



March 15, 2007

**CAMERON INDOOR STADIUM  
SAFETY STANDARDS**

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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**OFFICE OF PRIMARY RESPONSIBILITY**

Duke OESO-Fire Safety Div  
(919) 668-3236

Certified By: Director, (Fred J. Knipper)  
(919) 668-3231

Supersedes:

Duke University Safety Standards Cameron Indoor Stadium, March 1986

Pages: 4

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This instruction establishes policy and procedures and assigns responsibilities and requirements to promote fire safety and to ensure a rapid and safe evacuation of Cameron Indoor Stadium during a fire or other emergency.

**1. Objective**

- 1.1. Cameron Indoor Stadium is a very unique facility and requires constant Life Safety evaluations during times when attendance is at its peak. Special configurations add to the problem and require a thorough understanding and description of the proposed layout prior to any major event being conducted in the facility. It is the goal of the OESO-Fire Safety Office to work with all persons, both Duke employees and non-employees, who wish to host special events in Cameron Indoor Stadium

**2. Standards**

- 2.1. *North Carolina Fire Prevention Code*
- 2.2. *NFPA Standard 101, Life Safety Code*
- 2.3. *NFPA Standard 70, National Electric Code*
- 2.4. *NFPA Standard 72, National Fire Alarm Code*

**3. Notifications**

- 3.1. The OESO-Fire Safety Office must be notified of all special events being conducted within Cameron Indoor Stadium. Notification should be made as soon as requests are made to utilize the facility. Special events include but are not limited to events with special seating requirements (e.g. concert, closed circuit television viewing set-ups, banquets, etc), large anticipated audiences, (e.g. home basketball games, school graduations, etc.), or any event that alcohol, candles, or other dangerous items may be present.

- 3.2. Contact the OESO-Fire Safety Office by calling 668-3236 or 668-3239 at the earliest time possible but, not later than seven days prior to any special event.
- 3.3. The person responsible for the scheduled Special Event must provide a written plan with a floor-plan layout to the OESO-Fire Safety Office for approval prior to the set-up for the event. (Note: The Event Management Office at 660-1750 can be contact for copies of pre-approved layout plans)

#### 4. Procedures

##### 4.1. Seating Capacity

- 4.1.1. The maximum occupancy of Cameron Indoor Stadium is **8497**. The maximum capacity is mandated by code and is based on computations that take into account factors such as total square footage, width of exit doors, number of exits, number of fixed seats, etc. **At no time will this number be exceeded.**
- 4.1.2. Maximum Occupancy for each section is shown below:

<b><u>Fixed Seating:</u></b>	Concourse	5607
	Bleachers	2890

<b><u>Moveable Seating:</u></b>	Playing Floor Area	
	(with bleachers out)	588
	(bleachers locked back)	1099

- 4.1.3. Any combination of chairs and bleachers may be utilized however, the total capacity on the 1<sup>st</sup> floor (playing floor area and bleachers) may not exceed **2890**.
- 4.1.3.1. A positive accountability system (tickets, arm bracelets, stamps, etc.) must be used to track the number and access to the lower level area during all events to ensure the occupant load remains at 2890 or lower. (Note: Utilizing counters at the door alone does not constitute “Positive accountability/access”.)
- 4.1.4. “Blanket Seating,/Festival Seating” (attendees sitting on the floor without fixed or moveable seating arrangements) **will not be allowed**

##### 4.2. Inspections

- 4.2.1. Prior to any special event, an OESO-Fire Safety Specialist will inspect the premises to insure compliance with all applicable standards, codes, and policies.
  - 4.2.1.1. If a violation is noted by the Specialist, the event will be delayed until the violation is corrected
- 4.2.2. A variance from this policy may be obtained if the alternative method is equal to or more stringent than the existing requirement/standard
  - 4.2.2.1. The variance request must be submitted in writing to the OESO-Fire Safety Division Director no later than 24-hours prior to the event.
  - 4.2.2.2. Only the OESO-Fire Safety Director or his appointed representative has the authority to grant any variance request.
  - 4.2.2.3. If a variance issue arises during the setup of the event or within 24-hours prior to the event, the OESO-Fire Safety Division Director must be contacted immediately by calling 668-3231 or (919) 812-9030

4.2.2.4.A physical inspection by a Fire Safety Specialist must be completed prior to approving any variance and all approvals will be written

## 5. Illumination

- 5.1. Access to all exits must be illuminated at all points including angles, intersections, corridors, passageways, stairways, landings, and exit doors
  - 5.1.1. Battery operated electric lights nor any type of portable light or lantern will be used as the primary illumination for egress, (EXCEPTION: Approved Emergency Lighting when used during emergency power outages)
- 5.2. At no time will emergency lighting be disabled, removed, blacked out, etc.
- 5.3. Total “black out” (all interior lights turned off) for more than 5 seconds is **prohibited** (EXCEPTION: Stage area may be blacked out)

## 6. Platforms and Stages

- 6.1. Stages, platforms, and any accompanying crowd control barriers will not exceed 80’ x 40’
- 6.2. Stages and platforms must be constructed properly and materials must be sufficient to prevent collapse
- 6.3. The load capacity of any stage, platform of accompanying devices, must be able to withstand a load of 200 lbs/sq. ft
- 6.4. Bleachers must be pushed back and locked to accommodate stages. No fixed seating will be allowed behind the stage or platform
- 6.5. The first row of seating will be no closer than 10’ from the front edge of the stage or crowd control barrier
- 6.6. **All moveable seating (folding chairs, single seats, etc.) MUST be tied together with temporary electrical ties, or some other approved device to prevent movement and to maintain aisles**

## 7. Electrical

- 7.1. All electrical equipment shall meet UL and or FM standards
- 7.2. Electrical installations shall comply with the NFPA Standard 70, *National Electrical Code*
- 7.3. All overhead wires shall be securely supported to ensure that no weight is transferred to electrical junction boxes or terminals
- 7.4. Wires and cables on the floor shall be securely taped and anchored in place to prevent tripping
- 7.5. Whenever possible, wires should be channeled together and routed through approved troughs and kept out of the path of egress
- 7.6. All lighting and sound requirements for concerts and similar events shall utilize the existing electrical service. If additional electrical service is required, requests shall be submitted to Facilities Management and/or Technical Services prior to the event

## 8. Egress

- 8.1.1. **Exit and egress requirements will be strictly enforced**
- 8.1.2. Exit paths, aisles, ramps, stairs and hallways shall be maintained free of obstructions, tripping hazards, equipment or furnishings required for the event

- 8.1.3. Exit signs and exit pathways shall not be blocked or visibility limited by furnishings, equipment, decorations, or any other device

## 9. Fire Protection

- 9.1. Exits, exit pathways, and exit discharges must be kept clear at all times
- 9.2. Fire extinguishers located throughout the facility must be kept clear and unobstructed at all times
- 9.3. Candles, smoke machines, fog generators, open flame devices or other special effects equipment will not be used without prior **written approval** of the OESO Fire Safety Division Director
- 9.4. All requests for the use of pyrotechnics must be submitted to the City of Durham Fire Marshal for approval prior to the date of the event
- 9.5. Smoking is **PROHIBITED** inside Cameron Indoor Stadium
- 9.6. Tennis balls, balloons, Frisbees, inflatable balls or other projectiles are prohibited
- 9.7. Events with an expected attendance that will exceed 3000 persons will require:
  - 9.7.1. A pre-event survey by the OESO Fire Safety Office on the day of the event
  - 9.7.2. Ushers or crowd control personnel such as Event One
  - 9.7.3. OESO Fire Safety personnel as deemed necessary to ensure the safety of participants, attendee, and employees (A reasonable charge will be incurred to cover the cost of man-power expended at special events. Special event coordinator must provide a Fund Code prior to the event)

## 10. Fire Alarm System

- 10.1. Cameron Indoor Stadium is equipped with an automatic Fire Alarm system that incorporates a combination of automatic smoke detectors, heat detector, laser detector, manual Fire Alarm pull stations, and other monitor/annunciator equipment
- 10.2. The fire alarm system is equipped with a NFPA 72, *National Fire Alarm Code* approved Positive Alarm Sequence (PAS) system that allows for a delayed response **IF properly trained personnel are on scene**
  - 10.2.1. The system allows for a delay of up to 180 seconds of activating the evacuation alarm system
  - 10.2.2. The PAS system will only be utilized during NCAA sponsored events and other special events approved by the OESO-Fire Safety Division Director
  - 10.2.3. When the PAS system is utilized, a minimum of three (3) OESO-Fire Safety personnel/or approved designated alternates, will be present during the entire time the system remains in the PAS mode. (NOTE: At least one of these persons will be present at the main panel at all times and must be thoroughly familiar with the panel operation)
- 10.3. A valid Fund Code must be provided to the OESO-Fire Safety Office prior to any event that the PAS system is utilized to cover the cost of OESO-Fire Safety Personnel's time on site