

Idaho National Laboratory

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Subcontractors	Program Requirements Document	eCR Number: 609195
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Manual: INL Subcontractor Requirements

Entire Document Changed

1. PURPOSE

This document provides requirements for performing concrete and masonry work at the INL. This document highlights requirements referenced in the “Source Requirements” section, as well as Contractor requirements. Any applicable regulatory or Contractor requirements must be followed, with the most stringent requirement being met.

2. APPLICABILITY

This document applies to all subcontractors who perform concrete and masonry work at the INL, as specified in their contract with Contractor. Stricter requirements may be imposed by subcontractors upon their employees or subtier contractors. The requirements of this document must be followed by subcontractors; however, the means of implementation may vary as determined by the subcontractor.

3. REQUIREMENTS

3.1 Concrete and masonry activities shall meet the requirements of 29 CFR 1926 Subpart Q Concrete and Masonry Construction. Additional requirements specific to trenching, excavations and subsurface penetrations are specified below.

3.2 Concrete Placement

3.2.1 Concrete truck drivers and equipment operators shall be briefed about area/site specific hazards.

3.2.2 Concrete trucks and other mobile equipment shall EITHER

A. be equipped with automatic audible backup alarms, OR

B. have a flagman to control backing operations.

NOTE: *In congested or noisy areas, a flagman may be required to control vehicle operations regardless of whether the vehicle is equipped with an audible backup alarm.*

3.2.3 WHEN discharging concrete on a slope, one of the following precautions shall be taken to keep the truck from moving:

A. the driver shall remain in the cab and control the vehicle’s movement, OR

B. the wheels shall be chocked and the brakes set to prevent movement.

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- 3.2.4 IF the point of placement is not readily visible to the crane operator, THEN a qualified flagman using a uniform hand signal system shall be positioned in clear view of the operator and the point of placement.

NOTE: *If necessary, the qualified flagman may use a telephone or two-way radio communication.*

- 3.2.5 Concrete pumping operations shall use the following precautions:
- 3.2.5.1 Air hoses or pipes in the system shall have positive fail-safe joint connectors to prevent separation of sections when pressurized.
- 3.2.5.2 Manufacturer's specifications shall be followed when air pressure and a clean-out plug are used to clean the transfer lines to prevent the clean-out plug from becoming airborne.
- 3.2.5.3 Sections of tremies, elephant trunks, and similar concrete conveyances shall be secured with wire rope or equivalent, in addition to the regular couplings or connections.

3.3 Precast Concrete

- 3.3.1 Precast concrete shall be handled and erected under the supervision of a qualified person.
- 3.3.2 Employees shall be trained in the proper methods of handling and erecting precast concrete products.

3.4 Lift-Slab Work

- 3.4.1 Only essential employees shall position or move lift-slab equipment permitted in the area of jacking operations.

3.5 Patching, Finishing, and Curing

- 3.5.1 Safe access shall be provided while patching, finishing, or curing work is being done at elevations beyond the reach of workmen.

3.6 Winter Protection/Heating

- 3.6.1 Adequate fire protection shall be provided for heating equipment used for concrete curing.
- 3.6.2 Temporary winter protection enclosures shall have adequate light and ventilation for the safety of personnel in these areas.

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- 3.6.3 Temporary heating equipment, including storage containers, valves, piping, and fittings, shall be installed, tested, and operated only with the concurrence of a qualified person.

3.7 Reinforcing Steel

- 3.7.1 All protruding reinforcing steel which employees could fall onto or walk into shall be guarded to eliminate the hazard of impalement.

- 3.7.2 The following uses of reinforcing steel are prohibited:

- A. using reinforcing steel to attach guy wires at anchor points
- B. using reinforcing steel as hooks or stirrups for scaffolding, or any other makeshift structural function.

4. DEFINITIONS

For definitions of terms used throughout the INL Subcontractor Requirements Manual, refer to LST-359.

5. REFERENCES

5.1 Source Documents

29 CFR 1926, Subpart Q, Concrete and Masonry Construction Masonry Work (supplement to ANSI A10.9-1983)

The following documents may also contain requirements that apply to this activity:

RD-2000, Work Coordination and Hazard Control

RD-2001, Personal Protective Equipment

RD-2002, Fall Protection

RD-2004, Scaffolding

RD-2007, Hoisting and Rigging

RD-2014, Excavation and Surface Penetration

RD-2016, Material Handling, Storage, and Disposal