



Deaconess Hospital Earthquake-Resistant Supply Well

Full Mitigation Best Practice Story

Vanderburgh County, Indiana

Evansville, IN - Evansville is considered earthquake country. The Deaconess Hospital in Evansville has implemented an earthquake mitigation program for the facility, which opened in 1892. The program included installing an emergency fresh water well, water treatment facilities, and necessary piping. The hospital is one of the three in the City, with 358 beds, a family practice center and a family practice residency program.



The hospital is being pro-active in earthquake mitigation and building to higher standards. The water well was built to exceed local seismic codes and supplied by an emergency generation system. Specifically, the well was built to meet Uniform Building Code Seismic Zone 3, although the area of the hospital is rated as a seismic zone 2A. The well is part of the ongoing effort to upgrade the hospital's existing emergency operation system and supplements the hospital's heating and cooling system.

The hospital itself was not altered since the well is in the middle of an asphalt parking lot adjacent to the hospital's energy center. In addition, no land use or infrastructure system capacity is altered. As of November 1, 1998, the well has been installed, all the emergency water lines have been installed throughout the hospital, and piping into the energy center is progressing. Construction was completed by the end of January 1999.

With the help of generators, the seismic-resistant well enables the hospital to operate independently of the City of Evansville utility system, which could be disabled in the event of an earthquake. This pro-active mitigation measure contributes to community recovery after an earthquake by assuring that the City has an operational emergency care facility.

Activity/Project Location

Geographical Area: **Single County in a State**

FEMA Region: **Region V**

State: **Indiana**

County: **Vanderburgh County**

City/Community: **Evansville**

Key Activity/Project Information

Sector: **Public**
Hazard Type: **Earthquake**
Activity/Project Type: **Utility Protective Measures**
Activity/Project Start Date: **09/1998**
Activity/Project End Date: **01/1999**
Funding Source: **Hazard Mitigation Grant Program (HMGP); State sources**
Funding Recipient: **Critical Facility - Medical**
Funding Recipient Name: **Deaconess Hospital**

Activity/Project Economic Analysis

Cost: **\$200,000.00 (Estimated)**
Non FEMA Cost:

Activity/Project Disaster Information

Mitigation Resulted From Federal
Disaster? **Unknown**
Value Tested By Disaster? **No**
Repetitive Loss Property? **Unknown**

Reference URLs

Reference URL 1: <http://neic.usgs.gov/>
Reference URL 2: <http://www.in.gov/dhs/index.html>

Main Points

- The Deaconess Hospital implemented an earthquake mitigation program that included installing an emergency fresh water well, water treatment facilities, and necessary piping.
- The water well was built to exceed local seismic codes and supplied by an emergency generation system.
- The hospital itself was not altered since the well is in the middle of an asphalt parking lot adjacent to the hospital's energy center. In addition, no land use or infrastructure system capacity is altered.