



# Standard Operating Procedures

Fire Prevention Services  
Office of Campus Safety

*The University of Texas at Austin*

304 E. 24<sup>th</sup> Street, SER Suite 202, Austin, TX 78713

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**SCOPING & APPLICATION**

## **SMOKE DETECTOR PROTECTION DURING CONSTRUCTION**

The following provides requirements for protection of smoke detectors during construction at the University of Texas at Austin campus.

### **GENERAL**

Construction debris, dust (especially gypsum dust and the fines resulting from the sanding of drywall joint compounds) and aerosols can adversely affect the sensitivity of smoke detectors and, in some instances, cause deleterious effects to the detector, thereby significantly reducing the expected life, reliability and operation of the detector.

Many smoke detectors are shipped with a thin plastic cover over the sensing portion of the detector. It is widely assumed that these covers are suitable for protecting the detectors from construction dust, dirt and debris. In actuality, most of the “covers” supplied are merely for shipping protection and are not intended to be used in lieu of proper protection from construction debris. These covers **SHALL NOT** be relied on to keep the detector entirely free of contaminants.

- A. Where detection is not required during construction, detectors shall not be installed until after all other construction trades have completed cleanup.
- B. Smoke detectors that are installed for signal initiation and remain operational during construction shall be protected from construction debris, dust, dirt and damage in accordance with manufacturer’s recommendations. Prior to protecting and/or covering any smoke detector, the fire alarm contractor shall provide the Fire Safety Systems Shop (FSSS) copies of the sensitivity measurement for each detector to be affected. At the time of completed construction and after final clean has been completed, another sensitivity measurement shall be performed. The fire alarm contractor shall provide FSSS copies of the sensitivity measurement for each smoke detector after all construction trades have finished their work.

All detectors whose sensitivity measurements are greater than 1% difference from the starting obscuration shall be cleaned and verified to be operating in accordance with the listed sensitivity, or they shall be replaced.

- C. Smoke detectors that have been installed but have not been operational during construction shall be protected from construction debris, dust, dirt and damage in accordance with the manufacturer's recommendations. Prior to protecting and/or covering any smoke detector, the fire alarm contractor shall provide FSSS copies of the sensitivity measurement for each detector to be affected. At the time of completed construction and after final clean has been completed, a sensitivity measurement shall be performed. All detectors that have a sensitivity measurement greater than 1% difference from the starting obscuration shall be cleaned and verified to be operating in accordance with the listed sensitivity, or they shall be replaced.
- D. In new construction, detectors that have been installed prior to completion of construction cleanup shall be protected in accordance with the manufacturer's recommendations. Prior to protecting and/or covering any smoke detector, the fire alarm contractor shall provide FSSS copies of the sensitivity measurement for each detector to be affected. At the time of completed construction and after final clean has been completed, a sensitivity measurement shall be performed. All detectors whose sensitivity measurements are greater than 1% difference from the starting obscuration shall be cleaned and verified to be operating in accordance with the listed sensitivity, or they shall be replaced.
- E. Prior to protecting and/or covering any smoke detector, the fire alarm contractor shall submit an outage request. The completed request shall be received a minimum of twenty-four (24) hours prior to the outage date requested. A factory trained technician of the manufacturer of the fire alarm system shall perform or supervise the protecting and/or covering of any smoke detector. The outage request shall contain the following information:
  - 1. The beginning date and time of the outage and a list of the smoke detectors that are to be protected and/or covered.
  - 2. A scaled drawing indicating the smoke detectors that are to be protected and/or covered.
  - 3. A report indicating the sensitivity of each detector to that will be affected.
  - 4. The ending date and time of the outage and when the smoke detectors will have the protection removed.
- F. Upon completion of all construction and final cleanup by all construction trades, the fire alarm contractor shall provide FSSS copies of the sensitivity measurements for each smoke detector.
- G. The fire alarm contractor shall schedule a site survey with FSSS to verify all detector protection has been removed.