



The University of New Mexico

Safety and Risk Services

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## SRS Contractor Requirements

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*In accordance with all applicable environmental, health & safety (EH&S) laws and regulations, SRS provides the following additional list of requirements that the contractors/constructors of new & remodeled UNM facilities must incorporate into their scope of work, if applicable. This list is only intended to be an aid regarding requirements that, if all listed, would take volumes to include in specific detail. This list does not release the obligation to fully comply with the specific details of the multitude of EH&S laws & regulations that may apply to the design and construction of facilities at UNM.*

Construction services shall comply with the specifications or other technical guidance furnished by the University of New Mexico; shall comply with the applicable requirements for all facility designs with regard to any facility, facility addition, or alteration or facility lease. Construction planning/implementation will require an analysis of hazards associated with the renovation or demolition of existing structures, such as hazardous material removal (e.g., lead-based paint and asbestos-containing materials), site preparation, trenching and excavation, heavy equipment and machinery use, materials handling equipment, lock-out/tag-out, power tools, walking and work surfaces, confined spaces, HVAC systems, exhaust ventilation for contaminants (including hoods), quality and quantity of makeup air supplied to work areas, etc.

It is the primary contractor's responsibility to ensure that all sub-contractors comply with these guidelines. UNM-SRS representatives may periodically visit the work site to assist in correcting or coordinating any EH&S issues between the contractor and UNM. Most EH&S violations will be brought to the attention of the Construction Manager. In the case of imminent danger (potential accident, fire or environmental damage, or danger to the public), the UNM-SRS Representative will request that the work be stopped until the situation is corrected or appropriate precautions are put into place.

**NOTE: THE CONTRACTOR IS FULLY RESPONSIBLE FOR HAVING A EH&S COMPLIANCE PROGRAM. THE CONTRACTOR SHALL PROVIDE A HEALTH AND SAFETY PLAN BASED ON A HAZARD ASSESSMENT OF ALL WORK ACTIVITIES AND HAZARDS POTENTIALLY ASSOCIATED WITH THE CONSTRUCTION SITE. CONTRACTOR LINE MANAGEMENT IS RESPONSIBLE FOR THE PROTECTION OF EMPLOYEES, THE PUBLIC, AND THE ENVIRONMENT. THE UNIVERSITY OF NEW MEXICO DOES NOT TAKE RESPONSIBILITY OR ACCEPT LIABILITY FOR CONTRACTOR COMPLIANCE. INCLUSION OF GUIDANCE IN THIS DOCUMENT DOES NOT IMPLY THAT COMPLIANCE WITH THIS DOCUMENT WILL RESULT IN COMPLETE COMPLIANCE WITH ALL APPLICABLE REGULATIONS AND STANDARDS.**

### **I. Environmental Compliance**

#### **A. Air Quality**

##### **1. Dust Control – CSI Div. 2**

- a. All projects disturbing more than 3/4 acre of soil or pavement, or more than 75,000 cubic feet of building volume must obtain a Fugitive Dust Permit in advance from the City Air Quality Division (AQD) prior to breaking ground and must comply with the associated AQD-approved Dust Control Plan.
- b. Required dust controls must be maintained over project duration, including site watering, track-out prevention, street-sweeping and covering all truckloads of soil to/from site.

2. Combustion Equipment – CSI Divs. 11, 22, 23 or 26
  - a. Final combustion equipment selection shall not have higher horsepower, heat input or air emissions than what is specified in the design due to air quality permit constraints.
  - b. Provide SRS with manufacturer specifications for final equipment selections, including air emission rates, as soon as final selection is made.
3. Ozone Depleting Substances (e.g., Freons & related refrigerants) – CSI Div. 23
  - a. Refrigerants must be recovered prior to demolition of refrigeration (including drinking fountains) & HVAC equipment.
  - b. Technician certification – Refrigerants shall be recovered only by EPA-certified technicians and then must be recycled or reused.
4. Chemical Emissions – CSI Div. 9
  - a. Only “low-VOC” architectural coatings, adhesives, sealants, solvents etc., shall be used.
  - b. VOC reporting – a written inventory of total coatings, adhesives, solvent, etc., volumes used and VOC contents shall be submitted to SRS prior to receiving final payment from UNM.

The list above stems from UNM’s Title V Operating Permit and 20.11 NMAC requirements as available from the City of Albuquerque Environmental Health Dept. Air Quality Division and their website.

**B. Biological Safety** – CSI Div. 1 or 2

1. For any work areas that are posted as bio-hazardous, the UNM Biosafety Officer (272-8001, alternate 277-5488) must be contacted for clearance prior to start of work.

The list above stems from UNM policies related to bio-safety.

**C. Chemical Safety** - CSI Divs. 11, 22, 23 or 26

1. Bulk chemical storage
  - a. For drums or other containers of hazardous or otherwise regulated liquids larger than 25 gallons, secondary containment (and grounding for flammables) is required for on-site storage and dispensing operations.
  - b. Areas or rooms used for storage of hazardous or otherwise regulated liquids larger than 5 gallons shall not have floor drains installed; existing floor drains in such areas should be plugged.
  - c. Areas or rooms used for storage of flammables and fuels shall have appropriate fire suppression systems. Flammables shall be in original containers or safety cans, and stored in cabinets remote from traffic.
2. Areas or rooms used for chemical storage shall have appropriate ventilation.
3. Hazardous Chemicals
  - a. Contractor shall maintain on-site copies of Material Safety Data Sheets (MSDSs) for all hazardous material brought onto the site. These MSDSs must be kept readily accessible for employee use.
  - b. All hazardous materials and wastes shall be properly labeled and stored while on site.
  - c. All contract personnel shall be trained in the proper management of hazardous materials to the appropriate level as determined by the work performed.
  - d. All hazardous material brought onto the site or generated at the site shall be removed by the contractor.
  - e. All hazardous material shall be used in such a way as to eliminate or minimize exposure to all personnel and the environment.
  - f. Spills shall be promptly cleaned up and properly disposed. Spills larger than 25 gallons of regulated materials shall be promptly reported to SRS

The list above stems from requirements in various parts of 40 CFR, 29 CFR and UNM’s Pollution Prevention Agreement MOU with the City Public Works Dept., June 2002.

**D. Drinking Water Quality** – CSI Div. 22

1. NMED Certified Technicians must supervise the sanitizing of new connections or damage to UNM’s drinking water utility system.
2. Adequate drinking water must be provided by the project during the duration of utility interruptions.

The list above stems from 20.7.10 NMAC regulations and historical practice at UNM.

#### **E. Storm Water Quality** – CSI Divs. 2, 3, 4, or 9

1. For projects disturbing more than 1 acre of soil or pavement, prior to breaking ground, contractor must make required EPA notifications (e.g., NOI and NOT) obtain an NPDES permit or waiver, and develop and comply with any required site-specific Storm Water Pollution Prevention Plan (SWPPP). SRS may request revision of contractor's SWPPP. UNM may with-hold payment for contractor non-compliance.
2. Any required storm water controls must be regularly inspected & maintained over project duration.
3. Washing out construction equipment on-site
  - a. Permitted in PPD-approved pit locations for biodegradable and non-hazardous water-based material (e.g., latex paints, concrete) wash rinsate. Rinsate of water-based paints may also be washed down the sanitary sewers if PPD allows.
  - b. Oil- & solvent-based materials washing rinsate must be properly disposed off-site.
  - c. No on-site disposal of unused materials other than clean soil with PPD approval.
4. Trash Control – all exterior trash that may become wind-blown or wash off-site with storm water must be picked up at least daily.
5. As the site operator, the constructor (GC or CM, etc.) will be responsible for all EPA Construction General Permit (CGP) requirements, e.g., but not limited to meeting & maintaining construction site storm water quality discharge requirements, SWPPPs, NOIs, BMPs, inspections, record-keeping, reporting, monitoring, NOTs, etc. until UNM formal acceptance of the completed project.

The list above stems from UNM's NPDES Permit requirements and associated Clean Water Act regulations in 40 CFR Parts 122, 123, 124 and several others available at the EPA's <http://cfpub.epa.gov/npdes> website.

#### **F. Surplus Property** – CSI Divs. 7, 9, 10, 11, 22, 23 or 26

Prior to demolition or removal, any equipment containing hazardous or otherwise regulated materials must have those materials abated/removed unless instructed otherwise by UNM Surplus Property to maintain equipment resale value.

The list above stems from requirements in various parts of 40 CFR as available on the [www.epa.gov](http://www.epa.gov) website.

## **II. Fire Safety**

This is provided as the standard policy for UNM construction and renovation projects as it relates to safety. Required and recommended practices in this policy are derived from the National Fire Protection Association (NFPA) Standards and the International Fire Code (IFC). The New Mexico State Fire Marshal's Office has adopted the IFC as standard requirements for construction and life safety. This office recognizes that Architects and Engineers commonly use the International Building Code (IBC). In compliance with State statute and the State Fire Marshal's Office, the most stringent code application will apply to all projects at UNM. Issues listed below as "**UNM Requirement**" indicate UNM requirements exceeding code standards.

The contractor will provide at least 24 hour notice to SRS, of any work that will, or may, adversely impact the building fire alarm, detection or suppression systems. In the event the fire detection, alarm or suppression system(s) is (are) disrupted due to negligence and/or failure to coordinate as required, the Contractor may be held liable for repair costs, and shall be required to assist with the execution of Interim Life Safety Measures, including personnel for Fire Watch.

#### **A. Project Reviews**

UNM has many potentially hazardous situations which must be addressed at the earliest possible time of a planning stage of a project. Safety and Risk Services (SRS) must be coordinated with during all stages of the planning, review and construction phases. Areas which cause the greatest concerns are: construction material, fire detection and/or suppression systems, life safety devices, and emergency egress from the facility as well as access to the facility for emergency response. SRS has several on-going projects to bring UNM into full compliance with current safety standards.

#### **B. Construction Sites and Temporary Facilities**

1. All construction sites and temporary facilities on the construction site will comply with NFPA 241, "Safeguarding, Construction, Alteration, and Demolition Operations."
2. If traffic flow or road access must be interrupted or roads closed, the contractor is responsible for notifying SRS at least 48 hours in advance.

#### **C. Dumpsters** – CSI Divs. 2

1. Flammable liquid or other hazardous waste will not be disposed of in the dumpsters. This material must be properly disposed of according to Department of Transportation regulations and as determined by SRS.
2. The location of dumpsters will not hinder emergency access to the site, emergency egress from the building/site or obstruct fire hydrants or other emergency equipment.

**D. Pedestrian Control** – CSI Divs. 2

1. The contractor will be responsible for preventing access to the building site to unauthorized person. Pedestrians can create safety hazard issues as well as fire safety hazards.
2. Barriers to prevent unauthorized pedestrian traffic will not cause obstructions to emergency vehicle access.
3. Since many authorized pedestrians may visit the site, the contractor will place temporary EXIT signs (reflective or luminescent, paper or plastic signs are recommended) where needed in building sites.

**E. Project Record Documents** – CSI Divs. 1

1. A final set of shop drawings (as-builds) for all fire suppression systems will be provided to SRS after completion of work.

**F. Welding** – CSI Divs. 2

1. The contractor will be responsible for providing an on-site welding permit system according to OSHA 29CFR1926 and NFPA 51B.
2. The contractor will ensure that all welders are properly trained and certified in the specific type of equipment they are to use on the project.
3. The contractor will ensure that welding operations do not occur when other fire hazard situations exist in their area, other hazardous operations are in process or flammable liquids are in the area.
4. SRS will be notified when welding operations may affect other UNM facilities.

**G. Fire Barrier Penetrations** – CSI Divs. 7, 8 or 10

1. All penetrations through fire rated walls, floors, ceilings, barriers and partitions will be appropriately filled with approved "FIRE STOP" material.
2. The material must carry an Underwriters Laboratory and Factory Mutual listing/approval for the application to be used. Documentation from the manufacture must be provided to SRS for review.
3. Any wall extending floor-to-floor vertically and wall-to-wall horizontally will be considered a smoke barrier as a minimum. Fire doors may not be propped open at any time while work is being performed.

**H. Fire Alarm Detection and Protection Systems** – CSI Divs. 7, 8, 10 or 22

1. Contractors will be responsible for replacing smoke detectors with heat detection devices in the construction area to prevent false alarms from airborne dust. This must be done prior to the start of a construction project and must be returned to smoke detectors upon completion. Smoke detector covers, or any type of cover is prohibited.
2. All fire protection systems will receive a 100% device/operational test, performed by the installing contractor and witnessed by a SRS representative. The test will include activation of each pull station, smoke detector, flow/tamper switch, alarm notification device and connection through the fire alarm panel to Campus Police dispatch.
3. Water outages related to any existing fire sprinkler system (whether it affects the project building or other buildings) will be coordinated with the SRS.

**I. Fire Alarms** – CSI Divs. 7, 8, 10 or 22

1. The contractor will coordinate with Information Technologies Department, Alarms Division prior to start of work on any new or existing fire alarm system in order to alert SRS and UNM agencies and building occupants that a fire alarm system may be out of service.
2. Additional requirements as noted by the UNM Alarms.
3. Related Documents. Secure permits and approvals prior to installation. Prior to commencement and after completion of work notify Authorities Having Jurisdiction.
4. Related Work. The Contractor shall coordinate work in the section with all related trades. Work and/or equipment provided in other sections and related to the fire alarm system shall include, but not be limited to:
  - a. Sprinkler water flow and supervisory switches shall be furnished and installed by the plumbing contractor or fire alarm contractor, and wired by the fire alarm contractor.
  - b. Duct smoke detectors shall be furnished, wired and connected by the fire alarm contractor. The HVAC contractor shall furnish necessary duct opening and installation of the duct smoke detectors.
  - c. Air handling and smoke exhaust system fan control circuits and status contacts to be furnished by the HVAC control equipment contractor or as shown on the contract drawings specifically for this project.
  - d. Elevator recall control circuits to be provided by the elevator control equipment.
  - e. The sprinkler system control equipment contractor shall provide wet pipe flow and tamper switches, dry

- pipe/deluge sprinkler system release valve control circuits and supervision contacts.
  - f. Emergency generator supervision contacts to be provided by the emergency generator control equipment.
  - g. Fire Pump supervision contact to be provided by the fire pump control equipment.
- J. Spare Parts and Tools.** Spare parts shall directly interchange with the corresponding components as furnished in the installed systems. Spare parts and accessories shall be suitably packaged and identified by nameplate, stamping or tagging. Provide the following spare parts and accessories.
- a. 1 spare pull station
  - b. 1 spare horn/strobe
  - c. 1 spare “module”
  - d. 1 spare of each type of smoke detector installed (ion, photo)
  - e. 1 heat detector
5. The contractor shall furnish a list of all other spare parts and accessories which the manufacturer recommends to be stocked for maintenance of the system.

### **III. OSHA Compliance**

1. All excavation operations in which the trench/hole will be deeper than three (3) feet must be properly shored or terraced according to OSHA Standards.
2. During trenching operations the contractor will have a written emergency extraction plan on site and all personnel will be trained in the plan. All safety and rescue equipment necessary will be on-hand and all personnel involved in the operation will be trained in its use.
3. A means of immediate communication to emergency responders will be provided at the trenching site at all times when personnel are in the trench.
4. Contractors will be responsible for implementing a safety program and maintaining compliance with all OSHA requirements while on the construction site.
5. At no time will a Contractor leave any switch gear, panels, or outlets open or exposed in a public area without having a staff working on or guarding the exposed electrical service. Circuit breakers shall not be taped in the open position.
6. All gas cylinders shall be properly labeled. All cylinders shall be kept in the upright position and properly secured.

### **IV. Industrial Hygiene**

**A. Indoor Air Quality** - CSI Divs. 2, 3, 4, 5, 7, 8, 9 or 23

1. The Contractor is responsible for ensuring that prior to construction; ventilation systems are isolated to prevent air recirculation into occupied areas. The Contractor will coordinate with Office of Capital Projects and the Physical Plant Department to address ventilation issues prior to, during and after construction. Proper air exchange rates and pressure relationships in critical areas near construction must be maintained.  
Vibration or disturbances may dislodge dust which has collected above suspended ceilings. Damp mopping should be used for dust control and cleaning.
2. If the work is to be performed in an area adjacent to UNM staff offices or classrooms, a barrier system must be installed to physically separate the construction area from the occupied area. This includes isolating the ventilation system and constructing an appropriate barrier. Doorways and vents should be sealed off, as appropriate and necessary. A portable air scrubber to filter particulate and/or chemical vapors generated during the construction/renovation should be considered and may be necessary.
3. When work is to be performed near supply air intakes for the building, consult with SRS and PPD to determine whether it is desirable or appropriate to close the outside air dampers (esp. membrane roofing). Because the University has complex buildings, many having multiple local exhaust systems, this determination must be made on a case-by-case basis.

**B. Hazardous Materials** - CSI Divs. 7, 9, 22, 23 or 26

1. Pre-Construction/Renovation/Demolition Survey & Abatement to be performed by SRS prior to any impacting of building materials.
  - a. Survey & abatement of hazardous materials present in proposed demolition areas are performed by SRS and coordinated through the UNM Project Manager.

2. Asbestos/Lead Awareness Training
  - a. If asbestos and/or lead-containing materials are known to be present in the work area, then asbestos/lead awareness training must be completed prior to any construction workers being sent/assigned to work in such a work area, and appropriate PPE must be worn when required by work conditions.
  - b. Do not impact materials or generate airborne dust, which may contain asbestos- or lead-containing materials.
3. The Contractor will ensure that a Material Safety Data Sheet is on site and available for each chemical (solvents, adhesives, etc.) brought onto the worksite as required by the OSHA Hazard Communication Standard, CFR 1910.1200.
4. Hazardous materials that could cause illness if released or not properly used shall be kept properly stored. If any report of serious illness on site is reported, the contractor should shut down that particular operation until the situation is corrected.
5. Installation and/or application of lead-based paint and asbestos-containing materials during renovation are prohibited.

**C. Respiratory Protection** - CSI Divs. 2, 3, 4, 5, 7, 9, 22 or 23

When exposure to gases, fumes, vapors or dust may exceed the OSHA PEL, the contractor shall be responsible for the establishment and maintenance of a respiratory protection program. All respirators shall be approved by NIOSH and shall be suitable for the airborne hazards at the worksite. Self-contained breathing apparatus must be worn when employees work in an oxygen-deficient atmosphere. Appropriate respiratory protection is required for painters during spraying operations. Paint spraying operations are prohibited in confined spaces.

**D. Hearing Protection** - CSI Divs. 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 22, 23 or 26

Hearing protection is required by OSHA regulations when employees use tools and equipment, which produce noise in excess of 85 dBA and requires the contractor to manage a Hearing Conservation Program. This program would require training, provision of a selection of hearing protectors, audiometric testing and noise monitoring.

**E. Illumination** - CSI Divs. 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 22, 23 or 26

Contractors shall provide adequate illumination for all work areas.

**G. Hazard Communication Program** - CSI Divs. 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 22, 23 or 26

The contractor shall provide a program to identify, inform and train employees about hazardous materials, gases, or liquids that may be introduced, produced, or encountered in the work area. Copies of MSDSs and training records showing that employees have met all required training requirements for the use and handling of toxic or hazardous materials shall be kept at the construction site for review by UNM's inspectors.

**H. Personal Protective Equipment** - CSI Divs. 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 22, 23 or 26

The contractor is responsible for ensuring proper usage of personal protective equipment. All workers within the construction site or area must wear personal protective equipment at all times, including hard hats, eye protection, safety shoes, and protective clothing (long pants and shirts with sleeves covering the shoulders at a minimum). Workers must use additional protective gear, such as ear protection, respirators, face protection (shields), and gloves, as appropriate.

**I. Sanitation** - CSI Divs. 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 22, 23 or 26

Contractors shall provide an adequate facility for personal hygiene and eating. This may require a trailer equipped with water, toilets, refrigerator, lunchroom, washbasins, HVAC system, change room, etc.

## **V. Radiation Safety**

**A. Radiation Safety** – CSI Divs. 2, 3, 5 or 11

Contractors, or consultants, that wish to use radioactive material, or radiation producing devices (e.g., soil compaction gauges), on UNM property must obtain prior approval from the SRS, Radiation Safety Division.

## VI. SRS Contacts

The following list is provided for your information should you need assistance:

<u>SRS Division</u>	<u>Contact</u>	<u>Phone #</u>	<u>Cell #</u>	<u>E-mail</u>
Fire Safety	Vincent J. Leonard	277-4076	321-8021	<a href="mailto:vleonard@unm.edu">vleonard@unm.edu</a>
Safety (OSHA)	Bob Dunnington	277-9511	238-5746	<a href="mailto:rdunning@unm.edu">rdunning@unm.edu</a>
Radiation Safety	Jim DeZetter	277-0315	951-0310	<a href="mailto:jimd@unm.edu">jimd@unm.edu</a>
Environmental Health/ Industrial Hygiene	Vern Hershberger	277-9756	269-8343	<a href="mailto:hershber@unm.edu">hershber@unm.edu</a>
Asbestos/Lead	Julia Sager	277-9418	951-0296	<a href="mailto:jsager@unm.edu">jsager@unm.edu</a>
Chemical Hygiene	Travis Miller	277-6597	934-7698	<a href="mailto:travmill@unm.edu">travmill@unm.edu</a>
	Julia Sager	277-9418	951-0296	<a href="mailto:jsager@unm.edu">jsager@unm.edu</a>



