



**FEMA 154 - Rapid Visual Screening  
of Buildings for Potential Seismic  
Hazards  
&  
ATC 20 - Post Earthquake  
Safety Evaluation of Buildings**

**January 18, 2012  
Nashville, Tennessee**



Hosted by  
***Tennessee Emergency  
Management Agency***

Presented by  
***Central U.S. Earthquake Consortium***

Instructed by  
***Michael J. Griffin, S.E.***

## About FEMA 154

Rapid Visual Screening of Building for Potential Seismic Hazards (RVS) was developed as a pre-disaster procedure that can be implemented relatively quickly and inexpensively within a community to develop a list of potentially hazardous buildings without the high cost of a detailed seismic analysis of individual buildings. This program is a valuable tool for earthquake mitigation planning.

The RVS procedure uses a scoring system that requires the user to (1) identify the primary structural lateral-load-resisting system; and (2) identify building attributes that modify the seismic performance expected of this lateral-load-resisting system. The inspection, data collection, and decision-making process typically will occur at the building site, taking an average of 15 to 30 minutes per building (30 minutes to one hour if access to the interior is available). Results are recorded on Data Collection Forms, which include the development of a seismic hazard score.

If a building receives a high score (i.e., above a specified cut-off score), the building is considered to have adequate seismic resistance. If a building receives a low score on the basis of this RVS procedure, it should be evaluated by a professional engineer having experience or training in seismic design. On the basis of this detailed inspection, engineering analyses, and other detailed procedures, a final determination of the need for rehabilitation can be made.

## About ATC20

When earthquake disaster strikes a community, there is an immediate need for damage inspections throughout the affected areas. People need to be kept from using unsafe buildings, and safe shelter must be provided for those left homeless. It is essential that qualified building inspectors quickly identify structures that are safe for re-entry and those that must be avoided. Regular building inspection officials may become overloaded instantly and require additional help.

Under such emergency conditions, qualified volunteer inspectors, including architects, engineers, and building inspectors are needed from unaffected regions and certain other qualified design and construction professionals can provide help with the post earthquake safety evaluations. These volunteers will typically be activated through a pre-existing agreement with state and local emergency management officials.

Attendees of this course will receive inspector qualification training, experience to become a team member for inspecting earthquake damaged buildings, and a field manual to guide their future work. A panel of earthquake and structural experts and building officials has approved all training materials used in this course. During the course, procedures and documents are presented which promote uniformity in the rating of building damages so that different individuals examining the same building will arrive at the same conclusion about its relative safety.

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## Who Should Attend

Individuals with at least 5 years of experience in general building design, construction, or inspection. After completing the course participants will be retained in a database of trained inspectors, and in the event of an earthquake may be asked by TEMA to volunteer for post-earthquake building inspections.

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## Course Outline

This course will be instructed in a classroom style setting, although student interaction is welcomed and encouraged. Some of the topics that will be covered in the course are -

*Earthquake Hazard Overview*

*Structural Basics*

*Steel Frame Structures*

*Concrete Structures*

*Wood Frame Structures*

*Masonry Structures*

*Non-Structural Hazards*

*FEMA 154: Rapid Visual Screening*

*ATC20: Post-Earthquake Safety*

*Evaluation of Structures*

*Hazardous Materials & Field Safety*

*Discussion / Questions*

Certificates of completion will be provided at the end of the day.

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## Registration Information

Space for this workshop is limited, registrations will be confirmed on a *first come, first serve basis*. Please pre-register for this course by January 11, 2012. To register, please visit -

<http://register.cusec.org>

### REGISTRATION FEES

There is no charge for this workshop; all materials will be provided to participants

### COURSE LOCATION

Tennessee Emergency Management Agency  
Suiter Room  
3041 Sidco Drive  
Nashville, Tennessee 37204  
(615) 741-0001

### DIRECTIONS

South of 440, take I-65 to Amory Drive (exit 79). Right at Sidco Drive. TEMA/Armory is on the right.

### COURSE INFORMATION

Registration will begin at 8:00AM and the course will last through 5:00PM. Refreshments and lunch are being provided to course participants.

### SUGGESTED LOCAL HOTELS

There are several hotels in the area, please call ahead for rates and availability:

**Hampton Inn** (615) 200-8917

**Red Roof Inn** (615) 832-0093

## For More Information

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## Co-Sponsored by:

*Special thanks to the Federal Emergency Management Agency, Tennessee Emergency Management Agency, and the Structural Engineers Association - Middle Tennessee Chapter, for their support in making this workshop possible*



**FEMA**