

ANNOUNCEMENT

NEES/UCSD Seminar on Analytical Modeling of Reinforced Concrete Walls for Earthquake Resistance

Saturday, December 16th - 9:00 am to 5:00 pm
Atkinson Hall Main Auditorium – Rm 1511 of the Calit 2 Building, UC San Diego

Seminar Background and Purpose:

Between October of 2005 and January 2006, a full-scale vertical slice of a seven-story reinforced concrete wall building (shown at your right) was subjected to increasing intensity of uniaxial earthquake ground motions on the new NEES Large High-Performance Outdoor Shake Table located at UCSD's Engelkirk Structural Engineering Center. Responses were measured using an extensive instrumentation array, and all results have been archived for future release. The largest input motion was the Sylmar Medical Facility free-field record obtained in the 1994 Northridge Earthquake, which is one of the strongest recorded motions from that event and includes some near-fault ground-motion characteristics. The building slice was designed using a displacement-based and capacity approach for a site in Los Angeles that resulted in design lateral forces that are significantly smaller than those currently specified in building codes used in the United States.

To further develop an understanding of the accuracy of current nonlinear analysis procedures in predicting and verifying actual behavior, a "blind" prediction contest was sponsored by the School of Engineering at the University of California at San Diego (UCSD), the Portland Cement Association (PCA) of Skokie, IL., and the NEES Consortium Inc. (NEESinc). Details on the test structure, the contest rules, the ground motions, and contest results can be found at <http://nees.ucsd.edu/7Story.html>. This follow up seminar, sponsored by UCSD, NEES and the National Science Foundation (NSF), provides a unique opportunity to capitalize on things learned from the contest to permit improvement of analytical modeling of reinforced concrete walls.

This seminar will include in its audience representatives of virtually all of the contest participants from around the world who will have participated in a workshop the day before. The seminar will include a discussion of the experiment including measured results. It will include an overview of the how the contest was conducted and how "predicted results" compared with measured results. It will also include presentations by some key contestants and suggestions made by the Principal Investigators of the experiment on modeling and damping issues. After lunch, an open discussion period will be provided to discuss future analytically modeling and additional research needs. Following the technical session, a tour has been arranged to tour the Englekirk test center that is located about 15 miles from the UCSD Campus including observing a test. Registrations fees for the seminar are nominal: **\$40** for the professional and academic community and **\$15** for students that includes lunch and refreshments (but not parking). There is optional additional **\$20** fee for bus transportation (if needed) to the Englekirk center.

Information regarding the seminar details/registration may be found at:

<http://nees.ucsd.edu/7Story.html>