

FAQs: Life Safety Evaluations & Sprinklers

Life Safety Evaluations are intended to satisfy ordinance Section 13-196-206 of the *Municipal Code of the City of Chicago*, "the *Chicago Building Code*" (CBC). That section requires a Life Safety Evaluation (LSE) to be performed by a **State of Illinois licensed professional engineer** or a **State of Illinois licensed architect** for the owner of an existing building exceeding 80 feet in height which is not fully sprinklered in accordance with the provisions of the CBC and which is either occupied for non-transient residential uses or which is a landmark or other building so designated in accordance with the ordinance.

The purpose of the LSE is to demonstrate that a specific high-rise building can provide a reasonable level of safety from fire for the occupants. The ordinance also requires that the approved life safety compliance plan be developed to address any deficiencies found as a result of the LSE inspection and evaluation.

The LSE evaluation results in an overall numerical score for the building. A LSE score which meets or exceeds the minimum required score implies that the building is reasonably safe for its intended use, usually without the installation of sprinklers throughout the building. It does not guarantee against loss of life or property damage, nor does this evaluation intend to state or imply that the building is in compliance with the requirements of the current or previous editions of the Chicago Building Code. In accordance with Section 13-196-010 of the CBC, every existing building must comply with the code requirements in force and applicable to such building at the time of its construction or alteration. **IN ADDITION, THE LSE SHALL NOT BE CONSTRUED TO WAIVE MINIMUM PROVISIONS OF THE CBC APPLICABLE TO EXISTING BUILDINGS.**

It is recognized that the LSE may not provide comprehensive solutions for all possible building conditions and arrangements. In such cases, alternative methods and materials are available to the building owner through the CBC's administrative provisions.

Q. What types of buildings require a Life Safety Evaluation (LSE)?

A. Generally, buildings built prior to 1975, over 80 feet in height and occupied for non-transient uses and which do not currently have sprinklers throughout the building are required to have a LSE performed. Transient uses would include hotels and other short stay type facilities. Additionally, landmark commercial buildings are exempted from the requirement to install sprinklers, but require a LSE.

Q. Why do we need to do the LSE?

- A. Completing a LSE and implementing any recommendations demonstrates that a reasonable level of safety is provided and may allow your building to show that there is no need to install a more expensive sprinkler system.

Q. What does the LSE evaluate?

- A. The LSE evaluates three areas of building safety – Fire Safety, Means of Egress and General Building Safety.

Fire Safety measures how well the building contains a fire at its place of fire origin by passive means such as fire barriers, and to extinguish the fire through active means via either automatic sprinklers and/or Fire Department intervention. Fire safety is also a measure of how well the walls and floors resist fire and how well the building's structural supports resist fire.

Means of Egress is a measure of how well building occupants are able to escape to a safe location within or outside of the building, in case of a fire. It evaluates the ability to detect and announce a fire condition, the type and availability of the emergency escape systems and/or areas of refuge. Finally, it also assesses the ability to communicate with the building occupants during and after a fire.

General Safety measures the building's overall fire safety level.

Q. When does the LSE have to be submitted?

- A. The LSE report and any resulting Life Safety Compliance Plan must be submitted to the Department of Buildings and the Bureau of Fire Prevention for review no later than January 1, 2006. The Life Safety Compliance Plan must include a timetable for completion of the required modifications to be phased over a period of years, with full implementation no later than January 1, 2012.

Q. Do you need any special training to perform a LSE?

- A. The LSE must be performed under the supervision of either a State of Illinois Licensed Architect or Professional Engineer, usually, but not always, acting through a consultant. The person you hire to perform the LSE should have experience in the design of buildings, the Chicago Building Code and fire safety. The Chicago Chapter of the American Institute of Architects, the Illinois Society of Professional Engineers and the Chicago Chapter of the Society of Fire Protection Engineers can provide you with names of firms and individuals qualified to perform this work. Contact information can be found elsewhere on this web site.

Q. How do I go about selecting a person or consultant to perform the LSE?

A. The City of Chicago realizes that the selection of a person or consultant to perform technical assessments can be a daunting task. The Department of Buildings has developed a suggested format that can be used by building owners and managers to select a consultant to perform the LSE. The Request for Qualifications (RFQ) outlines the scope of work that needs to be performed by the consultant and a suggested format to evaluate the qualifications of the consultants.

Q. Is there a way to determine if a professional or consultant is NOT qualified?

A. The State of Illinois' Department of Financial and Professional Regulation (IDFPR) maintains a list of all licensed Architects and Professional Engineers and licensed consulting firms. The link to the IDFPR web site is www.idfpr.com. When selecting a professional or consultant to perform your LSE, you should check this site to be certain the person or firm is in good standing.

Q. I want to see a copy of the High Rise Life Safety Substitute Ordinance that was adopted by the City Council. Where can I find it?

A. The new High Rise Life Safety Ordinance can be found via internet at: http://egov.cityofchicago.org/webportal/COCWebPortal/COC_EDITORIAL/NEWHighRiseOrdinance2.pdf

Q. ~~What type of buildings require~~ types of buildings require sprinkler systems?

A. All commercial high rise buildings built before 1975 and in which sprinklers are not installed throughout the building require a sprinkler system to be installed. Open-air parking facilities are exempt from this requirement. The sprinkler system can be installed in 3 phases over 12 years, from 2005 to 2017. Landmark buildings are generally exempt from this requirement as are some non-transient residential buildings. These landmarked buildings must, however, complete a LSE and implement any required improvements by 2012. Owners of buildings that must be sprinklered are required to submit a compliance plan to the Bureau of Fire Prevention for review and approval by September 1, 2005.

Q. I understand that every building must have a voice communication system. What is this and why do we need it?

A. In order for the Fire Department to communicate with building occupants in the case of an emergency and for emergency response teams to communicate with a central incident command, the new ordinance requires that all pre-1975 high rise residential and commercial buildings have both a one-way and a two-way voice communication system (residential buildings less than 15 stories and 60 units or less only require a one-way voice communication system). For residential buildings, this work must be completed by January 1, 2012

Q. What is a “labeled door” and why are they important?

A. The Chicago Building Code has always maintained that all high rise buildings, regardless of age, were required to have fire rated labeled doors and frames at all stairway enclosures. A fire rated labeled door and frame is a door that has been tested to resist fire. Typically, the doors are rated by the hours of fire resistance based on testing. A “B” label door and frame is an assembly for stairway enclosures and typically has been tested to resist fire for a period of at least one hour. Each door and frame has the label of the testing authority that certifies the fire resistance of the door and frame. The hourly rating is usually specified on the label affixed on the hinged edge of the door. Sometimes, the labels are painted but can be read if the paint is carefully removed. It should be noted that some unlabeled doors – in particular solid wood doors without paneling - may meet the fire resistance requirements of the LSE. Your consultant should advise you of whether or not it is worth testing the doors to determine their level of fire resistance.

Q. How do I find licensed/qualified contractors to perform any work required resulting from my LSE?

A. This information is still being developed and will be available shortly.

Q. If I do the LSE and address all the deficiencies, does this mean that my building is safe?

A. A LSE is not a guarantee that a building will suffer no loss during a fire. Sprinklers are still one of the most effective means to contain and control fire at its point of origin. Rather, a LSE is designed to assess factors that, when taken together and properly implemented, can provide a reasonable level of safety for tenants and guests. This is why the implementation of any actions recommended by the LSE is essential since these items directly affect a building’s ability to control fire.

Q. What does it cost to implement the recommendations of the LSE?

A. No two buildings are the same, so definitive numbers are not possible to provide. Based on a limited number of inspections of typical residential high rise buildings performed by the Department of Buildings, costs should be between \$750 and \$2,300 per unit. Full implementation of the recommendations is not required until January 1, 2012 so these costs can be spread over several years.

Q. Can someone come to my building to explain exactly what is required and where do I go to find assistance?

A. Staff from the Department of Buildings has been trained to provide assistance to building owners and managers to implement the requirements of the LSE. Since there are many buildings, we would prefer to meet with building owners and managers as small groups rather than one on one. We are asking that each building owner or manager work with the local Aldermanic Office which can provide assistance in gathering other owners in the ward for a series of meetings. Elsewhere on this web site, you can find a copy of our PowerPoint presentation summarizing the requirements of the LSE.

If you need further assistance or have questions concerning specific aspects of the Ordinance, you should e-mail the Department of Buildings at lifesafetyordinance@cityofchicago.org.