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PSI, F.Y.I.

Engineering... Training... and YOU

Headlines:

- **Definitions...**
- **Placement of Detectors in Households & Dwelling Unit**
- **Placement of Audio/ Visuals in Households & Dwelling Unit**

Upcoming Events!

- **NONE SCHEDULED AT THIS TIME**

HOUSEHOLDS & LIVING SPACES

Definitions...

Lodging/ Rooming Houses: Providing sleeping accommodations for 16 or fewer people.

- Units provided with cooking facilities
- Units intended for occupants either transient or permanent in nature.

Hotels/ Dormitories: Providing sleeping accommodations for more than 16 people.

- Unites intended for occupants primarily transient in nature.

Apartments/ Condos: A building with three or more dwelling units with independent cooking and bathroom facilities.

- Units intended for occupants primarily permanent in nature.

Placement of Detectors in Households & Living Spaces

Lodging/ Rooming Houses:

- Sleeping rooms

Allowed to be stand-alone devices.

Hotels/ Dormitories:

- Living areas
- Sleeping rooms

Detectors must be interconnected within each unit so that if one alarms, all alarm.

Apartments/ Condos:

- Sleeping rooms
- Outside each sleeping room
- On each story, including basements
- Living areas

If permitted by the AHJ,

Positive Alarm Sequence: sounds only in constantly attended location, alarm is delayed for 15minutes for investigation, manual input will override delay.

	On each story	Living Room	Sleeping Room	Outside Sleeping Room
Lodging/ Rooming House			X	
Hotels/ Dormitories		X *	X *	
Apartments/ Condominiums	X	X	X	X

* Detectors must be interconnected within each unit so that if one alarms, all alarm.

Today's References:

- **NFPA 101, Ch.26**
- **NFPA 101, Ch.28-29**
- **NFPA 101, Ch.30-31**
- **NFPA 72, 2007ed. Ch. 7.4-5**

Placement of Audio/Visuals in Households & Living Spaces

Many factors are taken into account when determining if a fire alarm system, and thus notification, is required throughout a household or dwelling unit.

Assuming a notification system is required, the following is an outline of how audio/ visual appliances should be placed.

- Visual appliances required in hearing impaired units.
- Sound Level:
  - ◊ Public Mode for direct notification of occupants
    - * 15dB above average ambient sound level.
    - * 5dB above the maximum sound level.
  - ◊ Private Mode for residential (apartments/ condos) only.
    - * 10dB above average ambient sound level.
    - * 5dB above the maximum sound level.
- Location:
  - ◊ Audible only: 90" A.F.F.
  - ◊ Visuals: 80" A.F.F.
  - ◊ Two or more visuals within the same viewing area must be synchronized
- Sleeping areas:
  - Audible: Minimum of 75dB measured at the pillow.
  - Visual: 110cd if distance between ceiling and top of lens is *greater than* 24".
  - Visual: 177cd if distance between ceiling and top of lens is *less than* 24".

	Audible (Private Mode)	Audible (Public Mode)	Audible (Sleeping Area)	Visual (Sleeping Area)
Sound Level	10dB above average ambient 5dB above maximum	10dB above average ambient 5dB above maximum	75dB measured at pillow	
Location	90" A.F.F.	90" A.F.F.	90" A.F.F.	> 24" to ceiling: 110cd < 24" to ceiling: 177cd
* Two or more visual appliances within the same viewing area must be synchronized.				

Protective Systems, Inc. places a high value on individual education. We are dedicated to providing ongoing training for our managers, designers, and technicians who are expected to maintain a minimum NICET II certification is fire alarm and/or fire special hazards.

As codes, applications and enforcements are continually changing, Protective Systems, Inc. feels it is important to highlight specific topics to provide clarification and encourage discussion.

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