

New Partnership to Aid in Disaster Relief

SEERP Gives Structure to Emergency Response

By Katherine Leitch

Some watched from their windows, others were transfixed by the news. Regardless of how the dramatic events of 9/11 unfolded, engineers across the region immediately offered support. Perhaps it was this strong local response that set the 9/11 relief effort apart from chaos witnessed after Katrina. Recognizing organization as a key element for successful rapid mobilization, the National Council of Structural Engineers Association (NCSEA) conceived of the Structural Engineering Emergency Response Plan (SEERP).

By contrasting Hurricane Katrina and 9/11, two things become apparent – local aid is key for effective relief, and the nature of the emergency engenders the type of response it receives.

Fast and capable local response carries the day. Federal aid may (eventually) supplement local efforts, but no one will be better equipped to respond than the trained professionals familiar with the disaster area. Leo Argirs, Principal at Ove Arup & Partners PC, observed that many of the structural engineers that responded during 9/11 had worked on the site in some capacity over the course of their professional careers, and had an understanding of the basic structural systems inherent in and around the disaster site.

The nature of the disaster can also dictate the quality of the response. The events of 9/11 took New York by surprise. The devastation was immense but concentrated in a relatively small geographic area. A hurricane or flood would create a disaster of massive geographic proportion – the category of which would almost certainly determine whether evacuation is necessary before the event itself. Evacuation effectively reduces regional manpower, a consequence that is compounded by the potential loss of critical resources such as construction materials, tools and machinery. Such material losses can effectively cripple an otherwise swift recovery effort.

Responding to these issues, the Department of Buildings (DOB) thought it prudent to prepare, to the best of our abilities, for the unpredictable. By January 2006, the New York City DOB awarded contracts to four structural engineering firms to provide emergency response. Both contractual and voluntary response teams will be organized in a

similar fashion – groups of 3-4 engineers from the same firm operating with at least one licensed PE, so that strengths of teammates will be more transparent and a natural hierarchy preestablished. Arrangement of a contractual response can be advantageous, as it holds the potential to be more orderly and sustained in its execution. Many firms have the means to respond to an emergency while still servicing their private clients. It would not be financially or emotionally feasible for a solitary volunteer to dedicate numerous months to a relief effort without attending to personal obligations. In addition, the firm is responsible for the safe and sensible deployment of their staff. The firm assumes liability, yet maintains the authority to decide what is safe or appropriate for their staff's participation.

SEaONY, the New York member organization of NCSEA, has steadily sought the establishment of a Good Samaritan Law to protect the engineers of New York State: however, until that comes to fruition, volunteers would either be personally liable or inadvertently put their respective firms at risk. To participate in humanitarian organizations like Engineers Without Borders, most engineers take a leave of absence from their firms, releasing them from liability during the period of their participation. The logistics of implementing this kind of system in the wake of a disaster would be unmanageable.

Though there are advantages to a contractual emergency response, they do not obviate an organized volunteer effort. In a time of crisis, people must respond first to their consciences and private obligations. It is reasonable to assume that only a percentage of the teams will be on-hand and complete. If the DOB requires manpower outside of their departmental resources, they will deploy the four contracted companies. To supplement these teams, the City can call on several other government agencies for auxiliary support including, for example, the Department of Design and Construction. In the event of a large-scale disaster like a flood or an earthquake, the volunteers registered with the SEER Plan may be called upon to assist. Having a large body of engineers with diverse skills and in multiple regional locations is beneficial for many obvious reasons. There may



New York, NY, October 20, 2001 – Urban Search and Rescue at the site of the World Trade Center. Courtesy of Andrea Booher/FEMA News Photo.

come a situation where hundreds, if not thousands of buildings would need to be assessed for safe occupancy or public safety hazards. New York is so densely populated that easily any large number of displaced residents would become an enormous health, transportation, and habitat concern. The Department of Buildings intends to have a functional plan to accommodate roughly 600,000 displaced residents, emphasizing the need for expediency and safety placing residents either back into their homes or settled with adequate shelter.

Though NCSEA published a comprehensive set of SEERP recommendations in 2003 based on the events of 9/11, the plan is still in its infancy. Fortunately, the most valuable step towards mobilization, the development of a database of engineers and their contact information, is relatively easy and is already underway.

It is nearly impossible to plan for all scenarios, especially when 9/11 reached beyond what we believed was conceivable, but as humans and as professionals we are all capable of taking the first necessary step which, in the words of Dan Eschenasy, the Deputy Assistant Commissioner of Safety & Emergency at the DOB, is becoming “partnership ready.” ■

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