

US EPA ARCHIVE DOCUMENT

## New Madrid Fault Line & Seismic Zone

WATCH has heard stories from some Clinton area residents explaining how they felt effects from an earthquake around 1968 and that some area homes and businesses were damaged. WATCH has looked into this allegation a little further and has determined that there is validity to the story. On November 9, 1968 a 5.3 richter scale earthquake rocked Central and Southern Illinois. It just so happens that the New Madrid fault line is near Southern Illinois and WATCH has been told that there may be some minor fault lines running up through DeWitt County.

The main concern WATCH has is what risk is posed to us if another seismic event occurs and a Toxic Chemical Waste Landfill is sitting on top of the Mahomet Aquifer. Could this trigger a situation of groundwater contamination or airborne release of PCB particulate matter resulting in a health or safety risk to DeWitt County area residents? WATCH is continuing to look into this matter and will post more information as it becomes available.

### November 9, 1968 Earthquake in Illinois

This was the strongest felt earthquake in southern Illinois since 1895. Property damage in the area consisted mainly of fallen bricks from chimneys, broken windows, toppled television aerials, and cracked or fallen plaster. In the epicentral area, near Dale, Hamilton County, MM intensity VII was characterized by downed chimneys, cracked foundations, overturned tombstones, and scattered instances of collapsed parapets.

Most buildings that sustained damage to chimneys were 30 to 50 years old. A large two-story brick house near Dale, Illinois, sustained several thousand dollars damage. About 10 kilometers west of Dale, near Tuckers Corners, a concrete and brick cistern collapsed. A large amount of masonry damage occurred at the City Building at Henderson, Kentucky, 80 kilometers east-southeast of the epicenter. Moderate damage to chimneys and walls occurred in several towns in south-central Illinois, southwest Indiana, and northwest Kentucky. Felt over all or parts of 23 States: from southeast Minnesota to central Alabama and Georgia and from western North Carolina to central Kansas. People in multistory buildings in Boston, Massachusetts and southern Ontario, Canada, felt the earthquake.

The damage from the New Madrid quake was bad enough in the early 19th century—half of the town was destroyed, but with many more people and buildings now in the area, a similar event in the region today would be devastating, seismologists and engineers agree.

**Figure 3-7: Peak Ground Acceleration (%g) with 2% Probability of Exceedance in 50 years; CUSEC\* States**

