TITLE 41: FIRE PROTECTION

CHAPTER I: OFFICE OF THE STATE FIRE MARSHAL

PART 107

OUTDOOR STAGES

Section

107.10 Introduction and Purpose

107.15 Title, Jurisdiction and Powers

107.20 Incorporations by Reference

107.25 Definitions

107.30 Right to Inspect

107.35 Applicable Codes and Standards

107.40 Structural Design and Verification

107.45 Permit Required

170.50 Designated Qualified Person

107.55 Inspection Required

107.60 Crowd Management

107.65 Life Safety Evaluation and Incident Action Plan Development

107.70 Weather Monitoring

107.75 Certificate of Insurance

107.80 Penalties for Noncompliance

AUTHORITY: Implementing and authorized by Section 9 of the Fire Investigation Act [425 ILCS 25/9].

SOURCE: Illinois Rules and Regulations for Outdoor Stages effective \_\_\_\_\_\_\_\_.

**Section 107.10 Introduction and Purpose**

Pursuant to authority conferred upon the Office of the State Fire Marshal Office (the OSFM) by Section 9 of "AN ACT in relation to the investigation and prevention of fire," [425 ILCS 25] the following rules are hereby adopted in relation to the regulation of dangerous conditions on and near Outdoor Stages with surface areas greater than 1,500 ft2.

(Source: Amended at \_\_\_\_ Ill. Reg. \_\_\_\_\_\_, effective \_\_\_\_\_\_\_\_\_\_\_\_)

**Section 107.15 Title, Jurisdiction and Powers**

1. Title

This Part shall be known and cited as Rules for Outdoor Stages. They shall be referred to hereinafter as this Part.

1. Jurisdiction

The provisions of this Part shall apply to all localities and to both public and privately owned Outdoor Stages.

1. Powers

1. The OSFM and local authorities having jurisdiction are authorized to enforce the provisions of this Part.
2. The OSFM and local authorities having jurisdiction are authorized to require permits, conduct inspections and verify conditions set forth by this Part.
3. Where any permit review or inspection conducted by the OSFM or a local authority discloses a violation or violations of this Part, the OSFM or the local authority shall notify the owner, occupant, or other interested party in writing as provided in Section 9 of the Fire Investigation Act [425 ILCS 25/9] to correct said violation or violations. Violations shall be corrected within a reasonable time based upon the severity of the hazard and the work required to correct the violation.

 (Source: Amended at \_\_\_\_ Ill. Reg. \_\_\_\_\_\_, effective \_\_\_\_\_\_\_\_\_\_\_\_)

**Section 107.20 Incorporations by Reference**

1. Wherever a document is incorporated by reference in this Part, a copy of the document shall be kept on file by the OSFM, and shall be available for public inspection.  Where standards are incorporated by reference in this Part, the incorporated material does not include any later editions or amendments. The standards and codes adopted by this Section are specific only to the Outdoor Stages regulated by this Part and have no other applicability.

ANSI E1.2 – 2006 Entertainment Technology – Design, Manufacture and Use of Aluminum Trusses and Towers.

ANSI E1.21-2006 Entertainment Technology - *Temporary Ground-Supported Structures Used to Cover the Stage Areas and Support Equipment in the Production of Outdoor Entertainment Events*.

ASCE 7 – Minimum Design Loads for Buildings and Other Structures (2010)

NFPA 70 – *National Electrical Code* (2011)

NFPA 101 – *Life Safety Code* (2012)

1. The materials adopted by this Section are on file with the OSFM at the following locations:

1035 Stevenson Drive

Springfield, Illinois 62703-4259

State of Illinois Building

100 W. Randolph Street

Chicago, IL 60601

(Source: Amended at \_\_\_\_ Ill. Reg. \_\_\_\_\_\_, effective \_\_\_\_\_\_\_\_\_\_\_\_)

**Section 107.25 Definitions**

For purposes of this Part, the term:

“ANSI” means American National Standards Institute.

“ASCE” means American Society of Civil Engineers

“Designated Qualified Person” means a person who, by possession of a recognized degree or certificate of professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated the ability to understand and solve problems relating to the subject matter and work.

“Incident Action Plan” (IAP) means a written plan containing general objectives reflecting the overall strategy for managing an incident. It may include the identification of operational resources and assignments. It may also include attachments that provide direction and important information for management of the incident during one or more operational periods. The IAP shall include and coordinate with the “Operations Management Plan” required by ANSI E1.21.

“Life Safety Evaluation” (LSE) means a written review dealing with the adequacy of life safety features relative to fire, storm, collapse, crowd behavior, and other related safety considerations pursuant to NFPA 101 Section 12.4.1.

"NFPA" means the National Fire Protection Association.

“Operations Management Plan” (OMP) means a plan as required by ANSI E1.21, prepared by the user and their engineering advisors, based on sound engineering analysis and the allowable loads defined in engineering documentation. It defines the actions to be taken for different parts of the structure and cladding under prescribed loading conditions with particular regard to wind loads.

“Outdoor Stage” means a Stage with surface areas greater than 1,500 ft2 erected or constructed outside of a building or otherwise located so as to be exposed to the effects of wind and weather.

“Platform” means a raised area used for entertainment, deliberation, worship, amusement, ceremonies or similar uses. Platforms do not incorporate any overhead lighting, hanging curtains, drops, hanging scenery or other overhead stage effects or equipment. Raised areas used for seating, tables, lectures, presentations, boxing and wrestling rings, theaters-in-the-round and similar uses are examples of platforms as long as there is no overhead lighting, hanging curtains, drops, hanging scenery or other overhead stage effects.

“Scrim” means a theater drop that appears opaque when a scene in front is lighted and transparent or translucent when a scene in back is lighted.

“Shutdown Period” means a period of time when the audience viewing area of an Outdoor Stage is not occupied and therefore, neither the presence of a designated qualified person nor continuous monitoring of weather conditions is required.

“Stage” means a space used for entertainment, deliberation, worship, amusement, ceremonies or similar uses utilizing overhead lighting, hanging curtains, drops, hanging speakers, hanging scrims, hanging scenery or other overhead stage effects or equipment. These rules are applicable to Outdoor Stages with surface areas greater than 1,500 ft2.

 (Source: Amended at \_\_\_\_ Ill. Reg. \_\_\_\_\_\_, effective \_\_\_\_\_\_\_\_\_\_\_\_)

**Section 107.30 Right to Inspect**

The State Fire Marshal, his subordinates, the fire chief of any city, town, village, or fire protection district, or a subordinate delegated by said fire chief shall have the right within their respective geographical area of responsibility to inspect any Outdoor Stage at any reasonable time for the purpose of determining whether or not there are any violations of this Part or local ordinances for the protection of life and property from fire or other emergency.  The inspector shall obtain permission from the owner, occupant, or other interested party to inspect and conduct an inspection at any reasonable time (generally, during regular business hours).  Local authorities having jurisdiction are empowered and directed to invoke any provisions of this Part to enforce correction of any violating condition.

(Source: Amended at \_\_\_\_ Ill. Reg. \_\_\_\_\_\_, effective \_\_\_\_\_\_\_\_\_\_\_\_)

**Section 107.35 Applicable Codes and Standards**

1. The requirements contained in this Part are applicable to Outdoor Stages with areas greater than 1,500 ft2. Outdoor platforms as defined in Section 107.25 are exempt from the requirements of this Part.
2. Permanent Outdoor Stages that do not alter the configuration of overhead lighting, hanging curtains, drops, hanging scenery or other Overhead Stage effects or equipment are not subject to compliance with these rules. Such permanent Outdoor Stages shall conform to the requirements of NFPA 101 and locally applicable building codes.
3. Outdoor Stages and related rigging, framework and appurtenances and any occupiable structures within or upon shall be designed and constructed in accordance with applicable manufacturer’s specifications, the instructions of the design professional responsible for the Outdoor Stage required by subsection 107.40(b) and the standards listed in this subsection. Where differing requirements are identified, the most stringent shall be applied:
4. ANSI E1.2 – 2006 Entertainment Technology – Design, Manufacture and Use of Aluminum Trusses and Towers.
5. ANSI E1.21-2006 Entertainment Technology – Temporary Ground-Supported Structures Used to Cover the Stage Areas and Support Equipment in the Production of Outdoor Entertainment Events
6. ASCE 7 – Minimum Design Loads for Buildings and Other Structures (2010).
7. NFPA 70 – National Electrical Code (2011)
8. NFPA 101 – Life Safety Code (2012)
9. It is the responsibility of the owner of any Outdoor Stage to comply with the requirements of this Part. Written documentation of compliance shall be maintained by the owner as required in this Part.

(Source: Amended at \_\_\_\_ Ill. Reg. \_\_\_\_\_\_, effective \_\_\_\_\_\_\_\_\_\_\_\_)

**Section 107.40 Structural Design and Verification**

1. The structural design and construction of Outdoor Stages shall be in accordance with those codes and standards identified in Section 107.20.
2. A professional engineer, structural engineer or licensed architect shall verify in writing that an Outdoor Stage is in compliance with the codes and standards identified in Section 107.20 prior to the issuance of any Permit required in Section 107.45. This verification is required upon initial erection of any Outdoor Stage and whenever the configuration or arrangement of trusses, tower sections, roofs, backdrops, banners, advertisements, suspended or supported equipment or supported scenery is modified. Such verification shall include, at a minimum, the following information:
3. Sealed engineering documentation as required by ANSI E1.21 pertaining to the Outdoor Stage. This documentation shall be available on-site during the entire time a stage structure is erected.
4. The wind load on all exposed truss and tower sections, roofs, backdrops, banners, advertisements, suspended or supported equipment, and supported scenery shall be included in the structural calculations that form part of the engineering documentation relied upon and submitted by a professional engineer, structural engineer or licensed architect in verifying an Outdoor Stage pursuant to this Section. If, for any specific event the wind loads that can be tolerated or that trigger required action as calculated by the required design professional identified in subsection 107.40(b) differ from those identified by the manufacturer of the Outdoor Stage, the more restrictive wind load requirements shall be applied.
	1. If overhead elements, including lighting, speakers, scrims, hanging curtains, drops, hanging scenery or other overhead stage effects can be removed within five (5) minutes they need not be considered in the full engineering documentation. This exclusion only pertains to elements that are removed prior to personnel leaving the site during off hours.
	2. If overhead elements , including lighting, speakers, scrims, hanging curtains, drops, hanging scenery or other overhead stage effects can be removed within five (5) minutes but remain in place overnight, then they must be considered as part of the effective wind area in the engineering documentation. Reduction in wind pressure due to neighboring structures and terrain shall not be considered.
	3. The use of cable incorporating self-releasing devices designed to activate at set wind speeds is allowed if such releasing devices are included in the analysis conducted by the design professional or addressed in the manufacturer’s specifications.
5. The professional engineer, structural engineer or licensed architect shall identify to the owner of any Outdoor Stage when the following actions are to be taken in relation to climate conditions including specific wind speeds:
6. Personnel to be on alert
7. Scrim or backdrop removed if one or more exist
8. Scrims on sound wings removed if one or more exist
9. Sound cabinets lowered to stage level if one or more exist
10. Event terminated and spectators removed
11. Roof lowered to stage level and all stage personnel are evacuated

This information shall also be included as part of any permit submittal process identified in Section 107.45.

1. Portable rolling lifts shall not be used as the means of permanently supporting truss and tower sections, roofs, backdrops, banners, advertisements, equipment or scenery.

(Source: Amended at \_\_\_\_ Ill. Reg. \_\_\_\_\_\_, effective \_\_\_\_\_\_\_\_\_\_\_\_)

**Section 107.45 Permit Required**

1. It shall be unlawful for any person to construct or use any Outdoor Stage at a State-owned facility or on State-owned property unless the plans for such structures have been submitted to, and a permit issued by, the OSFM.
2. Local authorities are authorized, but not required, to establish plan and document submittal requirements and issue permits in relation to the construction and use of Outdoor Stages within their jurisdictions.
3. Any deviation from design or use of an Outdoor Stage originally approved by either the OSFM or local authority shall require re-approval by the OSFM or any local authorities which have established plan and document submittal requirements and permit issuance procedures in accordance with Section 107.45(b). If a permit was originally issued for the design or use of an Outdoor Stage, any deviation from the permitted design or use shall require an amended permit reflecting the changed conditions before any further use of the Outdoor Stage. Updated engineering documentation as required by ANSI E1.21 shall be approved by the professional engineer, structural engineer or licensed architect of record prior to re-submission to the OSFM or local authority.

(Source: Amended at \_\_\_\_ Ill. Reg. \_\_\_\_\_\_, effective \_\_\_\_\_\_\_\_\_\_\_\_)

**Section 107.50 Designated Qualified Person**

1. A designated qualified person shall be identified by the user of Outdoor Stages. This designated qualified person shall have overall on-site responsibility for the permitted structure(s). When the Outdoor Stage is required to obtain a permit for operation, the designated qualified person, and his or her relevant qualifications and experiences, shall be identified on the permit application.
2. The designated qualified person shall be familiar with the engineering documentation for the structure’s components, configurations and loads as well the approved plans and documents pertaining to the installation.
3. The designated qualified person shall be aware of wind speeds at the site of the Outdoor Stage during all times that the audience viewing areas are occupied and is responsible for taking the emergency actions identified by both the professional engineer, structural engineer or licensed architect in accordance with Section 107.40 and in the Incident Action Plan required by Section 107.65 including ordering the evacuation of spectators and stage personnel.

(Source: Amended at \_\_\_\_ Ill. Reg. \_\_\_\_\_\_, effective \_\_\_\_\_\_\_\_\_\_\_\_)

**Section 107.55 Inspection Required**

1. Visual inspection of all Outdoor Stages shall be performed by the designated qualified person before any use of the Outdoor Stages commences and before entry is permitted to the audience areas associated with any Outdoor Stage.
2. Outdoor Stages shall be checked at regular intervals during the event by the designated qualified person described in Section 107.50 to ensure continued safety and integrity of the system, including prevention of tampering by the general public.
3. Inspections shall be made by the designated qualified person upon arrival after shutdown periods to both ensure that no stage components were altered or disturbed during the shutdown period and verify the continued safety and integrity of the structure.
4. Records of these inspections shall be maintained by the designated qualified person at the location of the Outdoor Stage and shall be made available to the OSFM or local authorities upon request.
5. The OSFM and local authorities are authorized, but not obligated to, conduct inspections of Outdoor Stages.

(Source: Amended at \_\_\_\_ Ill. Reg. \_\_\_\_\_\_, effective \_\_\_\_\_\_\_\_\_\_\_\_)

**Section 107.60 Crowd Management**

Venues with Outdoor Stages shall comply with Section 12.7.6 of NFPA 101 – Life Safety Code for crowd manager requirements as well as any components of a Life Safety Evaluation as required in Section 107.65.

(Source: Amended at \_\_\_\_ Ill. Reg. \_\_\_\_\_\_, effective \_\_\_\_\_\_\_\_\_\_\_\_)

**Section 107.65 Life Safety Evaluation and Incident Action Plan Development**

1. Any Outdoor Stage where the audience viewing area has an occupant load of greater than 1,000 shall have a written Incident Action Plan (IAP) and Life Safety Evaluation (LSE).
2. It shall be the responsibility of owner of the Outdoor Stage to ensure that the IAP and LSE are prepared in advance of the use of the Outdoor Stage.
3. The IAP shall be prepared by persons acceptable to the authority having jurisdiction. Where a permit is required for operation of an Outdoor Stage per subsection 107.45, the IAP shall be included in the permit application submittal.
4. The IAP shall identify specific requirements for terminating the event based on certain levels of threatening weather. If the IAP and recommendations of the Outdoor Stage’s design professional for actions to be taken at specific wind speeds identified per subsection 107.40(e) differ, the more stringent requirements shall be followed.
5. The LSE shall comply with the requirements of NFPA Life Safety Code Section 12.4.1

(Source: Amended at \_\_\_\_ Ill. Reg. \_\_\_\_\_\_, effective \_\_\_\_\_\_\_\_\_\_\_\_)

**170.70 Weather Monitoring**

1. Wind speed measuring anemometer devices are required to be installed at the site, at the height of the roof structure, or at a location where a true wind speed will be measured. This anemometer shall be continuously monitored during any time when audience viewing areas are occupied. Documentation of recorded wind speeds shall be kept, either in manual hard-copy form or electronically, on site. Wind-related actions required by Section 107.40 or in the IAP shall be taken.
2. A method of monitoring expected weather in the immediate vicinity of any Outdoor Stage shall be established and shall be identified in any required permit application and the IAP .

(Source: Amended at \_\_\_\_ Ill. Reg. \_\_\_\_\_\_, effective \_\_\_\_\_\_\_\_\_\_\_\_)

**Section 107.75 Certificate of Insurance**

1. All applications for a permit to construct or use any Outdoor Stage at a State-owned facility or on State-owned property shall include the following information:
2. A Certificate of Insurance showing proof of not less than $1,000,000 in general liability insurance and proof of Illinois worker’s compensation insurance. The insurance coverage shall provide for 30 days minimum coverage prior to written notice of cancellation to the OSFM. Insurance coverage shall be an occurrence based policy, or its equivalent, and it shall cover the period of time during which the Outdoor Stage is set up, used and removed. If a self-insured political subdivision of the State applies for a Permit, the applicant shall submit an affidavit acknowledging its self-insurance.
3. Local authorities are authorized, but not required, to specify the nature, type and amounts of insurance required to be held in order to receive a permit in relation to the construction and use of Outdoor Stages within their jurisdictions.

**Section 107.80 Penalties for Noncompliance**

The penalties for violation of the provisions of this Part shall be such as are provided in Section 9e of the Fire Investigation Act [425 ILCS 25/9e].

(Source: Amended at \_\_\_\_ Ill. Reg. \_\_\_\_\_\_, effective \_\_\_\_\_\_\_\_\_\_\_\_)