



The New Safety U

Loyola University Chicago recently became the first university to launch an electronic pre-plan program for fire emergencies.

By David Howorka

July 1, 2010

To the eyes of a safety professional, the bucolic scene on a college campus is a complex set of issues that need to be addressed in an emergency. The meandering paths through school grounds mean it's that much harder to direct emergency personnel to a building that only has pedestrian access. The many buildings run the gamut from dormitories and offices to lecture halls and potentially hazardous chemistry labs. Each of the thousands of strolling students needs to be notified and directed to safety in case of an emergency, while first responders require pertinent information to respond to the incident.

That's why Loyola University Chicago started to look into employing an electronic pre-plan for its entire campus.

Loyola University Chicago is the nation's largest Jesuit Catholic university. Founded in 1870, this urban university has two main campuses: the Lake Shore Campus near Lake Michigan on Chicago's north side and the Water Tower Campus, located in the heart of downtown Chicago.

The National Fire Protection Association (NFPA) reports that 3,300 structure fires occur annually in dormitories, fraternities, and sororities causing more than \$25 million in damage and numerous deaths. With more than 70 buildings and 15,000 students, Father Michael Garanzini, Loyola's president, knew pre-planning for a fire emergency was crucial. "Most universities have crisis plans and procedures, like notifying students via Web and text during emergencies," said Garanzini. "But with our large and spread-out campus, I wanted to be more proactive so that emergencies didn't turn into major disasters."

OLFA North America

Garanzini found a solution with a Web-based, electronic pre-plan system for fire emergencies used by fire departments and building managers all over the United States. When a building is pre-planned in the system, first responders to an emergency have immediate access to building location, maps, photographs, floor plans, utility shutoff locations, fire hydrant locations, structural information, number of occupants, lists of disabled persons, cautionary notes about possible hazards, and other information required to respond to the incident.

With its numerous buildings spread over two campuses, these features were critical for Loyola. Like most campuses, many of the academic and dormitory buildings had a street address that did not coincide with actual street access, which meant a fire truck could be on its way to an address and reach a dead end, only to backtrack and find another access point, losing critical minutes. Numerous buildings, like most office buildings, had hazardous materials, ranging from chemistry lab materials to solutions for cooling towers. These issues had the potential to become catastrophes if emergency personnel weren't prepared.

Gathering Data, Including MSDSs

The first step in moving Loyola's data into the system was gathering all of the information together, which turned out to be an invaluable process. Like most campuses with multiple buildings, Loyola's information was spread across structures and departments without a centralized clearinghouse. Security had its own information, and so did operations and even the academic department heads.

Two departments, security and operations, headed the data-gathering project. Starting with a basic list of every building on campus, the team took a tour of each one, using mobile computers to input building details right on site and supplementing that information with existing data and documents. For most of the buildings, Loyola's architectural firm was able to provide electronic floor plans that were easily incorporated into the building's record. For a handful of older buildings, floor plans were scanned and entered into the system in the same way an attachment is added to an e-mail.

The team also entered Material Safety Data Sheets (MSDSs) into the system so first responders would be aware of any hazardous material that could be a factor in an emergency. This applied not only to materials needed to maintain buildings' elevators and cooling towers, but also to chemicals in the laboratories.

Through the investigation and walk-through of each building, Loyola staffers discovered information they had not updated for years. They also realized certain staff members knew information others did not; as a result, finding the person who had the facts that were needed was sometimes a challenge.

The software also accommodated a key issue: Many campus buildings had both a street address and a building name. If a student calls 911 and says, "I'm in Flanner Hall," that information can easily be translated for first responders into a map and street address of the location.

Once all of the data had been entered, the system was ready to go. Although fire departments typically keep paper pre-plans of buildings in binders, plans are often outdated and incomplete and can take more than an hour to access during an emergency. Now, updated, electronic information is available on computers in Loyola's security offices and on touch-screen monitors throughout the campus. In addition, because designated personnel can make real-time updates to the system, the emergency pre-plans should always be current.

Pre-Plan Pioneer

Loyola staffers also met with neighborhood police and fire departments to brief them on the system. Because the pre-plan system is Web-based, many first responders are able to access the data on mobile computers on the way to an emergency.

Since the electronic pre-plan system at Loyola has been implemented, thankfully, there have been no crises. However, the staff members at Loyola are confident that, if the need arises, they'll have access to the information they need to keep their students safe and to be immediately attentive to the specifics of the situation.

Surprisingly, Loyola University was the first major university in the United States to adopt an electronic pre-plan system. Although others have crisis plans in place, none are Web-based or instantly accessible by multiple staff members as well as emergency personnel. Given the unique challenges of maintaining a safe college campus, it's imperative that more college campuses consider implementing electronic fire emergency pre-plans.

Resources & Information

* Campus Safety Health and Environmental Management Association, One City Centre, Suite 204, 120 W. Seventh St., Bloomington, IN 47404-3839, 812-245-8084, fax 812-245-0590, www.cshema.org. CSHEMA's 57 annual conference is scheduled for July 17-21 in Baltimore. More than 80 technical sessions will be presented July 19-21.

* Loyola University Chicago Department of Campus Safety, www.luc.edu/safety/index.html

* "Dormitories, Fraternities, Sororities and Barracks," NFPA, August 2009, Jennifer D. Flynn, \$25, Order # PKG04. This report includes trend tables, causes, time and day information, area of origin, published incident descriptions, published articles, investigation reports, and summaries. During 2003-2006, U.S. fire departments responded to an estimated annual average of 3,570 structure fires in dormitories, fraternities, sororities, and barracks that caused an average of 7 civilian deaths, 54 civilian fire injuries, and \$29.4 million in direct property damage per year, according to the report.

* "Educational Properties," NFPA, August 2009, Jennifer D. Flynn, \$25, 87 pages, Order # PKG14. Included in this report is a College Classroom Buildings subsection with similar information about reported fires. www.nfpa.org/