

The Fire Alarm Requirements

**NFPA 72 & 101
ANSI 117.1
ADAAG**

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As one of Gentex's programs to help educate our partners in business, we wish to introduce to you some of the basic fire alarm requirements of the National Fire Protection Association, the American National Standards Institute, and the Americans with Disabilities Act which pertain to audible and visible alarms and how they relate to fire alarm systems.

One of the difficulties and challenges this industry and you will face is the varying installation and performance requirements for life safety and fire protection.

The requirements vary from state to state based on which specific code is in effect (NFPA, UFC, UBC, SFPC, BOCA, SBCCI, etc.) and to the actual revision dates of the adopted code. When you couple this with the provision of the ADA and the U.S. Fire Safety Act it can be very challenging.

These varying codes/standards and laws make it extremely difficult to specify, install, and manufacture fire alarm products, not to mention enforce the latest requirements of our national standards or federal laws with any degree of certainty.

How did we get in such a predicament?

In Quick Summary:

- In 1992 President Bush signed legislation that was called the Americans with Disabilities Act. (ADAAG)
 - ◆ Enacted to provide equal accessibility to all individuals.
 - There was specific reference made to light intensity of visual signals (4.28.3), audible alarms and manual pull stations.

With the advent of the Americans with Disabilities Act in 1992, issues regarding fire alarm systems began to unfold. For example:

- 4.28.3 In the provisions of ADAAG indicated that strobe lights be installed with the following characteristics:
 - ◆ The lamp shall be a XENON strobe type or equivalent.
 - ◆ The color shall be clear or nominal white.
 - ◆ The maximum pulse duration shall be 2/10 of a second.
 - ◆ The intensity shall be a minimum of 75 Candela.
 - ◆ The flash rate shall be a minimum of 1HZ and a maximum of 3HZ.
 - ◆ In general, no place in any room or space required to have a visual signal shall be more than 50 feet from the signal.

These new provisions represented quite the departure from what we as an industry had become accustomed to and had been installing for years. It created, among other things, a great deal of controversy and confusion in the fire alarm industry, among building owners, AHJ's, etc., simply because of the changes and the fact that the ADAAG requirements are not enforceable by AHJ's.

- Remember, prior to the ADA the industry had been utilizing NFPA 72G (Notification Appliances for Protective Signaling Systems).
- The old standard (72G) was very generic and perhaps cumbersome in comparison to the requirements of the ADA (4.28.3).

For example, NFPA 72G 3-2.4 Direct Primary Appliance Photometrics and 3-2.5 Indirect Primary Appliances Photometrics were the standards we were utilizing.

- Under Direct Primary Appliances we noted that:
 - ◆ where the average illuminance is less than 5 lumens per square foot
 - you installed a strobe of 0.15 to 15 Candela.
- Direct Primary Appliances where the
 - ◆ average illuminance was greater than 5 lumens per square foot
 - you installed a strobe rated between 15 Candela and 150 Candela.
 - ◆ average illuminance was greater than 20 lumens per square foot
 - you installed a strobe rated between 100 Candela and 1000 Candela.
- Indirect primary appliance photometrics was even more difficult to understand and implement. Here the standard read:
 - ◆ should be type and intensity and located to alert persons.
 - ◆ average illuminance of the pulsing signal at a standard nominal work plane 30 inches above the floor should be 1/10th the steady state, work plane illuminance.

So where did this leave us as an industry? "Conflict." Huge Conflicts! Not only conflict, but alas, visual signals which were much more intense in output and drawing a lot more current that we were accustomed.

- | | |
|---|--|
| <ul style="list-style-type: none">■ ADA 4.28.3 (1992)<ul style="list-style-type: none">◆ 75 Candela◆ 80" or 6" below ceiling, or 6" from ceiling whichever is less◆ 50' from signal◆ 1-3 HZ flash rate | <ul style="list-style-type: none">■ NFPA 72G - 1989<ul style="list-style-type: none">◆ .015 to 1000 Candela◆ a minimum 80" from floor◆ one appliance per room, one additional for every 7500 square feet - maximum separation 100'◆ 1/3 - 3 HZ flash rate |
|---|--|

An important note as we move into the future is: we as an industry did not utilize the requirements under indirect primary appliance photometrics even though the new requirements of UL 1971 are based on indirect viewing! Go back and review NFPA 72G . . . reflecting light, walls, etc. The same principal as UL 1971.

Since the passage of the Americans with Disabilities Act in 1992 we have seen many changes in our codes and standards, whether it be at the state, local or national levels.

NFPA 72G Became NFPA 72 Chapter 6

■ Notification Appliances for Fire Alarm Systems

- ◆ Where we as an industry started to be more specific on spacing requirements and Candela ratings based on actual room size.

For example, through the research conducted by Underwriters Laboratories during its development of UL 1971, spacing requirements were born:

NFPA 72 Table 6-4.4.1(a)

Room spacing allocation for wall mount visible appliances

Maximum Required Light Output, Candela (Cd) (Effective Intensity)			
<u>Maximum Room Size</u>	<u>One Light Per Room</u>	<u>Two Lights Per Room (Located on Opposite Walls)</u>	<u>Four Lights Per Room (One Light Per Wall)</u>
20' x 20'	15	N/A	N/A
30' x 30'	30	15	N/A
40' x 40'	60	30	N/A
50' x 50'	95	60	N/A
60' x 60'	135	95	N/A
70' x 70'	185	95	N/A
80' x 80'	240	135	60
90' x 90'	305	185	95
100' x 100'	375	240	95
110' x 110'	455	240	135
120' x 120'	540	305	135
130' x 130'	635	375	185

Table 6-4.4.1(b)

Room spacing allocation for ceiling mounted visible appliances

Maximum Room Size	Minimum Required Light Output, Candela (Cd) (Effective Intensity)	
	Maximum Ceiling Height	One Light (Cd)
20' x 20'	10'	15
30' x 30'	10'	30
40' x 40'	10'	60
50' x 50'	10'	95
20' x 20'	20'	30
30' x 30'	20'	45
40' x 40'	20'	80
50' x 50'	20'	115
20' x 20'	30'	55
30' x 30'	30'	75
40' x 40'	30'	115
50' x 50'	30'	150

Notes:

- When ceiling heights exceed 30 feet visible signals shall be suspended at or below 30 foot level or wall mounted.
- Table (above) is based on locating the visible in center of room. Where it is not centered, the effective intensity (Cd) shall be determined by doubling the distance from the appliance to the farthest wall to obtain maximum room size.

Special Note:

- ANSI 117.1 = No reference is made to ceiling mounting.

Table 6-4.4.2

Corridor spacing allocation for wall mounted visible appliances.

Corridor Length (ft)	Min. # of 15 Cd Visible Appliances Required
0-30	1
31-130	2
131-230	3
231-330	4
331-430	5
431-530	6

Table 6-4.4.3

Effective intensity requirements for sleeping area

Visible Notification Appliance	
Distance from ceiling to top of lens	Intensity
Greater than or equal to 24"	110 Candela
Less than 24"	177 Candela

Referring to the above table (6-4.4.3) from NFPA 72 Chapter 6 it is interesting to note that the original ADA requirements themselves were not specific on light intensity in sleeping areas. It simply referred to 75 Cd. However, in a later technical bulletin dated July 1992, they specifically referenced the UL research calling for 110 Cd or 177 Cd to awaken the hearing impaired.

When reviewing the provisions in NFPA 72 Chapter 6 in comparison with ADA (4.28.3) requirements we see the following glaring differences:

- ADA was based on 75 Cd regardless of room size (50'x50').
- No more than 50' from signal.
- Flash rate of 1-3Hz versus 1/3-3Hz.
- Mounting heights differ.

What this did was to lead the industry to expand on the requirements found in the ADAAG requirements under 2-2 Equivalent Facilitation.

Here, under the requirements stated in 2-2 Equivalent Facilitation, "using other designs and technologies are permitted where the alternative designs and

technologies used provide substantially equivalent or greater access to and usability of the facility.”

Taking the Candela requirements of the ADA of 75 Candela divided by the distance (50') squared = 2500 square feet, we noted that the average illuminance increase per square foot was .030.

Taking the same formula in the smaller areas as found in UL 1971 and NFPA 72 we can see that 15 Cd (NFPA, UL 1971)(20' x 20') divided by the room squared equals .0375 lumens per square foot.

Thus, ADA's requirement for 75 Cd in a 50' x 50' area produces .030 lumens per square foot increase in illumination

compared to

15 Cd in a 20' x 20' area produces .0375 lumens per square foot increase.

Therefore, utilizing a visible signal less than 75 Candela in a smaller room is equivalent to a larger Candela strobe in a larger room; by providing greater illuminance per square foot. (.030-.0375)

With the new confusing requirements of ADAAG, coupled with the fact the AHJ's could not legally enforce the requirements, new NFPA requirements calling for something completely different than what ADAAG was calling for – a new “star” was born: 15/75 Candela products.

- 15 Candela listed to UL 1971.
 - ◆ The new UL standard for hearing impaired.
- 75 Candela to meet the requirements of ADA without invoking any interpretations under 2-2 Equivalent Facilitation.
 - ◆ ADA 4.28.3 did not reference any specific UL listing standard. Research utilized to develop ADA requirements was based on UL 1638 appliances.

So where does this leave us today?

What is coming in the revisions of ADA, ANSI 117.1 and NFPA 72?

- It appears we are heading toward somewhat uniform requirements between all of the codes, standards and laws.

NFPA

- Visible notification appliances shall be installed in accordance with Table 6-4.4.1(a) using one of the following:
 - ◆ Use a single visible notification appliance.
 - ◆ Two visible notification appliances located on opposite walls.
 - ◆ In rooms 80' x 80' or greater, where there are more than 2 visibles in any field of view, they shall be spaced a minimum of 55' from each other.
 - ◆ More than 2 visible notification appliances that flash in synchronization.
 - ◆ 4.25.3.1.1 Xenon Strobe or Equivalent.
 - ◆ 4.25.3.1.2 Clear or Nominal White.
 - ◆ 4.25.3.1.3 Flash rate 1Hz minimum and 2Hz maximum over its rated voltage range.

ANSI 117.1

- ◆ 4.25.3.1.4 Pulse duration 2/10 of 1 second.
- ◆ 4.25.3.1.5 Dispersion-comply with table
 - 4.25.3.1.5(a) for wall mounting.
 - 4.25.3.1.5(b) for ceiling mounting.
- ◆ 4.25.3.2.2 Mounting Height - 80" minimum to 96" maximum, measured to the bottom of appliance.
- ◆ 4.25.3.2.3 Ceiling Mounted Appliances – located in accordance with 4.25.3.3.3.
- ◆ 4.25.3.3 Spacing and Minimum Intensity.
- ◆ 4.25.3.3.1 Multiple appliances are permitted only where shape, size, and building construction prohibit total coverage by a single appliance.
- ◆ Where multiple appliances are provided in a single area to provide total area coverage, the appliances shall comply with one of the following:
 - Maximum of 2 appliances located on opposite walls.
 - Synchronized flashes.
 - 80' x 80' or greater rooms, more than 2 appliances located such that all appliances in any 135° field of view are spaced a minimum of 55' from each other.

ADAAG

- ◆ 4.28.3.1.1 (702.3.1.1) Shall be xenon strobe or equivalent.
- ◆ 4.28.3.1.2 (702.3.1.2) Color shall be clear or nominal white.
- ◆ 4.28.3.1.3 (702.3.1.3) Flash rate 1Hz minimum and 2Hz maximum, over its rated voltage range.
- ◆ 4.28.3.1.4 (702.3.1.4) Pulse duration 2/10 of 1 second.
- ◆ 4.28.3.1.5 (702.3.2) Light dispersion per
 - table 4.28.3.1.5(a) wall and
 - table 4.28.3.1.5(b) ceiling.
- ◆ 4.28.3.2.2 (702.3.3.1) Wall mounting 80" minimum, 96" maximum measured to bottom of appliance.
- ◆ 4.28.3.2.3 (702.3.3.2) Ceiling mounting-in accordance with 4.28.3.3.3.
- ◆ 4.28.3.3 (702.3.4) Spacing allocation and minimum intensity.
- ◆ 4.28.3.3.1 (703.3.4.1) Shall be visible by either direct view or by reflection. Multiple appliances are permitted only where size, shape, building construction, or

furnishing prohibit total coverage by a single appliance. Where multiple appliances are used the appliances shall comply with one of the following:

- A maximum of 2 appliances located on opposite walls.
- Synchronized flashes.
- 80' x 80' rooms - 135° field of view spaced a minimum of 55' from each other.

Of course, there needs to be some controversy
or it just wouldn't be fun!!

Let the fun begin!

ADA 4.28.3.3.1 (702.3.4.1)

- Multiple appliances within an area are permitted only where size, shape and building construction or furnishings prevent total coverage by a single appliance.
- Where multiple appliances are provided in a single area to provide total area coverage, the appliance shall comply with one of the following:
(Side Note: Very Important!! NFPA 72 Chapter 6 ROP, will, if passed, say you can use 4 lights in smaller rooms.)
 - ◆ A maximum of two appliances located on opposite walls. Only 2 visibles in room sizes 30' x 30' through 70' x 70' shall be permitted
 - ◆ or, in rooms 80' x 80' or greater in size, more than two appliances located such that all appliances in any 135° field of view are spaced a minimum of 55' from each other
 - ◆ or, the appliances shall have synchronized flashes.

So where is the controversy today?

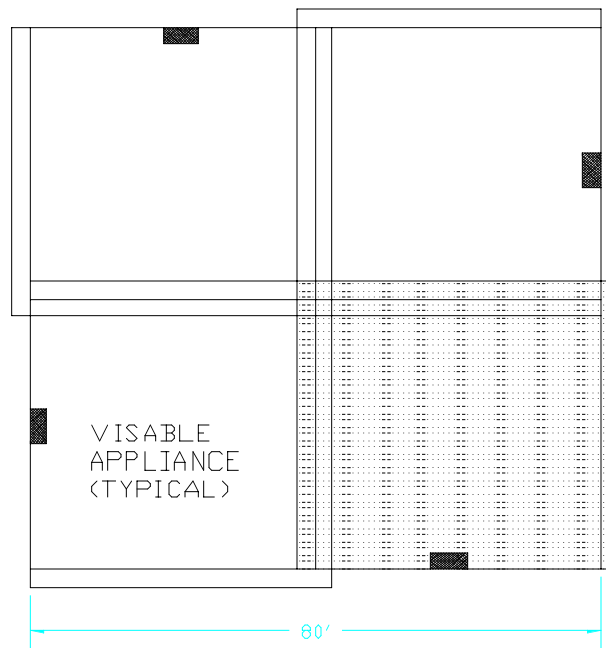
Synchronized Strobes!

Let's review the requirements and see if synchronized strobes are indeed an option or standard per these laws or codes.

- First, in room sizes up to and including 70' x 70' areas you can only have a maximum of 2 strobes (however, we understand the 1998 NFPA 72 ROP has 4 strobes in these smaller areas!) Again, this will put us out of harmonization with ANSI 117.1 and ADAAG.
- ◆ No synchronization needed here as 4.28.3.3.1 indicates no more than 2 strobes per room sizes 30' x 30' through 70' x 70'.
- ◆ In areas greater than 80' x 80' 4 visuals can be used, and in order to provide total area coverage the visuals shall be installed per NFPA Figure A-6.4.4.1(c) or ANSI 117.1 Figures BA4.26.3(d)&(f).
- ◆ When installing the 4 visuals per these figures in an 80' x 80' area, the minimum distance between strobes would be (see Gentex publication "The Facts on Visual Synchronization," pages 2-9):
 - 63.246' in an 80' x 80' room
 - 79.057' in a 100' x 100' room
 - 94.868' in a 120' x 120' room

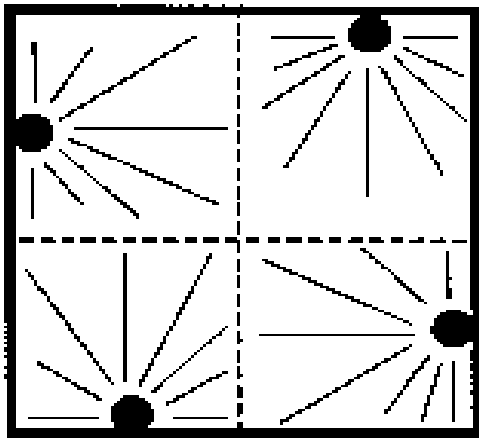
All of these figures are greater than 55'!!

Figure A-6.4.4.1(c) Room Spacing Allocation-Correct

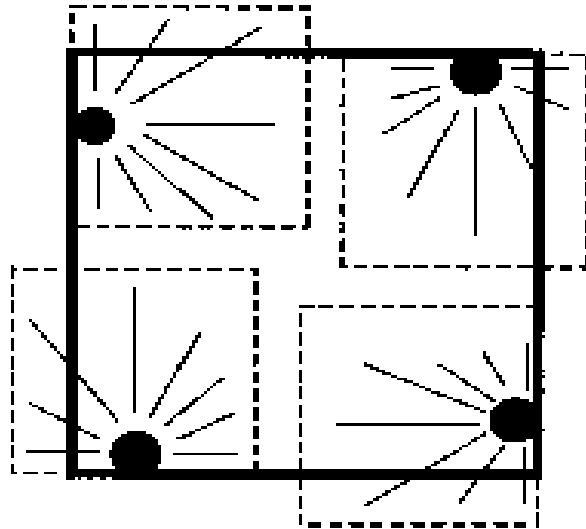


NFPA
Quadrant Style
(correct method)

ANSI 117.1
Figure(s) BA4.26.3(d) & (f)



Correct (d)



Incorrect (f)
(Area Coverage of each
Appliance not Maximized)

- Why is the 55' separation and field of view criteria important?
 - ◆ This will put the appliances far enough apart so as to eliminate or significantly reduce any cumulative effect on those individuals with photosensitive epilepsy.
- Source: ADAAG Review Federal Advisory Committee Subcommittee Final Reports
 - ◆ Volume II: Communications, Plumbing, Special Occupancies - December 1995

So is synchronizing visuals required? NO
You don't synchronize 2 strobes.

- Maximum of 2 visuals per room up to and including room sizes 70' x 70'.
- A minimum separation of the 55' on room sizes 80' x 80' and greater is a given when installed to provide total area coverage.

You be the judge!

Another New Issue

Under the newly proposed revisions to the ADAAG (September 30, 1996, Final Report), when are these visuals installed?

- According to the ADAAG Review, Federal Advisory Committee, Subcommittee Final Reports, Vol II, Communications, Plumbing, Special Occupancies - December 1995. 4.1.3.(3) (i) (215.1) Page 11 of September 30, 1996, final report visual alarms complying with 4.28 are not required in alterations except where the existing fire alarm system is upgraded or replaced, or a new alarm system is installed.

Rule or Interpretation:

- Touch the fire alarm system =
 - ◆ upgrade to ADA requirements for visual signals.
- Do not touch fire alarm system =
 - ◆ no requirement to upgrade to ADA requirements on visual signals.

For Example:

- Alteration: Hotel Lobby.
- Type of alteration: widen doorways and move registration desk.
- Study:
 - ◆ Did widening the doorways cause any change to audible signaling levels?
 - ◆ Did relocating the registration desk change the ambient noise levels in the area?
- If the answer is no, then no additions or alterations to the fire alarm system occurred, therefore no visuals would be required per 4.1.3(3)(i).
- If by chance the alteration included adding a visual signal to the “accessible rooms” a change to the main alarm panels would be undertaken.
- Thus, not only are you adding strobes to the hotel rooms, you are also making accessible the path of travel to and from the altered primary function area.

ADAAG 4.28.3.5 Sleeping Rooms (702.3.6)

- 4.28.3.5.1 General - Sleeping rooms and suites required by 9.0 to have visual alarms, appliances shall comply with 4.28.3.5. All appliances shall be permanently mounted in place (line cord units – gone). Remember though, ADAAG deals with commercial occupancies open to the public. If a private individual wants a line cord in his/her home, OK!

ADAAG 4.28.3.5.2 Activation (702.3.6.1)

- Where single or multiple-station smoke detectors are provided in the sleeping room or suite, a visual alarm that is activated upon activation of the smoke detectors shall be provided.
- Where a building fire alarm system is provided, a visual alarm that is activated upon activation of the system shall be provided within the room or suite.
- The signaling line between the activating device of the appliance and the building fire alarm system shall be monitored for integrity by the building fire alarm system. The same appliance is permitted to be used for visual notification of smoke detector and fire alarm system activation, provided that activation of the room smoke detectors shall not activate the building fire alarm system.

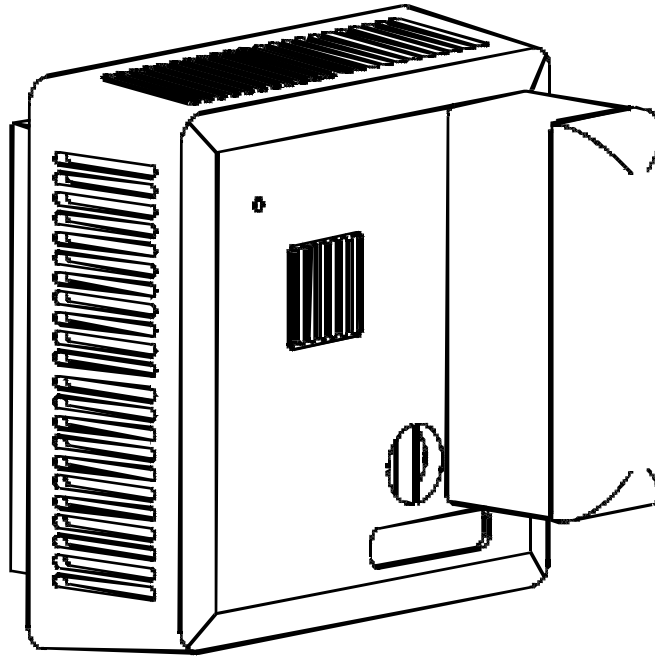
Key Points of this Requirement

- Where single/multiple station alarms are used:
 - ◆ Visual alarm must be activated by both the fire alarm system and the smoke detector.
 - ◆ Signaling line between the activating (relay) device of the appliance and the building fire alarm system shall be monitored for integrity.
- The same appliance is permitted.
- Single station shall not activate building alarm system.
- ANSI 117.1 committee taking similar approach in its new dwelling unit criteria.

How are you going to comply?

Do you want to put two (2) appliances in the same room? A smoke detector with strobe and a separate strobe? Of course not – the cost would be too much.

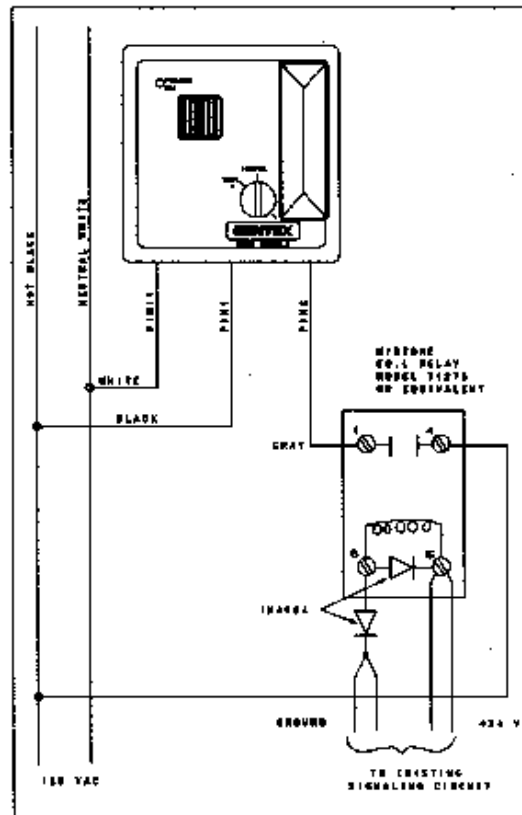
Answer
Gentex Model 710CSX



710CS

1. Upon activation by smoke, local alarm horn and strobe alarm.

Supervised/monitored activating device between strobe and fire alarm system



2. If the fire alarm system goes off or a manual station is activated, only the strobe is activated via the relay.

**Comply easily and economically with
the Gentex 710CSX.**

Simplicity – everyone's goal in life – keep it simple and everyone is happy. How do we get happy?

Harmonization! Everyone's goal is harmonization of the codes regarding audible and visible signaling appliances. Well, we appear to be heading in that direction, but we are not sure if it's going to be harmonization or mass confusion!!

Let's see where we are today:

- NFPA 72, 1996 is published and available for purchase from NFPA.
- The ROP and ROC for NFPA 72 – 1999 is out and ready for comment.
- ANSI 117.1 due for publishing December 31, 1998. Status now: Committee met October 23 through 26 to address comments and resolve negative ballots.
- ADAAG 4.28 final report published September 20, 1996. Now according to the technical director of the access board, we have a minimum of one year of internal review, then one year of public comment and federal rule making procedures. Anticipate an October 1, 1998, introduction date.
- The 1994 Uniform Fire Code references ANSI 117.1 - 1992 in Section 1007 suspended after 1996 revision. (Frozen in place!)

There does appear to be a light at the end of the harmonization tunnel, however so dim it may be, and that glimmer of light could begin to shine after the fourth quarter of 1998; if we are smart and lucky.

Individual State Fire, Life Safety, and Building Code requirements in effect as of today's date. (Please note that some states are utilizing pre-1992 ANSI 117.1 requirements.)

June 11, 1996, International Code Council suspends code developments following the completion of the 1996 code cycle.

July 23, 1996, tentative schedule for revising ANSI 117.1- 1992 which is code 1007.3.3.3.4 visual alarms not due to be revised until December 1997 two public reviews are completed.

assuming

UFC 1007.3.3.3.4 Visual Alarms. Alarm system shall include both audible and visual alarms. Alarm devices shall be located in hotel guest rooms as required by the Building Code (see U.B.C. Section 1105.4.6); accessible public- and common-use areas, including toilet rooms and bathing facilities; hallways; and lobbies. (See Council of American Building Officials/American National Standards Institute Standard A117.1-1992, Section 4-26.2, for additional information about visual signals.)

ANSI 117.1 – 1992

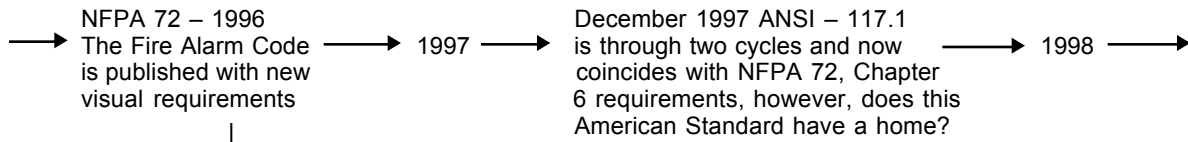
Table 4.26.3.2.1 – Room spacing allocation

Maximum Room Size ft	One Light Cd	Two Lights Opposite Walls Cd	One light Per Wall Cd
20 x 20	15	--	--
30 x 30	30	15	--
40 x 40	60	30	15
50 x 50	95	60	30
60 x 60	135	95	30
70 x 70	185	110	60
80 x 80	--	140	60
90 x 90	--	180	95
100 x 100	--	--	95
110 x 110	--	--	135
120 x 120	--	--	130
130 x 130	--	--	185

Note: The values in column two for "One light" are based on locating the visible signaling appliance at the half-way distance of the longest wall. In square rooms, the "Maximum Room Size" shall be determined by: (a) The distance from the appliance to the farthest opposite wall; or (b) Twice the distance from the appliance to the farthest adjacent wall, whichever is greater.

ADAAG 4.28.3

1. Xenon strobe type or equivalent.
2. Clear or nominal white.
3. Duration of pulse $2/10^{\text{th}}$ of one second.
4. Minimum intensity: 75 Candela.
5. Flash rate minimum 1 Hz, maximum 3 Hz.
6. Mounting 80 inches above highest floor level or 6 inches below ceiling, whichever is lower.
7. No place in any room or space required to have a visual shall be more than 50 ft. from the signal. In large rooms and space exceeding 100 ft. across, appliances may be placed around the perimeter, spaced a maximum 100 ft. apart in lieu of suspending from ceiling.
8. No place in common corridors or hallways in which visuals are required shall be more than 50 ft. from the signal.



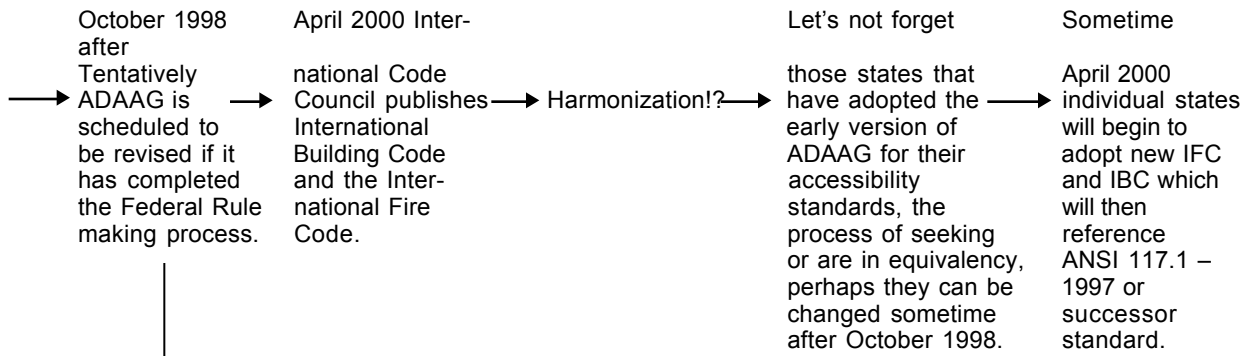
NFPA 72 (Table 6-4.4.1(a))

Maximum Room Size	One Light Per Room	Two Lights Per Room (Located on Opposite Walls)	Four Lights Per Room (One Light Per Wall)
20' x 20'	15	N/A	N/A
30' x 30'	30	15	N/A
40' x 40'	60	30	N/A
50' x 50'	95	60	N/A
60' x 60'	135	95	N/A
70' x 70'	185	95	N/A
80' x 80'	240	135	60
90' x 90'	305	185	95
100' x 100'	375	240	95
110' x 110'	455	240	135
120' x 120'	540	305	135
130' x 130'	635	375	185

ANSI 117.1 – 1997
Table 4.25.3.3.2

Spacing Allocation for Wall-Mounted Visual Alarms

Maximum Required Light Output, Candela (Cd) (Effective Intensity)			
Maximum Area of Coverage	One Light Per Area	Two Lights Per Area	Four Lights Per Area
20' x 20'	15	N/A	N/A
30' x 30'	30	15	N/A
40' x 40'	60	30	N/A
50' x 50'	95	60	N/A
60' x 60'	135	95	N/A
70' x 70'	185	95	N/A
80' x 80'	240	135	60
90' x 90'	305	185	95
100' x 100'	375	240	95
110' x 110'	455	240	135
120' x 120'	540	305	135
130' x 130'	635	375	185



702.3.5.2 Minimum Effective Intensity. Appliances shall have a minimum effective intensity of 15 Candela.

702.3.4.2 Spacing Allocation for Wall-Mounted Visual Alarm Appliances

Maximum Area of Coverage in Feet	Minimum Required Light Output (Effective Intensity) (Candela)		
	One Light per Area	Two Lights per Area	Four Lights Per Area
20 x 20 (6100 x 6100 mm)	15	Not Permitted	Not Permitted
30 x 30 (9140 x 9140 mm)	30	15	Not Permitted
40 x 40 (12 x 12 m)	60	30	Not Permitted
50 x 50 (15 x 15 m)	95	60	Not Permitted
60 x 60 (18 x 18 m)	135	95	Not Permitted
70 x 70 (21 x 21 m)	185	95	Not Permitted
80 x 80 (24 x 24 m)	240	135	60
90 x 90 (27 x 27 m)	305	185	95
100 x 100 (30 x 30 m)	375	240	95
110 x 110 (34 x 34 m)	455	240	135
120 x 120 (37 x 37 m)	540	305	135
130 x 130 (40 x 40 m)	635	375	185

States of:

- Washington
- Florida
- New Mexico
- Texas
- Maine
- Minnesota
- New Jersey
- Utah
- California

When reviewing the Guide to Code Requirements for Fire Alarm and Detection Systems, prepared by the National Electrical Manufacturers Association (NEMA), no state specifically calls out for the use of NFPA 72. What are you saying? Why is this important? Individual states such as Arkansas utilize the 1991 Southern Fire Prevention Code, California uses the 1994 edition of the Uniform Fire Code, with state amendments, Nevada utilized the 1991 Uniform Fire Code and other states have similar requirements. So what's the point? The point is, the Uniform Fire Codes, Building Codes, and Southern Codes have all been suspended! Suspended? Yes, suspended. The reason they have been suspended is the fact that the three code making bodies (Southern, BOCA and ICBO) are in the process of forming the International Code Council which will produce one uniform code instead of three. So where does this leave us as an industry moving to harmonization?

Just how big of an issue is this suspension by Southern, ICBO, and BOCA? Since they are not changing their existing codes until the new ICC is published we are realistically looking at the turn of the century before any of these individual states change their Building, Fire or Life Safety Code requirements.

The turn of the century!! This isn't to say that states that have not adopted the pre-freeze code cannot adopt that one, for example states like Colorado could adopt the 1994 UBC, Minnesota could adopt the 1994 Uniform Fire Code with 1996 amendments, and for a further example New Mexico is in the same boat.

You can see by the time line that the key is ADAAG. It seems that the ADAAG requirements from 1992 superseded all the other state requirements, therefore, we could predict that up until the time ADAAG adopts the changes that coincide with NFPA and ANSI 117.1 we will be in that gray area of requirements with virtually everything out of kilter.

Patience! That's all I can say. It will happen, it's just a matter of when. The requirements outlined in the proposed changes of ADAAG and ANSI are just that – proposed. They are not enforceable in the proposed state and until they are adopted through the consensus process the AHJ cannot enforce them.

Where does this leave us; ADAAG 4.28.3 at 75Cd?!

For more information contact Gentex Corporation, the educational experts, for six books on fire alarm systems and the ADA that are available at no cost:

- Fire Alarm Systems Requirements and the ADA
- New Visual Signals Requirements January 1, 1994
- Analysis of New Technical Bulletin #2
- Application and Information Guide December 1994

- Facts on Synchronization of Visual Signal
- The Fire Alarm Requirements, NFPA 72 & 101, ANSI 117.1, ADAAG