This Operating Instruction Supersedes Fire Safety Instruction 1-12 dated December 3, 2012

This instruction establishes policy and procedures and assigns responsibilities and requirements; establishes a tool to assist with assessing the loss or potential loss of a life safety feature during construction, renovation, alterations, or damage that occurs to a life safety feature; establishes policy when a fire alarm or automatic sprinkler system will be out of service more than 10-hours (University,) or 4-hours (healthcare). This Operating Instruction does not replace or substitute for the Construction Risk Assessment program. Violations of this policy may result in appropriate disciplinary action.

1. Objective.

1.1. To ensure the fire and life safety of all building occupants during periods of construction, renovations, alterations or during Automatic Fire Protection System outages that compromise the level of life safety protection provided by the building features and design.
1.2. To ensure Life Safety deficiencies that are entered into the Plan for Improvement process continue to be evaluated for effectiveness and necessity.
1.3. Provide a tool to evaluate and assign appropriate interim life safety measures during Life Safety deficiencies

2. PERSONNEL AFFECTED
2.1. Facilities, Planning, Design, Construction (FPDC)
2.2. Engineering & Operations (E&O)
2.3. Facilities Maintenance Department (FMD)
2.4. OESO-Fire Safe Safety
2.5. Duke Police and Duke Security (in-house & contracted services)
2.6. Construction Contractors, Services, and other related construction trades

3. DEFINITIONS
3.1. Automatic Fire Protection System-Approved automatic devices, equipment, and systems or combination of systems used to detect a fire, activate an alarm, extinguish or control
a fire, control or manage smoke and products of a fire or any combination thereof. (NC Fire Prevention Code-2012)

3.2. Interim Life Safety Measure-Actions or activities developed, implemented, and managed when Life Safety deficiencies that cannot be immediately corrected exist. Usually consists of 11 administrative functions that are selected to temporarily compensate for the life safety deficiency

4. RESPONSIBILITIES & PROCEDURES

4.1. Planning and Project Managers (FMD, E &O, FPDC)

4.1.1. Shall comply with the intent of this operating instruction and all other referenced codes, standards, and operating instructions

4.1.2. Shall complete a formal Construction Risk Assessment (CRA) of planned and awarded construction, renovation, or alteration projects. The CRA will help determine if life safety features (e.g. exits, egress paths, sprinkler systems, etc.) of the facility will be affected by the construction. Affected includes but is not limited to: blocking, sealing off, removing, impairing, or any other action that alters the originally designed life safety feature.

4.1.3. Shall outline, design, and document recommended alternative actions to be implemented during life safety deficiencies and deficiencies that have been referred to a Plan for Improvement (PFI). These documents shall be a permanent part of the construction planning and construction documentation.

4.1.4. Review the alternative actions with the OESO-Fire Safety Division

4.1.5. Annotate OESO-Fire Safety mandated implemented ILSMs on the Duke Construction Site Safety Board

4.1.6. Appropriately post ILSM ALERT Notices and other required signage and provide copies to the OESO-Fire Safety Office

4.2. Work Site Supervisors/Project Managers (FPDC, FMD, E&O, Contractor)

4.2.1. Shall comply with the intent of this operating instruction and all other referenced codes, standards, and operating instructions

4.2.2. Shall ensure that all mandated Interim Life Safety Measures are in effect during all phases of the construction until properly relieved through correcting the deficiency, release from the Fire Safety Office, and/or work assignment is completed.

4.2.3. Document daily life safety and ILSM assessments on the Fire & Life Safety ILSM, Construction Site Inspection Form—(Note: Form is available on the OESO-Fire Safety Web site under the Forms tab)

4.2.4. Notify the Fire Safety Office of any conditions that affects the alternate actions, ILSM, or newly created life safety deficiency.

4.3. OESO-Fire Safety Division

4.3.1. Shall assist with the development of Interim Life Safety Measures for any life safety deficiency that cannot be mitigated through design, or procedural change.

4.3.2. Reviews documentation (floor plans, architectural drawings, specifications, etc.) provided by Planning and Project Managers, Contractors or other approved sources.

4.3.3. Utilizing the ILSM Matrix, determine the appropriate ILSMs that will be implemented for the specified period appropriate to the project phases.
4.3.4. Ensures ILSM Alert Notices and other required signage are provided, distributed, and displayed in accordance with Life Safety Plans, ILSM Alert notices, or other directives. Minimum postings include:
   4.3.4.1. Entrances
   4.3.4.2. Facility/Department Supervisors
   4.3.4.3. Duke University Safety Committee

4.3.5. Development of all training materials and information necessary, appropriate to the scale of the project, to train and educate staff members in the project area.

4.3.6. Brief/present the ILSM at the next scheduled Duke University Safety Committee meeting

4.3.7. Conduct periodic life safety assessments (at least weekly) for any active life safety system that is impaired. Periodic assessments will be utilized to measure the overall effectiveness of the Project Managers adherence to this policy.

4.3.8. Upon notification of life Safety deficiency correction, assess the area and ensure the deficiency has been fully restored to the original or approved condition and all signage relating to the deficiency is removed

4.3.9. Duke Police & Duke Security

4.3.10. When requested and during construction off-duty times, shall be responsible for the actions in 4.2 above.

5. GENERAL INFORMATION
5.1. If a life safety deficiency warrants a fire watch, the fire watch will be implemented and maintained in accordance with Fire Watch Program Operating Instruction 1-3

5.2. At no time will a life safety deficiency that is identified be allowed to exist without either implemented ILSMs or other coordinated corrective actions.

5.3. Life Safety deficiencies that cannot be corrected within the prescribed allocated time, will require a submittal of a PFI. Pre-assessed ILSMs will be evaluated and determined if they still are valid or may require modification. Evaluations of the existing ILSMs will be accomplished utilizing the ILSM Matrix.

5.4. The need to provide and maintain equivalent fire alarm/fire detection systems for systems that are installed in addition to Life Safety Code minimum requirements will be evaluated using the ILSM Matrix to determine if a temporary system must be installed.

5.4.1. Portions of an existing system that are not part of the minimum required system may be impaired on a temporary basis (e.g. heat detectors used in place of smoke detectors in active construction areas) during periods of construction or during other dust producing activities are being performed as long as the following minimum conditions are maintained:
   5.4.1.1. The minimum required protection level is in full working order
   5.4.1.2. A hard barrier (1-hour rated) is in place to limit the movement of smoke and fire
   5.4.1.3. Combustibles are maintained at a absolute minimum
   5.4.1.4. Area is not used for the storage of flammables
   5.4.1.5. Smoke detectors are replaced with heat detectors during the dust producing activities
   5.4.1.6. Smoke detectors are returned to service at the completion of dust producing activities
5.5. Life Safety Deficiencies will be reported to the OESO-Fire Safety Office immediately during duty hours and to Duke Police during off-duty hours.

5.6. Duke Police will attempt to correct the deficiency by contacting the appropriate maintenance organization. In the event the deficiency cannot be corrected immediately, Duke Police will contact one of the following:

5.6.1. OESO-Fire Safety Director 919-812-9030
5.6.2. OESO-Department Director 919-812-3576