

SAFETY HEALTH & ENVIRONMENT

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Special Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. References: In addition to publications referenced in the Construction Contract Clauses, following Code of Federal Regulations (CFR) publications designate and define hazardous materials and conditions, and establish procedures for handling these materials and conditions. Omission of any publication in this section does not remove any obligation or legal requirement on the part of the contractor to comply with all legal requirements for the location of the work.

1. 29 CFR, Part 1910: Occupational Safety and Health Administration (OSHA) General Industry and Health Standards
2. 29 CFR, Part 1926: OSHA Construction Industry Standards.
3. 40 CFR, Part 61: National Emission Standards for Hazardous Air Pollutants.
4. 40 CFR, Part 261: Environmental Protection Agency (EPA) Characteristics of Hazardous Waste.
5. 40 CFR, Part 761: EPA Polychlorinated Biphenyls (PCBs), Manufacturing, Processing, Distribution in Commerce and Use Prohibitions
6. 40 CFR, Part 763: EPA Asbestos.
7. Federal Standards 313A: Material Safety Data Sheets, Preparation and the Submission of.
8. NIH DES Instruction 1340-7: Precautions and Procedures for Entering Manholes or Other Below Grade Confined Spaces.
9. NIH DCAB publication "Standards for Temporary Construction," March 1988.

- B. Related Sections: This specification section is related to any and all specification sections with explicit or implicit reference to cutting and patching. Specific submittal requirements of these related specification sections are not included in this section. Related sections include but are not limited to the following specification sections:

1. Division 01 Section "Summary of Work"
2. Division 01 Section "Coordination Separate Prime Contracts"
3. Division 01 Section "Cutting and Patching"
4. Division 01 Section "Project Meetings"
5. Division 01 Section "Temporary Facilities"
6. Division 01 Section "Special Controls"
7. Division 01 Section "Safety and Health"
8. Division 01 Section "Asbestos Abatement"
9. Division 01 Section "Selective Demolition"

- C. Hazardous Materials: Some hazardous and toxic materials and substances are included in 29 CFR Part 1910, subparts H and Z, and in 29 CFR Part 1926 and others additionally defined in Federal Standard 313A. Commonly encountered hazardous materials include but are not limited to asbestos, PCBs, explosives and radioactive material.

1. Asbestos may be found in spray-on fireproofing, insulation, boiler lagging, pipe coverings and other materials. See Division 1 Section "Asbestos Abatement" for removal requirements.
 2. PCBs may be contained in ballasts, transformers, capacitors, voltage regulators, oil switches, mechanical insulation and other materials.
- D. Acquisition of Publications: Referenced CFR publications may be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

1.3 SUBMITTALS

- A. Contractor's Safety and Health Program: The contractor shall submit a written copy of the Company Safety and Health Program as well as the site specific safety and health plan for the project to the University Representative within 14 calendar days of the Notice to Proceed or before work commences on the project site, whichever is earlier.
- B. Accident Reports: The Contractor must submit to the University Representative a written report within three calendar days of any accident, fire, emergency, theft or incident in which any personal or property damage took place, regardless of any other notifications performed. Include a copy of each accident report that is submitted by the Contractor or Subcontractors to their insurance carriers, within seven calendar days after the date of the accident.
- C. Material Safety Data Sheets (MSDS): The contractor shall provide the Material Safety Data Sheets (MSDS's) for all products containing hazardous chemicals to the University Representative within 14 calendar days of the Notice to Proceed or before work commences on the site. The MSDS's shall be maintained at the project site for workers, University personnel and government officials. MSDS's for new products shall similarly be submitted to the University Representative and be retained at the project site until completion of the project.

1.4 PRECONSTRUCTION SAFETY MEETING

- A. Prior to commencing construction, representatives of the Contractor, including the general superintendent and one or more safety representatives, shall meet with the University Representative for the purpose of reviewing Contract safety and health requirements.
 1. The Contractor's Safety and Health Program and Site Specific Safety and Health Plan shall be reviewed, and implementation of safety and health provisions pertinent to the Work shall be discussed.
 2. The Contractor shall be prepared to discuss, in detail, the Contractor's Site Specific Safety and Health Plan including measures intended to control any unsafe or unhealthy conditions associated with the work to be performed under the contract.
 3. This meeting may be held in conjunction with the preconstruction conference, if so directed by the University Representative. The conduct of this meeting is not contingent upon a general preconstruction meeting.
 4. The level of detail for the safety meeting is dependent upon the nature of the work and the potential inherent hazards.

1.5 COMPLIANCE WITH REGULATIONS

- A. The work, including contact with or handling of hazardous materials, disturbance or dismantling of surfaces containing hazardous materials, and disposal of hazardous materials, shall comply with the applicable requirements of 29 CFR Parts 1910 and 1926, and 40 CFR Parts 61, 261, 761 and 763.
- B. Work involving disturbance or dismantling of asbestos or asbestos containing materials, demolition of structures containing asbestos and removal of asbestos, shall comply with 40 CFR Part 61, Subparts A and M, and 40 CFR Part 763.
- C. Work shall additionally comply with all applicable state and local safety and health regulations.
- D. In case of a conflict between applicable regulations, the more stringent requirements shall apply.
- E. Contractor Responsibility: The Contractor shall assume full responsibility and liability for compliance with all applicable codes, standards and regulations pertaining to the health and safety of personnel during execution of the Work, and shall hold the University harmless for any action on the Contractor's part, or that of the Contractor's employees or subcontractors, that result in illness, injury or death.
 - 1. The Contractor shall have written safety and health programs in compliance with 29 CFR Parts 1910 and 1926.
 - 2. Inspections, Tests, and Reports: The required inspections, tests and reports made by the Contractor, subcontractors, specially trained technicians, equipment manufacturers, and others as required, shall be at the Contractor's expense.

1.6 USE OF EXPLOSIVES AND EXPLOSIVE ACTUATED FASTENING TOOLS

- A. Use of explosives shall be prohibited.
- B. Explosive actuated fastening tools (ex. nail guns, etc.) shall not be used or brought to the project site without the permission of the University Representative, including a safety plan for the use of this equipment.

1.7 WORK UNDERGROUND OR IN CONFINED SPACES

- A. Work underground or in confined spaces shall comply with the NIH Division of Engineering Services Instruction Manual 1340-7, "Precautions and Procedures for Entering Manholes or Other Below Grade Confined Spaces" (DES INST 1340-7). A copy of the instruction may be obtained from the University's Office of Environmental Health and Safety on request.
- B. Work shall also comply with appropriate MSHA and OSHA regulations including but not limited to 29 CFR 1910.146 and COMAR 09.12.32B.
- C. The Contractor shall remove water and debris and properly vent manholes before commencement and during execution of work in manholes.

1.8 ELECTRICAL

- A. Electrical arc welding equipment shall not be connected to the building power supply.

1.9 MATERIAL DELIVERIES

- A. Whenever practicable, deliveries shall be made during regular working hours and only when the Contractor's representative is available to receive them. Deliver material in approved containers and with properly licensed vehicles and operators. Open delivery vehicles are not permitted. Deliver materials in fully closed vehicles or tarp-covered vehicles. All dump trucks shall be fully covered while in transport to and from the unloading site. All loads shall be securely fastened until unloading. Engines shall not be left running while vehicles are loading, unloading, waiting or parked. Do not block roads, walks, building entrances/exits, fire hydrants and standpipes, exterior tanks or building gas connections.

1.10 HAZARDOUS MATERIAL

- A. The Contractor shall bring to the attention of the Associate and the University Representative, any material encountered during execution of the Work that the Contractor suspects is hazardous. The University Representative shall have the Office of Environmental Health and Safety perform tests to determine if the material is hazardous.
- B. If the tested material is found to be hazardous, and/or if additional protective measures are required, a change to the Contract price may be provided, subject to the applicable provisions of the Contract.

1.11 ADDITIONAL SAFETY REQUIREMENTS

- A. No work shall be performed in any area occupied by the public or OSU employees unless approved by the owner.
 - 1. Accident Treatment and Records: The Contractor shall post emergency first aid information.
 - 2. No person, regardless of position or authority, shall operate any switch, valve, or equipment that has an official lockout/tag out tag attached to it, nor shall such tag be removed except as provided in this section.
 - 3. When work is to be performed on electrical circuits, the work shall be performed only by qualified personnel following the required safety procedures.
 - 4. Identification markings on building light and power distribution circuit breakers shall not be relied on for establishing safe work conditions.
 - 5. Before clearance will be given on any equipment other than electrical (generally referred to as mechanical apparatus), the apparatus, valves, or systems shall be secured in a passive condition with the appropriate vents, pins, and locks.
 - 6. Pressurized or vacuum systems shall be vented to relieve differential pressure completely.
 - 7. Vent valves shall be lockout/tag out tagged open during the course of the work.
 - 8. Where dangerous gas or fluid systems are involved, or in areas where the environment may be oxygen deficient, systems or areas shall be purged, ventilated, or otherwise made safe prior to entry.

1.12 PERSONNEL PROTECTIVE EQUIPMENT

- A. Special facilities, devices, equipment and similar items used by the Contractor in execution of the work shall comply with 29 CFR, Part 1910, Subpart 1 and other applicable regulations.

PART 2 – PRODUCTS

- 2.1 Safety and Health Programs: The Contractor shall submit copies of the written site specific project safety and health plan and emergency action procedures, as applicable to the work scope, as required as a result of the safety meeting, or as required by OSHA 29 CFR, Part 1926 including but not necessarily limited to the procedures and programs that support the requirements of the following:
 - A. Designation of Safety Competent Person
 - B. Occupational Noise Exposure
 - C. Fall Protection
 - D. Personnel Protective Equipment
 - E. Control of Hazardous Energy
 - F. Hazardous Materials Waste Management Plan (draft if final plan has not been accepted)
 - G. Electrical Safety Related Work Practices
 - H. Lead
 - I. Asbestos
 - J. Respirator Protection
 - K. Confined spaces
 - L. Emergency evacuation and reporting
 - M. Hot Work
- 2.2 Contractor's Safety and Health Plan: In addition to specific safety and health programs applicable to the project, Contractor shall submit to the university a copy of the firms' general Safety and Health Plan listing emergency procedures and contact persons with home addresses and telephone numbers.
- 2.3 Permits: If hazardous materials are disposed of off-site, submit copies of shipping manifests and permits from applicable federal, state or local authorities and disposal facilities, and submit certificates that the material has been disposed of in accordance with regulations.

PART 3 – EXECUTION

3.1 EMERGENCY SUSPENSION OF WORK

- A. When the Contractor is notified by the Associate or the University Representative, of non-compliance with the safety or health provisions of the Contract, the Contractor shall immediately, unless otherwise instructed, correct the unsafe or unhealthy condition.
 - 1. If the Contractor fails to comply promptly, all or part of the work will be stopped by notice form the Associate.
 - 2. When, in the opinion of and by notice given by the Associate and or the University Representative, satisfactory corrective action has been taken by the Contractor, work shall resume.
 - 3. The Contractor shall not be allowed any extension of time or compensation for damages in connection with a work stoppage for an unsafe or unhealthy condition.

3.2 PROTECTION OF PERSONNEL

- A. The Contractor shall take all necessary precautions to prevent injury to the public, occupants, or damage to property of others. The public and occupants includes all persons not employed by the Contractor or a subcontractor.
- B. Wherever practical, the work area shall be fenced, barricaded or otherwise blocked off from the public or occupants to prevent unauthorized entry into the work area.
 - 1. Provide traffic barricades and traffic control signage where construction activities occur in vehicular areas.
 - 2. Corridors, aisles, stairways, doors and exit ways shall not be obstructed or used in a manner to encroach upon routes of ingress or egress utilized by the public or occupants, or to present an unsafe or unhealthy condition to the public or occupants.
 - 3. Store, position and use equipment, tools, materials, scraps and trash in a manner that does not present a hazard to the public or occupants by accidental shifting, ignition or other hazardous activity.
 - 4. Store and transport refuse and debris in a manner to prevent unsafe and unhealthy conditions for the public and occupants. Cover refuse containers, and remove refuse on a frequent regular basis acceptable to the University Representative. Use tarpaulins or other means to prevent loose transported materials from dropping from trucks.
- C. Alternate Precautions: When the nature of the work prevents isolation of the work area and the public or building occupants may be in or pass through, under or over the work area, alternate precautions such as the posting of signs, the use of signal persons, the erection of barricades or similar protection around particularly hazardous operations shall be used as appropriate.
- D. Public Thoroughfare: When work is to be performed over a public thoroughfare such as a sidewalk, roadway or other site access way, the thoroughfare shall be closed, if possible, or other precautions taken such as the installation of screens or barricades. When the exposure to heavy falling objects exists, as during the erection of building walls or during demolition, special protection of the type detailed in 29 CFR, Parts 1910 and 1926 shall be provided.

3.3 ENVIRONMENTAL PROTECTION

- A. Dispose of solid, liquid and gaseous contaminants in accordance with local codes, laws, ordinances and regulations.
- B. Comply with applicable federal, state and local noise control laws, ordinances and regulations, including but not limited to 29 CFR, Part 1910.95 and 29 CFR, Part 1926.52.

END OF APPENDIX V