FIRE-LITE® ALARMS
by Honeywell

May 2013 – Webinar Questions and Answers
Intelligibility – What it is and how to test for it

Presented By: Jack Poole, PE, FSFPE

The recorded webinar along with copy of the presentation used can be found on webinar section of Fire-Lite's website.

1. Is the speaker spacing guideline of 2x ceiling height minimum or maximum? Does this guideline apply to wall speakers as well as ceiling speakers?
    a. *The 2X the ceiling height is a rule of thumb as a basic guideline for each Acoustically Distinguishable Space (ADS). There are several variables that will affect this, such as acoustics of the ADS, use and occupancy of the ADS, ambient sound level of the ADS, … This guideline is intended to apply to ceiling speakers.*
2. There is an Apple I Phone app for intelligibility has you seen or tried it?
    a. *I am aware of it, but have not faith and confidence in that app at all. I do not consider using an iPhone app as an acceptable testing method. Purchase the correct equipment such as a Goldline Talkbox and Intelligibility Meter, or equivalent test equipment.*
3. What will determine the minimum volume size or human occupancy building that these systems will be required?
    a. *Intelligibility is required by code for all fire alarm voice evacuation systems and mass notification systems that utilize voice notification. The 2012 IBC, Section 907.2.1.1 requires a voice fire alarm system in Group A Occupancies with an occupant load of 1,000 or more.*
4. Who is qualified to install MNS systems?
    a. *See NFPA 72 (2013), Section 10.5.2 – this defines the requirements for the installers. The system design is considered as the "Practice of Engineering" my many states, therefore should be designed/reviewed/supervised by a licensed profession engineer (generally a Fire Protection Engineer).*
5. Have you any experience with projects where, because of occupant objections to the noise testing has to be performed in both occupied and unoccupied modes, using that feature on the meter?
    a. *No. We have always been able to coordinate with the AHJ prior to testing to allow testing during unoccupied modes and have never been required to test after fully occupied (furniture and people). Coordinating with the AHJ and developing a Test Plan is critical to successful testing.*
6. Approved for but not listed with. It seems many of the amplifiers are only listed with the big 3 manufacturer's speaker strobes. (3 or 4 inch speakers) Many spaces would benefit from a larger speaker, 8, 10, compression driver, line array, etc, that are UL for Fire Voice Communication. Thoughts?
    a. *I do not fully understand the question – but will take a stab at it. One of the keys to intelligibility is more speakers placed uniformly in the ADS at lower tap settings. I agree that generally larger diameter speaker may produce a better sound quality, but there is more to sound quality than the size of the speaker.*
7. As AHJ when asking for a testing plan, I get blank stares. I have developed one from my own experience but is there an industry standard or guideline to reference?
    a. *To the best of my knowledge an industry standard Test Plan has not been developed. Feel free to coordinate directly with Jack Poole at jpoole@poolefire.com or at 913-747-2050.*

Please note:
While we have tried to answer your questions as fully as possible there are some questions that need a more detailed answer. If you have questions regarding what was heard in this webinar here are some contacts to reach out to:
For NFPA & Code related questions please contact Jack Poole via his website or by email at jpoole@poolefire.com.
Fire-Lite Alarms Technical Support is available for brand specific questions. Fire-Lite Tech can be reached online, via email at firelite.tech@honeywell.com or by calling 1-800-627-3473. They are open Monday – Friday, from 8 am to 7 pm EST.