

ICC Consensus Committee on Bleacher Safety

Meeting #1- CPSC Headquarters, Bethesda, MD
4/10/01 - 4/11/01

Meeting Minutes

Chairperson: Henry Green
Vice Chairperson: Scott McLellan
ICC Staff Liaison: Mike Pfeiffer

Members present:	Guests present:	Staff present:
Stanton Alexander	Gregory Dies	Mike Pfeiffer, Secretary
Brian Boudreau	Kevin Hemler	
Janet Buyer	Jake Pauls	
Gregory Buckner	Jim Pecht	
Bill Duckworth	John Scott	
Henry Green	Reg Tharp	
Scott McLellan	Nathan Thompson	
Sarkis Nazerian	Dan Victor	
Kevin Warapius	Wm Wilkoff	
	Al Wolczyk	

I. Welcome and Introductions

A. The meeting was called to order by the Staff Liaison (Staff) at 9:00 am on April 10, 2001. Staff identified an overview of the effort, the development of a Bleacher Standard (standard) with specific scope to be determined by the committee.

B. Self introductions were made.

C. Henry Green was nominated and approved as Chair. Subsequently Scott McLellan was appointed Vice Chair.

D. Agenda approved.

II. Committee Procedures

A. Staff provided an overview of the Consensus Committee Procedures: 1. A balanced committee, of which there are 4 users, 4 producers and 4 general interest. 2. The need for the standard to be constructed with mandatory language. 3. Staff to submit the standard to ANSI.

B. Staff went through the Scope and Objectives statement. Scott McLellan provided the history of the bleacher issue in MN (agenda item III A). To date, bleachers and the like have not seen significant code development activity. Fatalities, due to falls in 1999, and the subsequent media coverage compelled the MN legislature to review and enact requirements to arrest falls from bleachers. Industry cautioned the legislature due to the practicality of the industry being capable of providing the product that would be required. Industry may not be capable of responding in a timely fashion. In addition to falls, among the issues ID'd were: egress (capacity, aisle sizes, etc.), accessibility, fire (storage below). As a result the legislature is continually being petitioned to re-evaluate.

A discussion of the scope followed. Among the potential scoping items noted:

Temporary bleachers needs to be included. It should be noted that the local code official may not be involved. It may be an entity such as the Dept of Agriculture.

Accessibility. Concern regarding site lines and wheelchair access. There is an assembly task group looking into accessibility requirements relative to assembly occupancies, including bleachers. Rails behind wheelchair staging areas are an issue.

Florida. Current litigation due to lack of accessibility to "every level".

Scope could be all inclusive:

- Egress; capacity, aisle width, etc.
- Accessibility
- Fire
- Structural loads
- Arrest falls

It was noted that many of the issues above are currently regulated in the codes. This effort need not "reinvent the wheel".

Staff explained the code development process and the relationship of this standard activity to code development. This effort will include both changes to the I-Codes as well as the development of the Bleacher standard for inclusion by reference in the I codes. Staff to create 2 working drafts. One draft of potential changes to the I-Codes (I codes) as necessary for the coordination of the Bleacher Standard with the code. The second to be a draft of the Bleacher Standard (standard) itself. Ultimately the committee will decide as to location of requirements, code versus standard.

III. Development of Bleacher Safety Code Requirements

A. Covered under Item IIB.

B, C & D. The committee initiated a review of the existing codes and standards. The committee members listed after an issue will review the requirements and create text for the committee's consideration at the next meeting.

DEFINITIONS

A review of the definitions, as identified on a matrix handout, followed. Discussion on the need for consistent terminology followed. Current model codes define the terms:

- Bleachers
- Grandstands
- Guardrail
- Folding and telescopic

The committee developed revisions to the current model code definitions.

ASSEMBLY (1008)

Jake Pauls questioned why the committee is reviewing established requirements.

There's a body of information out there that supported the current requirements which should be recognized. The standard effort should not undo it. In response, the committee is at liberty to review the existing IBC requirements, and if need be, propose changes to the IBC. It was cautioned that such revisions need to be done with the benefit of documentation. A review of the IBC is appropriate in order to create a coordinated standard with the I-codes.

1008.1: Add term "facility" to account for non building environments....see A-5 classification in the IBC. Staff.

1008.7 : It was suggested to delete the exception w/o substitution. It was identified that it could be removed provided the exception was flawed. While the producers at the meeting may not utilize it, there may be an application. If not flawed, don't remove it. The exception was retained. No action.

1008.7.5 : Need to include Exception 5 from SBC Section 1019.11.6. Staff.

1008.8.1 & 2. Concern that the code may be more restrictive for outdoor applications vs. indoors. Scott McLellan.

1008.9 Need to research tolerance step tolerances, specifically at the top of the bleacher where, for example, a 5-inch step is used for the entire run but a 6 inch is provided at the last step. Brian Boudreau.

1008.11 Handrails discussed. This lead to a discussion of 1003.3.3.11, specifically 1003.3.3.11.5 for the extension. Concern that the HR on an aisle, which terminates at the first riser, is a potential hazard to participants diving/running off the court. What about telescopic bleachers where the HR's must be installed each time the bleacher is utilized? Require sign/label on the bleacher stating that HR's must be installed prior to use? NFPA 101 Section 13.7.10? Maybe 1008.11.1 can be used to allow HR to be pulled back 18 inches (1/4 the maximum allowed 36" break). Dan Victor.

1008.12.1. What happens at location where first row of telescopic is pulled back to accommodate a wheelchair space. Should a guard be required where it is an elevation difference of something less than 30 inches? Not a problem under the BOCA code as

this threshold is 15.5 inches. Reg Tharp.

1008.12.1: State of MN has a threshold of 66 inches relative to triggering guards for existing bleachers. This is similar to NFPA 102 Section 12.2.5.6.1 Except 2. Needs similar threshold in the std. Scott McLellan

1008.12.2: John Scott.

1008.13: Why at only above the third row? Al Wolcyk.

GUARDS

1003.2.12.2: CPSC retrofit suggests 1.25" mesh size. IBC Section 3109.4.1.5 has a 2.25" mesh requirement relative to swimming pool barriers. CPSC to research d-base on climbability statistics of 2.25-inch mesh versus 1.25". Is there a basis to have different requirements for inside versus outside? Bill Duckworth.

HANDRAILS

1003.3.3.11.2 Requires intermediate HR's. What's relationship to 1008.11.2 which also requires intermediate. No relationship, different applications. Need exception to 1003.3.3.11.2 to indicate not required for aisles in bleachers. 1008.5.1 # 3 allows for greater than 30 inch. Dan Victor and Brian Boudreau.

LOADS & FOUNDATIONS

NFPA 102 allows a 40% reduction in loads for foundation design (4-3.8). Due to duration of load? Review frost and anchorage issues too (IBC 1805.2.1). Al Wolczyk.

Load combinations: IBC 1605 mirrors ASCE 7. May be viewed as overly conservative but this is best left with the ASCE process. No action.

Deflection: Industry std. is around L/180. No std. for drift deflection. If viewed as a floor, IBC Table 1604.3 would require L/360 under live load and L/240 under dead plus live. Al Wolcyk and Dan Victor.

Environmental: Wind, seismic, snow ok per code and ASCE 7. No action.

Press box: Nothing specific in IBC. Table 1607.1 includes projection and control rooms at 50 psf. Kevin Warapius.

MATERIALS

IBC Table 503 allows for unlimited height and area for A-5 structures. No action.

ACCESSIBILITY

Access to press boxes: Required by ADAAG.

Discussion of Florida litigation relative to need for every level to be accessible.

Discussion on future ADAAG proposals and the assembly task group.

Relative to this standard effort, there is a concern that the front row of a bleacher configuration may not be the only place for wheelchair placement. Also clarification as to what a tier vs. level is. Discussion on E58 -01 which was approved as modified to read:

Multilevel assembly seating. Seating that is arranged in distinct levels where each level is comprised of either multiple rows or a single row of box seats accessed from a separate level.

Committee members questioned how to stay abreast of Access Board activities. The Access Board web site: www.access-board.gov.

Al Wolzyk and Bill Duckworth to further review potential accessibility issues unique to bleachers.

FIRE PROTECTION

IFC 304.1.3: Storage below the grandstand is not permitted unless a one-hour separation is provided. Concern about limited size kiosks and the like under such structures. SBC 403.6.2.2 allows for limited size structures below the bleachers. Staff.

TOILET FACILITIES

Scott McLellan to develop parameters regarding outside bleachers.

TEMPORARY

3103: Period of 180 days or less. Full compliance with Chapter 10 is required. No action

Jake Pauls questioned the scope of this effort. Jake feels that the effort, as an ANSI standard, is creating conflicts with other ANSI standards (i.e. NFPA 101 and 102). Jake questioned, is it a consensus standards writing effort or an ad hoc charged with reviewing and revising the I-Codes? In response, the Statement of Purpose and Objectives, under the "product" states: "Product: Consensus national standard containing the provisions developed under this study. Proposed changes, as necessary, to the ICC International Codes to update the codes in accordance with the consensus standard." The chair indicated that this is, in fact, a Consensus Committee charged with the development of a standard as identified in the statement of purpose and objectives.

EXISTING BLEACHERS - STD DEVELOPMENT CONSIDERATIONS

Needs reasonable criteria, must be adoptable and not put onus on the user/owner.

Be flexible in terms of permitted materials necessary to close up openings.

Adding significant amounts of materials and the added weight may not be practical. May adversely affect structural capacity.

Standard may need to allow a time period for owners to achieve compliance....i.e. 180 days subsequent to adoption.

Address, for example, the need to bring an existing installation up to accessibility requirements?

Focus initially on the key issue of falls from such structures.

According to CPSC, the problem seems to be installations which have been in place for some considerable amount of time. At which point in time did bleachers, constructed per code, not result in a potential hazard? This will be difficult to ascertain as contemporary codes such as the '97 UBC Section 1008.5.7 allows for greater than the 4" spacing criteria.

15 years ago, telescopic bleachers did not have aisles. It is not practical to require aisles to be retrofitted into such installations.

Codes only part of the solution, the duty goes beyond code compliance.

Provide a barrier (i.e. curtain) at the sides in order to preclude children from going under telescopic bleachers to play or to retrieve items such as basketballs from going under the stands.

Inspection requirements.

Scott McLellan to head up a task group to develop a draft, including:

Brian Boudreau
Bill Duckworth
Jake Pauls
Al Wolcyck
Stanton Alexander
John Scott

Those committee members with assignments listed under Item III need to include in their evaluation how and if proposed revisions to new construction should be handled for existing/retrofit applications.

IV New Business

A. Next meeting: June 26, 2001 - June 27, 2001, Cincinnati. Start @ 12:00 pm on Tuesday. Full day Wednesday. Schedule departure for Wednesday evening.

Committee to send electronic file of their work to Staff by June 1st. Staff to assemble and email a file by June 15th. Staff to provide the following to the committee:

Portions of the 1985 BCMC Egress report
1989 BCMC Grandstand Report
1988 BCMC report on guards
Jake Paul's comparison

V Adjourn

Chair Green adjourned the meeting at 2:00 pm on Wednesday, April 11, 2001.