The Purpose of the Seminar is to present newly developed guidance for improved application of (1) the Coefficient Method, as detailed in the FEMA-356 Prestandard and Commentary for the Seismic Rehabilitation of Buildings, and (2) the Capacity Spectrum Method, as detailed in the ATC-40 Report, Seismic Evaluation and Retrofit of Concrete Buildings. The seminar will also cover a broad range of topics pertaining to nonlinear static seismic analysis, including strength degradation, multi-degree-of-freedom effects, and soil-structure interaction.

Seminar Dates and Locations
Tuesday, February 15, 2005
Radisson Miyako Hotel, 1625 Post Street
San Francisco, California

Tuesday, February 22, 2005
Crowne Plaza Hotel LAX, 5985 Century Blvd.
Los Angeles, California

Friday, February 25, 2005
Holiday Inn, Sea-Tac Airport, 17338 Int’l Blvd.
Seattle, Washington

Sponsoring Organization
APPLIED TECHNOLOGY COUNCIL
201 Redwood Shores Parkway, Suite 240
Redwood City, CA 94065
Phone: 650/595-1542
Fax: 650/593-2320

Financial Sponsor
FEDERAL EMERGENCY MANAGEMENT AGENCY, Washington, DC

Registration Information. The pre-registration fee, which includes the cost of the FEMA 440 Report, lunch, intermission refreshments, and the Seminar handout, is $150 ($130 for ATC subscribers). After the pre-registration deadline (ten days prior to each seminar), the registration fee is $175 ($155 for ATC subscribers). Persons interested in registering can do so on-line at www.ATCouncil.org, or by completing, and submitting the attached Registration Form to ATC.

Preliminary Program
8:30 am: Registration
9:00 am: Introductory Remarks; FEMA/ATC Reps
9:15 am: Overview; Craig Comartin
- Project Objectives and Approach
- Review of FEMA 440 Document
- Evaluation of Current Procedures (background)
9:45 am: Nonlinear Analysis Procedures; Jack Moehle
- Analysis Techniques
- Focus on Nonlinear Static Procedures
- Strength Degradation
- Multi-Degree-of-Freedom Effects
10:45 am: Break
11:00 am: Soil Structure Interaction; C. Comartin
- Review of FEMA 356 and ATC-40 Procedures
- Suggestions for Improved Procedures
11:45 am: Displacement Modification Procedures (Coefficient Method); Ronald Hamburger
- Review of Current FEMA 356 Procedures
- Evaluation and Deficiencies of Current Procedures
- Suggestions for Improved Procedures
12:30 pm: Lunch
1:30 pm: Equivalent Linearization Procedures (Capacity Spectrum Method); Wm. Holmes
- Review of Current ATC-40 Procedures
- Evaluation and Deficiencies of Current Procedures
- Suggestions for Improved Procedures
2:15 pm: NSP Approximations Compared to Nonlinear Response Histories; J. Moehle
2:45 pm: Uncertainty and Future Challenges; R. Hamburger
3:15 pm: Break
3:00 pm: Example Application; C. Comartin
4:00 pm: Discussion and Questions
5:00 pm: Adjournment
FEMA 440 Seminar Background. The about-to-be-released FEMA 440 Report, *Improvement of Nonlinear Static Seismic Analysis Procedures*, will be unveiled in the upcoming FEMA 440 Seminar Series. Funded by the Federal Emergency Management Agency (FEMA), this report is the final product of a multi-year project conducted by the Applied Technology Council (ATC-55 Project). The project included (1) a data collection effort to obtain relevant information from researchers and practicing engineers, (2) analytical studies to explore selected key issues, (3) a guidelines development effort that resulted in the publication of the FEMA 440 Report, and (4) this seminar series to advise design professionals and researchers on the findings of the project.

The FEMA 440 Report is intended for use by design professionals and regulatory personnel who routinely use the Coefficient Method, as detailed in the FEMA-356 Prestandard and Commentary for the Seismic Rehabilitation of Buildings, and (2) the Capacity Spectrum Method, as detailed in the ATC-40 Report, *Seismic Evaluation and Retrofit of Concrete Buildings*. Issues addressed in the FEMA 440 Report include:

1. Current Nonlinear Static Procedures
2. Strength Degradation
3. Improved Procedures for Displacement Modification
4. Improved Procedures for Equivalent Linearization
5. Evaluation and Comparison of Improved Nonlinear Static Procedures
6. Procedures for Including Soil-Structure Interaction
7. Multiple-Degree-of-Freedom Effects

Who Should Attend? This one-day seminar has been developed for practicing structural and civil engineers, seismic engineering educators and students, building regulatory personnel, and other individuals that use, or plan to use, the Coefficient Method or Capacity Spectrum Method in seismic analysis and design. Participants will receive Continuing Education Units (CEUs).

Hotel Reservation Information A block of rooms is being held at each of the FEMA 440 Seminar hotels, as follows:

**Radisson Miyako Hotel**
1625 Post Street
San Francisco, CA  94115
Phone: 415/922-3200
Rate: $119/night
Ask for the “ATC-55 Seminar Rate” (Feb. 15)

**Crowne Plaza LAX**
5985 West Century Blvd.
Los Angeles, CA  90045
Phone: 310/642-7500
Rate: $109/night
Ask for the “ATC-55 Seminar Rate” (Feb. 22)

**Holiday Inn Seattle SEATAC**
17338 International Blvd.
Seattle, WA  98188
Phone: 206/248-1000; 877-573-2822
Rate: $68/night
Ask for the “ATC-55 Seminar Rate” (Feb. 25)