EARTHQUAKE STRIKES
The Big One
March 27, 2012

Earthquake Exercise

On March 27th 2012 about 100 miles north of Memphis, Tennessee, a 7.7 magnitude earthquake shakes the area.

This earthquake is the result of strain energy that has accumulated over the past several centuries along the southwest extension of the New Madrid Seismic Zone (NMSZ).

Sub-surface faulting occurs along 50 miles of the fault zone, which greatly impacts the highly populated Memphis metropolitan area. Northeastern Arkansas, western Tennessee, western Kentucky, southeastern Missouri, and northeastern Mississippi are heavily damaged.

Much of the area experiences large-scale destruction. The earthquake is so severe that it is felt in distant cities such as Pittsburgh and Boston.

As a result of the earthquake, entire islands disappear, banks cave into rivers and fissures open and close in the riverbeds.

Water spouts from these fissures and produces large waves.

Rapid horizontal movements associated with the earthquake shift homes off their foundations and cause some tall buildings to collapse or “pancake” as floors collapse onto one another.

Multiple landslides occur along the banks of the Mississippi River from Rosedale, Mississippi through Memphis, Tennessee to Hickman, Kentucky.

Some buildings are actually sinking into the ground while underground storage tanks rise to the surface.

Natural gas lines break and electric service lines snap, igniting numerous fires. Pipelines carrying petroleum, natural gas, and chemical products rupture, threatening human health and affecting the environment.

Impact in the Paducah KY Area

(This is important because this is where we are today)

A huge storage tank of an unidentified acid spilt open as it fell to its side spilling hundreds, if not thousands, of gallons of acid over spill containment walls and into streams connecting to the Ohio and Tennessee Rivers.

Huge chemical fires are burning out of control in three separate facilities. Smoke and ash from these fires is affecting the atmosphere in most of the Paducah area. It has not been confirmed by air sampling, but unidentified sources from the affected facilities report that possible radioactive contamination could well be present in this smoke.

Fires have also been reported throughout the area from ruptured petroleum and gas pipelines. Some water supplies have been interrupted and these fires may continue for some time.

The public has been advised that water supplies which are working are not considered safe to drink and in most areas skin contact with open water is not recommended. Most well water, even if pumps were working, would not be considered safe because of ruptured septic tanks and sewer lines.

Travel by highway is hazardous due to broken and shifted pavement. The authorities are only allowing four wheel drive vehicles on the roads and only during daylight hours.

A couple of bridges are out including the Brookport Bridge between Paducah and Brookport Illinois and those still standing are not considered safe until inspection is done.

Flooding from a tsunami-type wave has covered several roads with mud and debris.

Gasoline is in very short supply and what is available is being rationed for emergency use. Communication is an issue as most cellular and land lines are disabled.

There is some radio communication.

There are literally thousands without shelter. The schools which would be used for shelters are themselves damaged.

Patient evacuation and rescue from hospitals is needed in many cases.

Evacuations are moving as fast as possible and teams are traveling from all over the country but it will take time.

Many of the homes still standing have sustained damage which makes them dangerous to those living there. However in many cases this is the only alternative until evacuation or temporary housing can be brought in.

Whatever you have, whether it be shelter, food or water please consider sharing with those in need.

The next few slides are results of earthquakes which were of a similar magnitude as the one experienced in Paducah on March 27.


PORTRAITS


PETCO
Pet Food


roberts

Today's Situation

Thank you for being here today and for volunteering to be a part of this earthquake response.

I understand that you all have had some level of emergency response training and are considered skilled support personnel.

I don't know how long ago you had your training or how experienced you are, but in a about 15 minutes that time you hoped would never come will be here.

The Scope of Your Response

Travel in teams of three to cover the three square mile area. Each team will have a radio.

Emergency rescue teams have covered most of this area. However we are not sure if all the injured and dead have been found.

Your task also is to report and document hazards that could injure and kill rescuers and clean-up workers.

The Scope of Your Response

Assist the injured if safe to do so. Report immediately if you find injured or those who need help.

You will be given all reporting information when you meet your area control officer following this meeting.

Awareness Level Refresher

I will now turn this meeting over to a Specialized Emergency Response Team member (SERTS) who will give you a very quick hazard awareness refresher and answer your questions.

We don’t need anyone else to be hurt.

How Specialized Emergency Response Trainers (SERTs)were Selected

- Established Trainers and Union Activists
- From all USW Districts in the US
- From as many different industries as possible

CORE TRAINING COMPLETED

- NIEHS Curricula Train the Trainer (described on next slide)
- OSHA 7600
- Community Right to Know
- 32-Hour Incident Investigation
- 40-Hour HAZWOPER
- Respirator Fit Test Training
- CPR

SERTs Train the Trainer

A week-long Train the Trainer focused on Emergency Response Training Tools from NIEHS.

1. Protecting yourself while responding to **Chemical Incidents**
2. Protecting yourself while responding to **Floods or Hurricanes**
3. Protecting yourself while responding to **H1N1 type Incidents**
4. Protecting yourself while responding to **Dirty Bomb Incidents**
5. Protecting yourself while responding to **Earthquake Disasters**
6. Protecting yourself while responding to **Wild Fires**
7. Protecting yourself while responding to **Oil Spills**

The trainers developed 45 minute and 10 minute presentations.

SERTs Advanced Training

- Adult Theory of Education
- Charting (Process to gather group ideas and use in several constructive designs)
- Curricula Writing
- Lessons Learned (developing and presenting)
- Process Safety Management
- Industrial Hygiene

Next Steps for SERTs

NIMS/CMS National Incident Management System/Center for Medical Services

Union Approach to Health and Safety-Train the Trainer

Death by Power Point — Not

Small Group Activity

Choose a scribe and work together to answer the questions below.

1. **Do you have SERTs (or something similar) in your organization? How does it work?**
2. **What would be your suggestions or creative ideas as to how we might energize our SERTs program moving forward?**