Engineering Ethics

Joint Meeting of the Greater Dallas and Greater Fort Worth Sections

June 8, 2012
Background

- David Mockbee (Mississippi Attorney)
- Texas Board of Professional Engineers
- NSPE “Code of Ethics for Engineers”
- ITE Cannon of Ethics
- Personal Integrity - Reputation
Profession Choice

- Significant Contribution to Society
- Make a Difference
- Health, Safety, & Welfare of the Public!!!
- Texas – Life, Health, and Property
Historical Perspective

- Springfield, Illinois Supreme Court
- Last of 5 Cases
- Mr. Bishop – Plaintiff
- Conflict of Interest
- “Rest of the Story”
Procedural

- Formal Complaint
- Investigation
- Hearing
- Penalty
  - Admonishment
  - Fine
  - Suspension
  - Expulsion
Ethics - Priorities

- Public First
- Profession
- Client
- Personal Interests
Rules of the Road

- Morals Vs. Law
- Priorities
- Do What is Right!
- What’s at Risk?
- You are not an Exception!
- Consistent Answers
Tests

- Front Page
- Spouse & Kids
- Justification
- Minimum Standards
Discretion

- Flexible
- Discretionary Acts
- Room for Interpretation
- No Single Answer
- “Compromise Safety”
- Sound Engineering Judgment
- Document
Examples

Space Shuttle Challenger
- Morton Thykol
- Engineer – Supervisor
- Business Hat

Citicorp Building N.Y.
- William McMessiar
- Bad Calculations
- Retrofit

Profit - Money
Hyatt Regency Walkway

- Engineer – Steel Fabricator
- Courts (Delegation of Responsibility)
- Sign & Seal
Personal Examples

- OTA – Mileage Posts
- Mast Arm Failure
- Expert Witnessing
- Own Up to Mistakes
- Owner Cost’s Anyway
Competition

- Promote Self
- Don’t Compromise Integrity
- Consistent Application
- Formal Channels for Complaints
- Reporting of Wrong Doing
P.E.

- Direct Control and Supervision
- Review Reports & Plans
- Area of Expertise
- Continuing Education Credits
Engineer A and Engineer B both Qualified

- Each assigned a portion of a project
- When ready for submission Engineer A not available to sign and seal his portion
- Can Engineer B review Engineer’s A work and sign both sets of plans?
- Can a Supervisor sign plans?

Chief Engineer Signing Plans
Review of Reports and Plans

Engineer A is Private Consultant and City Engineer
- City Selected Engineer B for Design Project
- Non Performance
- Engineer A Notified City of Non Performance
- Engineer A Selected to finish Plans
- Is there an Ethics Problem?
- Can a Consultant both serve as City Engineer and Design Projects for the City?

Cannot Review own Work
“Fired Consultant”

Can You Finish Another Consultant’s Work?

How Do You Avoid Conflict of Interest?

- Must Receive From Client All Previous Work
- Notify First Engineer in Writing
- Sign and Seal any altered or completed work
- 2nd Engineer assumes all responsibility
- Start Over?
Area of Expertise

Consultant A is Proficient Designing Water Lines

- Completes Plans for a Project Out of State
- Doesn’t Have License Yet But Has Applied
- Asks Sub-Consultant B to Sign Plans
- Sub-Consultant B Does Not Regularly Design Water Plans
- What Are the Issues?
Texas Law

“Under no circumstances shall engineers work in a part-time arrangement with a firm not otherwise in full compliance with 137.77 of this chapter … in a manner that could enable such firm to offer or perform professional engineering services.
Continuing Education

- 15 PDH Per Renewal Period
- 1 PDH in Ethics – Cannot Carry Over
- 5 PDH Max from Self-Directed Study
- 14 Hours May be Carried Forward
- Maintain Proper Records
- May be Audited
Documentation

- Keep **Certificates**, Flyers, and Documentation
  - I keep Travel Expenses and Registration Form

- Keep a Log Sheet – Can get from Texas Board or ITE has an Online Record Keeping System

- Keep Records for Three Years
What Qualifies?

- Audit or Complete College Course
  - 15 PDH per Semester Hour
- Technical Presentations Etc.
  - 1 PDH per Hour of Contact Time
- Presentations
  - 1 PDH per Hour of Contact Time
- Publishing
  - 10 PDH
What Qualifies (Con’t)

- Serving on Committee
  - Must Finish Each Year of Service
  - 1 PDH not to Exceed 5 PDH per Organization

- Patent
  - 15 PDH

- Self Directed Study
  - 1 PDH per Hour of Contact
  - Maximum of 5 per Year
  - Must Document (Reading Technical Journals)
Signing and Electronic Seals

- Standard Sheets Must Be Sealed
  - Identity of Publishing Agency
  - Signed and Sealed
- Must Show Draft and “Not to be used for construction”
  - Must have name and License Number
- Electronic Seal (Reasonable Safety Measures)
- Must Notify Board in Writing if Lost
Sealing (Con’t)

- Title Sheets of Report
- Every Sheet in Plans
- Electronic Seal for Electronically Submitted Work
What Works

- Working for Public
- Trust
- Integrity
- Reputation
- Disclosure of Multiple Clients
- Document in Writing!
Good News!

- Change Society for the Better
- Time Honored Profession
- Gaining Public’s Respect
- Heavy Burden – Manageable if:
Do The Right Thing!!!
Thank You!