

SOUND SOLUTIONS

CASE STUDY

Danfoss

CHALLENGE:

Danfoss, a global producer of components for refrigeration, air conditioning, the control of electric motors, and the heating of houses and buildings, as well as renewable energy such as solar power, has been expanding its facilities in Loves Park, IL since 2001.

During Phase II of a four phase project, Nicholas Feldt, Supervisor of Building Maintenance at Danfoss realized the paging system was not as clear as it needed to be, noise was a problem in the open office environment and they needed a quicker speed of response in the case of an emergency; Feldt stated, "The paging speakers were too far apart and the message wasn't clear. [In 2011] we had a tornado literally develop right above us and we needed to be quicker to inform our employees. We realized we needed something better." Furthermore, Phase III and IV would require multiple buildings to tie into a single point of control, over fiber-optic cabling, for mass notifications.

SOLUTION:

Working with Kip Armstrong of Kelso Burnett, Danfoss decided to bring in Lencore to address both the open office noise concern with a sound masking solution as well as evaluate the emergency paging issue. Within the facilities, the solution was simple and economical; Lencore was able to integrate the existing equipment into the engineered system solution as well as provide both sound masking and paging through new speakers.



Lencore's mass notification solutions provide the coverage, reach and clarity needed to ensure quality communications during emergency events.

Armstrong describes the solution, "Lencore was able to add and augment speakers to have both masking and paging. Both sound fantastic and everyone loves the solution." Connecting the facilities over fiber proved more of a challenge but Lencore rose to the occasion. "Lencore brought the solution to the table. Even though they needed to engineer the solution, they got it done!" said Feldt.

RESULT:

From rooftop wide dispersion speakers to office space masking and paging across multiple buildings, Danfoss has installed all of the components for a mass notification system. They have even added pre-recorded messages to reduce human error in the event of an emergency. Feldt stated, "Intelligibility is critical. The system isn't blaring. It is a clear, understandable signal which is required in times of emergency."

THE GROWING NEED FOR MNEC SYSTEMS

More and more companies are not comfortable relying solely on the building landlord's system as the only means of communication for emergency events and mass notification. In fact, a general cultural shift in our perception and expectations for access to information has created a greater responsibility and obligation for companies to inform occupants during emergencies such as:

- Catastrophic events
- Weather pattern emergencies
- Hurricanes / Tornadoes
- Tsunami / Earthquakes / Fires
- Acts of Terrorism
- Chemical Spills
- Bio Hazards



About MNEC & NFPA72

Day to day, building codes exist to keep us safe and to ensure good communication practices. In considering mass notification emergency communication systems (MNEC), the intersection of building codes with fire detection and AV equipment is a new way of ensuring safety. Initially, fire alarm notifications were limited to bells, horns and other telegraphed messages, but today, MNEC systems also use other forms of visible notification devices and commercial loudspeakers in fire-alarm systems.

Recent revisions to NFPA72 (The National Fire Alarm and Signaling Code) have put a new emphasis on the design, installation, and performance characteristics of audio and video components and systems. Among the changes, code-compliant commercial / professional-grade audio systems and video displays are now recognized as legitimate components of emergency communication systems (ECS).