Safety and Risk Services Department
Construction Safety Manual:
Contractor’s
Contract-Specific
Safety Manual Requirements for

CONSTRUCTION, ENVIRONMENTAL, DRILLING AND D&D,
HIGH HAZARD WORK

Project/Subcontract Number and/or Requisition Number

12/4/2013
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I. **UNM Construction Safety Policy**

1. Purpose, Scope, Applicability, Ownership

1.1. Purpose

**Purpose:** This Construction Safety Manual describes the University of New Mexico (UNM) safety standards for all UNM facilities and locations involved in work that is construction and construction-like (hereafter referred to as construction work). This manual has been prepared to provide uniform construction safety standards and guidance for UNM installations in order to reduce the risks associated with construction industry activities. It was developed for activities which OSHA regulates as construction activity, whether performed by a contractor or in-house, as opposed to work under the OSHA General Industry Standard (such as much of the repair and maintenance work) that may be performed at UNM facilities.

The objective of this manual is to enhance construction safety awareness and mitigate hazards associated with construction work activities to employees, UNM, the public, and the environment. The goal of this manual is to ensure compliance with all requirements of the Occupational Safety and Health Administration (OSHA), the Environmental Protection Agency (EPA), New Mexico safety, health and environmental laws and New Mexico Environment Department's (NMED) regulations, and UNM safety-related policies and procedures for construction work. Because this manual is a summary of the regulatory requirements that may apply to a project, it may not be complete. Nothing in this manual should be construed to be a substitute for full regulatory requirements.

1.2. Scope

1.2.1. For the purposes of this document, “Employees” are UNM employees and work under accepted standard operating procedures, UNM policies and the UNM Safety and Risk Services SRS Manual. Contractors are those who work under an approved Contract Specific Safety Plan (CSSP). Subcontractors, hired by the Contractor, are subject to compliance with that Contractors approved CSSP and applicable laws, regulations, and policies.

1.2.2. This manual contains a summary and interpretation of the applicable codes, standards, regulations, and UNM Policies. Situations not addressed in this manual should be referred to UNM's Construction Safety Committee (CSC). This manual does not list all requirements that may be in the regulations and therefore may not be complete.
1.2.3 The provisions of the OSHA, EPA and NMED standards contained in this manual are to be complied with at all UNM-controlled premises. These standards have specific requirements that apply to all construction work.

1.2.4 Each Employee and Contractor is responsible for compliance with ALL applicable requirements that govern their work at UNM facilities, including any consensus standards incorporated therein by reference.

1.2.5 This Manual also contains attachments; forms that represent the minimum information required for documentation, and instructions or examples to assist employers in understanding what needs to be included in the CSSP. Employees and contractors may use these forms or comparable equivalents.

1.2.6 In addition, Contractors may be asked to prepare certain job-specific submittals (e.g., an asbestos work plan or lockout and tag out procedure, etc.) for review by UNM.

1.3 Applicability

1.3.1 Provisions contained in the manual are applicable to all Employees and contractors who are engaged in construction work, which is defined as: Any combination of erection, installation, assembly, demolition, or fabrication activities involved to create a new facility or to alter, add to, rehabilitate, dismantle or remove an existing facility. It also includes the alteration and repair (including dredging, excavating, and painting) of buildings, structures, or other real property, as well as any construction, demolition, and excavation activities conducted as part of environmental restoration or remediation efforts. It includes but is not limited to:

- Facility modifications or repair
  1.1.1 Demolition
  1.1.2 Drilling
  1.1.3 New construction
  1.1.4 Remodeling
  1.1.5 Multi-task Order Agreements

1.4 Ownership

The UNM Campus Construction Safety Committee owns this document, with SRS their technical advisor.

2. Basis for Requirements
2.1. This Manual contains excerpts from, and references to, numerous regulations, codes, and standards, including the following documents:

2.1.1. Occupational Safety and Health Administration (OSHA) 29 Code Of Federal Regulations (CFR) 1910 and CFR 1926

2.1.2. American National Standards Institute (ANSI)


2.1.4. UNM Policy

2.1.5. Documents/Policies/Standards incorporated by the above references

2.1.6. This Manual does not state the requirements of these regulations, codes, and standards in their entirety.

2.2. Mandatory and Advisory Standards

2.2.1. The standards presented in this manual are either mandatory or advisory. Mandatory standards, denoted by the words "shall," "must," or "will," are requirements that must be followed unless written authority for exemption is granted by UNM or alternate equivalent standards are approved by the authority having jurisdiction. Advisory standards, denoted by the words "should" or "may" are recommended best practices that help ensure safe construction work. If a standard does not say "should" or "may," it implies "must," "will," or "shall." Any questions about mandatory or advisory standards can be directed to the Construction Safety Committee.

3. Organization of this Manual

3.1. Chapter I of this manual is the UNM Construction Safety Policy. Chapter II is Construction Contractor Safety Requirements c. Chapter III is Forms, Contractor Aids, tools and guidance to assist contractors and managers in identifying applicable requirements for construction work.

3.2. The methods for adaption of this Construction Safety Manual to UNM employees engaged in construction work is yet To Be Determined (TBD)

4. Responsibilities of Individuals

4.1. Construction Management Responsibilities

4.1.1. It is the responsibility of all levels of management to provide a workplace where the risks from hazards that might cause injury, illness, or death are as low as
reasonably achievable, and the activities meet regulatory requirements. Managers shall expect all personnel to comply with these regulations.

4.2. Responsibilities of UNM Center Directors, Senior Managers, and Department Managers

Center directors, senior managers, and department managers are responsible for meeting all of the requirements of this manual in the operations they manage. They shall ensure the following:

4.2.1. Employees and Contractors are provided a workplace that is free from unmitigated hazards.
4.2.2. Employees and Contractors performing work are trained and qualified in areas, including instruction on appropriate emergency procedures, such as cardiopulmonary resuscitation (CPR) and first aid, as warranted by their duties.
4.2.3. Required training records are kept and maintained.
4.2.4. Operating procedures or Job Hazard Analyses (JHAs) are established and implemented for construction work.
4.2.5. Employees and Contractors use the personal protective equipment appropriate for their assigned task.
4.2.6. Employees and Contractors using PPE are trained in their proper use, and medically qualified to use PPE.
4.2.7. All equipment is inspected, operated and maintained in accordance with the manufacturer's instructions.
4.2.8. Required equipment maintenance and inspection records are kept and maintained

4.3. Responsibilities of Employees and Contractors

4.3.1. Employees and Contractors shall comply with the parts of this manual that apply to their own actions and conduct. This includes the immediate reporting to management of unsafe conditions. A copy of this manual, and the Contract Specific Safety Manual developed by contractors, must be made available to their employees and subcontractors.

4.4. Person in Charge Responsibilities

4.4.1. The project manager or delegate (may be a department manager, team leader, project leader, facility owner, Journeyman technician, or a person appointed by them to be in charge of a work project) is designated as the Person In Charge (PIC). The PIC may be either a UNM Employee for UNM performed construction work, or a Contractor employee for contracted construction work.

4.4.2. Specific responsibilities of the PIC include the following:

4.4.2.1. Ensure that safety, health and environmental rules are followed.
4.4.2.2. Brief all Members of the Workforce on the safety concerns and precautions regarding their work assignment, and discuss specific hazards where unexpected hazards may exist.
4.4.2.3. Select and ensure the proper placement of safety signs, symbols or accident prevention tags.
4.4.2.4. Insuring they and their workers complete safety awareness training courses appropriate for the work being supervised.
4.4.2.5. Take necessary corrective actions to address the concerns of Employees and Contractors who report perceived hazards.
4.4.2.6. Notify workers of changes in work conditions, and limit the work area only to authorized individuals who are familiar with the work.
4.4.2.7. Review and approve the selection of personal protective equipment.
4.4.2.8. Approve the work whenever protective systems must be bypassed or otherwise rendered inoperative.
4.4.2.9. Ensure compliance with all required equipment maintenance practices and procedures.

5. Construction Safety Program Principles

The UNM Construction Safety Program and the guidance in the remainder of this manual are based on the following principles:

5.1. UNM clearly defines the scope of the project in a set of Project specifications and expectations prior to proceeding with any construction.

5.2. UNM SRS characterizes the potential health hazards from the historical/current use of the facility and provides this information to the UNM PM for inclusion into the bid document along with the project specific safety plans the contractor will be required to submit.

5.3. Qualified contractor creates bid by translating mission into work, set expectations, identify and prioritize and sequences tasks, allocates resources for work (including compliance with OSHA, EPA, NMED, DOT, NRC, UNM and other relevant regulations and requirements).

5.4. Contractor analyzes hazards, identifies controls to put into place, by activity, to complete the job (in JHAs)

5.5. Contractor Submits Contract Specific Safety Plan (CSSP) and receive UNM-SRS approval before notice to proceed is provided. Submit Job Hazard Analyses (JHAs) to UNM-SRS for work to be performed, which conforms to approved CSSP.

5.6. Contractor communicates the relevant parts of the CSSP and Job Hazard Analyses (JHA) to the work force prior to work being performed.

5.7. UNM-SRS Gather feedback information on the adequacy of controls, identify and implement opportunities for improving the definition and planning of work, and conduct line and independent oversight.

6. How To Use this Document

6.1. The manager requests and/or develops a scope of work (SOW).

6.2. For Contractor performing construction work:
6.2.1. UNM Project Manager, provides SRS with the SOW

6.2.2. SRS-Construction Subject Mater Expert (SME) Develops list of applicable requirements based on the Construction Safety Manual’s Risk Evaluation Aid (Table 7.1.2 of this document) and the SOW

6.2.3. SRS provides UNM-PM with the safety requirements, and characterization of the hazards that may be encountered.

6.2.4. The Construction Safety Manual, and risk evaluation checklist filled out for the contract, are added to the bid package as contract requirements.

6.2.5. Bid package is provided to Qualified Potential Contractors

6.2.6. SRS-Construction SME representative attends pre-bid meeting with prospective bidders to summarizes Construction Safety Requirements and answer questions from bidders.

6.2.7. Bids received by UNM

6.2.8. Contract is awarded

6.2.8.1. Contractors who will perform construction work develop a CSSP and JHAs based upon contract requirements

6.2.8.2. CSSP is reviewed by SRS/SME

6.2.8.2.1. IF rejected, rejection comments are transmitted back to the UNM-PM to be passed to the Contractor.

6.2.8.2.2. IF accepted, continue with this process

6.2.8.3. CSSP approval notice is sent by SRS to UNM-PM, that the Notice-To-Proceed (NTP) can be issued from a SH&E perspective.

6.2.8.4. PM notifies Contractor and issues NTP to Contractor

6.2.8.5. Work begins and oversight starts

6.3. Construction work performed by UNM employees

6.3.1. Scope of Work is developed

6.3.2. SRS/SME Develops list of applicable requirements based on the Construction Safety Manual’s Risk Evaluation Aid (Table 7.1.2) and the SOW.

6.3.3. Applicable requirements flowed to Line by Manager
6.3.4. SOP, work plan, JHA developed to address the requirements

6.3.5. Work begins and oversight by SRS starts

Figure 6.1. SRS Construction Safety Manual Implementation Flow Chart

Implementation of the SRS Construction Safety Manual Flow Chart

A Process for flow-down of Safety, Health and Environmental liability from UNM to Construction Contractors while working for UNM through the implementation of a Contract Safety Manual (CSM). 10/2/2013
7. Construction Safety Risk Management Evaluation Aid

7.1. Requirements

Table 7.1.1, below, lists mandatory contractor requirements for Construction Projects at the University of New Mexico. Table 7.1.2, Risk Evaluation Checklist for Contractor Construction Projects, is a list of possible risks, depending upon the scope of work, which may or may not apply to a specific contract, and will require SRS Construction Safety Subject Matter Expert (SME) to identify which apply (Check yes), or do not apply (check no), or select the option which may apply when applicable. Those items that apply on the checklist become a part of the contract.

Table 7.1.1: Mandatory Contractor Requirements for Construction Projects

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<td>11</td>
<td>Personal Protective Equipment (OSH 1926, Subpart E)</td>
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<td>15</td>
<td>Hand and Power Tools (1926, Subpart I)</td>
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<td>18</td>
<td>Fire Protection &amp; Prevention (Contractor must submit as part of the Contract-Specific plan, a Fire Protection/Prevention Plan) (OSHA 1926, Subpart F)</td>
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52 Spill Prevention, Reporting and Response (EPA Clean Water Act and regulations)

Risk Evaluation Check List for Contractor Construction Projects (7.1.2 – 7.1.52)

The SRS representative, in conjunction with the UNM Project Manager (PM) will answer questions and provide information to the best of their knowledge based on the nature and scope of work. Where the answer is “Yes” (or checked), the referred to information is made part of the contract. Where it is “No”, it is not part of the contract.

7.1.2 Contractor’s Contract-Specific Safety Plan – What is Required.

Yes No A Site Specific Environmental, Safety and Health Plan is required for Hazardous Waste Operations under 29 CFR 1910.120/1926.65,

OR

Yes No For Construction work the CONTRACTOR must prepare a written Contract-Specific Safety Plan in accordance with OSHA, EPA, NMED, UNM, requirements, including this document

7.1.4 Contractor SH&E Representative Duties and Responsibilities

(Option A, B, C, or D is required)

Option A Section (Contractor has Full time SH&E Professional on site)

Option B (Contractor has full time SH&E Specialist on site)

Option C Contractor has SH&E Representative (Alternative option for subcontracts with lower risk factors and smaller dollar value)

Option D Contractor has Environmental Professional on site (Option for contracts with a relatively high environmental compliance risk)

NOTE: Submittal of the qualifications of the SH&E Professional, the SH&E Specialist or Representative, the Environmental Representative must be approved by the Contractor prior to the issuance of the Notice to Proceed.
7.1.12 Respiratory Protection

___Yes ___No

(If yes, Contractor shall submit as part of the Contract-Specific Safety Plan a Respiratory Protection Program as required by OSHA 1910.134)

7.1.13 Hearing Conservation/Protection Program

___Yes ___No

(If yes, CONTRACTOR submits hearing conservation program as required by OSHA)

7.1.14 Motor Vehicles _____Yes ___No

Powered Industrial Equipment _____Yes ___No

(If yes, CONTRACTOR shall submit as part of the Contract-Specific Safety Plan a compliance program to meet 1910.178 and/or 1926.600.)

7.1.16 Inclement Weather

___Yes ___No

(If yes, CONTRACTOR submits plan for protection employees in inclement weather as outlined in section 16 of contractor requirements)

7.1.17 Hazard Communications / Chemical and Hazardous Materials Management

___Yes ___No

(If yes, CONTRACTOR must have a Hazard Communication Plan in compliance with OSHA 1910.1200)

7.1.19 Welding, Cutting, Brazing, and Grinding

___ Yes ___ No (If yes, Contractor shall submit a Weld-Open Flame Permit)

7.1.20 Scaffolding

___Yes ___No

(If yes, Contractor must submit a Scaffolding Procedure that meets the requirements of 1926.450 and CSSP.)
7.1.21 Portable Ladders

Will the work involve the use of portable ladders?

____ Yes _____ No

7.1.22 Fall Prevention/Protection Program

Yes _____ No

(If yes, CONTRACTOR shall submit a Fall Prevention/Protection Program which is OSHA compliant.)

7.1.23 Barricades

____ Yes _____ No

7.1.24 Floor and Wall Openings

____ Yes _____ No

7.1.25 Excavation and Trenching

____ Yes _____ No

(If yes, Contractor must obtain and Excavation Permit from UNM.)

7.1.26 Confined Spaces-permit required, work in UNM Utility Tunnel?

____ Yes _____ No

(If yes, Contractor shall submit a confined space permit program compliant with OSHA, tunnel procedures outlined in Section 26 of Section II)

7.1.27 Lockout/Tagout

Will the work require the use of Lock-out/Tag-out? _____ Yes _____ No

(If yes, the Contractor must submit a Lockout/Tagout Program to UNM that is OSHA compliant, and as applicable, NFPA compliant.)

7.1.28 Cranes and Material Handling Equipment

_____ Yes _____ No

(If yes, submit OSHA required documentation prior to work being performed.)
7.1.29 Suspended Personnel Platforms

____ Yes ____ No

(If yes, CONTRACTOR must include it in their Lift Plan.)

7.1.30 Aerial Lifts

____ Yes ____ No

7.1.31 Pressure Safety Including Compressed Gases

____ Yes ____ No

7.1.32 Electrical Safety

Will there be electrical work or electrical testing performed? ____ Yes ____ No

(If yes and CONTRACTOR's will identify the electrical hazards, methods to mitigate those hazards, and training [as required by OSHA and NFPA])

7.1.33 Traffic and Pedestrian Controls. CONTRACTOR must comply with OSHA 1926 Subpart G, and the contract, for protecting pedestrians and vehicles, and prevent vehicle as well as pedestrian-vehicle accidents. This plan should be part of the Contractor's CSSP.

7.1.34 Biological Safety and Worker Protection (OSHA 1910.1030)

____ Yes ____ No

7.1.35 Industrial Hygiene Program of (Included as part of the CSSP)

____ Yes ____ No

(If involved with welding, cured concrete work, coating operations, excavation and dirt-work, introduce or disturb other hazardous materials, the Contractor shall comply with OSHA 29 CFR 1926 Subpart Z, and air quality standards).

7.1.36 Demolition Work

____ Yes ____ No

(If yes, identify the project competent person, for demolition (OSHA 1926, Subpart T) requirements, in your CSSP.)
7.1.37 Radioactive Sealed Source and/or Radiation Generating Device

_____ Yes ____ No

7.1.38 Radiological Requirements

_____ Yes ____ No

(If yes, Contractor shall comply with the requirements of NMED, 40 CFR 61, and UNM’s Radiation Protection Program.)

7.1.39 Asbestos Abatement

_____ Yes ____ No

(If yes, CONTRACTOR shall submit as part of the Contract-Specific Safety Plan an Asbestos Abatement Plan (AAP) to the CONTRACTOR for approval.)

7.1.40 Heavy Metals

_____ Yes ____ No

7.1.41 Pollution Prevention/Waste Minimization

_____ Yes ____ No

7.1.42 Storm Water Management

_____ Yes ____ No

(If yes, Contractor shall, prior to beginning work, coordinate with UNM to work under their Storm Water Pollution Prevention Plan (SWPPP.) or obtain the appropriate SWPPP. 7.1.43 Waste Management/Disposal

7.1.43 Waste Management/Disposal (Option A or B then select C or D)

________ Option A. UNM characterizes waste for contract due to large and/or complex Waste Management/Disposal Activities and high compliance risk.

________ Option B. CONTRACTOR provides Waste Characterization Strategy. Lower risk factors.

_____ Yes ____ No  Contractor shall provide a Field Waste Management Technician

_____ Yes ____ No  Contractor shall provide waste sampling personnel

_____ Yes ____ No  Contractor shall provide waste packaging and transportation
Option C. UNM provides Acceptable Knowledge (AK) Review and documentation as required by EPA and NMED.

Option D. CONTRACTOR provides Acceptable Knowledge (AK) Review and documentation. As required by EPA and NMED.

7.1.44 Wastewater Discharges

___Yes ___No

7.1.45 Air Quality

___Yes ___No

7.1.46 Work Within the Boundary of a Solid Waste Management Unit regulated by CERCLA, RCRA or State Entity (OSHA 1926.65).

___Yes ___No

7.1.47 Reserved

7.1.48 Firearms Safety

___Yes ___No

7.1.49 Laser Safety

___Yes ___No

7.1.50 Refrigerants

___Yes ___No

If yes, plans to recycle as per EPA requirements must be stated in UNM policies and procedures.

7.1.51 Environmental Reporting

___Yes ___No

7.1.52 Spill Prevention, Reporting and Response

___Yes ___No
II. Construction Contractor Safety Requirements

1. General Requirements

1.1. Key Terms. For the purpose of this Construction Safety Manual:

1.1.1. Safety, health and environmental (SH&E) protection encompasses safety, industrial hygiene, and environmental protection, compliance, pollution prevention, and waste management/minimization.

1.1.2. The term “Contractor” includes the contractor, its employees, and any sub-tier contractors and their employees.

1.1.3. The term “UNM” applies to University of New Mexico personnel, and contractors employed to represent UNM during any interaction with the construction contractor, including, but not limited to, planning, evaluation of plans, auditing, or other contract-related activity.

1.2. Implementation of the CSSP. The construction Contractor shall have sole responsibility for implementing the written Contract Specific Safety Plan (CSSP) as approved by UNM’s Safety and Risk Services (SRS). UNM shall NOT be responsible for supervising the implementation of the Contractor’s CSSP, and UNM shall NOT have responsibility for the safety and environmental compliance of the Contractor, its employees, or its lower-tier suppliers’ or Contractors’ employees.

1.3. CSSP is a Contractually Required Document. The Contractor shall not commence work on the site until the Contractor’s written CSSP is approved by the UNM SRS and a Notice to Proceed has been received by the Contractor.

1.4. Contractor Responsible for SH&E Compliance under Contract. When performing work at sites controlled/managed by UNM, the Contractor shall comply with all applicable Federal, State, and local laws and regulations protecting workers, air, water, and soil, and those governing land use, waste management/disposal, and chemical and pesticide usage.
1.5. *Applicable Regulations and Standards.* The requirements for the Contractor Worker Safety and Health Program, in accordance with United States regulatory requirements and UNM requirements, are contained in this Manual. Nothing in this Manual must be construed as relieving the Contractor from complying with any additional specific safety and health requirements that the Contractor determines to be necessary to protect the safety and health of workers. Even if not specifically set forth in this Manual, the Contractor is required to comply with the following regulations and safety and health standards that are applicable to the hazards associated with its work:

1.5.1. 29 CFR Part 1904.4 through 1904.11, 1904.29 through 1904.33, 1904.44, and 1904.46 - *Recording and Reporting Occupational Injuries and Illnesses*


1.5.3. 29 CFR Part 1926, *Safety and Health Regulations for Construction*

1.5.4. ANSI Z88.2, *Respiratory Protection*

1.5.5. ANSI Z136.1, *Safe Use of Lasers*

1.5.6. ANSI Z49.1, *Safety in Welding, Cutting and Allied Processes*, Sections 4.3 and E4.3

1.5.7. NFPA 70, *National Electric Code*

1.5.8. NFPA 70E, *Standard for Electrical Safety in the Workplace*

1.5.9. American Society of Mechanical Engineers (ASME) Boilers and Pressure Vessel Code, sections I through XII including applicable Code Cases,

1.5.10. ASME B31 Codes (ASME Code for Pressure Piping)

1.5.11. 40 CFR Air, water, waste regulations.


1.6. *OSHA “General Duty Clause.”* In accordance with the Occupational Safety and Health Act (OSHA) of 1970, the Contractor must provide a place of employment that is free
from recognized hazards that are causing or have the potential to cause death or serious physical harm.

1.7. *Responsibility for Compliance.* The Contractor shall have sole responsibility for taking such action as is deemed necessary to assure compliance with the Clean Water Act (CWA), Clean Air Act (CAA), Resource, Conservation and Recovery Act (RCRA), and Toxic Substances Control Act (TSCA), as well as with the 20.4.1 NMAC or 20.9.2-10 NMAC regulations.

1.8. *Costs for Non-Compliance.* In the event of any Contractor non-compliance, including environmental or waste management violations, all such measures taken by UNM to correct the violations shall be at the Contractor’s expense, and the cost thereof, including any stipulated penalties resulting from non-compliance, shall be deducted from payments otherwise due to Contractor.

1.9. *Worker Rights and Responsibilities.* In accordance with the OSHA Act of 1970, the Contractor shall inform workers of their rights and responsibilities by appropriate means, including posting the OSHA Worker Rights poster in the workplace where it is visible to all workers. In accordance with OSHA requirements, the Contractor will make available to all workers the Worker Contract Specific Safety Program for the covered workplace; the standards, controls, and procedures applicable to the covered workplace; and limited information on any recordkeeping log (OSHA Form 300). The Contractor shall designate a location for the contact information for workers to obtain this information.

1.10. *Integrated SH&E.* In accordance with UNM’s Risk Management Policy (Policy 6100), the Contractor is committed to implementing the safety systems in the approved CSSP in an integrated fashion. The objective is to systematically integrate safety and environmental compliance into management and work practices at all levels, so that workers, the public, and the environment are protected while assigned projects are accomplished.

In accordance with the Occupational Safety and Health Act and OSHA, EPA, New Mexico, and other referenced regulations, the Contractor shall perform work in a safe and compliant manner that ensures adequate protection for employees, the public, and the environment, and shall be accountable for safety and environmental compliance. The Contractor shall exercise a degree of care commensurate with the work and the associated hazards/risks. The Contractor shall ensure that management of EH&S functions and activities becomes an integral, but visible, part of the Contractor’s work planning and execution processes.
1.11. *Construction Organizational Principles.* The following principles must be adhered to:

1.11.1. Line management is responsible for the protection of employees, the public, and the environment. Line management includes those Contractor employees managing or supervising employees performing work.

1.11.2. Clear and unambiguous lines of authority and responsibility for EH&S matters are established and maintained at all organizational levels.

1.11.3. Personnel possess the experience, knowledge, skills, and abilities that are necessary to discharge their responsibilities.

1.11.4. Resources are effectively allocated to address SH&E, programmatic, and operational considerations. Protecting employees, the public, and the environment is a priority whenever activities are planned and performed.

1.11.5. Before work is performed, the associated hazards/risks are evaluated and an agreed-upon set of SH&E controls and requirements is established, which, if properly implemented, provide adequate assurance that employees, the public, and the environment are protected from adverse consequences. A workplace Job Hazard Assessment form (UNM CSM Attachment 1) or its equivalent will be used to document the hazards and protective methods that will be employed.

If the remodeling/demolition/construction involves existing structures which have been laboratory, R&S facilities, or other facilities where hazardous materials may have been used or stored during the life of the structure, and in particular if the contract involves demolition or tie-ins to existing: ceilings, partitions and equipment, fire protection system, plumbing (including risers, vents, etc.), mechanical system (HVAC, exhaust ventilation systems, plenums, etc.), equipment piping, lighting, electrical/power, fire alarm, telecommunications, installation of laboratory furnishings (ovens, hoods, casework, storage cabinets, sinks, and related furnishings), UNM will compile and provide all data it has on the potential and actual chemical hazards which may be encountered.

The contractor is responsible for acknowledging it is a laboratory, R&D or related facility, and therefore during the course of demolition, construction or tie in may encounter hazardous residues resulting from these historical laboratory operations. As such, the contractor will be responsible for assessing the hazards sufficiently to protect their workers (and those of their subcontractors), for each activity that will
be performed. Protections will be put in place by the contractor for compliance with OSHA regulations, EPA regulations, NM regulations, and UNM policy.

1.12. **Hierarchy of Controls.** As outlined in OSHA, administrative and engineering controls to prevent and mitigate hazards shall be tailored to the work being performed and the associated hazards.

1.12.1.1. Controls are established according to the following hierarchy:

- 1.12.1.1.1. Hazard elimination by process modification;
- 1.12.1.1.2. Substitution of a less hazardous substance, if available;
- 1.12.1.1.3. Application of engineering controls, such as enclosures, machine guards, interlocks, or similar devices;
- 1.12.1.1.4. Application of administrative controls, such as training, lockout/tagout, and procedures; and
- 1.12.1.1.5. Use of Personal Protective Equipment (PPE).

1.13. **Agreement of Terms.** The conditions and requirements to be satisfied for operations to be initiated and conducted are established and agreed upon by UNM and the Contractor. These agreed upon conditions and requirements are requirements of the contract and are binding upon the Contractor. The extent of documentation and level of authority for agreement shall be tailored to the complexity, hazards, and environmental requirements associated with the work.

1.14. **Compliance Inspections.** UNM reserves the right to perform both announced and unannounced inspections and assessments of the Contractor’s operations, equipment, and materials to verify compliance with the requirements of this subcontract. The Contractor shall cooperate with, and accommodate, oversight assessments, audits, and inspections performed by UNM. UNM may invoke Stop Work at any time for violations of applicable laws and regulations.

1.15. **Stop Work Authority.** The Contractor shall ensure that their workers have the authority and responsibility to, and are encouraged to, stop work when they discover unsafe conditions or other hazards. The Contractor shall ensure that work does not resume until the EH&S concerns associated with that activity are resolved. Restart of work activities may not occur, except as follows:
1.15.1. The worker shall correct the hazardous condition and restart the activity or operation without notifications if (1) the condition does not pose an imminent danger, (2) the condition can be corrected immediately, and (3) the worker has the resources to correct the condition and restart work.

1.15.2. In all other cases, the worker must notify the Contractor EH&S Representative prior to restart.

1.15.3. If the Contractor EH&S Representative is notified of a stop work initiated by a worker, the EH&S Representative shall notify UNM’s Contract Management and Safety and Risk Services offices.

1.16. Worker Involvement. The Contractor should provide mechanisms to involve workers and their elected representatives in the development of the worker safety and health program goals, objectives, and measures, and in the identification and control of hazards in the workplace. The following are some ways to involve workers: (1) EH&S committees, (2) safety observers, (3) ad hoc health and safety problem-solving groups, (4) EH&S training of other employees, (5) analysis of job hazards, and (6) committees that plan and conduct EH&S awareness programs.

1.17. Improvement-Reporting Reinforced. In accordance with The Occupational Safety and Health Act of 1970 (OSHA), the Contractor shall establish procedures for workers to report, without reprisal, job-related fatalities, injuries, illnesses, incidents, and hazards, and to make recommendations about appropriate ways to control hazards. The Contractor must provide prompt response to such reports and recommendations, in accordance with OSHA 29 CFR 1904.

1.18. Worker Imminent Risk Response. In accordance with OSHA, the Contractor’s workers shall have the right, without reprisal, to decline to perform an assigned task because of a reasonable belief that, under the circumstances, the task poses an imminent risk of death or serious physical harm to the worker, coupled with a reasonable belief that there is insufficient time to seek effective redress through normal hazard reporting and abatement procedures.

1.19. Contractor SH&E Accountability. In the UNM Risk Services Policy (6110), the ultimate responsibility for safety must be with the line organization, which includes contracted construction work. As such, the Contractor shall assign worker safety and health responsibilities, evaluate personnel performance, and hold both management and workers accountable for worker safety and health performance.
1.20. **UNM Notification for Suspension or Termination.** If the Contractor, or any lower-tier contractor, independently, either suspends or terminates an employee for unsafe acts resulting from performance of work under this subcontract, the Contractor shall immediately provide written notification to the UNM Contract Management Office, and Safety and Risk Services' Office with information about that action.

2. **Contractor’s Contract-Specific Safety Plan (CSSP)**

2.1. To perform subcontract work at UNM, the Contractor is required to comply with the requirements set forth in this Manual. This Manual contains additional safety, health, and environment requirements that UNM considers necessary for performance of work at their facilities. Further, the Contractor shall supplement the requirements of this Manual with such additional safety, health, and environment elements, if any, as the Contractor considers necessary to protect the safety and health of the workers and the environment, and so certify to UNM that this Manual, together with any additional elements constitute the Contractor’s Contract-Specific Safety Plan (CSSP). The Contractor shall consolidate the SH&E plan elements and submit the complete Contractor’s Contract-Specific Safety Plan to UNM for review and approval. Contractor’s Contract-Specific Safety Plan must be approved by SRS prior to issuance of a Notice to Proceed.

2.2. The Contractor is responsible for compliance with the SH&E requirements applicable to this contract regardless of the performer of the work. The Contractor’s Contract-Specific Safety Plan shall specify how safety requirements will flow down to employees and sub-tier Contractors.

2.3. The Contractor will ensure that workers have access to the Contractor’s Contract-Specific Safety Plan, and that workers comply with the requirements in the plan, respectively.

2.4. Contractor’s Contract-Specific Safety Plan shall include copies of any documents specified in the sections of this manual that follow.

2.5. Changes to Contractor’s Contract-Specific Safety Plan require re-submittal to, and approval by, UNM SRS, or for minor changes, pen-and-in changes signed off, and dated, by the Contractor PIC and SRS.

3. **Contractor and Lower-Tier sub-contractor Minimum Performance Eligibility Factors**

This Section is NOT APPLICABLE to this contract or contained elsewhere in the contract. Consult UNM Project Management for clarification.
4. Contractor SH&E Representative Requirements

4.1. The Contractor shall designate an on-site SH&E Representative for all tasks conducted under this subcontract. This person shall assist Contractor supervision with the implementation of the Contractor’s approved CSSP and the Contractor’s site requirements. Qualifications for Options A-D are as follows:

4.1.1. Option A, a full time SH&E Professional

4.1.1.1. Contractor shall provide a full time dedicated SH&E Professional on-site and shall work closely with UNM management personnel to implement and administer Contractor’s approved Contract Specific Safety Plan. This shall be the SH&E Professional’s sole responsibility. The dedicated SH&E Professional shall meet the following minimum acceptance criteria or pre-approved equivalent:

4.1.1.1.1. Certification by the American Board of Industrial Hygienists or Board of Certified Safety Professionals or equivalent nationally recognized organization, or eligible for certification;

4.1.1.1.2. A bachelor’s degree (or equivalent) in safety engineering or industrial hygiene or an equivalent technical field;

4.1.1.1.3. Three to Five years of full time work experience in the field of environment, safety and health;

4.1.1.1.4. A minimum of 40 hours of formal environmental training in erosion control, waste management, or other environmental discipline, or pre-approved equivalent having other environmental related training and/or job experience.

4.1.1.1.5. Current training in CPR and First Aid.

4.1.1.2. Contractor shall submit the SH&E Professional’s qualifications to UNM and must receive approval prior to issuance of Notice to Proceed.

4.1.1.3. Contractor’s SH&E Professional’s duties shall include, but are not limited to:

4.1.1.3.1. Manage implementation of Contractor’s approved Contract Specific Safety Plan, including review of integrated work documents.

4.1.1.3.2. Cease work and take immediate actions, as necessary, to remove personnel from hazardous areas if the safety or health of UNM personnel, other site personnel, or third parties is jeopardized by Contractor’s work activities, and notify UNM’s PM.
4.1.1.3.3. Cease work and take immediate actions, as necessary, to address environmental compliance issues, and notify the UNM-PM.

4.1.1.3.4. Interface with UNM Safe and Risk Management personnel and the UNM-PM to resolve SH&E issues.

4.1.1.3.5. Provide hazard-specific training for new employees and orientations for visitors.

4.1.1.3.6. Ensure SH&E requirements and goals have been identified to workers.

4.1.1.3.7. Ensure compliance with UNM emergency response plans (including evacuation alarms, accountability rosters, and assembly points).

4.1.1.3.8. Continuously evaluate the site for any hazards not previously identified or adequately controlled, initiate measures required to protect personnel, the public and the environment, and revise documents accordingly.

4.1.1.3.9. Conduct safety and pre-job briefings as required.

4.1.1.3.10. Attend progress meetings held by UNM.

4.1.1.3.11. Represent Contractor in incident investigations and/or critiques schedule by UNM.

4.1.1.3.12. Maintain first aid and OSHA 300 logs, report accidents and injuries to the STR immediately, conduct accident/incident investigations as required, and report results to UNM-PM within 2 working days.

4.1.1.3.13. Ensure that proper hazard postings are in place, are legible, and are removed when the project is complete.

4.1.1.3.14. Conduct all operations so as to mitigate adverse environmental impacts (e.g., spill containment, erosion control).

4.1.1.3.15. Establish and maintain the Hazard Communication program (including Material Safety Data Sheets, inventory, and training).

4.1.1.3.16. Conduct and document SH&E inspections in accordance with the requirements of this Manual.

4.1.1.4. The SH&E Professional shall be at the worksite whenever Contractor personnel are working. On occasions when the SH&E Professional must be away from the worksite, the UNM-PM must be notified and a UNM approved alternate shall be identified.
to act on the SH&E Professional's behalf.

4.1.2. Option B: Contractor shall provide a full time dedicated SH&E Specialist on-site and shall work closely with UNM management personnel to implement and administer Contractor's approved Contract Specific Safety Plan. The dedicated SH&E Specialist shall meet the following minimum acceptance criteria or pre-approved equivalent:

4.1.2.1. CIH or CAIH certification by the American Board of Industrial Hygiene, or ASP or OHST or CHST certification by the Board of Certified Safety Professionals or equivalent nationally recognized organization, or eligible for certification;

4.1.2.2. An Associate degree (or equivalent) in safety engineering or industrial hygiene or an equivalent technical field;

4.1.2.3. At least three (3) years of full time work experience in the field of environment, safety and health.

4.1.2.4. A minimum of 40 hours of formal environmental training in erosion control, waste management, or other environmental discipline, or pre-approved equivalent having other environment related training and/or job experience.

4.1.2.5. Current training in CPR and First Aid

Note: Sections 4.1.1.2 through 4.1.1.4 under Option A, SH&E Professional apply to the SH&E Specialist, Option B.

4.1.3. Option C: Contractor has SH&E Representative (Alternative option for contractors with lower risk factors and smaller dollar value).

4.1.3.1. The SH&E Representative should have formal SH&E training, such as the following:

4.1.3.1.1. A minimum of thirty (30) hours of formal SH&E training in OSHA standards, or a pre-approved equivalent, i.e., having other SH&E-related training certificates and/or job experience appropriate to the work being performed.

4.1.3.1.2. Formal environmental training and/or job experience in erosion control, waste management, or other environmental disciplines

4.1.3.1.3. Current training in CPR and First Aid.

4.1.3.2. The Contractor shall submit to, and receive approval from, UNM on the SH&E Representative's qualifications prior to issuance of a Notice to Proceed.
4.1.3.3. Contractor’s SH&E Representative’s duties shall include, but are not limited to:

4.1.3.4. Promote and assist in the implementation of the Contractor’s CSSP, including review of JHAs, Pre-Task Plans (PTPs), and permits.

4.1.3.5. Cease work and take immediate actions, as necessary, to remove personnel from hazardous areas if the safety or health of Contractor’s personnel, other site personnel, or third parties is jeopardized by Contractor’s work activities, and to notify the UNM-PM and SRS Office.

4.1.3.6. Continuously evaluate the site for any hazards and environmental compliance issues not previously identified or adequately controlled; initiate measures required to protect personnel, the public, and the environment; and revise documents accordingly.

4.1.3.7. Participate in SH&E and pre-job briefings, as required.

4.1.3.8. Conduct and document SH&E inspections in accordance with the requirements of Section 8 of this manual.

4.1.3.9. Contractor’s assigned SH&E Representative may also have other duties, as long as they will not interfere with or prevent the employee from performing the above-stated responsibilities.

5. Incident Reporting

5.1. The Contractor shall maintain accurate accident and injury/illness logs in accordance with 29 CFR 1904. Logs shall be available for review by UNM upon request. The Contractor must enter each recordable injury or illness on the Contractor’s OSHA 300 Log and the 301 Incident Report within seven (7) calendar days of receiving information that a recordable injury or illness has occurred.

5.2. In accordance with this Manual, the Contractor is required to report immediately to UNM SRS all job-related injuries beyond first aid [as defined by 29CFR1904.7(b)(5)(i)]. See Attachment 5 for an acceptable reporting form. The Contractor shall also provide an investigation report using OSHA’s 301 form (or equivalent) within 2 working days, which includes the location where the injury/illness occurred, date, time, name, home address for employees with recordable injuries/lost or restricted work days, body part injured, nature of injury, medical treatment, root cause of accident and corrective actions, restrictions, estimated
number of days hospitalized, estimated work days lost, and estimated number of restricted work days. Prior to the injured or ill employee returning to work, copies of the attending physician’s report releasing the employee to full or limited duty shall also be submitted to the UNM PM.

5.3. The Contractor shall maintain the reports and documentation required by Federal, State, and Local regulations. This includes all hazard inventory information, hazard assessments, exposure measurements, and exposure controls. These reports and documentation shall be submitted to UNM upon request. The Contractor shall not conceal or destroy any information concerning non-compliance or potential noncompliance with the requirements.

6. Employee Training

6.1. In accordance with applicable requirements, which include federal, state, and local codes, standards, regulations and UNM policies, the Contractor shall ensure that workers are properly trained and qualified to safely perform all assigned tasks. This includes training of workers in the hazards to which they may be exposed so they can perform their duties in a safe and healthful manner. This must include initial, periodic, and additional training to provide information on each hazard before, or at the time of, initial assignment to a job involving exposure to each hazard. The Contractor must provide the training and information to workers who have worker safety and health program responsibilities that is necessary for them to carry out those responsibilities.

6.2. The Contractor shall conduct or acquire training and maintain records of other specific training required to perform work safely. Training records shall be retained onsite or be available in electronic form for the duration of the contract and made available to UNM, upon request.

6.3. Contractor workers shall complete any facility-specific training required and provided by UNM.

6.4. The training identified shall be completed prior to start of work related to the respective training subject.
7. Daily Job Briefings/PTP

7.1. In accordance with this Manual, the Contractor shall provide for regular communication with workers about workplace safety and health matters.

7.2. Prior to commencement of work, all Contractor personnel, either initially or as they are introduced to the site, shall attend a pre-job briefing performed by the Contractor. All initial pre-job briefings must be formally documented. This documentation must be available for review by UNM upon request. The initial pre-job briefing, at a minimum, shall cover:
* the scope of the subcontract,
* the associated hazards and environmental requirements,
* the steps that will be taken to mitigate those hazards and assure environmental compliance, and
* the roles and responsibilities of UNM, the Contractor, and its employees.

7.3. The Contractor and its associated sub-tier Contractors shall provide a daily briefing for its workers that specifically addresses the hazards and mitigating controls for work to be performed that day. This daily briefing or pre-task planning briefing shall be documented. The Contractor will conduct employee SH&E meetings as necessary.

7.4. A record of attendance and topics covered at all briefings and employee SH&E meetings shall be documented and maintained on the job site for the duration of the subcontract.

8. SH&E Inspections

8.1. The Contractor shall conduct and record initial, and other periodic inspections of the work areas to monitor compliance with SH&E regulatory requirements. UNM will also perform periodic inspections including compliance monitoring/sampling of the work areas and provide a written report to the UNM Project Management who will communicate issues to the Contractor.

8.2. The Contractor shall promptly initiate action to correct all identified hazards, deficiencies, or compliance issues that Contractor is responsible for.

8.3. The Contractor shall report all identified hazards, deficiencies, or compliance issues not under the control of the Contractor to UNM Project Management.
8.4. The Contractor shall take all necessary steps to ensure the protection of employees, the public, and the environment until the hazards, deficiencies, or compliance issues are corrected.

8.5. The Contractor shall ensure that workers have the right, without reprisal, to request and receive results of investigations, inspections, and accident investigations.

8.6. Regulatory agencies, such as the New Mexico Environment Department (NMED) and the U.S. Environmental Protection Agency (EPA), will make unannounced visits to work areas and perform periodic environmental compliance inspections. The Contractor shall notify UNM Project Management immediately if regulatory agency personnel schedule a visit or an inspection of the site, or arrive at the site unannounced.

9. Housekeeping

9.1. Good housekeeping practices are an integral component to maintaining a safe work environment. The Contractor shall keep all work areas neat and orderly at all times by providing the necessary resources, and by implementing the housekeeping practices detailed in this section.

9.2. Keep tools and materials properly stored when not in use, and remove all materials that are no longer needed.

9.3. Ensure trash, scrap materials, and waste are placed in appropriate disposal or recycling containers. Locate containers strategically throughout the work area to promote use.

9.4. Keep floors clear of trip and slip hazards, including hoses, welding leads, electric cords, liquids, and other obstacles. Keep cords, hoses, and leads clear of walkways, roadways, and other locations where possible exposure to damage exists.

9.5. Properly store and dispose of paint, solvents, oil soaked rags, and debris, etc., in approved containers in accordance with the appropriate waste management regulatory requirements.

9.6. Ensure that protruding nails, screws, staples, and other sharp objects are protected or removed, and do not present a hazard.
9.7. Provide and keep eating and sanitary facilities maintained in a clean and sanitary condition at all times, including adequate washing facilities with soap and disposable towels.

9.8. Provide clean, potable drinking water for employees in a safe, hygienic manner at all worksites. Single-use cups shall be provided in a sanitary dispenser. Cups shall be replenished, as needed, during the day and trashcans provided for their disposal. "Community" or common use cups shall not be used.

9.9. Unless specified elsewhere in the subcontract, the Contractor shall provide and maintain its own sanitary toilet facilities for its employees.

9.10. Attachment 9, "Housekeeping Inspection Form" is attached for guidance on good housekeeping issues, and to assist in documenting site housekeeping conditions.

10. Emergency Preparedness (Must be included in, or as an addendum to, CSSP)

10.1. The Contractor must comply with UNM site-specific emergency response requirements, which are provided in the contract agreement and the facility-specific training for the facilities and buildings in which they work. Emergency response and/or emergency actions listed in this document, OSHA and EPA regulations communicate emergency response requirements to Contractor.

10.2. Unless specified otherwise, communication of site-specific emergency response requirements to Contractor employees who do not attend the initial communication briefing described in paragraph 7.1 above must be performed by the Contractor and formally documented. This documentation must be available for review by UNM.

10.3. The Contractor is responsible for defining emergency procedures specific to the site in the Contractors CSSP. These emergency procedures must be written and communicated to the employees. At a minimum, Contractor will include the following information:

10.3.1. Protective actions

10.3.2. Shelter-in-place

10.3.3. Evacuation of personnel

10.3.4. Notifications
10.3.5. Emergency signals

10.3.6. Evacuation routes

10.3.7. Assembly areas

10.3.8. Personnel accountability

10.4. An annual evacuation drill is required with documented results available for UNM review.

10.5. The Contractor is responsible for ensuring that all employees and personnel entering the site are informed of the emergency procedures for that site.

10.6. UNM Steam Tunnel emergency procedures are outlined in Attachment 26-3

11. Personnel Protection Equipment (PPE)

11.1. The Contractor shall provide, use, and maintain personal protective equipment (PPE) to protect the Contractor personnel from hazards directly related to the work. See 29 CFR 1910.132(a) and NFPA 70E.

11.2. The Contractor shall perform a required workplace hazard identification and assessment in accordance this manual to determine the required controls, including PPE.

11.3. The Contractor shall provide training to each employee who is required to use PPE. Each such employee shall be trained to know at least the following:
   - When PPE is necessary;
   - What PPE is necessary;
   - How to properly don, doff, adjust, and wear PPE;
   - Limitations of the PPE; and
   - Proper care, maintenance, useful life, and disposal of PPE.

11.4. The Contractor shall provide personal protective equipment (PPE) when required to protect the Contractor personnel from site hazards (including respirator protection). UNM shall not be responsible for training the Contractor workers for any PPE.
11.5. The Contractor shall require employees to wear eye protection equipped with hard side shields (safety glasses) manufactured to a recognized standard (ANSI Z87) when required by the work being performed. This requirement also applies to prescription eyewear.

11.6. Welders shall wear welding hoods, or a hardhat/welding hood combination, manufactured to a recognized standard while welding.

11.7. The Contractor employees shall wear safety shoes or boots manufactured to a recognized standard (ANSI) when required by the work being performed.

11.8. Contractor employees who handle chemicals or harmful substances shall be trained and shall wear appropriate PPE per the chemical manufacturer’s recommendations, or as determined by exposure assessment.

11.9. Hardhats manufactured to a recognized standard shall be worn when required by the work being performed.

11.10. Gloves shall be specified and worn when required to protect personnel from hazards.

11.11. In accordance with applicable requirements, workers performing electrical lockout activities shall wear properly rated electrical protective gloves and arc flash PPE (if required by NFPA 70E) while verifying the absence of energy. Contractor employees performing diagnostics and testing work, and/or work with energized equipment, within the NFPA 70E defined arc flash boundary shall wear arc flash PPE conforming to the requirements of NFPA 70E. The Contractor workers performing such work within the restricted approach boundary, as defined in NFPA 70E, are required to wear voltage-rated PPE.

11.12. The Contractor shall require all employees to wear long pants and a suitable shirt, with no less than 4-inch-long sleeves, as the minimum work clothing to be worn at the worksite.

11.13. The Contractor employees exposed to high noise levels shall wear appropriate hearing protection PPE.

12. Respiratory Protection (Must be included in or an addendum to CSSP)
12.1. The Contractor will have a written Respiratory Protection Program addressing the required elements in both OSHA 1910.134 and ANSI Z88.2. Elements include, but are not limited to: designated qualified respirator program administrator; respirator selection; medical evaluation; fit-testing; use, maintenance and care; breathing air quality and use (if supplied-air respirators are required); training; program evaluation; and record keeping. The written program will be submitted as part of the CSSP or as an addendum.

12.2. The Contractor’s designated respirator program administrator must oversee the contractor respirator program.

12.3. Respirator Selection

12.3.1. The Contractor must select respirators certified by the National Institute for Occupational Safety and Health (NIOSH); respirators must be used in compliance with the conditions of their certifications.

12.3.2. The Contractor must identify and evaluate the respiratory hazards, including a reasonable estimate of employee exposures and identification of the contaminant's chemical state and physical form prior to performing the work. The respirator selected must be appropriate for the chemical state and physical form of the contaminant.

12.3.3. Where exposure cannot be identified or reasonably estimated, the atmosphere shall be considered immediately dangerous to life or health (IDLH).

12.3.4. The Contractor must use the OSHA assigned protection factors (APFs) listed in Table 1 of OSHA standard 1910.134. Respirators must meet or exceed the required level of protection. The respirator selected must keep the employee’s exposure to hazardous substances, when measured outside the respirator, at or below the maximum use concentration (MUC). Tight fitting filtering face pieces that are NIOSH certified, and fit tested have an APF of 10 (OSHA interpretation 3352-02-2009).

Single-strap dust masks, and those without NIOSH designation, can only be worn for voluntary use for nuisance dust below the permissible exposure limit (PEL). A hazard assessment must be completed to demonstrate that workers wearing are below the PEL for nuisance dust.
12.3.5. If air-purifying respirators with chemical or combination cartridges are used, the contractor must either use a respirator equipped with an end-of-service-life indicator (ESLI) certified by NIOSH for the contaminant, or implement a change schedule for cartridges that will ensure that they are to be changed before the end of their service life. The change schedule must also describe, in the respirator program, the information and data relied upon and the basis for the change schedule and reliance on the data.

12.3.6. If tight-fitting respirators are used voluntarily, the employees will be provided medical surveillance, be fit tested, and the information in OSHA 29 CFR 1910.134, Appendix D which deals with voluntary respirator use.

12.4. Medical Evaluation

12.4.1. The Contractor must identify a physician or other licensed health care professional (PLHCP) to perform medical evaluations using a medical questionnaire, or an initial medical examination that obtains the same information as a medical questionnaire. The information required is contained in Appendix G of OSHA standard 1910.134. Contractor must obtain a written recommendation regarding the employee's ability to use the respirator from the PLHCP.

12.4.2. The medical evaluation must be completed prior to fit-testing and use of the respirator.

12.5. Fit Testing

12.5.1. The Contractor must ensure that employees pass an appropriate qualitative fit test (QLFT) or quantitative fit test (QNFT), per OSHA regulations.

12.5.2. Fit-testing is required prior to initial use, whenever a different respirator face piece is used, and at least annually thereafter. An additional fit-test is required whenever the employee reports, or the employer or PLHCP makes visual observations of, changes in the employee's physical condition that could affect respirator fit (e.g., facial scarring, dental changes, cosmetic surgery, or an obvious change in body weight).

12.6. Use of Respirators
12.6.1. Contractors must clean and disinfect respirators, using either the procedures in Appendix B-2 of OSHA 1910.134 or equally effective manufacturer's procedures, at the intervals specified in OSHA 1910.134.

12.6.2. Provisions will be made for employees who wear corrective lenses and are required to wear full-face respiratory protection. These provisions will include rotation from such respiratory protection work and eyeglass inserts or special lenses, as/if required.

13. Hearing Conservation/Protection Program (Must be included in or an addendum to CSSP)

13.1. When noise associated with contracted work is equal to or exceeds the OSHA exposure limits, the contractor shall have a written Hearing Conservation Program that meets the requirements of 29 CFR 1910.95 and 1926.52. The written program shall be submitted as part of the CSSP. The program shall include:

13.1.1. noise monitoring to identify those noise levels that require employees to be included in a Hearing Conservation Program;

13.1.2. administrative and engineering controls;

13.1.3. the procurement and use of low-noise equipment when possible;

13.1.4. posting of signs and warnings for areas found to require hearing protection;

13.1.5. how the contractor will perform audiometric testing to establish a baseline audiogram; and

13.1.6. training on noise health effects and the hearing protection devices used at the work location.

13.2. As part of noise monitoring to identify activities that require employees to be included in a hearing conservation program, the Contractor shall ensure that employees who are part of a Hearing Conservation Program complete annual training as defined in 29 CFR 1910.95.

13.3. Contractor shall provide equipment for sampling and monitoring noise levels. Contractor shall calibrate such equipment before and after use, document all measurements, and provide calibration documentation to UNM upon request.

14. Motor Vehicles and Powered Industrial Trucks (PIT)
14.1. The Contractor shall implement a motor vehicle safety program to protect the safety and health of all drivers and passengers in motor vehicles and powered industrial equipment (i.e., fork trucks, tractors, platform lift trucks, and other similar specialized equipment powered by an electric motor or an internal combustion engine). General requirements for Contractor-provided equipment and vehicles shall be defined in the CSSP to ensure compliance with appropriate regulatory requirements (29 CFR 1910.178 & 29 CFR 1926.600 and NFPA 505: Fire Safety Standard for Powered Industrial Trucks Including Type Designations, Areas of Use, Conversions, Maintenance, and Operations).

14.2. Contractor personnel operating motor vehicles and powered industrial equipment must have valid driver’s licenses.

14.3. The Contractor shall be responsible for training Contractor personnel to operate equipment and machinery. All personnel operating any Contractor-provided vehicles or mobile equipment at sites controlled/managed by UNM must be healthy and unimpaired, possess appropriate and required operators’ licenses/training, and abide by established road regulations and/or jobsite regulations.

14.4. Operators of All-Terrain Vehicles (ATVs) shall obtain a Motorcycle Safety Foundation (MSF), or MSF endorsed, or similar State-approved ATV training. ATV operators must use the appropriate personal protective equipment for ATV use. The Contractor shall prohibit passengers riding with operators on ATVs unless the ATV is designed for passengers with seatbelts in place and in use.

14.5. The Contractor shall ensure that all Contractor-provided vehicles and items of mobile equipment are registered/licensed, maintained in road-worthy condition, and operated and maintained in a safe manner, in accordance with manufacturer’s recommendations.

14.6. The Contractor shall ensure that major equipment used in the performance of work under this subcontract is inspected, operated, and maintained by competent personnel. The Contractor shall inspect and maintain equipment in conformance with the manufacturer’s recommendations.

14.7. Contractor forklift operators must perform a preoperational inspection once during each shift the vehicle is used. In addition, forklift-qualified personnel shall inspect forklifts at intervals not greater than 12 months, or whenever permanent deformation is suspected. Severe use of this equipment shall warrant more frequent inspection and shall be performed by trained personnel.
14.8. The Contractor shall ensure that equipment or machinery that is not in compliance with regulatory requirements is de-energized, rendered inoperable, and tagged out of service, or removed from the project location.

14.9. The Contractor shall enforce the following motor vehicle safety requirements:

14.9.1. Workers shall not use a cellular phone while the motor vehicle or Powered Industrial Truck (PIT) is in operation.

14.9.2. All mishaps/incidents leading to the damage of a motor vehicle on UNM property must be reported to UNM Project Management and investigated.

14.9.3. Drivers of motor vehicles shall follow on-site speed limits and other traffic rules.

14.10. Contractor-provided vehicle and mobile equipment operators are responsible for the safety of all passengers and the stability of materials being transported.

14.11. The Contractor shall ensure that vehicles and mobile equipment are shut off during refueling.

14.12. The Contractor shall ensure that parking brakes are set in vehicles when unattended.

14.13. The Contractor shall ensure that dozer blades, end loader buckets, forklift forks, or like equipment parts, are lowered to the ground before the operator exits such equipment.

14.14. The Contractor shall ensure that truck drivers exit the cab and remain clear while the truck is being loaded by powered equipment, unless the vehicle is equipped with an approved cab shield.

14.15. The Contractor shall manage, clean up, containerize, and characterize all oil, fuel, or petroleum product leakage from Contractor-provided vehicles and equipment, and shall follow applicable waste management requirements for disposal.

15. Hand and Power tools

15.1. The Contractor shall ensure that tools provided for use in work are used in accordance with the manufacturers' recommendations, have required guards in place, and are maintained in good working order. Appropriate personal protective equipment must be worn when using any tool.
15.2. The Contractor shall ensure that equipment and tools, including hand tools, are inspected, operated, and maintained by qualified personnel. Damaged or defective tools shall be tagged “Out of Service” or removed from UNM property.

15.3. The Contractor shall ensure that power tools and equipment are inspected prior to use, and also are inspected quarterly, at a minimum, or more frequently, if recommended by the manufacturer.

15.4. The Contractor shall follow 29 CFR 1926.302(e) if powder-actuated tools will be used. Only properly trained and certified employees shall be permitted to use powder-actuated tools. Documentation of the training shall be made available to UNM upon request. The powder-actuated charges for powder-actuated tools shall be controlled; cartridges shall be properly stored. No live or spent cartridges shall be left on the ground or disposed of in trashcans or in any other unauthorized container.

15.5. The Contractor shall ensure that work is performed only in areas and at times where adequate illumination exists. The Contractor shall provide all lighting required to safely perform work. Lighting must meet the minimum intensities listed in 29 CFR 1926.56 Table D-3. Artificial lighting equipment shall be manufactured to a recognized standard acceptable to UNM.

15.6. The Contractor must ensure that tools are never hoisted, lowered, or carried by the power cord. All electric tools shall be grounded, except approved and labeled double-insulated tools. The Contractor shall ensure that all tools are checked for electrical continuity after repairs are made. Extension cords shall be in good condition.

15.7. The Contractor shall use ground fault circuit interrupters (GFCIs) on all temporary electrical applications, including task lighting.

15.8. Temporary construction light stringers that provide general purpose area lighting shall not be installed on the load side of a GFCI, and shall have no receptacles installed in its dedicated branch circuit. Temporary light stringers shall contain a grounding conductor.

15.9. The Contractor shall use grinding wheels, wire brushes, and flapper wheels that are rated for the grinder on which they are used.

15.10. The Contractor will ensure that excess-flow valves are installed on air manifolds and compressors supplying air to greater than 1/2-inch ID hoses.
15.11. The Contractor shall ensure that fuel-powered tools are not used inside a building or excavation without adequate ventilation and air monitoring. All fuel-powered tools must be shut down prior to being refueled.

15.12. The Contractor shall ensure that all Contractor-owned ventilated enclosures, confinement systems, and/or local exhaust ventilation systems are tested prior to use and on a routine basis, not less than one time per year. This applies to ventilation systems that are intended to minimize employee exposures and to prevent occupational diseases caused by the inhalation of hazardous or toxic contaminants. High-efficiency particulate air (HEPA) filtration systems must be tested to verify filtration efficiency prior to initial use and annually thereafter, and after any maintenance that disturbs the HEPA filter.

15.13. The Contractor shall ensure that portable or vehicle-mounted electric generators have the neutral conductor properly bonded to the generator case, and that all general-purpose single-phase 15, 20, and 30 amp receptacles are GFCI protected. Generators shall be grounded per the manufacturer’s instructions.

15.14. The Contractor shall use electric power tools utilizing 60 Hz AC power (whether 120 V, 240 V, 480 V, etc.) that are listed by a Nationally Recognized Testing Laboratory (NRTL). Such NRTL listing also applies to any extension cords, locatable power taps, temporary lighting, or other electrical equipment utilizing or delivering 60 Hz AC power.

15.15. Daisy Chaining (connecting in series) of electrical extension cords is prohibited, unless evaluated by a qualified person prior to installation.

16. Inclement weather (Must be included in or an addendum to CSSP)

16.1. The Contractor shall establish adequate controls for employee exposure to potential inclement weather conditions, including, but not limited to, heat, cold, wind, lightning, etc.

16.2. The Contractor shall ensure that all field employees are trained on the warning signs/symptoms of early heat- or cold-related disorders, and are instructed on the clothing and work methods best suited to avoid heat and/or cold stress. Stay times shall be defined to reduce the possibility of heat- or cold-related disorders, if necessary.
16.3. The Contractor shall ensure that employees have access to an adequate sanitary potable water supply during all periods of the day, and that they have available plenty of fluids when heat stress conditions exist.

16.4. The Contractor shall define protective actions for lightning threats and high wind conditions. Actions should include work stoppage and sheltering, when required.

17. Chemical Management for Chemicals Used on Site (Must be included in or an addendum to CSSP)

17.1. If hazardous chemicals will be used for the work, the Contractor shall develop and implement a written Hazard Communication (HAZCOM) Plan that must include procedures describing the method the Contractor will use to communicate the hazards associated with chemical handling, use, storage, and disposal. The plan shall be submitted as part of the CSSP.


17.2. The Contractor must keep copies of Safety Data Sheets (SDSs, formerly known as MSDSs) for each hazardous material purchased and/or carried onto a worksite, and shall submit them to UNM upon request. Hazardous materials brought onto the site without an SDS shall be removed, held off-site, and not released until the SDS is received.

17.3. The Contractor shall ensure that employees are trained in the recognition, proper handling, and use of hazardous substances. Specific hazardous material training shall be provided by the Contractor for its employees whose work involves the use of hazardous material under its control.

17.4. The Contractor shall label all hazardous substances and/or chemicals that have been transferred from the manufacturer’s container into another container.

17.5. Chemicals must be stored in appropriate containers and segregated to ensure compatibility.

18. Fire Protection (Must be included in or an addendum to CSSP)

18.1. Smoking or use of tobacco products is prohibited within any UNM facility. The Contractor shall 1) Ensure that workers only smoke in designated smoking areas
outside buildings; 2) Inform its employees of the UNM’S smoking policy; and 3) Monitor to ensure that posted "no-smoking" zones are observed. The Contractor can request that a designated smoking area be approved for the site by submitting the request to UNM Project Management.

18.2. The Contractor shall control the storage and loading of combustible materials within work and office areas to ensure both safety and compliance with applicable fire codes. 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.

18.3. Prior to starting any work, the Contractor shall develop, and submit to UNM for review and acceptance, a Fire Protection and Prevention Plan specific to the work under this subcontract. The Plan shall be submitted as part of Contractor’s CSSP.

18.4. The Contractor shall provide all fire protection and prevention equipment necessary for its operations, including, but not limited to portable fire extinguishers.

18.5. The Contractor shall provide an adequate number of portable fire extinguishers of the correct size and type for its work activities. Extinguishers shall be maintained per manufacturers’ recommendations, inspected monthly, and tested annually.

18.6. The Contractor shall train employees in the proper use of portable fire extinguishers. See also the section of this Manual on Welding, Cutting, Brazing, and Grinding, for fire watch and portable fire extinguisher requirements.

18.7. The Contractor shall ensure that fire protection equipment is placed and maintained in proper locations as work progresses.

18.8. The Contractor shall ensure that, if temporary heating equipment is installed, it will be used, refueled, and maintained to minimize the fire hazard posed by these devices. Contractor shall use listed/approved temporary heating devices in accordance with manufacturer’s requirements, shall perform refueling operations in an approved manner, shall locate this equipment with sufficient separation from adjacent combustible materials, and shall monitor the safe operation of this equipment during use.

18.9. The Contractor shall monitor its work and office areas to ensure that all doors, stairwells, aisles, and means of egress are OSHA-compliant, and are kept clear and unobstructed at all times.
18.10. If the Contractor furnishes portable field offices, the Contractor shall ensure they have appropriate separations, they are secured, that all exits are clearly marked and adequately lighted, and, if equipped, that all emergency lights remain functional.

18.11. The Contractor shall address the requirements for the handling, storage, use, and disposal of flammable and combustible liquids and gases. The Contractor shall ensure they are stored properly and dispensed in safety cans manufactured to a recognized standard, and that areas designated for these activities are maintained in an orderly fashion. All hazardous areas shall be posted with appropriate signs, and access shall be controlled. Contractor shall prohibit open flames and smoking in designated storage areas.

18.12. The Contractor shall ensure that portable fire extinguishers, staged fire-fighting equipment, fire suppression system control valves, sprinkler system and standpipe fire department connections, fire hydrants, and fire lanes are kept clear and unobstructed.

18.13. The Contractor shall maintain a minimum of 18-inches of free space below sprinkler heads when working in facilities having sprinkler systems. Fire sprinkler heads, and fire detection and alarm devices, shall be appropriately masked and protected during both painting and spray-application of fireproofing materials.

18.14. The Contractor shall ensure that combustible waste containers are emptied regularly; equipment, tables, and floors are free from oil or oily rags; and that oily rag containers are kept covered and emptied regularly. Janitor/storage closets shall be maintained in an orderly condition, and shall not be used to store quantities of hazardous or toxic chemicals. Electrical, mechanical, and communications rooms shall be kept in order and free of combustible storage materials. Cable trays and raceways shall be free of combustible material, debris, and trash.

18.15. Contractor shall not permit open fires on the jobsite.

19. Welding/cutting/brazing/grinding

19.1. The Contractor shall ensure that its employees are trained in, and comply with, the requirements for proper fire prevention and equipment use when welding, cutting, brazing, or grinding.

19.2. Welding, cutting, grinding, and brazing equipment apparatus and tools shall be inspected before each use. Cutting torch assemblies shall be equipped with pressure relief valves, backflow prevention devices, and flash arrestors.
19.3. The Contractor shall ensure that employees performing welding, cutting, grinding, or other spark-producing activities wear fire-retardant clothing, as well as other applicable body protection (leather gloves, sleeves, aprons, etc.).

19.4. Prior to beginning any spark- or flame-producing operation, the Contractor shall inspect the work area for the presence of combustible, flammable, or toxic materials, and shall ensure that those materials either 1) are not within a 35-ft radius of the operation area or 2) are protected.

19.5. The Contractor shall evaluate the housekeeping conditions, fire extinguisher availability, emergency exit locations, and pull alarms for emergency response services prior to starting work involving spark- or flame-producing operations.

19.6. Prior to beginning any spark- or flame-producing operation, the Contractor shall assess the work area for proper ventilation to prevent the accumulation of fumes, gases, particulates, or conditions that would create an oxygen-deficient or oxygen-enriched atmosphere.

19.7. The Contractor shall designate a fire watch who has the responsibility to 1) monitor the spark or flame producing operation, 2) remain for 30 minutes after the conclusion of the operation to assess potential ignition hazards, and 3) walk the area to ensure that no smoldering embers are present that could ignite a fire in the work area.

19.8. Contractor employees conducting a spark- or flame-producing operation shall ensure that a fully charged fire extinguisher is in the immediate area and that spent welding rods are properly disposed. The work area should be properly shielded with a curtain, or managed in such a way that it protects against incidental exposure by observers. All gases should be shut off at the cylinder valve when the operation is complete.

20. Scaffold (Must be included in or an addendum to CSSP)

20.1. If scaffolds will be used to perform work, the Contractor shall include a written Scaffolding Procedure in the CSSP that meets the requirements of 29 CFR 1926.450.

20.2. Scaffold platforms shall be fully planked or decked out, capable of supporting four (4) times the maximum intended load to be imposed upon them, and all sides protected by a standard guardrail system. The top rail shall be approximately 42 inches above the platform. A mid-rail and a 4-inch toe board shall be installed.
20.3. Contractor erected scaffolds, where employees are working/passing below, shall have planking/siding or netting installed from the platform to the top rail.

20.4. The Contractor shall develop a scaffold tagging system that utilizes a red tag to indicate scaffolds under construction or demolition; a yellow tag to indicate scaffolds that are complete, but that have hazards associated with them; and a green tag to indicate scaffolds that have been erected to a complete, safe standard.

20.5. The Contractor shall erect or modify scaffolds under the direction of a trained, competent scaffold builder, whose qualifications shall be made available to UNM upon request. The competent person shall perform and document scaffold inspections before initial use, including initial use following alteration, and daily thereafter.

20.6. The Contractor shall provide safe access/egress to all levels of scaffolds. Scaffold platform accesses shall be protected to prevent the possibility of accidental fall-through.

20.7. Special scaffolds (e.g., hanging scaffolds, 2-point suspension scaffolds, etc.) shall be designed by a competent engineer and erected with all necessary personnel safety equipment installed, such as rope grabs and lifelines.

20.8. All scaffolds erected by the Contractor shall have casters, jackscrews, or base plates installed. Mudsills shall be used where required. Scaffolds shall be level and plumb, capable of supporting at least four (4) times the anticipated load, and secured to a solid structure, when required.

20.9. 24.10 The Contractor shall provide scaffold user training to employees. Training records will be made available to UNM, upon request.

21. Ladders

21.1. The Contractor shall ensure that ladders are visually inspected before each use by the trained ladder-user and at least once a year for damage and/or defects. The Contractor shall remove defective equipment from service immediately.

21.2. Manufactured ladders must be rated for industrial or heavy-duty work, and may only be used as allowed by the manufacturer. Job-made ladders shall be constructed to conform to OSHA standards.

21.3. Metal ladders shall not be used during electrical work activities, including electrical welding, or if there is any risk of contacting an energized electrical circuit. Portable
ladders shall not be used if the ladder or worker will come within 10 ft of an energized power line.

21.4. The Contractor shall provide training on the care, use, and inspection of portable ladders to employees. Training records will be made available to UNM upon request.

22. Fall Protection Program (Must be included in or an addendum to CSSP)

22.1. The Contractors CSSP shall include a written Fall Prevention/Protection Program that includes maximum use of primary fall protection systems, including, but not limited to, scaffolds, aerial lifts, and personnel hoists.

22.2. The Contractor shall require the inspection of fall protection equipment as required by manufacturer and prior to each use.

22.3. The Contractor shall adopt a fall protection policy that is OSHA compliant, and makes provision for secondary fall protection (full-body harness) for employees who are working or traveling more than six (6) feet (for construction) above a lower level. The Contractor shall provide fall protection devices that shall be manufactured and used in accordance with a recognized standard.

22.4. When personnel are required to work on unprotected roofs or other structures, a Roof Access/Fall Protection Plan must be developed by the Contractor and submitted to UNM SRS for acceptance prior to start of such work. As part of this plan, the Contractor shall review the scope of work to identify and implement the methods to achieve 100% fall protection or prevention.

22.5. Where lifeline systems are used, anchor points must be capable of supporting at least 5,000 pounds. Lifelines shall be installed and maintained by qualified persons who possess the rigging knowledge necessary to ensure the integrity and safety factors required for lifeline system installation. Lanyards must be secured to vertical lifelines by rope grabs only. Knots, painters-hitches, or loops shall not be utilized. Horizontal lifelines shall have tie-off points at least waist high.

23. Barricades

23.1. Contractor is responsible for properly erecting and maintaining barricades in such a manner that they provide adequate warning/protection and do not impede the work of other workers. Any exception must be approved in writing by the UNM-PM
23.2. Contractor shall provide and use one of the following barricade devices appropriate for the nature of the job for all physical hazard areas, including all construction areas.

23.2.1. Warning Barricades call attention to hazards but offer no physical protection. Yellow and black rope or tape shall be used for Warning barricades.

23.2.2. Protective barricades warn as well as provide physical protection from falling (see Section 22, Fall Prevention/Protection).

23.3. A protective barricade shall be erected when a warning barricade will not offer adequate protection.

23.4. No barricade shall be placed closer than three feet from the edge of the danger point. A rope shall be hung approximately 42 inches above the floor or ground level.

23.5. Barricades must have a designated entrance gate. Entry or exit from an area shall only occur through the designated gate. Stepping over or ducking under the barricade is prohibited.

23.6. When an elevation difference of four feet or more is within three feet of the barricade, a protective barricade or a warning barricade at least six feet from the hazard edge must be used to allow an ample buffer area around the hazard.

23.7. Authorization to enter a barricade may only be obtained from the PIC working inside the barricade. In the alternative, personnel that are authorized to permit entry may be listed on the tag attached to the barricade.

23.8. When a work area can be completely isolated from all other activities and operations, the area may be designated as such and posted with the appropriate warning and access authorization signs in lieu of extensive barricades and tags. Barricades must still be utilized within the posted area, as appropriate, to provide hazard control of individual tasks within the work area.

23.9. Barricades must be removed when no longer required.

24. Floor & Wall Openings

24.1. Holes or openings in floors, decking, or roofs, including skylights, through which personnel could fall, must be guarded with guardrails or with covers capable of supporting, without failure, at least twice the maximum load expected to cross over the cover. When installed, covers must be secured to prevent displacement.
are removed, the exposed holes or openings must be constantly attended or protected by temporary standard railing.

24.2. Covers must possess distinctive color coding to reveal their presence.

24.3. Material or equipment may not be stored on a hole/opening cover.

24.4. Wall openings from which there is a drop of more than four (4) feet and the bottom of the opening is less than three (3) feet above the working surface must be barricaded or provided with standard guardrails. Guardrails shall be constructed with the top rail 42 (± 3) inches from the floor or platform level and shall have a mid-rail and toeboard and withstand a side load of 200 lb. Toe-boards shall extend four (4) inches above the floor or platform level. Contractor shall install vertical support posts for guardrails at intervals of not more than eight (8) feet.

24.5. Any floor opening/wall opening adjacent to hazardous operations/locations or machinery must be guarded against falls or unwanted access.

25. Excavation and Trenching

25.1. The Contractor shall designate a Person-in-Charge (PIC) of the excavation who is qualified, experienced, and knowledgeable in the hazards associated with excavations. The PIC must be onsite whenever excavation work is taking place, including work in an excavation. The competent person may also serve as PIC.

25.2. All Contractor employees whether craft or supervision, involved in any excavation, fill, soil disturbance/transfer, or trenching work activity, including working in any excavation, are required to complete Excavation Training. The Contractor shall ensure that fill material (soil, concrete, or asphalt) used on UNM’s site is free of contamination.

25.3. The Contractor shall not transport fill material (soil, concrete, or asphalt) from its point of origin to another site at UNM without obtaining written approval from UNM Project Management prior to movement of the material.

25.4. The Contractor shall obtain written approval from UNM Project Management prior to release of fill material (soil, concrete, or asphalt) from UNM for use outside the UNM facility boundary.

25.5. The Contractor shall not abandon excavated material, debris, or equipment onsite at UNM.
25.6. The Contractor shall utilize “NM One Call” for locating utilities and shall follow all regulations pertaining to performing excavation and trenching in the State of New Mexico.

25.7. The Contractor shall hand-locate (pothole) and expose a five (5)-foot radius around all identified locations prior to any machine excavation. The “Hazardous Energy Safe” condition must be met prior to excavation. Appropriate precautionary PPE and tools shall be utilized when exposing “live” or unknown findings.

25.8. The Contractor shall ensure that, while excavations are open, all underground installations are protected, supported, or removed, as necessary, to protect employees and the utility.

25.9. The Contractor shall erect barricades around the excavation area prior to beginning work activities or ahead of work progress. Barricades shall be installed at least six (6) feet from the edge in a manner that prevents accidental entry into the trenched or excavated area.

25.10. The Contractor shall evaluate and monitor air quality prior to entry into any excavation that may contain possible hazardous atmospheres. Documented results shall be available at the job site.

25.11. Walkways, bridges, or ramps with standard guardrails shall be provided where employees or equipment are permitted, or required, to cross over excavations or trenches.

25.12. The Contractor shall provide, at the jobsite, a competent person (whose qualifications shall be made available to UNM upon request), who will classify all soils and perform inspections daily and after each rain, snow, freeze, thaw, etc., of all excavations/trenches. These inspections shall be documented, kept on file, and made available to UNM upon request.

25.13. Attachment 25 is a UNM reference document on preservation of trees and large shrubs on UNM campuses during excavation. It should be honored, or permission obtained from the UNM-PM obtained to take out large trees and shrubs during the course of the contract.

25.14. The Contractor shall stop work and notify UNM immediately should anything unanticipated be exposed or discovered, including any cultural resource remains.

26. Confined Space Program (Must be included in or an addendum to CSSP)
26.1. The Contractor shall have a written confined space program that meets the requirements of 29 CFR 1926.353 and 1910.146, as applicable. The Confined Space Program shall include requirements for entering permit-required and non-permit-required confined spaces. Before confined space work is performed the Contractor’s written program shall be submitted (as part of the CSSP) and approved by SRS. Attachment 26-1 contains confined space permit forms which meet the requirements of the standard, if completed.

The Steam tunnels at UNM may, in places, not meet the definition of confined spaces, but UNM requirements for entry into these tunnels are listed below, and are mandatory requirements for their entry on UNM campuses, in addition to a confined space permit as required.

26.2. Entry into steam tunnels requires:

26.2.1. Notification of UNM’s Ford Utility Department Manager prior to entry

26.2.2. Pre-planning of work to be conducted, and methods, will be approved by the Ford Utility Department Manager, including scope and sequence of the work.

26.2.3. A JHA will be developed, and shared with workers by supervisors prior to work being performed

26.2.4. Pre-planning will include:

26.2.4.1. Potential Hazards

26.2.4.2. Means and methods to control the hazards

26.2.4.3. Emergency plans

26.2.4.4. ID and locations of:

* Energized steam lines

* Compressed air lines

* High voltage electrical lines

* Hot surfaces

* Signs and symptoms of heat exhaustion and heat stroke
* Lighting during operations
* Means of communication
* Means of entry and egress
* Hazards (created by work, external, other job-site specific hazards)
* Means to control the hazards
* Steam line de-energizing and lockout/Tagout procedures
* Emergency plans.

26.2.4.5. The buddy system will be employed

26.2.4.6. Portable flashlights and 2-way radios will be carried at all times.

26.2.4.7. Protective gloves (leather, etc.) will be worn when working in steam tunnels.

26.2.4.8. Hot work in the tunnels (welding, cutting, brazing) requires a permit authorized by UNM Ford Utilities Manager, forced air ventilation, monitoring for flammable gasses, oxygen and carbon monoxide.

26.2.4.9. Standard size welding gas cylinders shall not be taken into steam tunnels.

26.2.4.10. Tunnels without forced ventilation and/or accessible only through manholes shall be entered following the non-permit required confined space procedures.

26.3. The Contractor is responsible for air quality evaluation and monitoring in confined spaces. Monitoring for oxygen, explosive gases, and other identified hazard(s) shall be conducted prior to entry into any confined space, and the results documented. Monitoring equipment shall be provided by the Contractor and calibrated to manufacturers’ recommendations. All employees conducting air monitoring shall have documented training. All instrument calibration and training records shall be made available to UNM upon request.

26.4. The Contractor shall ensure that all employees have completed appropriate confined space training.
26.5. Prior to each entry into a permit-required confined space, the Contractor shall ensure:

26.5.1. Natural or powered ventilation equipment is used to purge or supply air to the confined space,

26.5.2. A confined space entry permit is completed,

26.5.3. All required training is current,

26.5.4. All electrical service is either low voltage or GFCI protected,

26.5.5. Adequate access/egress from the confined space is provided,

26.5.6. A task-specific rescue plan has been developed and reviewed with all involved employees,

26.5.7. A trained and equipped non-entry or entry rescue team (as dictated by the entry hazards) is assembled and onsite if required, and

26.5.8. All external sources of atmospheric contamination are isolated.

26.6. The Contractor shall ensure that all personnel responsible for safety watches (confined space attendants) are easily identified, properly trained, and aware of the duties associated with each emergency situation that may occur within the confined space.

26.7. The Contractor shall make all arrangements for, and bear the cost of, an onsite emergency rescue team, when required.

26.8. The Contractor shall not permit entry into any permit-required confined space until the permit system has been properly executed. The permit shall be conspicuously posted at the confined space, and all entrants must sign a log upon entering and exiting the confined space.

27. Lock out/Tag out (LO/TO) Program (Must be included in or an addendum to CSSP)

27.1. Where the Contractor will perform work as defined by 29 CFR 1910.147 and by this section, they must identify 1) all of the hazardous energy sources associated with the equipment that must be controlled to prevent injury, and 2) the energy isolating device(s) for those energy sources, and 3) complete a LO/TO permit and submit it to SRS.
27.2. Where the Contractor will perform work as defined by OSHA 29 CFR 1910.147, the Contractor will follow a compliant lockout/tagout procedure, which is to be included in the CSSP and approved by UNM.

27.3. The Contractor’s LO/TO program will include a LO/TO permit to be completed prior to entry into permit required confined spaces, and steam tunnels. Attachment 27 contains LO/TO permit program and forms, for guidance, which the contractor may use (or its equivalent) to satisfy this requirement. The contractor’s LO/TO permit system and forms must be part of the CSSP submitted for SRS approval.

27.4. When it is necessary to work on UNM equipment, the Contractor will work with the UNM-designated lead authorized worker to 1) identify all of the hazardous energy sources associated with the equipment that must be controlled to prevent injury, and 2) to identify the energy-isolating device(s) for those energy sources.

27.5. When working on other-than-UNM equipment, the Contractor must 1) identify all of the hazardous energy sources associated with the equipment that must be controlled to prevent injury, and 2) to identify the energy-isolating device(s) for those energy sources.

27.6. The Contractor shall acquire and provide the equipment required, including locks and tags, to implement the required lockout/tagout procedure

27.7. The Contractor shall notify the equipment owners/operators prior to implementing lockouts/tagouts on the site.

28. Cranes and Material Handling

28.1. All crane and material handling operations shall be performed in accordance with the applicable sections of 29 CFR 1910 and 29 CFR 1926, the American National Standards Institute (ANSI) B30 series documents, and the manufacturer’s instructions. Note: On August 09, 2010, the Occupational Safety and Health Administration (OSHA) promulgated 29 CFR 1926.1400, Cranes and Derricks in Construction, final rule. Contractors shall be familiar with, and shall comply with, these and all of OSHA 1910 Subpart CC regulations. Documentation specified in Subpart CC, including training certification, will be made available to UNM upon request.

29. Suspended Personnel Platforms
29.1. Suspended personnel platforms shall only be used when they are the least hazardous way to perform the work and Contractor shall develop and submit a Lift Plan to UNM for review and approval prior to use. The plan shall include, not be limited to, employee training, pre-lift meetings, trial lifts, and platform and rigging inspections.

29.2. Personnel platforms (baskets) provided by Contractor shall be designed, by a qualified professional or registered engineer. Additionally, and any repairs or alterations to personnel platforms must be approved by a qualified professional or registered engineer. The platforms must have permanent markings indicating maximum weight and must be load-tested in accordance with 29 CFR 1910.179.

29.3. If UNM approves the use of crane suspended personnel platforms, Contractor shall thoroughly inspect the crane/derrick and ensure it has an operational anti-two-block device and locking devices on the hook. Free fall capacity, if present, shall be positively locked out or disabled. The area under the lift shall be isolated by barricades and signs.

29.4. Contractor shall provide a positive means of communication between the crane operator and employees in a crane suspended personnel platform. Employees in the platform shall wear full body harnesses attached to a designated anchor point.

29.5. Contractor shall describe the manner in which they and their subcontractor intends to comply with this section in their Contractor’s Contract-Specific Safety Plan.

30. Aerial Lifts

30.1. Machines manufactured and used for elevated personnel platform work (JLG, Hi-lift, etc.) shall be operated and maintained in accordance with manufacturers’ recommendations by trained and qualified individuals. Training records shall be made available to UNM, upon request.

30.2. All persons inside work platforms shall wear a full-body harness attached to a designated anchor point, and shall stand on the floor of the platform or basket only. Climbing or sitting on the guardrail or enclosure is prohibited.

30.3. The Contractor shall ensure that lifts are not used as a substitute for a material hoist, and that nothing is rigged from the boom or platform.
31. Pressure Safety (Must be included in or an addendum to CSSP)

31.1. In accordance with applicable requirements, the Contractor must establish safety policies and procedures to ensure that pressure systems are designed, fabricated, tested, inspected, maintained, repaired, and operated by trained and qualified personnel, in accordance with applicable and sound engineering principles.

31.2. The Contractor shall ensure that all pressure vessels, boilers, air receivers, and supporting piping systems conform to the applicable American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, or to the applicable state or local codes, whichever is more stringent.

31.3. The Contractor shall ensure that when national consensus codes are not applicable (because of pressure range, vessel geometry, use of special materials, etc.), the Contractor will implement measures to provide equivalent protection and ensure a level of safety greater than, or equal to, the level of protection afforded by the ASME or applicable state or local code. Measures must include the following:

31.3.1. If compressed gases will be used to perform work, the Contractor must have a gas cylinder use and storage procedure that meets the requirements of Compressed Gas Association (CGA) Pamphlet P-1 (latest version). The procedure shall include 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. The procedure shall be submitted as part of the CSSP.

31.3.2. The Contractor shall provide cradles and/or cages for lifting compressed gas cylinders and shall ensure that cylinders being transported are secured.

31.3.3. The Contractor shall ensure that their employees are properly trained and qualified for the tasks they will be performing.

32. Electrical Safety (Must be included in or an addendum to CSSP)

32.1. The Contractor shall implement a comprehensive electrical safety program appropriate for the activities at the worksite, which must meet the applicable electrical safety codes and standards listed in Section 7, General Requirements.

32.2. The Contractor will use only electrical equipment that is listed by a nationally recognized testing laboratory (NRTL), such as Underwriters Laboratory (UL), and will use it as intended, per its listing.
32.3. The Contractor shall ensure that all workers who may be exposed to facility electrical hazards meet the training requirements for electrical workers per OSHA and NFPA 70E for “qualified person(s)”.

32.4. For work on or near exposed electrical hazards, which includes activities such as zero energy checks, adjustments, troubleshooting, and maintaining and/or repairing electrical equipment, the Contractor shall develop and follow a job safety analysis, or similar document, that meets the requirements of NFPA 70E.

32.5. The Contractor shall ensure that electrical workers follow all PPE requirements of this manual, as well as the requirements contained in NFPA 70E.

32.6. The Contractor shall ensure that any worker subjected to electrical shock (other than static electricity) is evaluated by competent medical personnel and that UNM is notified. Additionally, an arc flash or burn to the skin or eyes from proximity to an electrical discharge requires UNM notification and evaluation by competent medical personnel.

33. Traffic and Pedestrian Controls (Must be included in or an addendum to CSSP) (OSHA 1926 Subpart G)

33.1. The Contractor shall develop and implement a Traffic Control Plan (TCP) for the worksite, including the placement and use of traffic control devices and flagmen. The Plan shall address changes required in traffic flow or pedestrian flow, and associated controls as the work progresses. The Plan(s) will be submitted to UNM Project Management for approval. The Contractor’s TCP shall be submitted for each phase of a multi-phase project.

33.1.1. The Contractor’s TCP must include a set of control measures designed to minimize the impact on transportation and to facilitate the passage of vehicles and pedestrians around the work zone. Strategies for traffic operations must include: demand management; corridor/network management; safety management and enforcement; and work-zone traffic management.

33.1.2. The Contractor’s TCP shall include a set of control measures designed to inform road users, the general public, area residences and businesses, and appropriate public entities about the project and its impacts.

33.1.3. The Contractor’s TCP controls must conform to accepted design standards, such as the MUTCD 2013, for traffic control devices used in construction and maintenance work zones. The amount of detail included in the TCP depends on the
complexity of the project, volume of traffic flow, roadway geometry, and the activities being performed. At a minimum, the TCP shall include a description outlining how vehicles (including oversize vehicles) and pedestrians will be directed to use traffic paths prescribed in the TCP during every phase of the project; and instructions addressing the particular sequence of actions necessary to set up, maintain, operate, and take down the traffic control devices.

33.1.4. The Contractor shall analyze and design temporary diversions of traffic from its normal course while creating and maintaining a safe work zone.

33.1.5. The Contractor shall equip any barricade left after dark on, or in close proximity to, roadways with flashing amber lights.

34. Biological Safety and Worker Protection (Must be included in or an addendum to CSSP)

The Contractor shall develop and implement a contract-specific written exposure control plan (ECP) for direct exposure to wastewater, sewage, contact with blood or other potentially infectious materials, direct contact with wildlife, or potential contact with rodent nests or infestations.

35. Industrial Hygiene (Must be included in or an addendum to CSSP)

35.1. The Contractor shall implement an industrial hygiene (IH) program that will ensure employee exposures are not exceeding the applicable OSHA Permissible Exposure Levels (PELs) to substances listed in 29 CFR 1910, Subpart Z, Toxic and Hazardous Substances; 29 CFR 1926, Occupational Health and Environmental Controls; and 29 CFR 1926, Subpart Z, Toxic and Hazardous Substances.

35.2. The Contractors industrial hygiene program shall include, at a minimum, the following elements:

35.2.1. Initial or baseline surveys and periodic resurveys and/or exposure monitoring, as appropriate, for work areas to identify and evaluate potential worker IH-related health risks;
35.2.2. Commitment to provide an assessment of potential IH hazards, and document methods to mitigate these potential exposures in a JHA, prior to commencing work with potential for exposure at or above the OSHA PELS.
35.2.3. Coordination with planning and design personnel to anticipate and control health hazards that proposed facilities and operations would introduce;
35.2.4. Coordination with cognizant occupational, medical, environmental, and work - planning professionals;
35.2.5. Policies and procedures to mitigate the risk from identified and potential occupational carcinogens;
35.2.6. Use of respiratory protection equipment and other necessary PPE.

35.3. The Contractor shall establish procedures to identify significant existing or potential workplace hazards and to assess the risk of associated workers injury and illness.

35.4. Procedures must include methods to:

35.4.1. Assess worker exposure to chemical, physical, and/or biological workplace hazards through appropriate workplace monitoring (Attachment 35-1 is guidance for the contractor in conducting exposure assessments that meet OSHA requirements);

35.4.2. Document assessments for chemical, physical, and/or biological workplace hazards using recognized exposure assessment and, when necessary, testing methodologies, and using accredited and certified laboratories.

See Attachment 35-2 for permit requirements breaching or modifying local-exhaust-ventilation hoods/systems historically used for hazardous materials exhaust;

35.4.3. Record observations, including testing and monitoring results.

See Attachments 35-3 through 35-8 for forms for recording real time instrument calibration, real time instrument readings, bulk-swipe sample collection, noise sampling, and personal air sampling field data collection. These forms, or their equivalent, will meet the recording requirements of IH observations;

35.4.4. Analyze designs of new facilities and modifications to existing facilities and equipment for potential workplace hazards;

35.4.5. Perform routine job activity level hazard analysis;

35.4.6. Commitment to employ or engage the services of an IH when there is a potential for overexposure (in the opinion of the Contractor or SRS) (See Attachment 35-1 for guidance when the overexposure potential exists).
35.4.7. Evaluate operations, procedures, and facilities to identify workplace hazards; and

35.4.8. Review site safety and health experience information.

35.5. The Contractor shall perform the activities identified initially to obtain baseline information, and as often, thereafter, as necessary to ensure compliance with this Manual and OSHA Subpart Z regulations.

35.6. The Contractor shall ensure that workers have the right, without reprisal, to be notified when monitoring results indicate the worker was overexposed to hazardous materials, and also to observe the measuring of hazardous agents and to have the results of their own exposure monitoring.

Attachment 35-8 provides a form/format for meeting personal sampling notification as required by OSHA, and the contractor may use this, or its equivalent, to meet this requirement.

35.7. The Contractor shall address hazard prevention and abatement, including a process to identify hazards and controls for those hazards based on risk, and the hierarchy of controls (i.e., elimination or substitution, engineering controls, work practices and administrative controls, then personal protective equipment, see 1.12 above) in its Contract-Specific Safety plan.

35.8. UNM will provide the contractor with site characterization to the extent it is available. These facilities, however, have been used in educational and research operations, the historical use may not be totally understood, and the spectrum of hazards to employees, the public, and the environment for any likely activity must be taken into consideration by the Contractor and their health and safety staff.

36. Demolition

Demolition work requires advance notification by the UNM to the New Mexico Environment Department (NMED), even if no asbestos is present. The Contractor shall prepare and submit all required NMED notification forms/letters to NMED, and forward a copy to UNM, at least 10 working days before any work begins.

37. Radioactive Sealed Source and/or Radiation Generating Device
37.1. Contractor shall notify UNM-SRS Radiation Safety and receive approval prior to bringing, using or storing a radioactive sealed source or radiation generating device onsite. UNM-SRS Radiation Safety group shall facilitate the coordination of obtaining the required approvals.

37.2. Contractor’s health physics representative will be immediately available during Soil Compaction Testing and Nuclear Density Gauge and Seal Source Radiography camera or a Well Logging Tool is present. The Contractor employees shall have appropriate training and certifications. The Contractor employees will comply with the UNM’s Radiation Work Permits. UNM will assist in obtaining such Work Permits.

37.3. Nuclear Density Gauges, Sealed Source Cameras, and Well Logging Tools will be operated in accordance with the Nuclear Regulatory Commission (NRC) License and the NMED License. The Contractor will follow the NRC and NMED Operating Procedures.

37.4. Contractor employees involved shall wear appropriate whole body dosimeters and will possess a working, calibrated health physics hand held instrument to perform radiation surveys as required in the Operating Procedure.

37.5. Contractor shall provide the following information to UNM SRS-Radiation Safety for review and approval prior to transporting the Nuclear Density Gauge or Sealed Source Equipment Cameras onsite:

37.5.1. A current copy of the Contractor’s NRC AND NMED Licenses,

37.5.2. DOT Shipping Papers (e.g., Bill of Lading) for specific Nuclear Density Gauge or Seal Source being transported,

37.5.3. DOT Shipping Papers (e.g., Bill of Lading) for specific Nuclear Density Gauge or Seal Source being transported,

37.5.4. A current copy of the manufacture’s Special Form Certificate, Competent Authority for Package,

37.5.5. A current lead test document for the Nuclear Density Gauge or Sealed Sources, which includes the Radionuclide,

37.5.6. Current training documentation for all employees transporting and using the equipment in question,
37.5.7. A current copy of the Contractor’s Operating Procedure,

37.5.8. Emergency Contact List

37.6. Contractor shall be responsible for notifications and providing the required
documentation as described above to UNM SRS-Radiation Safety prior to bring
source/generator on site.

38. Radiological Requirements

Radiological issues, other than the use of radiation containing or generating devices
brought to the sight and to be removed in-tact, if applicable, must address the UNM
Radiation Safety requirements. The Contractor must provide information to, and
coordinate with, the UNM Radiation Safety group and proceed only with their
approval when radiological hazards other than the sources/generating devices being
brought on site (See Section 37 above for source/generating devices).

39. Asbestos Abatement

39.1. If asbestos may be present as a facility hazard then the hazard must be evaluated in
accordance with the Industrial Hygiene requirements in this document. The
following sections (39.2 and 39.3) are applicable if workers may be in contact with
asbestos, but do not disturb asbestos except as allowed by OSHA for maintenance and
custodial work.

39.2. UNM shall inform Contractor of the presence and location of asbestos in areas which
may be contacted. Contractor employees shall receive asbestos awareness training.

39.3. Contractor shall ensure that employees who may come in contact with asbestos, do
not disturb asbestos or perform asbestos abatement and perform any maintenance and

39.4. A Contractor performing asbestos abatement shall submit an Asbestos Abatement
Plan (AAP) for UNM’s approval prior to start of work. The AAP shall address the
requirements in the contract and the procedures (including materials, chemicals, tools,
and equipment) that will be used to perform asbestos work and disposal of asbestos-
containing waste. The AAP shall be included in Contractor’s Contract-Specific
Safety Plan.
39.5. Contractor shall perform all asbestos work in accordance with the EPA Standard 40 CFR Subpart M, National Emission Standard for Hazardous Air Pollutants (NESHAP), 29 CFR 1926.1101 and 29 CFR 1910.1001, and the subcontract. Contractor shall submit the following information as applicable prior to abatement work commencing:

39.5.1. Company Abatement License

39.5.2. Personnel Qualifications/Training/Certificates for workers, supervisors, air-monitors.

39.5.3. Personnel Medical Records (latest)

39.5.4. Personnel Respirator Fit Test (latest)

39.5.5. Inspector Accreditation Certificate and Inspection Report

39.5.6. Designer Accreditation Certificate and Designer Report

39.6. Contractor shall be cognizant of and responsible for all wastes generated in accordance with Section 30, Waste Management / Disposal, of this Manual.

39.7. Contractor shall prepare and submit all required New Mexico Environment Department (NMED) notification forms/letters to NMED at least 10 working days before any work begins, in accordance with New Mexico Administrative Code 20.2.78 and 40 CFR 61.145, with a copy going to UNM.

39.8. Contractor shall comply with the waste handling, packaging, and disposal requirements contained in 29 CFR 1926.1101, 40 CFR 61.145, 40 CFR 61.150, 20.9.7.A(9) NMAC and 20.9.8.10-12 NMAC (as applicable), and the U.S. Department of Transportation shipping regulations contained in 49 CFR 171 and 172.

39.9. Contractor shall be responsible for transportation of asbestos waste to a UNM designated area and container(s), using an approved special waste manifest.

39.10. Contractor shall provide UNM-SRS and PM with copies of the signed waste shipment records as required by 40 CFR 61.150.

40. Heavy Metals

40.1. Contractor’s CSSP shall address requirements specific to any work involving heavy metals, including training and qualification, monitoring, medical surveillance, and
worker protection requirements. The most common, but not limited to, encounters in contraction/demolition/remodeling are going to be disturbance of lead based paint, chromium based paint, and welding fumes.

40.2. Contractor shall follow the following requirements, as they define specific employee protections that OSHA requires, and take president over any different general standard which might otherwise be applicable to the same condition, practice, means, method, operation, or process when working with any of the following materials:

40.2.1. Inorganic Arsenic – Contractor shall perform work in accordance with 29 CFR 1910.1018 and 29 CFR 1926.1118 (identical standards);

40.2.2. Cadmium – Contractor shall perform work in accordance with 29 CFR 1910.1027 and/or 29 CFR 1926.1127;

40.2.3. Contractor shall perform work in accordance with 29 CFR 1910.1025 and/or 29 CFR 1926.62;

40.2.4. 55.2.4 Chromium (VI) – Contractor shall perform work in accordance with 29 CFR 1910.1026 and/or 29 CFR 1926.1126; and

40.2.5. Welding and Cutting – Contractor shall perform work in accordance with 29 CFR 1926.350 thru 354. Metals such as Zinc, Lead, Cadmium, Chromium, and Mercury, are addressed in 1926.353(c).

40.2.6. Miscellaneous Metals – Other metals that may be impacted and compliance requirements are contained in 29 CFR 1926.55, “Gases, Vapors, Fumes, Dusts and Mists,” and its Appendix A, “American Conference of Governmental Industrial Hygienists’ Threshold Limit Values of Airborne Contaminants for Construction.”

41. Pollution Prevention/Waste Minimization

Waste recycling should be coordinated with the UNM Recycling office

42. Storm Water Management
42.2. Contractor shall comply with all Federal, State, and Local laws and regulations regarding storm water runoff and control of contaminants from construction sites. Contractor shall utilize Best Management Practices (BMP(s)) including installation of erosion controls to prevent the movement of storm water and contaminants from the site.

42.3. Contractor shall submit a Notices of Intent to Discharge Storm Water (NOI) and assist UNM with development of a Storm Water Pollution Prevention Plan (SWPPP) in accordance with the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges from Construction Activities.

43. Waste Management/Disposal

43.2. Contractor shall comply with all Federal, State, and Local laws and regulations for generation, storage, packaging, transportation, and disposal of wastes generated at sites controlled by UNM.

43.3. Contractor shall coordinate with UNM SRS-Waste Coordinator when planning and before conducting project activities at the University, to verify additional guidance on permits and requirements relative to waste and materials management.

43.4. Contractor shall not abandon or leave any waste, materials, product, chemicals, debris, equipment or excess concrete, asphalt or soil on-site at the University without approval of UNM.

43.5. Waste regulated by EPA or NMED will be packaged by the Contractor, transported by UNM to an appropriate UNM Waste storage area managed by UNM (special waste, universal waste, hazardous waste, etc.) unless specifically indicated otherwise. Waste managed by Contractor that is of unknown origin (e.g., abandoned materials or waste from a PRS that has never been sampled), having a likelihood of generating hazardous or mixed waste, shall be managed conservatively, in a safe and secure area.

43.6. Waste stored, handled, packaged, transported, and/or disposed of by Contractor will be in accordance with EPA, NMED and DOT regulations and requirements.

43.7. UNM will provide Contractor a list of waste to be generated which will include: 1) waste streams that will be generated, 2) estimated volumes by stream,
3) packaging required for shipment, and 4) disposal destination. CONTRACTOR will segregate accordingly.

43.8. Contractor shall notify the PM immediately if a waste stream is generated that was not included in the approved plans. Work involving the new waste stream shall not continue until authorized by UNM SRS Waste Coordinator.

43.9. For Contractor controlled universal waste, special waste, or hazardous waste satellite accumulation areas Contractor shall:

43.9.1. Set up appropriate areas for accumulating/storing wastes (e.g., <90 day accumulation area. Satellite Accumulation Area, Universal Waste Area, Used Oil Area, New Mexico Special Waste area), as approved by SRS waste coordinator, in pre-approved locations.

43.9.2. Perform all necessary inspections, record keeping, and reporting requirements for accumulation, staging, or storage areas they establish and submit inspection records to UNM at the end of the project for records management.

43.9.3. Make recordkeeping and inspection records available to UNM or their representative upon request.

43.10. Contractor shall participate in periodic UNM and/or regulatory agency waste management compliance inspections.

43.11. UNM’s SRS will:

43.11.1. Sample and analyze wastes (or obtain appropriate knowledge of process [KOP]) and document results.

43.11.2. Make waste determinations within the appropriate EPA or NMED deadlines

43.11.3. UNM will create profiles and other required documentation prior to shipment.

43.11.4. Contractor shall comply with the following waste packaging and transport-related requirements:

43.12. Contractor shall:

43.12.1. Ensure that all containers are packaged, labeled, screened, and marked in accordance with 49 CFR Department of Transportation requirements.
43.12.2. Coordinate waste transportation directly with the disposal facility or through the UNM SRS-Waste Management.

43.12.3. Notify UNM’s waste generator, and UNM-SRS Waste Coordinator of scheduled waste shipping dates.

43.12.4. Verify that all shipping containers are secured by the carrier prior to transportation.

43.12.5. Transport wastes in accordance with the off-site receiving facilities’ waste acceptance criteria and 40 CFR Department of Transportation requirements.

43.12.6. Ensure transportation is by an approved carrier is appropriately permitted and licensed to transport the waste.

43.12.7. Maintain a copy throughout the life time of the project of the final Due Diligence Report(s) provided by UNM.

43.12.8. Provide UNM a copy of the final Due Diligence Report(s) to the Waste Profile form and/or Land Application Package(s), if applicable.

44. Wastewater Discharges

44.1. Contractor shall comply with all Federal, State, and Local laws and regulations regarding wastewater management and discharges. Wastewater includes sanitary wastewater, industrial waste water, potable water, or any other liquid which may pollute waters of the State. Wastewater shall not be discharged to any watercourse without coverage under an approved surface water discharge permit or an approved Notice of Intent (NOI) to discharge. Wastewater shall not be discharged to the subsurface without coverage under an approved groundwater discharge plan. Contractor shall contact the PM prior to any wastewater discharges from the project. Contractor shall provide the permit or discharge plan when required.

44.2. Contractor shall capture all concrete and mortar washout material in on-site containment areas for dewatering / evaporation / hardening at locations designated by the PM. Contractor shall ensure residue from this process is accounted for and managed as approved by UNM.

44.3. For wastewater discharges into UNM treatment facilities, Contractor shall demonstrate compliance with the applicable Waste Acceptance Criteria (WAC) and
receive approval from the PM prior to any such wastewater discharges. Compliance with the WAC may be demonstrated through existing water quality data or through sampling and analysis by Contractor, as may be required by UNM to demonstrate compliance.

45. Air Quality

Any air quality permits that are required by EPA, NMED, Bernalillo County, or the City of Albuquerque will be in place prior to performing the work.

46. Work within the boundary of a Solid Waste Management Unit

Any work within a Solid Waste Management Unit, which is regulated as a RCRA site (Hazardous Waste Site regulated by the Resource Conservation Recovery Act and regulations), a CERCLA Site (Superfund), or State regulatory agency dealing with CERCLA, RCRA, or proposed sites under waste regulations, will comply with OSHA 1910.120 and/or 1926.65 requirements for worker protection.

47. Reserved

48. Firearm Safety Firearms Safety

48.1. In accordance with the OSHA General Duty Clause, UNM and Contractors engaged in UNM activities involving the use of firearms must operate under the New Mexico State Police, or Albuquerque Police Department’s established firearms safety policies and procedures for security operations, and training, to ensure proper accident prevention controls are in place.

49. Laser Safety

49.1. The Contract-Specific Safety Plan shall include a Laser Safety Program that ensures compliance with ANSI Z136.1-2007 (Standard for Safe Use of Lasers), which is the standard for compliance with the OSHA General Duty Clause (See 1.6 above). The program shall include laser hazard evaluation, hazard controls, laser safety training, and other requirements specific to the work.

50. Refrigerants
50.1. Contractor shall be responsible and accountable for compliance with the EPA CAA Section 608, regulated under 40 CFR Part 82 for all refrigerant related work.

50.2. Contractor shall ensure that their employees are made aware of the content of these practices prior to beginning work on refrigerant containing equipment.

50.3. Contractor shall use only proper level EPA certified technicians for the type of equipment being serviced.

50.4. Contractor shall use only EPA certified recovery/recycle units.

50.5. Contractor shall provide UNM a signed certification statement affirming that the Contractor has submitted an EPA Recovery Unit Acquisition Certification form to the EPA (a copy of the form is acceptable).

51. Environmental Reporting

51.1. Contractor shall maintain reports and documentation required by Federal, State, and Local laws and regulations regarding environmental reporting. These reports and documentation shall be submitted to UNM upon request.

51.2. Contractor shall prepare and submit information and data to UNM for input to any required regulatory reports, including but not limited to: the Quarterly Hazardous Waste Report; Environmental Protection Agency (EPA) Annual Tier II Chemical Inventory Report; and the EPA Annual Toxic Release Inventory Report. UNM will notify the Contractor of any additional required reports needed by UNM.

51.3. This does not relieve the Contractor from reporting as required of the Contractor by Federal, State or Local laws, or of notifying UNM of the Universities requirement to report if they identify any Contractor activity that results in a reporting requirement.

51.4. Environmental Requirements – Many wastes are regulated as hazardous waste, special waste, universal waste, infectious waste, solid waste, and each have specific reporting requirements.

51.4.1. Contractor is responsible for contacting the UNM-PM and SRS for sampling, or otherwise determining, whether waste (including construction debris) is regulated, and will ultimately require reporting to regulatory authorities.

51.4.2. The contractor will be responsible for containerizing the construction debris appropriately (as approved by SRS), including that which may be contaminated.
with toxic metals. SRS will provide Contractor a list of waste streams, and the Contractor will notifying UNM PM and SRS Waste Coordinator of scheduled waste production, with assist in gathering appropriate information (quantities, state [liquid, solid, gas], etc.) for the required reports.

51.4.3. See section 43 for details on Waste Management/Disposal

52. Spill Prevention, Reporting and Response (Must be included in or an addendum to CSSP)

52.1. The Contractor shall prepare and implement a spill prevention control and countermeasure (SPCC) plan in accordance with 40 CFR 112 (SPCC Plan) if they will have an aggregate aboveground storage capacity of 1,320 gallons, or greater, of oil or other petroleum products (including temporary or mobile tanks). The SPCC plan shall be submitted by the Contractor as part of the CSSP or as an addendum as necessary.

52.2. The Contractor shall develop and maintain spill prevention control and countermeasures for chemicals, petroleum, and waste products used and stored on the work site. The following Best Management Practices (BMPs) shall be used for such spill prevention and countermeasures:

52.2.1. Establish secondary containment, diversionary structures, and/or equipment to prevent the products from contaminating the environment, in case a spill or leak would occur.

52.2.2. Locate storage facilities away from low-lying areas, such as ditches, watercourses, and storm sewers.

52.2.3. Maintain nearby spill control equipment (i.e., spill kit).

52.2.4. Effectively containerize and label all products.

52.3. The Contractor shall maintain an inventory of all hazardous materials they have or maintain on site as required by OSHA 1200. The Contractor will supply UNM with an inventory of chemicals, petroleum, and other products to be stored at the worksite in quantities greater than 100 gallons or 500 pounds (whichever is smaller), and with the steps that will be taken to prevent releases of those products prior to bringing them on site.
52.4. The Contractor shall provide immediate notification to UNM project management of any spilling, leaking, pumping, pouring, discharging (including wastewater), emitting, or dumping of materials to the environment, regardless of quantity. The Contractor shall also report any other incident relative to material/waste handling, storage, transportation, or disposal, and shall take immediate and appropriate steps to protect human health and the environment. The Contractor agrees to sample and analyze liquid releases and/or spill residues as may be required for characterization and disposal, resulting from their actions.

Attachment 52 is a spill notification form that can be used by the Contractor in reporting releases. Copies can be faxed to: (505) 277-9006. Immediate notification can be made to SRS (normal hours phone: (505) 277-2753, After hours: (505) 951-0194).

52.5. The Contractor shall not store or use Clean Air Act section 112R Toxic or Flammable Chemicals in excess of the threshold quantities that would require UNM to have a risk management plan. The Contractor shall provide a list of all chemicals planned to be stored or used over the duration of the project in quantities in excess of 500 pounds. This list is required to be provided prior to the start of work.
III Attachments and Contractor Guidance
UNM Contractor Job Hazard Analysis (JHA)

Job Analyzed: ___________________ Contractor Name: ___________________

Date: __________ Version No: __________

<table>
<thead>
<tr>
<th>JOB TASKS/STEPS</th>
<th>HAZARDS</th>
<th>CONTROLS</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>

Developed by: ___________________
Reviewed by

Contractor Supervisor: ___________________ Date: __________ Approve: Yes □ No □

UNM PM: ___________________ Date: __________ Approve: Yes □ No □

UNM SRS: ___________________ Date: __________ Approve: Yes □ No □

Note: Add columns and pages as needed to accommodate job tasks, hazards, and controls.
Contractor Eligibility Requirements Instructions - Attachment 3-1

It is the policy of UNM that all work performed on our site shall be conducted in a manner that protects workers, the public, and the environment. The objective of this policy is to establish a consistent site-wide approach to worker protection by incorporating safety and health into daily activities. To support the effective implementation of this policy, Contractors and their subcontractors should have a demonstrated safety performance equal to or better than the following standards. Below are instructions to assist in completing the 2 page Contractor/subcontractor Qualification Forms below:

Statistical Standards

1. Experience Modification Rate
   The “EMR” is a number that is assigned to your company based on the insurance premium you pay and your loss statistics. Contact your insurance company for these numbers.
   Maximum Allowable Average: 1.00

2. OSHA Statistics
   a. Total Recordable Injury/Illness Case Rate (from Company OSHA 300 log)
      
      \[
      \text{Rate} = \frac{\text{Total Recordable Injuries/Illnesses } \times 200,000}{\text{Total Employee Hours Worked}}
      \]
      
      [Maximum Allowable Average = average for their industrial sector]

   b. DART Case Rate
      (Days Away From Work, Restriction, or Job Transfer) (from Company OSHA 300 log)
      
      \[
      \text{Rate} = \frac{\text{No. of Cases with (Total Days Away or Restricted or Transferred Work Day)} \times 200,000}{\text{Total Employee Hours Worked}}
      \]
      
      [Maximum Allowable Average = average for your industrial sector]

   c. No. of Fatalities during the last 3 years.

Contractors/subcontractors are expected to have no work related fatalities.
Firms must submit a properly executed Safety, Health and Environmental History Worksheet (Attachment 3-2) along with a letter from their Workman’s Compensation Insurance Carrier to certify the Experience Modification Rate (EMR) performance. If any of the above maximum allowable averages is exceeded, the firm shall provide information that clearly explains the excessive rate circumstances surrounding the anomaly causing that excess was not easily preventable using sound safety practice, and measures subsequently initiated to prevent it from happening again.

If a firm is a joint venture, association, consortia, or partnership that has fewer than three years of demonstrated safety and/or environmental performance, each entity comprising the joint venture, association, consortia, or partnership must submit a properly executed Environment, Safety, and Health History Worksheet (Attachment 3-2) along with a letter from their Workman’s Compensation Insurance Carrier to certify the Experience Modification Rate (EMR) performance.
Any response received from a firm which does not provide the Safety History Worksheet(s), which exceeds any of the stated maximum allowable averages, or which has fewer than three years of demonstrated safety and/or environmental performance should provide UNM with an explanation of the extenuating circumstances which resulted in these occurrences, and what has been put in place to prevent this in the future. UNM may, at our sole discretion, consider those contractors who exceed these maximums, or involved with SHE violations and/or work related fatalities, to not meet the SHE minimum qualifications.

If a firm intends to use lower-tier subcontractors to perform elements of the contracted Scope of Work, such lower-tier subcontractors shall also meet the maximum allowable averages specified above. The firm to whom a contract is awarded (i.e., Contractor) shall be responsible for ensuring that all its lower-tier subcontractors meet the maximum allowable average safety performance eligibility requirements. When requested, the prime contractor must demonstrate to UNM's satisfaction that its lower-tier subcontractors meet the maximum allowable average safety performance eligibility requirements. Any lower-tier subcontractor that does not meet one or more of the maximum allowable average safety performance eligibility requirements must be evaluated and approved by UNM.
Attachment 3-2

Contractor Eligibility Worksheet

1. General Information:
Contractor Name: ___________________________________________

Worksheet completed by: _______________________________________

Date: ______________

2. Proposed UNM Contract (Name, Number): ______________________

3. Experience Modification Rate (EMR): ______

   List your firm’s Interstate EMR for the past three (3) years and total hours worked. _____
   Year: ______  Year: ______  Year: ______
   EMR: ______  EMR: ______  EMR: ______

   3-year average _____

4. OSHA Statistics:
   Check your type of work for the most recent 3-year period:
   Non-Residential Building, include dates: ______________________
   Heavy (Non-Highway) Construction, include dates: _____________
   Mechanical, include dates: _________________________________
   Electrical, include dates: _________________________________
   Other (State type and dates): _______________________________

   Company Specific OSHA Statistics last 3 years:

<table>
<thead>
<tr>
<th>Year:</th>
<th>Year:</th>
<th>Year:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total OSHA Incident Rate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DART Rate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. of Fatalities</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5. List key Safety and Health personnel planned for this project. Please list name and expected position.

   NAME  POSITION
   ______________________________________________________
   ______________________________________________________
   ______________________________________________________

Safety, Health and Environmental Contractor/Subcontractor Evaluation Worksheet Page 1 of 2
6. List key Environmental personnel planned for this project (as applicable). Please list name and expected position.
   NAME   POSITION

7. Environmental Record
   Has your firm been subject to any environmental enforcement proceedings before a federal or state agency within the last five (5) years? ____

   If Yes, for each proceeding provide the name of the agency, the nature of the proceeding, the charge(s) and the result on an attachment to this form.

   Has your firm violated or exceeded any federal or state environmental standard, requirement, regulation or statute within the last three (3) years? ____

   If Yes, for each violation give a brief description of the nature of the violation on an attachment to this form.

NOTE: This form is for evaluation purposes only and will not be a part of a Contract.
Incident Reporting

All incidents must be reported immediately to the UNM-PM, and Safety and Risk Services immediately. Incidents including work related injuries, illnesses, property damage; spills or releases of hazardous substances, hazardous wastes, wastewater, untreated stormwater; regulatory violation. Priority must always be the safety and health, and appropriate medical treatment to those impacted by an incident. Reporting should be made to UNM PM and SRS within one hour.

Location (city, address/area, building, room, etc.): ____________________________

Severity of Incident (check all that apply): Fatality: □ Imminent Danger: □ Serious: □
Non-Serious: □ Other: □

Type of Incident (check all that apply): Injury: □ Illness: □ Property Damage: □ Wastewater: □
Spill/Release: □ Untreated Stormwater: □ Hazardous waste: □ Haz Substance: □ Other: □

Description of incident (add page(s) as needed):

__________________________________________________________________________

__________________________________________________________________________

Apparent Root Cause: ________________________________________________________

Date of Incident: ___________ Time of Incident: ___________ Company Reporting: ___________

Reported by (Printed name): ________________________________________________

Contact Phone No.: __________________________________________________________

Immediate action taken (attach pages as needed):

__________________________________________________________________________

__________________________________________________________________________

Contact Information:
UNM Safety and Risk Management: Eddie Enriquez
UNM Duty Officer (non-working hours):
UNM PM: Name (TBD)
Contractor PM: (TBD)
Contractor Safety: (TBD)

Phone: 505-277-2753
Phone: 505-951-0194
Phone: (TBD)
Phone: (TBD)
Phone: (TBD)

Signature of Reporting Contractor Employee

Date

11/27/2013
## Training Sign-In – Attachment 6

**Project Name/Location:** ____________________________  **Date:** __________

**Trainer’s Name:** ____________________________  **Subject:** _______________

<table>
<thead>
<tr>
<th>Employee Name (Print)</th>
<th>Signature</th>
<th>ID (last 4 of SSN)</th>
<th>Contact Phone #</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>
Pre-Task Plan (PTP) / Daily Safety Meeting Roster

Activities to be performed today:

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

Hazards and hazard controls associated with those activities:

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

Workers attending (name and last 4 of SSN)

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

PIC conducting PTP meeting (name, last 4) _________________________________  Date: __________

Signature: __________________________________________________________________

Note: JHA’s for work to be conducted today were discussed (and are attached or copies are provided to foreman/workers during the meeting).
SRS Construction Safety Assessment – Attachment 8-1

Location  Campus:__________  Area:____  Building:__________  Room:__________

Contract No:__________  Name of Contractor:____________________________________

SRS Assessor (name):__________  Date:__________  Time of Assessment:__________

SRS Assessor Signature:_____________________________________________________

Description of Activities Assessed:
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Results/Findings (check):  No Issues:____

Non-Serious:____  Field Corrected:_____  Serious:____  De Minimis:____

Reference: Reference the Regulatory standard (OSHA, NFPA, EPA, etc.), and/or CSSP commitment that is not being followed for any finding other than “No Issue.”, along with corrective action required.
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Copy to (fill in name):

Contractor PM  UNM PM  UNM-SRS

Signature of Contractor PM or Safety Officer:_________________________  Date:__________

1

UNM-CSM Attachment 8-1 – SH&E Assessment  11/27/2013
## Contractor Safety Inspection Checklist 8-2

<table>
<thead>
<tr>
<th>Topic</th>
<th>Satisfactory</th>
<th>Unsatisfactory</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>JHA in place for work being performed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-Task Plan / Safety Meeting held today, all attended</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Welding, Open-flame permit</td>
<td></td>
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<tr>
<td>Confined Space/Steam Tunnels</td>
<td></td>
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<tr>
<td>LO/TO</td>
<td></td>
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<tr>
<td>IH exposure issues (Silica, paint, fumes, noise)</td>
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<tr>
<td>Hand tools/Power tools</td>
<td></td>
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<tr>
<td>Housekeeping</td>
<td></td>
<td></td>
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<tr>
<td>Excavation</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Fall Protection</td>
<td></td>
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<tr>
<td>Ladders</td>
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<td></td>
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<tr>
<td>Scaffolding</td>
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<td></td>
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<tr>
<td>Barricades</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Cranes/hoists</td>
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<td></td>
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<tr>
<td>Industrial Trucks</td>
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<tr>
<td>Fire protection</td>
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<tr>
<td>PPE including respirators</td>
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<tr>
<td>Electrical</td>
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<tr>
<td>Traffic, including pedestrian controls</td>
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<tr>
<td>Demolition work</td>
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<tr>
<td>Storm Water</td>
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<tr>
<td>Waste</td>
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<tr>
<td>Spill Prevention</td>
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<tr>
<td>Asbestos/Heavy Metals</td>
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<tr>
<td>Waste-water discharges</td>
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<td></td>
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<tr>
<td>Comments</td>
<td></td>
<td></td>
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</tbody>
</table>

### OVERALL RATING (check the appropriate rating)

- Excellent: ____ Above Average: ____ Average: ____ Below Average: ____ Unsatisfactory: ____

### COMMENTS:

1 Contractor Safety Inspection Form - Attach. 8-2 11/27/12
<table>
<thead>
<tr>
<th>Topic</th>
<th>Excellent/ Above Avg.</th>
<th>Satisfactory</th>
<th>Unsatisfactory</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area neat and orderly</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Storage areas (waste, recyclables): location, neatness</td>
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<tr>
<td>Trash, debris, recyclables in appropriate containers</td>
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<tr>
<td>Containers strategically located throughout?</td>
<td></td>
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<tr>
<td>Ladder access, debris around</td>
<td></td>
<td></td>
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<tr>
<td>Floors: trip hazards, electrical cords, hoses out of walkways, liquids/ice removed?</td>
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<tr>
<td>Tools properly stored when not in use</td>
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<tr>
<td>Floor and Wall Openings/Guarding in place</td>
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<tr>
<td>Ladders: use, access, lack of debris around</td>
<td></td>
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<tr>
<td>Temporary Heaters away from combustables</td>
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<tr>
<td>HazMat Storage and Handling (and contaminated rags, etc.)</td>
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<tr>
<td>Access adequately marked, access appropriate?</td>
<td></td>
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<td></td>
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<tr>
<td>Sharp protrusions absent?</td>
<td></td>
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<tr>
<td>Sanitary facilities provided, adequate?</td>
<td></td>
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<tr>
<td>Washing facilities available?</td>
<td></td>
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<tr>
<td>Break facilities outside hazardous areas?</td>
<td></td>
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<tr>
<td>Water/Hydration station available?</td>
<td></td>
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<tr>
<td>Illumination per OSHA 1926.56 regs?</td>
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<tr>
<td>Comments</td>
<td></td>
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</tbody>
</table>

OVERALL RATING (check the appropriate rating)

Excellent: ___ Above Average: ___ Average: ___ Below Average: ___ Unsatisfactory: ___

Signature: ________________________________
## Contractor Chemical Inventory – Attachment 17

<table>
<thead>
<tr>
<th>Chemical/Product Name</th>
<th>Manufacturer/Distributor Name</th>
<th>Physical State (Liquid, solid, gas)</th>
<th>Original Container? (Y/N)</th>
<th>Container Size</th>
<th>Container Quantity</th>
<th>MSDS Present?</th>
</tr>
</thead>
</table>
The University of New Mexico — Welding – Hot Work Permit

<table>
<thead>
<tr>
<th>Building Information</th>
<th>Permit #</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bldg. Number</td>
<td></td>
</tr>
<tr>
<td>Street Address</td>
<td></td>
</tr>
<tr>
<td>Bldg. Name/Area</td>
<td></td>
</tr>
<tr>
<td>Bldg. Contact</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type of Work</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Type of Work</td>
</tr>
<tr>
<td>- Welding</td>
</tr>
<tr>
<td>- Cutting</td>
</tr>
<tr>
<td>- Brazing</td>
</tr>
<tr>
<td>- Soldering</td>
</tr>
<tr>
<td>- Tack Welding</td>
</tr>
<tr>
<td>- Sweating</td>
</tr>
<tr>
<td>- Hot Tap</td>
</tr>
<tr>
<td>-Other</td>
</tr>
</tbody>
</table>

Work Performed By (Contractor Name):

Supervisor Name:        Supervisor Mobile Phone No:

Location of Work        Type of Unit

<table>
<thead>
<tr>
<th>Floor</th>
<th>Room</th>
<th>Acetylene</th>
<th>Electric Arc</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area</td>
<td></td>
<td>Butane</td>
<td>Other (specify):</td>
</tr>
</tbody>
</table>

Description of Work

Special Precautions

Issue Date - Primary Safety Checks
Time issued - Extinguisher on hand
Start Date - Combustibles cleared
COMPLETION DATE - Firewatch established
Shields in place

Note: Daily permits are for a 24-hour period from the time issued.

Ventilation checked

Inspection Approvals

Print Clearly Signature

Operator Name:        Supervisor Name:

- Contact Campus Safety after operation for final inspection 277-2753
* Signatures above verifies the location has been surveyed. The work area has been rendered safe. Work may proceed

Print Clearly Signature

SRS Approval
Required Safety Precautions

Note: This list may not be all inclusive; the operators, contractor superintendent are responsible for ensuring a safe work area.

1. Ensure the detection/suppression system is in operation and will not be affected. If the system must be shut down, notify all affected departments in the facility.
2. Ensure the cutting/welding equipment is in proper working order.
3. Ensure all combustible materials are kept at least 35 ft from the operation, or are properly protected.
4. Ensure all flammable material is kept at least 50 ft. from the operation.
5. If flammable materials CANNOT be removed, SHEA must approve alternative protection before the operation begins.
6. Ensure proper ventilation of the area is maintained throughout the operation.
7. Cut off All interior ventilation to other parts of the building where smoke/ odors may travel.
8. Ensure an adequate type/size fire extinguisher is on hand and that all operators have been trained in its use.
9. If needed, provide a fireguard/fire watch during the operation and for 30 minutes after completion.
10. If other events are in progress, which cause additional hazard, coordinate with or reschedule one of the operations.
11. Post Warning signs as needed to prevent pedestrian access to the operation area. Prevent tripping hazards.
12. Hot Tap work on tanks/pipes/containers containing flammables (or vapors) require special authorization from SHEA.
13. Operation in open areas may be affected by windy conditions. Precautions shall be taken to reduce airborne sparks.

Permit Posting

Post at work site.
Forward to Safety and Risk Management immediately after permit is issued.

Emergency Contact Information

<table>
<thead>
<tr>
<th>Position</th>
<th>Impact Area</th>
<th>Name</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Area Manager</td>
<td>Area (1 2 3 4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 UNM SRS</td>
<td>Fire Safety</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Building Contact</td>
<td>Notification</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Campus Alarms</td>
<td>If affecting system</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Fire Alarm Shop</td>
<td>If affecting system</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 Construction Super.</td>
<td>Contractor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 Fire Department</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Complete the list of names and phone numbers for posting at the job site in case of an emergency.
# The University of New Mexico
# Welding and Cutting Fire Safety Checklist

## Section 2 - Prior Work Checklist

<table>
<thead>
<tr>
<th></th>
<th>Brief Description of Work</th>
<th>Indicate: y = yes, n=no, N/A=not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>Is the operation in a confined space? (If so, obtain Confined Space Permit)</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Are all welding lines in good condition?</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Is the welding cart placed so as not to block egress?</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Are welding/cutting cylinders (cart) secure?</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Is an adequate size/type fire extinguisher in place (CO2, DC, Wtr)?</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Area free of combustibles? (35 ft in all directions)</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Area free of flammable liquids or solids? (50 ft in all directions)</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Area free of hazardous chemicals? (50 ft in all directions)</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Is welding/cutting (hot work) being done on hazardous piping? (If so, contact OS for special safety recommendations.)</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Is operation near any gas or high voltage lines? (If so, make special arrangements for safety measures.)</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Is stainless steel or filled steel welding being conducted?</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Is area adequately ventilated / (to allow for escape of smoke / gases to the outside of the structure, use a HEPA local exhaust ventilator)?</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Are all possible avenues of smoke travel turned/cut off (to prevent travel of smoke into the building)?</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Is work being done adjacent to combustible construction? If so, check item _____ below.</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Are all required welding curtains in place?</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>If necessary, has a fire watch been arranged?</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>Will this operation create a tripping or other safety hazard? If so, contact Occupational Safety at 7-3116 prior to start of work.</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>Are any fire protection sprinkler halon or dry chemical systems in the immediate area which may be activated from the work? If so, take adequate precautions and contact the appropriate shop for coordination.</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>Have all operators been briefed on fire reporting and evacuation procedures for the facility or area?</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>Do all operators have adequate protective equipment onsite and in use?</td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>HAS THE WELDING/CUTTING PERMIT BEEN PROPERLY FILLED OUT AND SIGNED BY AUTHORIZED PERSONNEL?</td>
<td></td>
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</tbody>
</table>
### Section 3 - After Operation is Complete

<table>
<thead>
<tr>
<th></th>
<th>Question</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>28</td>
<td>Has the firewatch been accomplished? (For hazardous areas, 30 minutes following completion of operation.)</td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>Have all systems that may have been disconnected or shut down been returned to normal operation? (Contact appropriate department to ensure system has been restored in proper order.)</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>Have the occupants been notified that the operation is complete?</td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>Have all barriers and welding curtains been removed?</td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>Has the welding permit been completed and filed with the appropriate department?</td>
<td></td>
</tr>
</tbody>
</table>

### Operator’s Signature ____________________________ Date ___________
The University of New Mexico expends considerable financial assets each year to maintain and enhance the landscaping on Campus. Protecting these valuable resources is critical to our commitment to reducing our carbon footprint, keeping our life cycle costs manageable and continuing our sustainable initiatives. The following specifications are the University's minimal guidelines to be followed during any construction activities on the Campus.

**Minimum plant protection specifications shall include:**

1. Install a four to eight foot high, wood or metal fence installed at or beyond a plant's drip line.

   ![Diagram of tree with drip line](image)

   The drip line is an imaginary vertical line extending from the outermost portion of the tree canopy to the ground. The drip line or critical root area of the plant is the green boxed area. The red boxed area is the structural root area. Damage to any roots in this area is usually fatal to the tree and may leave the plant unstable.

2. This area may also be defined as the product of the tree trunk's diameter in inches at a height of 4.5 feet x 1.5, expressed in feet. Protective barriers should be installed outside this area of the tree's protected root zone.

3. Install eight to twelve inches of organic mulch over the critical root zone for protection and for water retention. Refrain from piling the mulch within six inches of the base of the plant.

---

UNM CSM Plant Protection Guidance – Attachment 25

11/27/2013
4. Provide adequate signage indicating the area is a landscape protection zone and no entry or use of area is allowed.

5. Provide a water source to ensure the root zone is kept adequately moist. Who is responsible for applying the water must also be determined.

6. Locate lay down areas, equipment, or vehicle storage areas, and parking areas away from valuable plant material.

7. Do not allow portable toilets to be staged under or near protected landscapes.

8. Prevent any spills from occurring near protected landscape areas. Do not allow cement trucks or masonry operations to occur near these areas. Do not allow cement trucks to clean out near drainage ditches, trees or shrubs. Quickly clean up and restore any area where spills have occurred.

9. Do not allow any trenching, excavation or storage with in the tree protection zone.

10. Utilities should be routed around the critical root zone. However, if the utilities must be located in the critical root zone area, boring or tunneling, rather then trenching should be performed.

11. If vehicles or construction equipment must travel over the critical root zone area, adequate drive ramps must be used in addition to the mulch.
## Confined Space Permit – UNM Construction Safety Manual

### Description and Location of Confined Space:

<table>
<thead>
<tr>
<th>Potential Hazards (check all that apply):</th>
</tr>
</thead>
<tbody>
<tr>
<td>___ Hazardous Residue</td>
</tr>
<tr>
<td>___ Hazardous Atmosphere</td>
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<tr>
<td>___ Engulfment</td>
</tr>
<tr>
<td>___ Respirable Dust</td>
</tr>
<tr>
<td>___ Flash Fire</td>
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<tr>
<td>___ Electrocution</td>
</tr>
<tr>
<td>___ Poor Lighting</td>
</tr>
<tr>
<td>___ Fall Hazard</td>
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<tr>
<td>___ Minimal Work Room</td>
</tr>
<tr>
<td>___ Moving Machinery</td>
</tr>
<tr>
<td>___ Poor Footing</td>
</tr>
<tr>
<td>___ Hot Surfaces</td>
</tr>
<tr>
<td>___ Solid Mat'1 in-Flow</td>
</tr>
<tr>
<td>___ Injury/Sudden Illness</td>
</tr>
<tr>
<td>___ Hot Work (attach Permit)</td>
</tr>
<tr>
<td>___ Solid Mat'1 out-Flow</td>
</tr>
<tr>
<td>___ Steam/Hot Water</td>
</tr>
<tr>
<td>___ HazWork Permit required:</td>
</tr>
<tr>
<td>__ Other (Specify):</td>
</tr>
</tbody>
</table>

### Required Precautions Before Entry:

- Isolate and lock-Out/Tag-Out:
  - Test atmosphere in space for: ___ % oxygen
  - ___ % LEL
  - ___ ppm H2S
  - ___ PPM CO

- ___ Other (specify):
- ___ Barricade Opening
- ___ Ventilation
- ___ Add Lighting
- ___ Rescue available

### Precaution During Entry:

- ___ Rescue harness
- ___ Tripod for rescue
- ___ Ventilation
- ___ Respirator
- ___ Cartridge (specify which type):
- ___ Monitor Atmosphere
- ___ GFI/Low Voltage Equipment
- ___ Other PPE (specify type of coveralls, gloves, boots, etc.):

### Other:

**Emergency Action Plan: Dial 911**

Entrant shall immediately self-evacuate if a hazard is detected or perceived. Stand-by person should use on-site phone to call 911 in case emergency assistance must be summoned. If entrant is attached to a lifeline, attempts to extricate without entering the confined space. Stand-by person SHALL NOT enter to perform an unassisted internal rescue.

### Entry Permit Authorization:

- Permit Issued by (SRS Person): ____________
- Date Issued: ____________

- Name of Confined Space: ____________
- Date Expires: ____________

**Scope of Work:**

___ Signatures of Authorized Entrants and Attendants. Signatures verify that Confined Space Plan, Safety Data Sheets and JHA’s have been reviewed.

1. ____________________________  2. ____________________________
3. ____________________________  4. ____________________________
5. ____________________________  6. ____________________________

**Signature of Confined Space Supervisor:** ____________  **Date:** ____________
Utility Tunnel Procedures

Steam Tunnel Entry Procedures

A. Planning for work in steam tunnels:
   1. The manager of the UNM Utility Department shall be notified prior to the entry of any individual into the steam tunnel system, and approve the work plan prior to entry.
   2. Workers will be oriented on the scope of work and sequence of work within the utility tunnels.
   3. A Job Hazard Analysis (JHA) will be developed which lists all potential hazards, means and methods of hazard control, and emergency procedures.
   4. Workers in and to support the utility workers will be oriented on the JHA in item 3 above prior to the work being performed.
   5. Pre-planning discussions will address:
      - ID and location of energized steam lines, energized compressed air lines, high voltage electric conductors, hot surfaces.
      - Signs and symptoms of heat exhaustion and heat stroke
      - Lighting
      - Means of communication
      - Entry and egress
      - Hazards created by work activity (welding/cutting, etc.)
      - External hazards (in roadways, etc.)
      - Steam line de-energizing and lo/to procedures
      - Potential emergency situations and plans
      - Ventilation to be used
      - PPE required

B. Entry into utility tunnels will requires:
   - Post the name and location of the tunnels where work is being performed at the site.
   - Identification of entry and exit points by all personnel working in the tunnels
   - The buddy system will be used for those entering the steam tunnel system.
   - All entering the tunnel system shall carry a portable flashlight and two-way communication equipment at all times
   - Protective leather gloves shall be worn when working in the steam tunnels, plus other job-specific PPE.
   - Hot work requires forced air ventilation and atmospheric monitoring for flammable gas, oxygen and carbon monoxide.
   - Standard sized welding gas cylinders shall not be taken into steam tunnels.
   - Notifying the UNM Utilities Manager when the work is completed, and all have exited the tunnels.
C. Emergencies

1. If acute threat to safety and health is observed or perceived, all personnel shall immediately exit the tunnel by the nearest means of egress and:
   - Assist injured to escape
   - Provide first-aid/CPR as needed
   - Secure the job site
   - Phone for emergency response as needed (911), with location of where response is needed (posted at entrance to tunnel).
UNM Construction Safety - Lockout/Tagout Program and Permit

Number: __________________

**Equipment or machinery**
Location of equipment or machinery ________________________________
Description: ______________________________________________________

______________________________________________________________

Area: _______ Building: _______________ Room No. ______
Other: ________________________________________________________

**Name of Equipment Owner/Operator:** ____________________________

Organization/Contact Information: ________________________________

Owner notified prior to locking and tagging out? YES ☐ NO: ☐

**List energy sources:**
1. _____________________________________________________________
2. _____________________________________________________________
3. _____________________________________________________________
4. _____________________________________________________________
5. _____________________________________________________________
6. _____________________________________________________________

**Identify associated energy-isolation devices** (circuit breakers, disconnects, valves, slide gates, slip blinds, blocks, etc.):

Energy-isolation device identification
Location _________________________________________________________

Required Position (be specific such as ‘valve closed,’ etc.):
1. _____________________________________________________________
2. _____________________________________________________________

1 of 5  UNM CSM Attch. 27-1 – LO/TO Program & Permit  11/27/2013
3. 

4. 

5. 

6. 

Group Lockout/Tagout? Yes ___ No ___
If yes, identify lead authorized worker:

If shift or personnel change, identify other lead authorized worker:

Shift or personnel change? Yes ___ No ___

Independent verification required (contact facility owner/designee for determination)?
Yes ___ No ___

List of authorized workers (print) and last-4 of SSN:

1. ____________________________ 5. ____________________________
2. ____________________________ 6. ____________________________
3. ____________________________ 7. ____________________________
4. ____________________________ 8. ____________________________

Describe in detail, where necessary, how each of the required steps of the lockout/tagout procedure will be accomplished:

1. Evaluate energy sources and identify energy isolation devices for each source. List above.

2. Legibly complete all of the information on the lockout/tagout tag.

3. Are you a Contractor? Yes ___ No ___
If you are a subcontractor, notify affected workers and work under Contractor’s LO/TO program.
If you are a Contractor, notify the equipment owner/operator/Facility Owner and have him/her complete the following:

I accept the responsibility for notifying affected workers prior to the shutdown and restart of equipment. My signature approves the start of this work:

Signature of Equipment Owner/Operator/Facility Owner     Date

Print Name     Organization

I must be personally notified prior to any testing, positioning, or restart of the equipment:  
Yes______ No______
(Initial) (Initial)

I must be personally notified prior to the start of equipment:  
Yes______ No______
(Initial) (Initial)

If yes, contact information:

Phone:____________________ Pager:_____________ E-mail:____________________

4. Describe the specific steps for shutting down equipment or machinery (unless the equipment is already shut down):

5. Describe the method(s) of isolating the equipment from the energy source(s), including any sequencing required:

6. Lock and tag out the energy isolating device(s) using a Contractor or UNM-issued red lock and tag.

7. Describe how to relieve all potentially hazardous stored or residual energy:
8. **Describe how to verify** that the equipment has been effectively isolated from the energy source and rendered safe (see requirements in Section 1.1.9 for electrical lockout/tagouts). Include any PPE required during verification:

9. **Describe the work that will be done** and any hazards/controls associated with the work. Describe method(s) for testing and/or positioning equipment upon completion of work.

10. **Describe steps for returning equipment to service.**

11. **Describe interfaces (if multiple craft or organizations),** how independent verification or shift change will be done, justification and actions required for tag only, and/or any other relevant information to ensure safety.
Approval of this specific written procedure:

Contractor LO/TO Supervisor – last 4 SSN

(Date)

Independent verification of removal from service (if required by FOD/designee).

(UNM Independent Verifier – Last 4 of SSN)

(Date)
Section 1. Section 1 will be completed by the Contractor.
Prepared by:

Organization:

Phone Number __________________________
Work Request Number/Contract N.: __________________________

Equipment, Machinery, or System Location:

Building:
Room:
Other:

Specific Written Procedure Required? Yes ___ No ___
A specific written procedure is required if:
• There is more than one energy source;
• More than one energy isolation device must be locked out to fully control the energy;
• The energy isolation device is not readily identifiable;
• The energy isolation device cannot be locked;
• There will be shift or personnel changes that will affect the status of the lockout/tagout;
• There is a group LO/TO;

If Yes, this form is not required. Complete a specific written procedure (Construction Safety Manual, Attachment 27-1).
If No, complete the following:

Energy type: __________________________ Energy-Isolating Device: __________________________
Section 2. Section 2 will be signed by the equipment owner/operator.

**Equipment Owner/Operator Notification**

Authorized workers will notify the equipment owner/operator before starting work. The equipment owner/operator will complete the following:

I accept the responsibility for notifying affected workers prior to the shutdown and restart of equipment. My signature approves the start of this work:

---

Signature of Equipment Owner/Operator  Date

Print Name  Organization

I must be personally notified prior to any testing, positioning, or restart of the equipment:  Yes____  No____

(Initial)  (Initial)

I must be personally notified prior to the start of equipment:  Yes____  No____

(Initial)  (Initial)

If yes, contact information:

Phone:  Pager:  E-mail:  
---
IHEA Requirements

Assessing risks (safety and health) and identifying ways to mitigate those risks, prior to performing work, is a cornerstone OSHA requirements. IHEAs are necessary to identify all worker health risks and provide a reasonable estimate of worker exposure to hazards like chemicals and noise so adequate health protection is in place before exposure occurs. This IHEA Guide is a summary of the process to comply with these OSHA requirements for preventing worker health exposures at UNM. This IHEA Guide has been developed for ease of use by Contractor corporations to meet their Industrial Hygiene responsibilities (UNM Construction Safety Manual, Section 35). It is intended for use by a qualified industrial hygienists (IHs) only.

Common Worker Health Risks

Construction activities produce a variety of health exposure potentials, but below are those which are the most common:

1. Silica exposure above the OSHA PEL (excavation; stucco, concrete, brick, or block cutting, grinding, jack-hammering; street sweeping; related activities)
2. Exposures during application of coatings (Spray painting, paint solvents, epoxies, etc.)
3. Welding fume exposure in poorly ventilated areas.
4. Excessive noise from hand/power tool operation during construction, remodeling, or related operations.

Please note that these may not be the only health hazards your workers encounter; and it is the employer's responsibility to assess the activities to be performed for hazards, including potential health hazards from chemical and physical exposures, and put the mitigating engineering, administrative, or PPE measures in place prior to workers performing this work.

References:
OSHA 29 CFR 1926 Regulations for Construction Safety
OSHA 29 CFR 1910 Regulations for General Industry
ACGIH Industrial Hygiene Exposure Assessment Strategies
UNM Construction Safety Manual
Hazardous Work Permit for Used Chemical Drains and Exhaust Ventilation Work

<table>
<thead>
<tr>
<th>Project Name/No:</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location (Bldg, Room, Area, etc.):</td>
<td></td>
</tr>
<tr>
<td>Date work to be performed:</td>
<td>Estimated Project Duration:</td>
</tr>
<tr>
<td>Description of work (attach drawings, plans as needed for accurate description):</td>
<td></td>
</tr>
</tbody>
</table>

### Safety and Risk Management issues:

1. Site characterization for potential health hazards by SRS completed and provided to contractor (Y/N): ____
2. Historical use information gathered (Y/N): ____
3. Hazards and Controls Documented in a JHA? (Y/N): ____
4. JHA controls in place (attached)? (Y/N): ____

Approved by SRS: SRS Approval Signature: Date: ______

Work satisfactorily completed, and notice of completion sent to SRS? (Y/N): ____

Comments:

Contractor Signature: Date: ______

Note: SRS approval of JHA required prior to performing work on legacy chemical waste lines or legacy exhaust ventilation systems used for hazardous materials exhaust
## Construction Safety Manual - Direct Reading Instrument Sampling Form

**Project:**

<table>
<thead>
<tr>
<th>Date/Time Measured</th>
<th>Location Description</th>
<th>Reading</th>
<th>Range or average (if applicable)</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>

**Notes and Diagrams:**

## Industrial Hygiene Direct-Reading Sampling Form

**Sampling Conducted by:**

<table>
<thead>
<tr>
<th>Location of Sampling</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

**Agents Monitored**

**Site Information**

<table>
<thead>
<tr>
<th>PPE in Use</th>
<th>Engineering Controls</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</tbody>
</table>

**Instrument Information**

<table>
<thead>
<tr>
<th>Brand</th>
<th>Model</th>
<th>SN#</th>
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<tbody>
<tr>
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</tbody>
</table>

**Calibration Information**

**Process Description**

---

UNM CSM Attachment 35-3 – Direct Reading Instrument Data Form  11/27/2013
Bulk-Swipe Sampling Field Data Collection Form

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Date Collected</th>
<th>Analytical Lab Name:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collected by (name)</td>
<td>Phone No:</td>
<td></td>
</tr>
</tbody>
</table>

Sampled for: 1. Potential Hazard(s) 2. Sampling/Analytical Method(s)

<table>
<thead>
<tr>
<th>Sample NO.</th>
<th>Volume or Size</th>
<th>Units of Measure</th>
<th>Location</th>
<th>Swipe / Bulk (S/B)</th>
<th>Collection Media/ Comments</th>
</tr>
</thead>
<tbody>
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</table>
# Noise Sampling Field Data Collection Form

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Date Collected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collected by (name)</td>
<td>Phone No:</td>
</tr>
<tr>
<td>Sampling Instrument Used:</td>
<td></td>
</tr>
<tr>
<td>Name:</td>
<td>Serial No:</td>
</tr>
<tr>
<td>Factory Calibration Date:</td>
<td>Pre Cal dB reading:</td>
</tr>
<tr>
<td>Field Calibration Unit Serial No:</td>
<td>Date Field Cal Unit Calibration Date:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>I/C (Impact/continuous)</th>
<th>Reading</th>
<th>dB, dBA, dBC?</th>
<th>Type:</th>
<th>Location / Location ID (see map)</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
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**Type of Readings:** **8-Hr** = (8-hour TWA dBA); **P** = Peak; **Avg.** = Average dBA (Calculated 8-hour TBA); **O** = Other
**IH SAMPLING FORM**

<table>
<thead>
<tr>
<th>PROJECT NAME:</th>
<th>PROJECT NO:</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOCATION:</td>
<td>SAMPLE TYPE (circle one):</td>
</tr>
<tr>
<td></td>
<td>Breathing Zone (PBZ)</td>
</tr>
<tr>
<td></td>
<td>Hearing Zone (PHZ)</td>
</tr>
<tr>
<td></td>
<td>Area (A)</td>
</tr>
<tr>
<td></td>
<td>Grab</td>
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<table>
<thead>
<tr>
<th>SAMPLING INSTRUMENT Name and Model:</th>
<th>SAMPLE MEDIA:</th>
</tr>
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<tbody>
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<table>
<thead>
<tr>
<th>ANALYTE ▼</th>
<th>METHOD ▼</th>
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<tbody>
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**CALIBRATION DATA**

<table>
<thead>
<tr>
<th>PRE-Calibration</th>
<th>POST-Calibration</th>
<th>Calibration Instrument &amp; Serial #:</th>
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<thead>
<tr>
<th>AVERAGE OF TEN READINGS - FLOW (LPM)</th>
<th>AVERAGE OF TEN READINGS - FLOW (LPM)</th>
<th>AVERAGE PRE &amp; POST:</th>
</tr>
</thead>
<tbody>
<tr>
<td>PUMP 1</td>
<td>PUMP 1</td>
<td>PUMP 1</td>
</tr>
<tr>
<td>PUMP 2</td>
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</table>

**WORKER/JOB DATA ▼**

<table>
<thead>
<tr>
<th>JOB-LEVEL ACTIVITY (JLA) – Describe the activity being performed FOR EACH WORKER:</th>
</tr>
</thead>
<tbody>
<tr>
<td>WORK SHIFT Duration (Hours):</td>
</tr>
<tr>
<td>FPE/CONTROLS Being Used:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>WORKER Name:</th>
<th>Pump Being Used. Assign a Sample Number, other info:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</table>

**SAMPLING DATA ▼**

<table>
<thead>
<tr>
<th>SAMPLE #</th>
<th>TIME ON</th>
<th>TIME OFF</th>
<th>TIME (MIN)</th>
<th>VOLUME (L)</th>
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**SAMPLING FIELD NOTES ▼**
<table>
<thead>
<tr>
<th>PROJECT NAME:</th>
<th>PROJECT NO:</th>
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<tr>
<td>LOCATION:</td>
<td>SAMPLE TYPE (circle one):</td>
</tr>
<tr>
<td></td>
<td>Breathing Zone (PBZ)</td>
</tr>
<tr>
<td>SAMPLER NAME:</td>
<td>DATE:</td>
</tr>
</tbody>
</table>

Sample Collection Date:
Chemical Spill Report Form - Construction Safety Manual

Please forward to Safety and Risk Services:
Fax: (505) 277-9006     Working Hours Phone: (505) 277-2753
After Hours Phone: (505) 951-0194

Information in this block to be completed by Contractor:

Date of spill:___________ Time of Spill:___________

Contractor Contact Name:________________________ Phone No:________________________

Spill Location (bldg., room/outside location – be specific):

Material Spilled:________________________________ Amount Spilled:__________________

Spill Response Actions Taken:

Recommendations regarding spill clean-up efforts:

Contractor Signature:________________________ Date:

Block to be completed by UNM-SRS

Analysis of spill response:

Spill response successful (Y/N)_____ Actions to be implemented to improve future spill response activities by Contractors:

SRS Signature:________________________________ Date:________________________