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Monday, March 24, 2008

**Memorandum**

To: Members of ACI Committee 348

From: Sofia M.C. Diniz, Committee Chair

**Re: ACI Committee 348 Structural Safety**

Dear Members and Friends,

Please find enclosed the minutes of our meeting in Fajardo, Puerto Rico. The minutes were prepared by Mayrai Gindy which is acknowledged with thanks. Also, please find enclosed a copy of the agenda for our upcoming meeting in Atlanta, GA, on **Tuesday, April 1st, 2008**. The meeting will be held in **Park Room, 11:30 AM-1:00 PM**.

I look forward to seeing you in Los Angeles!

cc: Hani Nassif, TAC Contact  
Daniel Falconer, ACI Staff

**ACI Committee 348**

***Structural Safety***

**Tuesday, April 1st, 2008, 11:30 am-1:00 p.m.**

**Park Room, Hyatt Century Plaza, Los Angeles, CA**

**AGENDA**

Call to order

The agenda items are:

1. Introduction
2. Minutes of the meeting held in Fajardo, Puerto Rico, October 16, 2007
3. Dissemination of Structural Reliability concepts and applications
4. Future directions
5. Future sessions
6. Future conferences
7. Membership updates
8. New business
9. Next Committee meeting
10. Adjournment



## ACI Committee 348

### Structural Safety

Minutes of Meeting held Tuesday, October 16, 2007  
 11:00 A.M. – 12:30 P.M.  
 Poinsettia B  
 El Conquistador Resort and Spa  
 Fajardo, Puerto Rico

#### ATTENDANCE

<u>Voting Members:</u>	<u>Visitors:</u>
Diniz, S. Chair Gindy, M., Secretary Maamouri, M. Nassif, H. Sandberg, H. Suksawang, N.	

#### 1. INTRODUCTION

Chair called the meeting to order at 11:00 am.

#### 2. MINUTES OF THE MEETING HELD IN ATLANTA, GA ON APRIL 24, 2007

Nassif moved to approve the minutes from Atlanta, GA. Suksawang seconded. The minutes were approved unanimously.

#### 3. DISSEMINATION OF STRUCTURAL RELIABILITY CONCEPTS AND APPLICATIONS

Diniz will take the lead on preparing an article for Concrete International. The article will include basic concepts and illustrations regarding structural reliability presented in simple form. The background and intent of the different approaches (i.e. ASD, LFD, and LRFD) will be discussed. It is suggested that one example using ASD and LFD be presented. Discussion of questions such as “what is the difference” and “what are the benefits of LFD”, “what is the true meaning of probability of failure” should be included. The effect of changes in material properties ( $f_c'$ ) as well as loads (office buildings, parking lots, residential) on the factor of safety should also be discussed. An equation for calculating beta values (or Pf) should be included along with a short numerical example.

Nassif suggested publishing this article as an ACI Technical Note, a 2-3 page practice-oriented publication. Any programs developed as part of this effort such as an Excel spreadsheet for computing beta values or statistical distributions can also be published as ACI Web Tools.

#### 4. FUTURE DIRECTIONS

Sandberg highlighted the importance of considering human error (e.g. bridge collapse in Canada this past year) as part of the structural safety/reliability problem. He recommended a joint session with ACI 345 (Bridge Construction) about examples and consequences of human error and how we can mitigate such errors. Maamouri will take the lead on organizing this joint session.

#### 5. FUTURE SESSIONS

Diniz suggested a joint session, possibly titled "Service Life and Safety", with ACI 365 (Service Life Prediction) for the San Antonio (Spring 2009) or New Orleans (Fall 2009) conventions. The session can include topics relating to the safety evaluation of existing structures.

#### 6. FUTURE CONFERENCES

Diniz reported of some upcoming sessions that may be of interest to members of the Committee. These include:

ICOSSAR 2009, The 10<sup>th</sup> International Conference on Structural Safety and Reliability  
Kansai University, Osaka, Japan, September 13-17, 2009

[www.sc.kutc.kansai-u.ac.jp/icosar2009/](http://www.sc.kutc.kansai-u.ac.jp/icosar2009/)

Abstracts: March 31, 2008

4th International ASRANet Colloquium: Integrating for Structural Analysis, Risk and Reliability  
25-27 June 2008, Athens, Greece

[www.asranet.com](http://www.asranet.com)

Abstracts: October 31, 2007

Creating and Renewing Urban Structures – Tall Buildings, Bridges and Infrastructure  
IABSE Congress Chicago 2008, September 14-19, 2008

Abstracts: October 31, 2007

[www.iabse.org/chicago08](http://www.iabse.org/chicago08)

Structures Congress 2008, Session "Structural Reliability in Design Practice", organized by Diniz and Nassif  
Vancouver, Canada, April 24-26, 2008

[Content.asce.org/conferences/structures2008](http://Content.asce.org/conferences/structures2008)

First International Symposium on Life-Cycle Civil Engineering (IALCCE'08)

Varenna, Italy, 11-14 June 2008

[www.ialcce08.org](http://www.ialcce08.org)

IABMAS'08, The 4<sup>th</sup> International Conference on Bridge Maintenance, Safety and Management

July 13-17, 2008, Seoul, Korea

[www.iabmas08.org](http://www.iabmas08.org)

8<sup>th</sup> International Symposium on Utilization of High-Strength and High-Performance Concrete, 27-29 October, Tokyo, Japan

<http://www.jci-web.jp/8HSC-HPC/>

The Inaugural International Conference of the Engineering Mechanics Institute (EM08), University of Minnesota, Minneapolis, Minnesota, May 18-21, 2008

[www.ce.umn.edu/em08](http://www.ce.umn.edu/em08)

#### 7. MEMBERSHIP UPDATES

Diniz reported of recent changes in the Committee roster. Gindy currently serves as Secretary and Maamouri and Suksawang are now Voting Members. Diniz urged members of the Committee to recruit participation by others to strengthen and widen the expertise of the Committee. Diniz also reported that Bartlett requested to become an Associate Member of this Committee at the previous ACI meeting in Atlanta.

#### 8. NEW BUSINESS

None

#### 9. NEXT COMMITTEE MEETING

Next meeting will be held on Tuesday at 10am or 2pm to accommodate members' schedules.

#### 10. ADJOURNMENT

Nassif made a motion to adjourn the meeting; Diniz seconded. The meeting adjourned at 12:20 pm.