



Rigging Working Group

E1.50-1, Requirements for the Structural Support of Temporary LED, Video & Display Systems Public Review 2 comment resolutions

Reference document: E1.50-1, *Requirements for the Structural Support of Temporary LED, Video & Display Systems* (Document number Rig/2023-2001r1)

ANSI Public review period: 05 April 2024 through 20 May 2024

Question: In your opinion, do you think the requirements of E1.50-1, *Requirements for the Structural Support of Temporary LED, Video & Display Systems* (DCN Rig/2023-2001r1) are reasonable, and adequately address the intended subject matter?

Please answer the question using one of the options below. Select “Yes”, “Yes, but...” (provide comments to support your opinion), or “No, with reasons” (the document’s requirements are unacceptable or unreasonable). Note that you are offering your opinion, which is in no way construed as a vote of acceptance or approval.

Responses:

Marc Hendricks, Yourplan Solutions (MH)	No, with reasons
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Individual Comments:

No.	Ref. section	Comment	resolution
1	Title	maybe its my lack of English but are video, and LED systems also not display systems?	Accept. Title and scope changed to reflect “temporary display systems”
2	General	not sure about this but... i think "shall" should be replaced by "must" > https://www.wallstreetenglish.com/exercises/the-difference-between-must-have-to-shall-need-and-may	Reject. “Shall” is the defined term for a mandatory action in this document.
3	General	The document is a mix between a code-of-practice and a standard which is a bit confusing.	Reject. This document does blend in elements that some might consider “codes of practice”, in order to address both user and manufacturer requirements.
4	1.1	1st sentence > remove "large format" > chosen wording makes it unclear. what is large and what is small ?. Now you could read that hanging a 1x1 meter led panel is outside the scope as it is small	Accept. The Scope paragraph has been reworded.
5	1.1	2nd sentence > remove "self-illuminating" > the wording limits the scope for other possible techniques	Reject. We think this is the best way to distinguish from “fast-fold” and other styles of projected-image screens.
6	1.1	6th sentence > add after display systems...."but not limited to... in order to make the scope not to restrictive	Accept. See comment resolution 4.
7	2	maybe wise to add a drawing of an LED screen and point out the	Reject. The document contains a diagram, which is

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		different parts for clarification	acknowledged by comment 25.
8	2.3	display modules can also be load bearing	Accept in principle. This is already addressed in section 2.2.
9	2.4	its not clear whether a independent support structure like e.g. a truss-scaffold or staking structure is meant or a support ,very often called touring frames, which frames LED cabinets.. So LED cabinets can be used standalone but also together with a touring frame. Besides there are more and more LED cabinets with integrated , fold-able" support structures.	Reject. This is covered by reference in ANSI E1.21.
10	3.2	1st sentence "system" should be "display system"	Accept.
11	3.2.3.5	2nd sentence > Remove "assemblies" > WLL is related to individual components and SWL to assemblies . An SWL is the lowest WLL of an assembly of components in a load path which determines the maximum allowable load. See BS 7905-1 Chapter 11.2 for reference of definitions	Accept in principle. This is addressed in 3.3.1.7
12	3.2.3.5	Why a design factor of 5 and not 4 ? Many lifting components like chain slings, turn buckles, beam clamps and o rings have 4 .	Accept in principle. 3.2.3.5 no longer addresses design factors, which are already addressed in 3.3.1.7. Use of a lower design factor is possible.
13	3.2.3.5	Suggestion to use 2 different safety factors in order to liaison with what happens in the Europe. 4 for lifting and 8 if the load is lifted or suspended above persons	Accept in principle. See comment resolution 12. It's possible to apply different design factors according to other standards or as determined by a qualified person per section 3.3.1.7.
14	3.2.3.1.1	change the title into "marking" as it is about marking and not about strength. possibly to be combined with 3.2.3.1.2	Accept
15	3.3.1	1st sentence > replace "hardware' by components to be in line with the rest of the document	Accept
16	3.3.1.1	i think "display frames " should be added. they need the same Design factor	Accept
17	3.3.1.4	i suggest to add that testing results shall be assessed by determining the average mean deviation as per Gauss-clock-curve. this way you assure that all manufactures are on the same page, you avoid "interpretation" discussions and tolerances , large or small, will be automatically covered by this statistic method.	Reject. We understand the commenter's intent and appreciate the desire for preciseness. The existing requirement addresses permissible deviation from a targeted value in simple way, without the need to reference statistical terminology, such as normal distribution curves or permissible mean deviation ranges.
18	3.3.1.5	1st sentence > its not clear what is meant	Accept. The sentence has been reworded to indicate that all manufacturer-designated mechanical connections are used.
19	3.3.1.5	2nd sentence > why 2 suspension points . many fixtures /loads have 1 suspension point but they use e.g. a secondary safety cable. This way you achieve also the required redundancy.	Accept in principle. The requirement permits using a single suspension if a qualified person approves it.
20	3.3.1.7	"display frames " should be added to clarify the need the same factors if they are part of the load path	Accept in principle. No change required. If they are in the suspension load path, they are already covered by this section.

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21	3.3.2	<p>we object against the 1% for the following reasons:</p> <ul style="list-style-type: none"> -up front you never know the quantity of sales. Meaning 3 test is a decent start -Even if 1% testing is possible, statistically you will not get significant better probabilistic numbers as with 3 test. -Testing 1% of the total production over will lead to excessive cost. If factories have a decent Q&A system in place. -if still insisting on 1%, it should be badge wise over the years in order to get a better coverage and detection of possible quality issues 	<p>Reject. We understand the objection, but this requirement only applies when strength cannot be analytically proven. If a manufacturer decides to only make batch quantities of 30 or less, then 3 is a good start and 1% is not an unreasonable portion of batch size, comparatively speaking. If a manufacturer makes batch sizes of 10,000, a sample size of 100 is not unreasonable, etc. The testing requirement isn't intended for quality assurance (although that is a good reason to test, and testing is an option to meet the requirements of section 3.3.1.1).</p>
22	3.5	<p>Suggestion to use 2 different safety factors in order to liaison with what happens in the Europe. 4 for lifting and 8 if the load is lifted or suspended above persons</p>	<p>Accept in principle. See comment resolutions 12 & 13. Different design factors are permissible.</p>
23	3.5	<p>is this chapter not a bit obsolete . i suggest to cover this in 3.3.1.7.</p>	<p>Reject. The section addresses global stability and design forces that cannot be addressed at the component level. The section has been renamed to 'System Stability', and the first sentence deleted, to help improve clarity of intent.</p>
24	3.5	<p>clarify what is meant with suspension components? suggestion > modify the example diagram in to a drawing ad indicate all parts for clarification</p>	<p>Accept in principle, see comment 23 resolution</p>
25	3.9.3	<p>remove the word "video" > it supposed to be covered by the wording "display system" in the scope</p>	<p>Accept</p>
26	A3.3.1.3.7	<p>remove the word "video" > it supposed to be covered by the wording "display system" in the scope</p>	<p>Accept</p>
27	A3.4	<p>8th sentence > the word "shaking" seems not to be a correct wording. suggest to use "moving / swinging"</p>	<p>Accept, change to "Motion"</p>
28	Other Annex notes	<p>I also suggest to add the following:</p> <ul style="list-style-type: none"> a) a statement about the allowable materials versus fire retardancy b) the need for positive locking connections of all load bearing components. You see a tendency in the use of magnets. We have seen screens which solely allow on magnets already.. 	<p>Accept (a). A general annex note has been added as requested</p> <p>Reject part (b). This is already covered in 3.3 and its subsections. Magnets are not prohibited if they can meet requirements.</p>