica <input type="checkbox"/> A description of the engineering controls, work practices, and respiratory protection used to limit employee exposure to silica for each task <input type="checkbox"/> A description of the housekeeping measures used to limit employee exposure <input type="checkbox"/> Steps to review and evaluate the effectiveness of the written exposure control plan at least annually and update it as necessary	
<b>Meets:</b> Yes No NA	<b>Feedback:</b>
<b>Reviewer Z#:</b>	

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**Additional Comments:**