

Texas Board of Professional Engineers

Professional Practice Update / Ethics

**David Howell, P.E.
Director of Licensing**

August 2011



Texas Board of Professional Engineers
2011

What does it mean to be a

Professional Engineer ?



8/10/2011

Professional Engineer



Texas Board of Professional Engineers
2011

Texas Engineering Practice Act

“The purpose of this chapter is to protect the public health, safety, and welfare...”





1937





Competency

PE can only practice in areas
where competent



Competency

Education

Experience

Exams



Competency

How would you
demonstrate YOUR
engineering competency?



Professional Engineer?

What does it mean to you?



Ethics

Laws & Rules



Professionalism – NSPE Example

- Engineers shall:
 - Hold paramount the safety, health, and welfare of the public.
 - Perform services only in areas of their competence.
 - **Issue public statements only in an objective and truthful manner.**
 - **Act for each employer or client as faithful agents or trustees.**
 - **Avoid deceptive acts.**
 - **Conduct themselves honorably, responsibly, ethically, and lawfully** so as to enhance the honor, reputation, and usefulness of the profession.



Professionalism – ASME Example

- Engineers uphold and advance the integrity, honor and dignity of the engineering profession by:
 - Using their knowledge and skill for the enhancement of human welfare;
 - ***Being honest and impartial, and serving with fidelity their clients (including their employers) and the public; and***
 - Striving to increase the competence and prestige of the engineering profession.



Professionalism – ASCE Example

- Engineers uphold and advance the integrity, honor and dignity of the engineering profession by:
 - using their knowledge and skill for the enhancement of human welfare;
 - ***being honest and impartial and serving with fidelity the public, their employers and clients;***
 - striving to increase the competence and prestige of the engineering profession; and
 - supporting the professional and technical societies of their disciplines.



Professionalism – TBPE

- Chapter 137 Subchapter C – Professional Conduct and Ethics
 - §137.53 - Engineer Standards of Compliance with Professional Services Procurement Act
 - §137.55 - Engineers Shall Protect the Public
 - ***§137.57 - Engineers Shall be Objective and Truthful***
 - §137.59 - Engineers' Actions Shall Be Competent
 - ***§137.61 - Engineers Shall Maintain Confidentiality of Clients***
 - ***§137.63 - Engineers' Responsibility to the Profession***



Professionalism – TBPE

- *§137.57 - Engineers Shall be Objective and Truthful*
 - *Misleading, Fraud, Deceit*
 - *Conflict of Interest*
- *137.61 - Engineers Shall Maintain Confidentiality of Clients*
- *§137.63 - Engineers' Responsibility to the Profession*
 - *Faithful Agent for Employers or Clients*
 - *Actions of Others*
 - *Conduct Business in a Respectful Manner (billing, language, etc.)*
 - *Injure Professional Reputation of Others*
 - *Retaliation*



Professionalism

- More than just Codes and Rules

“Meticulous adherence to undeviating **courtesy**, **honesty**, and **responsibility** in one's dealings with customers and associates, plus a **level of excellence** that goes **over and above** the commercial considerations and legal requirements.”



<http://www.businessdictionary.com>

Professionalism

“It is one of the primary obligations of the Texas Board of Professional Engineers to assure that Texas engineers are held to the highest standards of competency, integrity, and honesty. Public safety depends upon that standard and consistently achieving in our profession requires faithful and unwavering practice of honesty and integrity in all aspects of our lives not only when we sit at our desk.”



Ethics

Laws & Rules



New Board Members

New Board Member Appointments

Lamberto J. Balli, P.E.

Houston

Carry A. Baker, Esq.

Amarillo

Board Member Re-Appointment

James A. Greer, P.E.

Keller



Agency Organization & Responsibilities

- Executive Director: Lance Kinney, P.E.
- 30 Staff / Office in Austin
- Review and process all licensing applications
- Coordinate FE and PE Exams (~6900 / yr)
- Investigate all enforcement cases (~800 / yr)
- Administer Licenses for 54,000 PE's
- Administer Registrations for 8,800 Firms



2009 Legislative session

- **HB 2649 passed**

- Exemptions of exemptions for windstorm certifications and slabs in high plasticity soil and required use of building code in rural areas
- Fire engine drivers can use the term “engineer”
- PEs don’t need other certifications

- **SDSI extension - 2013**



2011 Legislative session

- Bills filed – Regular Session
- HB 1164 – Political Subdivision / Employees
- HB 1092 / HB 1231 – Volunteer FD < 80K
- HB 1465 – Dissolve JAC
- HB 1698 – SDSI Lawsuits
- HB 2067 – Petroleum Engineering
- HB 2284 – Building Design
- HB 2480 – Consolidate eng & geo / arch & surveyors
- HB 2543 / 3166 – Abolish eng / arch / surveyor and create new combined board
- SB 1828 – Special Certification for Structural Engineers
- SB 632 - Sunset



2011 Legislative session

- Bills passed
- HB 2067 – Petroleum Engineering
- HB 2284 – Engineer / Architect Overlap
- SB 652 – Sunset
- Special Session – HB 3 - Windstorm



2011 Legislative session

HB 2067 – Petroleum Engineering

- Allows petroleum engineering practice in Texas for states that allow reciprocal practice.
- Effective Date – 5/28/2011



2011 Legislative session

SB 652 – Sunset Review

- Moves Sunset Review for TBPE and TBAE to 2013 from 2015
- SDSI is also under review in 2013
- Process has already begun



2011 Legislative session

HB 2284 – Engineer / Architect Overlap

- Addresses the overlap issues between architects and engineers.
- Clarifies activities that are engineering and architecture.
- Creates a permitting process for engineers that meet certain requirements to practice architecture.



2011 Legislative session

HB 2284 – Engineer / Architect Overlap

- Effective Date – September 1, 2011
- TBPE / TBAE Working Together on Implementation
- FAQ on TBAE / TBPE websites
- Frequent Communication with Licensees and Registrants



2011 Legislative session

HB 2284 – Engineer / Architect Overlap

- Modifies Both Acts
- Specifies:
 - What is engineering in building design
 - What is architecture in building design
 - What can be designed by either



2011 Legislative session

HB 2284 – Engineer / Architect Overlap

- Requires TBAE to create a list of engineers eligible to do architecture
- List will be available on TBAE site
- Applicant for list must be:
 - PE as of Jan 1, 2011
 - In good standing



2011 Legislative session

HB 2284 – Engineer / Architect Overlap

- Apply by Jan 1, 2012
- Minimum of 3 projects built before Jan 1, 2011
- Review process being determined by TBAE in consultation with TBPE
- Appeal Process



2011 Legislative session

HB 2284 – Engineer / Architect Overlap

- Statutory Joint Task Force to recommend engineering / architecture practice
- JAC Repealed



2011 Legislative session

HB 3 – Texas Windstorm

- Windstorm Inspector Program
- PEs must be qualified to do design in high-wind areas
- TBPE will create and maintain a list of qualified PEs
- Rules must be adopted by December 1, 2011
- TBPE / TDI Working on details



New Board Rules

- Exam duration
 - 8 Hour exams
- Reference Statements
 - Electronic Submittal
- International Temporary License
 - Clarifying intent of 3 year limit
- Firm registration surrender



New Board Rules

- November
 - Applications for Engineering Educators
 - Board Committees
- February
 - Canadian Temp License



Proposed Board Rules

- Intn'l Temp License References
- Exam Registration Fees
- Structural Exam schedule
- Exam Analysis options
- Name changes
- Student Loans



To Be Proposed ...

- Legislative Implementation
 - JAC rules
 - Windstorm rules



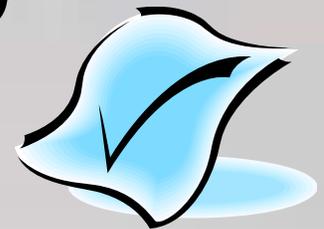
Online Applications

- Currently Online
- Application Form
- Online Payment
- Future
 - SER's
 - References
 - Other Documents



Reminders

- **Continuing Education**
 - Random Audits Ongoing
 - Keep Documentation for 3 years
 - Be prepared to substantiate your 15 hours
 - Activity Log / Removed from TBPE
 - Enforcement Cases (up to \$2,500+)
 - Over 65 is Not Exempt from CE



Engineering Practice Act - Reminders

- Exemptions
 - From licensure
 - What is “Public”
 - Public Works
 - From Professional Fee
 - From Continuing Education
 - No Over 65 Exemption



Reminders

- **Criminal Convictions**
 - All New Licensees
 - Required to Report within 30 days
 - Board will Review Incidents
 - Severity
 - Recidivism
 - Relevant to Engineering
 - Other Factors



Board Rules - Reminders

- Engineer's Seal and Signature
 - What to Seal
 - Texas Seal for Texas work
 - Preliminary Documents
 - Electronic Seals and Signatures



More Board Updates

- Video of Board Meetings on Website
- ECHO System
 - Online Payments
 - Renewals (PE / Firm)
 - Personal Info Updates



Update on NCEES

- Southern Zone Vice President - Govind Nadkarni, P.E.
- TBPE Hosts Southern Zone Meeting in Austin
- Software Engineering PE exam
- BS + 30 / MOE debate ongoing
- Computer Based Testing Task Force
- New 16 hr Structural PE Exam (54 V / 32 L)
 - Oct 2010 (63 STR / 23 ST2)



Update on NCEES

- 2011 Annual Meeting
 - Industrial Exemption – Consider Model Law Change
 - BS+30 Alternatives
 - 6 Years Exp + Mentorship + Add'l Courses
 - CBT – Work on Converting PE Exam
 - Building Commissioning – Consider Model Law Change



Computer Based Testing

- Computer Based Testing Task Force
- Approved at National NCEES in August
- Start with the FE and FS exams
- Expected national implementation by 2014



Outreach

FY	Attendees	Presentations
2008	5,739	100
2009	6,928	120
2010	9,145	157
2011 (YTD)	8,407	145

- Webinars
- Includes K-12
- E-Week



C & E Statistics



- **FYs 2009-2010**
 - 1614 Cases Opened
 - Public, Internal, Anonymous
 - 1641 Cases Closed
 - 1055 Voluntary Compliance (64%)
 - 94 Disciplinary Actions
 - 194 Dismissed / No Violation



C&E Statistics

- **Case Types**
 - Cases against PE's
 - Unlicensed Practice
 - Illegal Use of Title
 - Corporate Name
 - Firm Registration



8/10/2011

Engineering Ethics

Case

Files

CONFIDENTIAL



From the Case Files

- Based on TBPE Enforcement Cases 2009-2011
- Names and Situations Changed
- All in Newsletter / on Website
- Focus on Ethical / Practice Issues



From the Case Files

- **Not So Good News:**
 - Ethical Violations
 - Administrative Violations
- **What This Means:**
 - Revisit Ethical Obligations
 - Familiarity with Rules
 - Monitoring Practice



From the Case Files

- **Scenarios**
 - **Focus on Violations of the Act/Rules**
 - **Emphasis on Ethical Component**
 - **Case-by-Case Basis**
 - **Broad View of Cases**
 - **Don't Focus on Sanctions**



From the Case Files

DFW Metroplex

- Pedestrian Bridge Project
- Out-of-State Licensed PE
- Prepared Engineering plans & performed calculations for the bridge project
- Not licensed in Texas
- *Only engineers licensed in Texas can offer or provide engineering for Texas projects.*



From the Case Files

Out of State Licensee

- Building collapsed in Wisconsin
- One death and \$100M in damages
- Investigation and Civil litigation revealed that the engineer's calculations and design of building support system was deficient
- Wisconsin Board Revoked P.E.'s licensee
- *Texas P.E. licensed in another state is subject to sanction if the violation in that state would be a violation in Texas*



From the Case Files

Dallas, TX

- Individual used “P.E.” and a PE number after his name in an email correspondence
- Electrical engineering designs were included
- Board records determined he was not a licensed P.E.
- *Unlicensed Practice of engineering in Texas is a violation subject to sanction*



From the Case Files

San Antonio, TX

- Individual offered engineering services.
- License was delinquent
- Only PE in firm
- *Unlicensed Practice of engineering in Texas is a violation subject to sanction; firm registration issue*



From the Case Files

Corpus Christi, TX

- PE sealed a signed a TDI WPI-2 for windstorm inspection certifying that a room addition met code.
- Later found that the roof covering was not installed properly and resulted in leakage and damage to the interior. Also found that the window and the foundation was not code compliant
- P.E.'s employee had visited once and relied on the contractor's word that all was built properly
- *P.E. must not give misleading certifications, must exercise reasonable care and diligence to ensure employees perform required inspections, and be a faithful agent to their client.*



From the Case Files

Austin, TX

- PE submitted an Architectural Barriers Proof of Submission form to TDLR more than 20 days after plans were issued.
- *PE must submit plans in a timely manner*
- *TBPE can enforce for violations of other code requirements*



From the Case Files

Houston, TX

- PE working for engineering firm did consulting work 'on the side' for another engineering firm.
- Did work for firm #2 while at work for firm #1.
- Signed agreement and did not disclose.
- *PE must engage in professional business activities; faithful agent to employer; possible conflict of interest issues.*



From the Case Files

Houston, TX

- **Other Variations:**
 - **‘Moonlighting’ for Self on Company Time**
 - **Starting Spin-Off Company on Work Time**



From the Case Files

Waco, TX

- PE sealed a hand written foundation design plan.
- Certified that repairs were performed correctly.
- Sealed design of contactor and did not do inspection.
- *PE shall only seal work done by them or performed under their direct supervision.*
- *“Plan Stamping”*



From the Case Files

El Paso, TX

- PE Contracted with an 'engineering firm' to do building design.
- 'Firm' used his seal on other letters and designs.
- *Keep control of your seal – physical and electronic versions*



From the Case Files

Tyler, TX

- Engineer hired to perform engineering services for dog kennel business.
- Sealed designs with deceased PE seal (and signature).
- *Verify the name and PE # of plans you review / accept.*



From the Case Files

Austin, TX

- Engineer hired to perform engineering services and design.
- Sealed designs with fake PE seal using his name and PE number of deceased PE.
- *Verify the name and PE # of plans you review / accept.*



From the Case Files

San Antonio, TX

- Professional Engineer issued subdivision plans to his client that were unsealed.
- Plans were not marked preliminary indicating why they were being issued and lacked a limitation of their use.
- Plans also contained numerous errors
- *Texas P.E.'s must execute due care and diligence in performance of their engineering business and follow Board Rules on sealing, plans and identifying preliminary documents with proper caveats*



From the Case Files

Dallas, TX

- Engineering firm was contracted to perform testing and site observation of a retaining wall construction project
 - Responsible P.E. issued a document which stated that construction was performed in accordance with the design
 - Photos revealed that construction was not in compliance.
-
- *Board Rule requires P.E. to exercise care and diligence to prevent partners, associates, and employees from engaging in conduct that if done by the P.E. would be a violation*



Professionalism

- Complaint was filed on engineer by client regarding competence and ethics.
- Denial and Cover-up
- A professional would have “owned” the issue and disclosed it to the client in a timely fashion.
- A repair plan could have easily addressed the issues.
- Case would have never been filed or possibly dismissed.



Professionalism

- Communication
- Contract
- Calculations
- Helps Avoid Complaints



From the Case Files

Laredo, TX

- PE claimed performance of engineering services for water and sewer, as well as residential improvements related to ORCA.
- County and Grant \$ involved.
- Payments approved for businesses owned by relatives.
- Work not done; conflict of interest not disclosed.
- *Multitude of violations*
- *\$30K / 5 Year Suspension / TTU Ethics*



From the Case Files

Laredo, TX

- PE Submitted 16 re-roof and windstorm certifications for a high school (10 roofs / 6 whole buildings).
- Photos showed long term roof wear, cacti growing on roofs, exposed decking, etc.)
- No substantiating documentation.
- *Same person as previous violation*

- *Multitude of violations*
- *Recidivism*
- *Revocation*



From the Case Files

- Enforcement Is Critical to Protecting the Health, Safety, and Welfare of the Public
- We need your help to report potential violations!



Contact TBPE

- 1917 IH-35 South
- Austin, TX 78741
- Phone: 512-440-3054
- FAX: 512-440-0417
- Web: <http://www.tbpe.state.tx.us>

