

Fire Protection Division of Responsibilities (DOR) for Construction Inspection

V= verify W = witness

This table clarifies the assigned duties and responsibilities for new construction and significant modification inspections associated with the IBC, IEBC, NFPA, DOE O 420.1C, and the LANL ESM. This table represents the minimum expectations; additional witnessing and observation can be performed by either party indicated as desired.

Verify: The act of checking by an independent qualified person that an installed SSC, feature, test result, or process conforms to established criteria. In this context this would typically be performed by review of test documents, installation records, or other supporting information required to be generated by the Project.

Witness: The act of on-site observing by an independent qualified person an installation and/or testing of an SSC, feature, or process to verify conformance with established criteria. In this context it would require physical presence and visual observation of the activity while it is taking place. If a physical presence is not possible or safe, alternative means can be used if feasible and approved.

| V or V/W | Inspection | LBO Insp. | ES- FP |
|---|--|--------------|-----------|
| Fire protection water supply systems | | | |
| V | 1. Underground piping materials, size and routing meets design | X | |
| V | 2. Restraint methods (thrust blocks, retaining fittings) meet design | X | |
| V | 3. Appurtenances (hydrants, valves, etc.) and locations meet design | | X |
| W | 4. Hydrostatic (leak) testing of piping | X | |
| V | 5. Flushing of underground piping | X | |
| V | 6. Backfill and compaction methods meet design requirements | X | |
| V | 7. Review/Approve Contractor's Material and Test Certificate | | X |

| Sprinkler system installation | | | |
|--------------------------------------|--|----------|----------|
| V | 1. Pipe materials, routing, and size meets design documents | X | |
| V | 2. Piping is properly supported per design documents | X | |
| V | 3. Piping is properly braced (seismic restraints installed per design) | X | |
| V | 4. Anchor bolt installations for supports per design documents | X | |
| V/W | 5. Hydrostatic (leak) test of piping | X | |
| V/W | 6. Flushing of underground piping connections | X | |
| V | 7. Proper clearances between piping and adjacent commodities | X | |
| V | 8. Sprinkler heads are properly installed (type, orifice size, orientation, coverage, temperature rating, etc.) <div style="text-align: right; margin-right: 50px;">During installation At final</div> | X | X |
| V/W | 9. Flow testing (alarm testing) of system piping | | X |
| V | 10. Proper installation of system components (valves, alarm valves, trim, alarm devices, supervisory air, backflow prevention, drains, gauges and other appurtenances) per design documents during install <div style="text-align: right; margin-right: 50px;">During installation At final</div> | X | X |
| V | 11. Proper signage, labels and flow arrows on piping and components <div style="text-align: right; margin-right: 50px;">During installation At final</div> | X | X |

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| V | 12. Proper methods for freeze protection (anti-freeze loops, dry and preaction configurations, etc.) | | X |
| V | 13. Backflow prevention device(s) certification (IAW O&M 406) | | X |
| V | 14. Review/Approve Contractor's Material and Test Certificate | | X |

Fire Pump Installation

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|---|--|----------|----------|
| V | 1. Pipe materials, routing, and size meets design documents | X | |
| V | 2. Piping is properly supported per design documents | X | |
| V | 3. Piping is properly braced (seismic restraints installed per design) | X | |
| V | 4. Anchor bolt installations for supports per design documents | X | |
| W | 5. Hydrostatic (leak) test of piping | X | |
| V | 6. Flushing of suction piping connections | X | |
| V | 7. Proper clearances between piping and adjacent commodities | X | |
| V | 8. Pump appurtenances are properly installed per design documents During installation At final | X | X |
| W | 9. Fire Alarm testing of system devices | X | X |
| V | 10. Field installed wiring conforms to NFPA 70 and NFPA 72 | X | |
| W | 11. Sequence of operation testing of system | X | X |
| W | 12. Flow testing of fire pump, comparison to shop curve | X | X |
| W | 13. Testing of pump engine / motor | | X |
| V | 14. Proper signage, labels and flow arrows on piping and components During installation At final | X | X |
| V | 15. Backflow prevention device certification (IAW O&M 406) | | X |
| V | 16. Review/Approve Contractor's Material and Test Certificate | | X |

Special extinguishing systems

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|---|--|----------|----------|
| V | 1. Pipe routing and size meets design documents | X | |
| V | 2. Piping is properly supported per design documents | X | |
| V | 3. Piping is properly braced (seismic restraints installed per design) | X | |
| V | 4. Anchor bolt installations for supports per design documents | X | |
| W | 5. Hydrostatic (leak) test of piping | X | |
| V | 6. Proper clearances between piping and adjacent commodities | X | |
| V | 7. Discharge nozzles are properly installed (type, orifice size, orientation, coverage, obstructions, etc.) During installation At final | X | X |
| W | 8. System actuation and alarm testing | | X |

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| W | 7. Proper functionality of fire alarm system devices | | X |
| W | 8. Proper functionality of fire alarm system logic and control functions per design drawings | | X |
| W | 9. Proper fire alarm system control logic, including auxiliary functions per design drawings | | X |
| W | 10. Proper remote reporting to CAS | | X |
| V | 11. Size and type of batteries per drawings and calculations | | X |
| V | 12. Review/Approve NFPA 72 Record of Completion | | X |

Elevators

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|---|---|--|----------|
| W | 1. Elevators are programmed properly for fire safety (recall floors, shut-trip, interlock with fire alarm system) | | X |
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HVAC

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|---|---|----------|----------|
| W | 1. HVAC fan shutdown upon duct smoke detector activation and/or other control requirement via fire detection and alarm system | | X |
| V | 2. Fire and smoke dampers are installed per design documents | X | |
| W | 3. Smoke damper controls function per design drawings, interlocked with fire alarm system | | X |
| W | 4. Proper setting (fusible link temp) and operation of fire dampers | | X |

Emergency Lighting/EXIT signage

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|---|--|----------|----------|
| V | 1. Installation in accordance with design (configuration with lighting, mounting, locations) | X | |
| W | 2. Satisfactory testing/commissioning by LANL Start-Up | | X |

Portable fire extinguishers

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|---|--|--|----------|
| V | 1. Installation/placement and appropriateness with hazards in accordance with design | | X |
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Approved by: Jason Kemp, ES-FP

Tim Donovan, ES-FE

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| Reviewed by: Tobin Oruch, Z#120812 | Determination: Unclassified |