

Texas Board of Professional Engineers
Engineering For A Better Texas



Texas Board of Professional Engineers Professional Practice Update / Ethics

Webinar
March 2016

<http://engineers.texas.gov/outreachsurvey>

Engineering for a better Texas

Welcome



- Lance Kinney, PhD, P.E.
 - Executive Director
 - Lance.Kinney@engineers.texas.gov

Presenters

- **Lance Kinney, PhD., P.E.**, Executive Director
 - Lance.Kinney@engineers.texas.gov
- **David Howell, P.E.**, Deputy Executive Director
 - David.Howell@engineers.texas.gov
- **CW Clark, P.E.**, Director of Compliance & Enforcement
 - CW.Clark@engineers.texas.gov
- **Robert Opiela, P.E.**, Director of Licensing
 - Robert.Opiela@engineers.texas.gov

Webinar Info

- Webinar audio can be through your computer speakers or through the phone.
- All attendees will be in Listen-only mode.
- During the presentation, use the Question feature in the webinar software, not the chat feature or the hand raising feature.
- If there are questions, not addressed, please email the presenter.
- We will be using Polls during the presentation.
- A pdf of the slides is available on the TBPE website.

Webinar Documentation

- Documentation of attendance for Continuing Education purposes will be the follow up email from the Webinar system.
- If registered as a group, please keep a sign-in sheet for all attendees

Website and Social Media

<http://engineers.texas.gov>

- Facebook: Texas Board of Professional Engineers 
- Twitter: TBPE_Exec 
- LinkedIn: Texas Board of Professional Engineers 
- RSS Feed on our website: <http://engineers.texas.gov> 
- YouTube: <https://www.youtube.com/channel/UCm0YTnjR3StveBxWhCT4MiA> 

AGENDA

- About the Board
- Professionalism
- Outreach/Visibility
- Policy Advisory Opinions
- Legislative Update
- Board Initiatives

TBPE

Nine Members - Appointed by Governor

- 6 Licensed Professional Engineers
- 3 Public Members
- Standard term is 6 years

TBPE

Daniel O. Wong, PhD, PE

- Chairman - Houston

Lamberto “Bobby” Balli, PE

- Vice-Chair - San Antonio

Edward Summers, PhD (public member)

- Treasurer - Austin

Sockalingham “Sam” Kannappan, PE

- Secretary - Baytown

TBPE

James Greer, PE

- Dallas

Elvira Reyna (public member)

- Denton County

Sina K. Nejad, D.Eng., PE, PEng

- Beaumont

Kyle Womack, PE

- Midland

Vacancy (public member)



TBPE STAFF

31 Staff members, Austin

Lance Kinney, PhD, PE - Executive Director

David Howell, PE – Deputy Executive Director

CW Clark, PE - Compliance & Enforcement

Robert Opiela, PE - Licensing

Jeff Mutscher - Finance

Janet Sobieski - Information Technology

PROFESSIONAL ENGINEER

BOARD PRIMARY FUNCTIONS

- Licensing Qualified Engineers
- Enforcement of Engineering Practice Act
- Requiring Continuing Education
- Educate – PEs, Officials, Potential PEs, Public

PROFESSIONAL ENGINEER EXPECTATIONS

- Protection of the Public
- Ethical
- Competent
 - Initial Qualifications
 - Staying Current
- Professionalism

Publicly Recognized

- Honesty (Gallup Poll Nov. 2012)
 - Nurses
 - Pharmacists
 - Doctors
 - **Engineers**
 - Dentists
 - Police Officers
 - College Professors
 - Clergy

Publicly Recognized

Harris Poll (2014) – Most Prestigious Professions

- Doctor
- Military Officer
- Firefighter
- Scientist
- Nurse
- **Engineer**

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>

Engineering for a better Texas

Professionalism

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

“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.”

- Received from a Texas PE in a reference statement letter

Professionalism

- Ethical Behavior
 - 60,000 licensed PEs
 - ~750 Cases opened
 - 70% resolved with Voluntary Compliance
 - 12% Dismissed
 - Board action includes range of action up to revocation
 - Responsibility to Protect the Public



David Howell, P.E.

- Deputy Executive Director
- David.Howell@engineers.texas.gov

Professionalism

scenario

- You are a licensed PE working for a Registered Firm.
- You have been asked by a client to review the completed work of another Engineer.
- The work you are reviewing was completed by a competing Firm.

Professionalism

scenario

True or False?

You are required to notify the design engineer and firm of your review.

False. You were asked by a client to review the documents. There is no notification obligation of the review to the other engineer for review.

Professionalism

scenario

- In your review, you find technical errors that are a result of the design engineer applying the wrong set of codes.
- You prepare a report for the client and send it to them directly.

Professional Obligation

which of these is NOT correct or appropriate?

- A. Write your report addressing technical design issues with the basis for findings.
- B. Include information about why the design engineer was incompetent and should have known better.
- C. Provide a copy of your report to the design engineer's supervisor so that he or she can be corrected.
- D. File a complaint against the design engineer with the PE Board for incompetence.
- E. All of the above.

Answers

- **B and C are not good choices**

Not B: The official report to the client is not the appropriate place to address the design engineer.

Not C: The design engineer's supervisor would not be considered to be an involved party with the responsibility to resolve the issue. If there were no apparent threats to public safety, there is no obligation to send a copy to the original firm.

Professionalism

Related to Answer D: True or False?

You are required to file a complaint with the PE Board in all cases.

False. The Board will pursue any complaint filed. PEs are obligated to notify involved parties of engineering issues that could harm the public and to file a complaint if the issue is not resolved or when the threat to the public is imminent.

Professionalism

Discretion

The TBPE does not expect you to file a complaint in all cases.

Things to consider:

- Threat to the public
 - Protection of the public is a primary responsibility
- Inability to reach resolution
 - You notify the designer and he or she is unable or unwilling to resolve
- Being a Faithful Agent
 - You may have contractual obligations regarding disclosure

Filing A Complaint

- Mail, email, phone, facsimile – all are acceptable for initial contact
 - Anonymous complaints are accepted
- A complaint form or detailed letter/email is needed to cover all the bases
 - Forms can be found Online
- Provide specific instances of violation
- Provide evidence to show probable cause

Enforcement Sanctions

- Reprimands (Formal and Informal)
- Suspension (possible probation)
- Refuse to Renew
- Revocation
- \$5,000 per violation per day
- Cease and Desist Orders
- Emergency Suspension

Violations are Published

- By law, all violations, except informal reprimands, must be published
 - On TBPE website by Board Meeting Date
 - Added to NCEES Enforcement Exchange (national database)
 - Published in the newsletter which is mailed at least annually and quarterly E-newsletter emails

Outreach

- The Value of Licensure and Registration
- What is a P.E.? / What do they do?
- How does the TBPE fit in?
- Public Perception

Outreach Publication

General

Engineering for a Better Texas

Agency overview and history



Engineering for a better Texas

History of TBPE

- Created by Texas Legislature (45R) in 1937
- New London School Explosion
 - 300 students and teachers killed
 - Result of improperly designed mechanical and electrical devices
- Established a Board to regulate the practice of engineering through licensing and rules of practice



- C. W. Clark, P.E.
- Director of Compliance & Enforcement
- CW.Clark@engineers.texas.gov

Working with Government

- Government Advisory Group
 - State agencies, Cities, Counties, School Districts
- TBPE Outreach
 - Building Officials
 - Texas Municipal League, etc.
- What we can do for them
 - When PE is required on projects / public works
 - Better understanding of State Laws
 - The role of a Professional Engineer

Outreach Publication

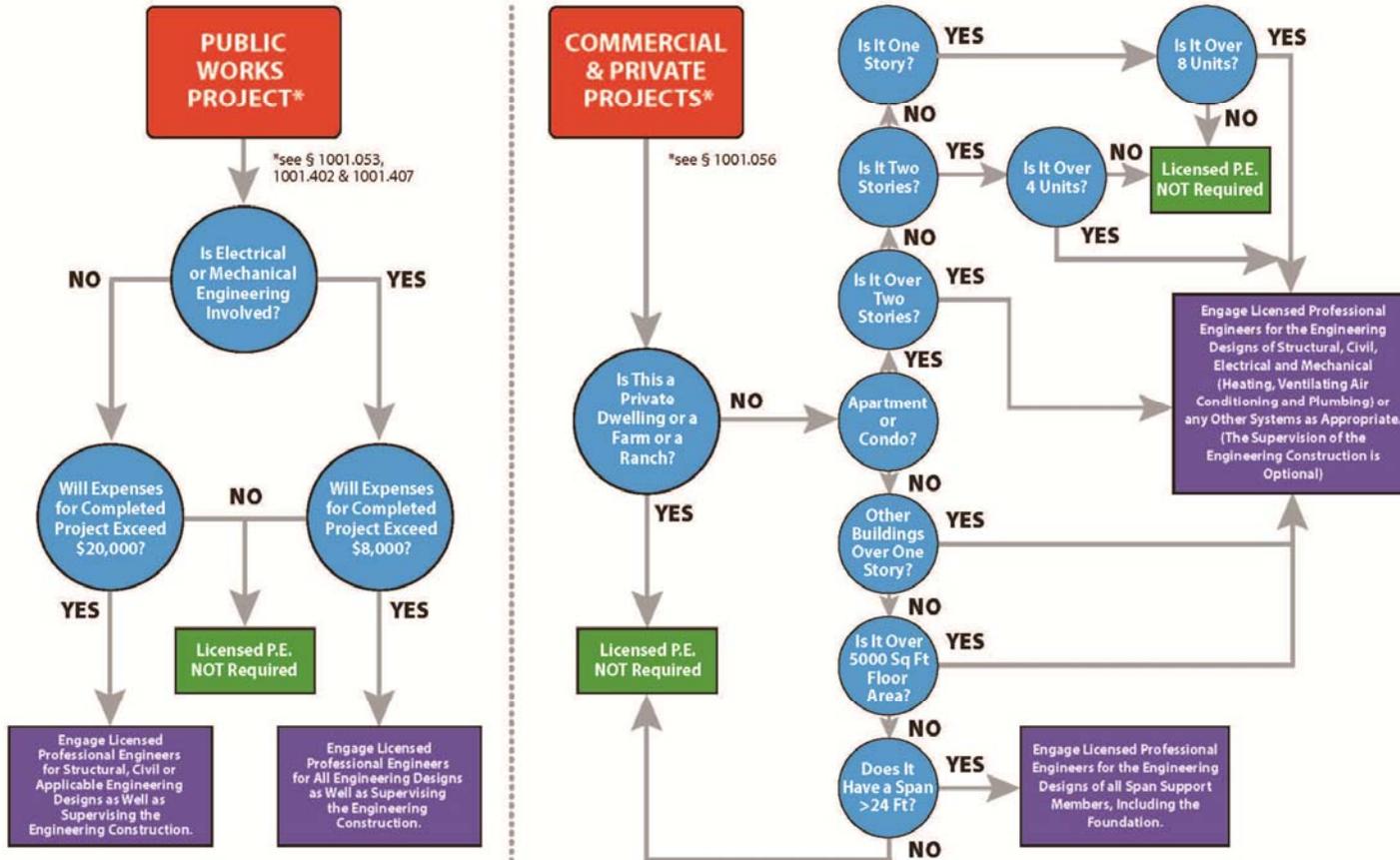
Government

*When is a Professional Engineer
required on a project?*

Flowchart to assist building and
Code compliance officials.



When is a Professional Engineer required on a project?



This flowchart is intended for guidance purposes only and the Texas Engineering Practice Act and Rules govern final interpretation. Local codes and ordinances may be more restrictive as long as not in conflict with the Texas Engineering Practice Act and Rules.

Visit <http://engineers.texas.gov/downloads.htm> for a copy of the Texas Engineering Practice Act and Board Rules and download this diagram.

Plan Revision scenario

- Original plans for a building design, signed, sealed and dated.
- Errors noted during construction require revision to plan.
- Only a section of the plan requires revision.
- Returned to you as the original design engineer.

What is Required?

- A. Make the revisions on the originally dated sheets using clouding. Re-dating and other notations are not required.
- B. Create a completely new document.
- C. Leave the original document as it was, but create a separate appendix document with a new date.
- D. Make the revisions on the existing document with clear revision notations and a revision date.
- E. None of the above.

And the best answer is?

- **B or D (depending on the extent of the revisions)**

Final documents need to be correct, dated, sealed.

Rule 137.33(a) The purpose of the engineer's seal is to assure the user of the engineering product that the work has been performed or directly supervised by the professional engineer named and to delineate the scope of the engineer's work.

A Twist

If the PE is not available to revise his work, what do you do?

133.33(i) A license holder, as a third party, may alter, complete, correct, revise, or add to the work of another license holder when engaged to do so by a client, provided:

- (1) the client furnishes the documentation of such work submitted to the client by the first license holder;
- (2) the first license holder is notified in writing by the second license holder of the engagement immediately upon acceptance of the engagement; and
- (3) any work altered, completed, corrected, revised, or added to shall have a seal affixed by the second license holder. The second license holder then becomes responsible for any alterations, additions or deletions to the original design including any effect or impact of those changes on the original license holder's design.

Professional Services Procurement Act (PSPA)

- Qualifications Based Selection (QBS) for engineering on public projects
- Responsibilities of Professional Engineers
- Responsibilities of Public Officials in RFQ / RFP process

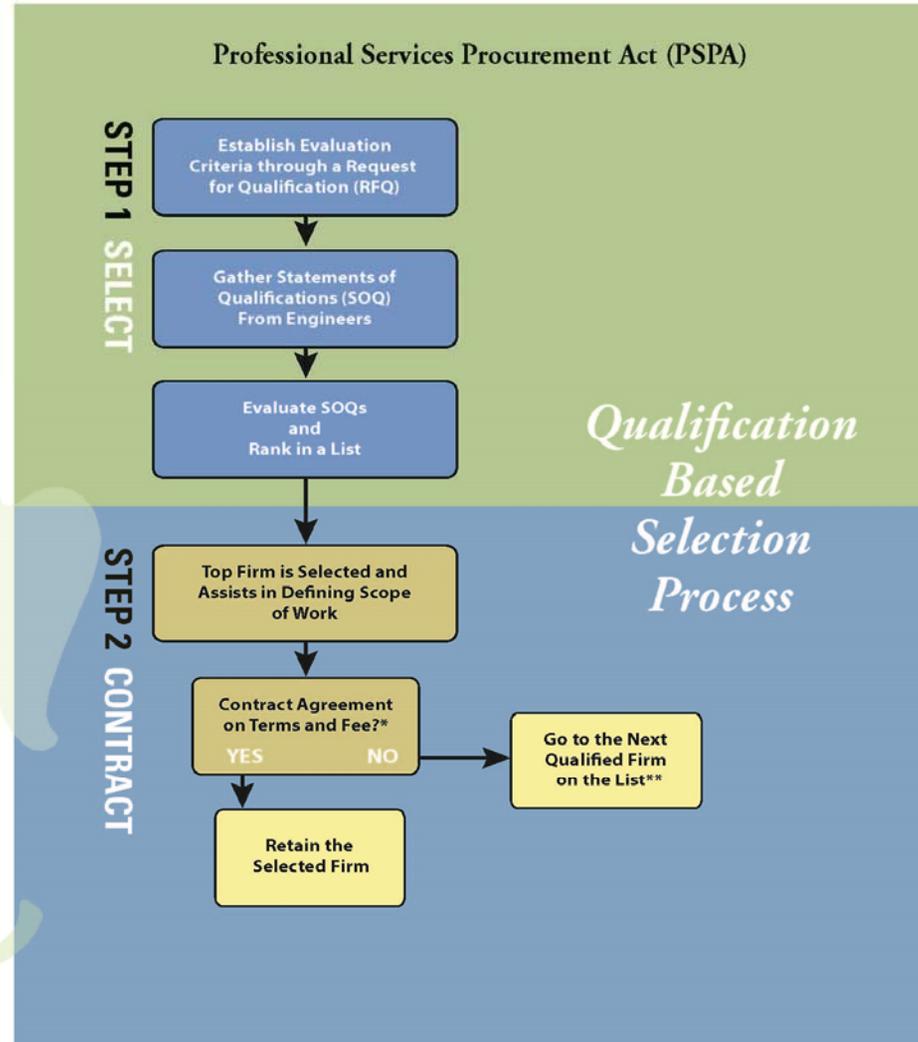
Outreach Publication

Government

*What is the Professional Services
Procurement Act?*

Flowchart to assist building and
code compliance officials.





*At no time should the fee proposal of one firm be compared to the fee of another. Agreement on fee should be based on the merits and information of one firm at a time.

**Negotiation with only one company or firm at a time may take place to be in compliance with TAC 2254.004 (b).

PSPA

scenario

- The local Independent School District has properly posted an RFQ and selected an engineering firm to be the prime professional for a new Auditorium/Gym. After negotiations, the ISD and the firm agree on a contract price.
- As the project progresses, the engineering firm contracts with a MEP engineering firm to address the HVAC, electrical and plumbing design.

PSPA

- The MEP firm calls you for assistance, because he has worked with you previously. You are a licensed P.E. with HVAC expertise and he asks you to give him a cost estimate to complete the HVAC for the new auditorium/gym.

What should a Texas PE do?

- A. Give him your best estimate of the cost.
- B. Wait for a proper authorization to proceed from the prime professional firm who has the contract with the ISD.
- C. Call the Board for authorization to provide the estimate.
- D. Ask the MEP firm if you have been selected as the HVAC engineering firm prior to providing any cost information.
- E. Respectfully decline to offer any cost or price information.

Best Answer

- **D** – You must follow the Qualification Based Selection process by being selected prior to offering any cost or price information as outlined in the Professional Services Procurement Act (Chapter 2254 of the Texas Government Code) and as identified in the Board Rules, Section 137.53.



- Robert Opiela, P.E.
- Director of Licensing
- Robert.Opiela@engineers.texas.gov

Outreach Publications



Applicants

*How to Become a
Licensed P.E.*

*Benefits of Being a
Professional Engineer.*



Exemptions from Licensure

Did you know???

- Only about 20% of US engineers are licensed.

Bureau of Labor Statistics (2013)

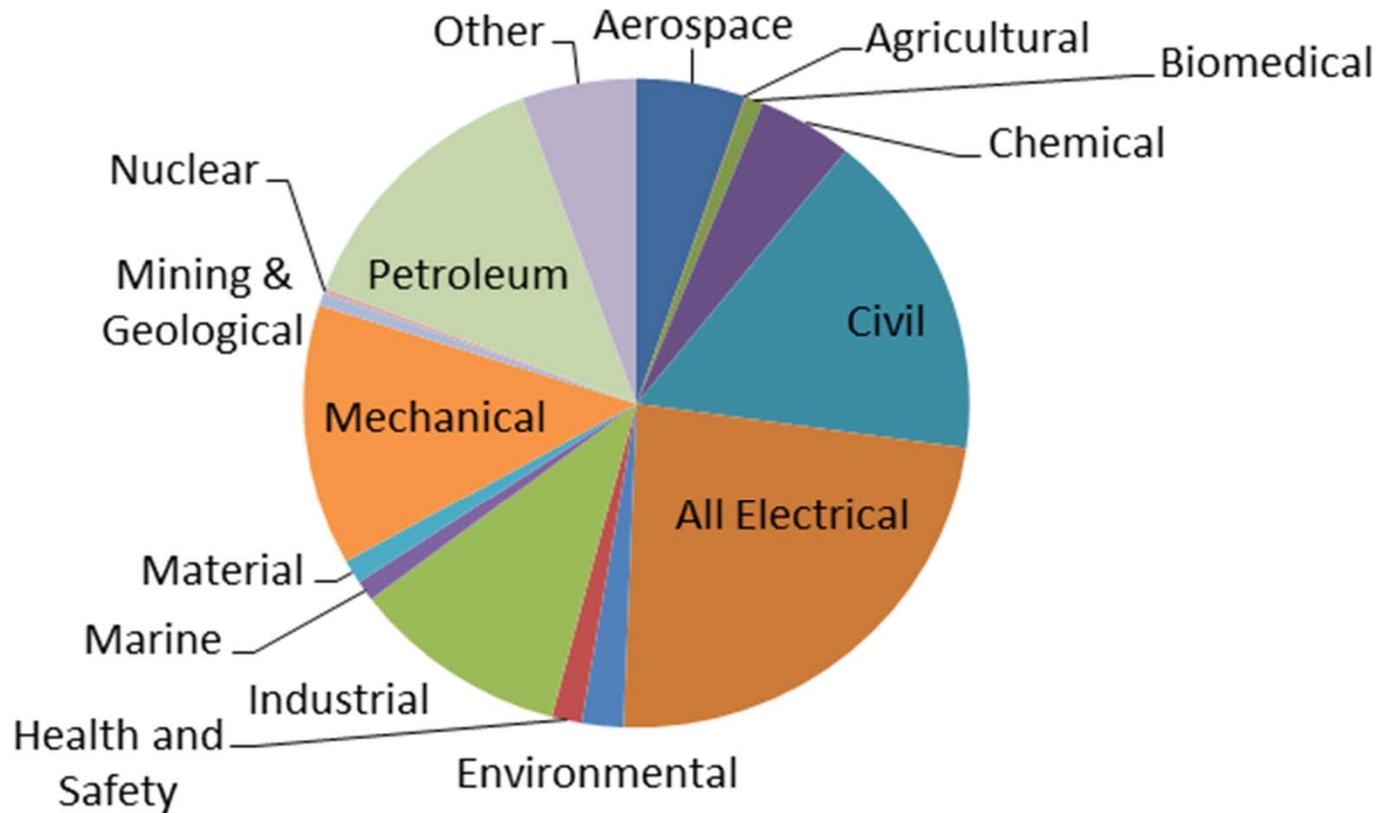
- 178,000 engineers in Texas (20% w/ Active licenses)
 - Civil – 23,500 in Texas (70% w/ Active licenses)
 - Petroleum - 20,000 in Texas (11% w/ Active licenses)
 - Industrial - 15,000 in Texas (2% w/ Active licenses)

Exemptions from Licensure

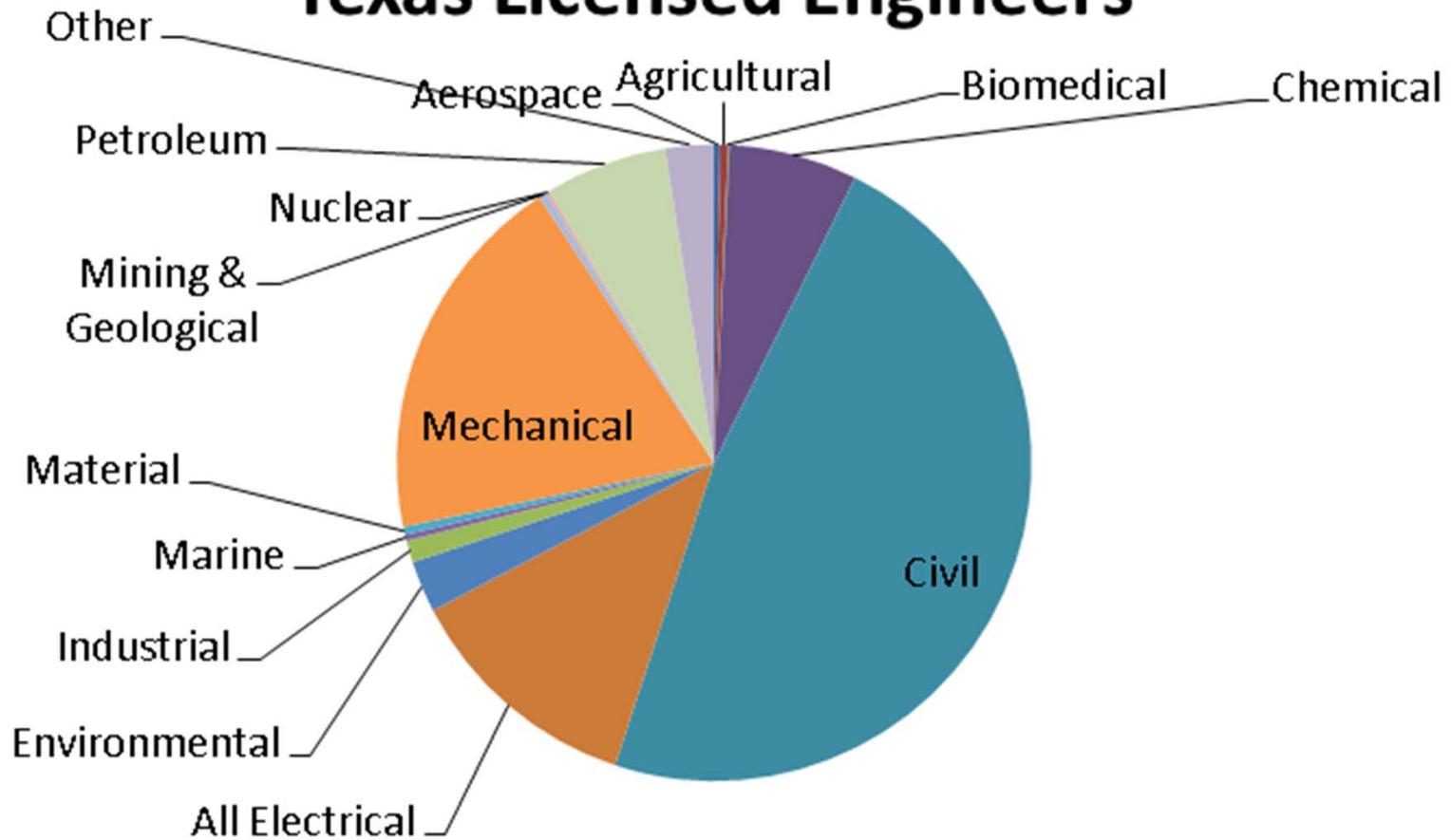
- Private Entities (Manufacturing, Industry, etc)
- Privately owned Public Utilities

License not required for engineering work on company (or utility) property or products with no Seal required.

Texas Engineers - Total



Texas Licensed Engineers



Engineering for a better Texas



David Howell, P.E.

- Deputy Executive Director
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Law and Rules

- Board is authorized by the Texas Engineering Practice Act
- Board interprets and implements the statute to create Rules
- Other statutes and rules also apply to engineering (PSPA, Windstorm, Architectural Barriers/ADA, etc.)
- Texas Professional Engineers are expected to know the Act, Board Rules, applicable state laws and local codes.

Preventing Complaints

- CLEAR:
 - Communication (between all parties)
 - Contract (expectations and responsibilities)
 - Calculations and designs (be prepared to support)
- Keep your Documentation

Most importantly – know the law, and contact us if you have a question!

Policy Advisory Opinions

- Provision Added to TEPA in 2003
- Allows Board to develop formal written interpretations of law and rules
 - Specific or hypothetical situations
 - Interpretations – ‘Gray Areas’
- Over 30 interpretations for a variety of subjects
 - Water Quality Planning, Power Poles, Use of PE Title, Fire Alarm / Sprinklers, PSPA – Contractors, Building Commissioning, etc.

Policy Advisory Opinions

- **Information**

- All Policy Advisories at:

- <http://engineers.texas.gov/policy.htm>

- How to submit PAO Request / Forms at:

- http://engineers.texas.gov/Policy_Advisory.htm

Recent Policy Advisory Opinions

Industrial Exemption / Licensure (May 2014)

Construction Management (May 2014)

On-Farm Energy Audits (February 2016)

- Federal rules allow certified energy auditors
- Who can perform these audits in Texas?

Legislative News And Rules

Legislation 84th Session (2015)

- Bill filing November, 2014 - March 13, 2015
- 4247 House Bills and 2058 Senate Bills
 - Of those, 928 were filed on the last day
- Regular Session ended June 1
- TBPE Tracked Bill progress
 - Tracked approx. 230 bills
 - Funding, Agency, Employees, Reporting, Licensing and Enforcement, etc.

Legislation 84th Session (2015)

- Bills affecting engineering or the Engineering Practice Act were tracked on the TBPE website
 - Professional Fee repeal
 - Windstorm
 - PE Indemnification related to state contracts
 - Structural Engineering
 - SDSI changes

Passed Legislation - 2015

- Professional Fee Repeal (House Bill 7)
 - Eliminates \$200 annual fee
 - Affects license renewals and new licenses issued
 - Effective September 1, 2015
 - Automatically applied to renewals

Passed Legislation - 2015

- Windstorm Roster Repeal (House Bill 2439)
 - Subchapter N of Engineering Practice Act removed
 - Effective September 1, 2015
 - But...
 - Delayed implementation due to provisions affecting insurance policies issued by TWIA through December 2016.
 - TBPE will keep current process in place until then.

Passed Legislation - 2015

- Military Licensing (Senate Bills 807 and 1307)
 - Exempts application fees for qualifying Active duty, spouses and veterans and extends renewable period for active duty licensees
- Unmanned Aerial Vehicles (House Bill 2167)
 - Allows unmanned aerial vehicles to be used for engineering and surveying.
- Contract Indemnification (House Bill 2049)
 - Prohibits government contracts for engineering services from including preemptive Duty to Defend clause.

2013 Legislation Changes

SB 204 – Agency Sunset Bill

- Enforcement
- Criminal History Record Checks
 - 50,000 Licensees and Applicants submitted prints
 - 4,300 Had some sort of incident of Texas or FBI record and were reviewed by staff
 - 6 Enforcement cases opened for licensees
 - 50 Applications required additional review or Board Action

2013 Legislation Changes

- Criminal History Record Checks
 - Required fingerprinting for All **Active** license 1st renewal
 - Still required for reactivations, new applicants and first renewals
 - FAQ and detailed Instructions on website:
<http://engineers.texas.gov/recordcheck.html>

Upcoming Rules - Decoupling

Adopted February - Effective **May, 2016**

- Allows PE exam to be taken while experience is being obtained. Must be a Texas EIT.
- Increased flexibility for applicants
- Does not reduce licensing requirements.
- Requires system modifications for tracking
- EIT application to be online

Rule Review - 2016

Every State Agency is required to review each Rule at least every 4 years

- Make sure it is still valid
- Make sure it still implements the statutory requirements
- External Review – Posted March 4
- Internal Review to run simultaneously

Update on NCEES

- August 2014 Model Law changes
 - BS+30/Masters Or Equivalent moved from NCEES model law to a position statement
 - Decoupling of PE exam from experience allows “early” PE exam in some states.
- CBT – Computer Based Testing – FE 2014
 - Exams began January 1, 2014
 - 6 Hour Exam
 - Switched to year-round starting in 2016
 - PE exams to be converted as well (~3 to 5 years)



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TBPE Initiatives

Engineering for a better Texas

Engagement – Future Engineers Advisory Committee

- Outreach to young / new engineers
- Consists of EITs and new PEs
- Advising on:
 - Communications with young engineers
 - Application issues
 - Future initiatives with board

Engagement – Professional and Technical Organizations

- ***Rule 137.63(a) – [Engineers] should attempt to enhance society’s awareness of engineers’ responsibilities to the public and encourage the communication of these principles of ethical conduct among engineers.***
- Training and Continuing Education
- Engineering Policy
- Latest Technical Information
- Engineering Networking / Mentoring / References

Professional Organizations

Texas Society of Professional Engineers (TSPE) – www.tspe.org

- All branches of engineering
- Represents the individual PE
- Focus on the profession as a whole
- Engineering Policy / Legislative Issues
- Example: \$200 fee removal
- State branch of NSPE

Technical Organizations

- Involved in technical issues in engineering
- Organizations by branch of engineering
- Training
- Conferences
- Codes and Specs
- Research
- Local, regional, student branches

Technical Organizations

- ASCE – American Society of Civil Engineers - <http://www.texasce.org/>
- IEEE – Institute of Electrical Engineers - <http://ieeer5.org/>
- ASME – American Society of Mechanical Engineers - <https://www.asme.org/>
- AIChE – American Institute of Chemical Engineers - <http://www.aiche.org/>
- SEAoT – Structural Engineers of Texas - <http://www.seaot.org/>
- *And many, many others...*

Engagement - Webinars

- PE Ethics
 - March, June, September, December
 - Sign up online
- FE Exam / Why become a PE? (Students)
- How to Apply (EITs)

Outreach – TBPE Engagement

Fiscal Year	Attendees	Presentations
2012	7,327	166
2013	11,559	177
2014	14,866	155
2015	19,751	150

- Quarterly Webinars
- Includes K-12 / E-Week

Webinar

- Additional questions can be emailed to TBPE staff at the addresses provided.
- A pdf copy of this presentation will be available for a week on the TBPE website.
- Attendees will receive a follow up email from the GoToWebinar system.

Thank You

1917 S Interstate 35, Austin, TX 78741
(512) 440-7723



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