Windstorm Meetings

Corpus Christi
December 6, 2011

Houston/Galveston
December 7, 2011

TBPE Staff

Lance Kinney, P.E., Executive Director

David Howell, P.E., Director of Licensing

TDI Staff

Alexis Dick-Paclik, Director, Inspections Office

Sam Nelson, P.E., Manager and Chief Engineer, Engineering Section

Agenda

TBPE Presentation

The Board and the Engineering Practice Act

HB3 and Rules

TBPE Windstorm Roster Applications

TDI Presentation

Continuing Education

Claim credit for this meeting

Make sure to keep emails and sign register

Texas Engineering Practice Act

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

Board Organization & Responsibilities

- Nine member Board
  - 6 PE members
  - 3 Public members
- Appointed by the Governor
- Interpret Engineering Practice Act
- Consider and Adopt Rules for implementation

Agency Organization & Responsibilities

- Executive Director: Lance Kinney, P.E.
- 30 Staff / Office in Austin
- Create and Implement Rules
- Review and process all licensing applications
- Investigate all enforcement cases (~800 / yr)
- Administer Licenses for 55,000 PE's
- Administer Registrations for 8,800 Firms

Competency

PE can only practice in areas where competent

Competency

Education

Experience

Exams

2011 Legislative session

- Bills passed

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

Windstorm Statutory Requirements

- HB3 - 77 page Bill
- Passed by Texas Legislature
- Affected multiple Chapters of the Insurance Code on specific aspects of the Windstorm Insurance program.
- Created a New Subchapter in the Engineering Practice Act (Subchapter N)

Windstorm Statutory Requirements

- Added 1001.652 which requires TBPE to create a Roster of Qualified Engineers
- Modified Insurance Code 2210.254 to limit inspector appointments to PEs on the new Roster.
- Required the TBPE to Adopt rules related to Subchapter N by December 1.

Windstorm Statutory Requirements

- **Sec. 1001.652. Qualifications; Roster**
- (a) The board shall:
- (1) review the plan of operation and the windstorm certification standards; and
- (2) in consultation with the Texas Department of Insurance, adopt rules establishing criteria for determining whether an engineer possesses the knowledge, understanding, and professional competence to be qualified to provide engineering design services related to compliance with applicable windstorm certification standards under Subchapter F, Chapter 2210, Insurance Code.
- (b) The board shall prepare and publish a roster of engineers who satisfy the criteria adopted under Subsection (a)(2) and shall make the roster available to the public without cost in an online computer database format.

Windstorm Roster Rules 137.19

- Proposed by Board at August meeting
- Posted for comment September 9 – October 9
- Received comments and questions from ~20 individuals and groups.
- Comments addressed by Board at November meeting
- Adopted November 17, 2011
- Effective December 11, 2011

Windstorm Questions

- Q: Isn't this essentially an Additional Certification for a specific discipline?

- A: No. This roster is a legislatively required verification of competence related to the Windstorm Inspection program.

Windstorm Roster Rules

137.19 Engineers Qualified to be Texas Windstorm Inspectors

(a) Pursuant to §1001.652 of the Act, the board shall create and maintain a roster of windstorm inspector candidates composed of licensed engineers who have demonstrated the knowledge, understanding, and professional competence to be qualified to provide engineering design services related to compliance with applicable windstorm certification standards under Subchapter F, Chapter 2210, Insurance Code.

Windstorm Roster Rules

(b) To be considered qualified for the roster described under subsection (a), a licensed engineer must demonstrate sufficient competence in each of the following subject areas:

(1) Applicable building codes and design standards for the design and construction of buildings or other structures located in high wind areas;

(2) Determination of wind loads on buildings and other structures;

(3) Lateral wind load resisting systems;

(4) Vertical wind load resisting systems;

(5) Wood frame structure design;

(6) Roof and wall framing connections to the foundation;

(7) Foundation design; and

(8) Roof cladding and exterior wall cladding design.

Windstorm Roster Rules

(c) A license holder may request that the Executive Director or designee review his or her competency to be placed on the roster in subsection (a). In order to be approved to be placed on the roster, a licensed engineer must:

(1) Receive a passing score on the Wind Design Competence Verification, and

(2) Demonstrate competence in the subject areas specified in Subsection (b) by providing one or more of the following:

(A) a transcript from an institution listed in 133.31(a) of this Chapter showing coursework in the subject area;

(B) a supplementary experience record documenting at least 2 years of experience in the subject area verified by at least one PE reference provider who has documented competence in a related engineering discipline; or

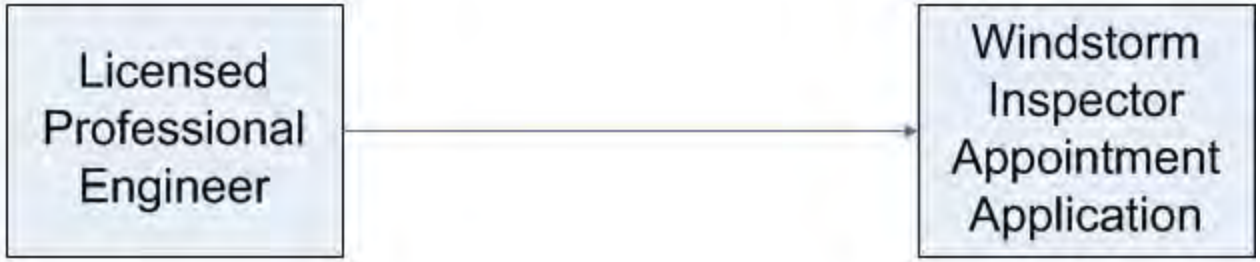
(C) verification of successful passage of a principles and practice of engineering examination as specified in 133.67 of this Chapter, which tests competence in the subject area.

Windstorm Roster Rules

(d) The Wind Design Competence Verification shall be self-administered by the applicant and shall be furnished by the board. The verification will consist of questions to verify an applicant's knowledge in applicable building codes and design standards for the design and construction of buildings or other structures located in high wind areas. Each licensee requesting to be placed on the roster in subsection (a) must submit this verification in a format prescribed by the board with the request and must receive a score of at least 90%.

Windstorm Roster Rules

OLD



NEW

Windstorm Questions

- Q: Do I have to be a Structural Engineer to apply for the roster?

- A: No. No matter what your current listing shows, if you have gained the appropriate expertise in windstorm related design, you can be on the roster.

Windstorm Applications

- Self-administered Competence Verification

Windstorm Applications

Self-Administered Competence Verification

- Available on the TBPE website
  - Passing score of 90%
  - Can be taken multiple times
  - Save and Print passing scoresheet to submit with application

Windstorm Applications

Self-Administered Competence Verification

Sample Question

- When determining wind loads, what internal pressure coefficient should be used for a residential structure located in a Texas Department of Insurance Designated Catastrophe Area where the basis wind requirement is 120 mph 3-second gust?
  - 0.00
  - 0.18
  - 0.55
  - 0.90

Windstorm Applications

- Competence Areas
  - Determination of wind loads on buildings and other structures;
  - Lateral wind load resisting systems;
  - Vertical wind load resisting systems;
  - Wood frame structure design;
  - Roof and wall framing connections to the foundation;
  - Foundation design; and
  - Roof cladding and exterior wall cladding design.

Windstorm Applications

- Demonstrate Competence for Each by <u>one</u> of the following methods:
  - EXAMS
  - EDUCATION
  - EXPERIENCE

Windstorm Applications

- Examination Method
  - Supply Additional Verification of Examinations if not already on file.
  - Refer to specific exam specifications when addressing each subject area.
  - Exams accepted include:
    - NCEES Structural Exams (I, II or new 16-hr)
    - NCEES Civil PE Exam with the Structural Module

Windstorm Applications

- **CIVIL–STRUCTURAL DEPTH Exam Specifications**

		Approximate Percentage of PM Exam
I.	**Loadings**	**12.5%**

A. Dead loads
B. Live loads
C. Construction loads
D. Wind loads
E. Earthquake loads, including liquefaction, site characterization, and pseudo-static analysis
F. Moving loads
G. Snow loads
H. Impact loads
I. Load paths
J. Load combinations

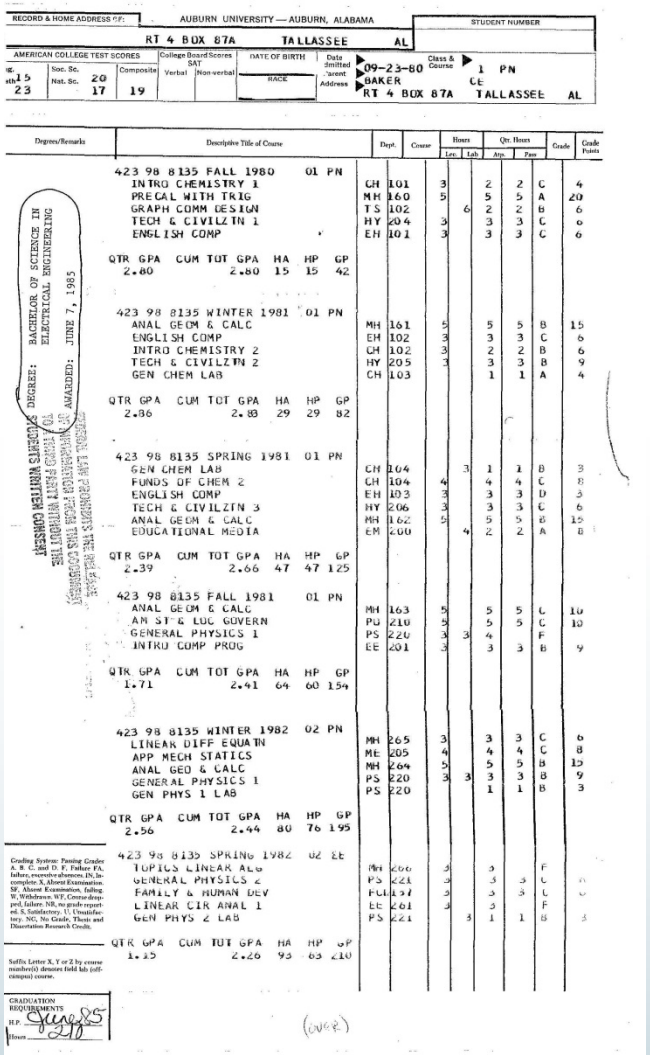
2. Cost estimating
C. Scheduling
1. Construction sequencing
2. Resource scheduling
3. Time-cost trade-off
D. Material Quality Control and Production
1. Material testing (e.g., concrete, soil, asphalt)
E. Temporary Structures
1. Construction loads

F. Congested construction

Windstorm Applications

- Education Method
  - Supply Additional Transcripts if not already on file.
  - Refer to specific coursework when addressing each subject area.

Windstorm Applications



RECORD & HOME ADDRESS OF: AUBURN UNIVERSITY — AUBURN, ALABAMA

STUDENT NUMBER

RT 4 BOX 87A TALLASSEE AL

AMERICAN COLLEGE TEST SCORES: Soc. Sc. 15, Nat. Sc. 20, 23, Composite 17, 19

College Board Scores SAT: Verbal, Non-verbal

DATE OF BIRTH

RACE

Date Admitted 09-23-80

Parent BAKER

Address RT 4 BOX 87A TALLASSEE AL

Class & Course 1 PN CE

Degrees/Remarks	Descriptive Title of Course	Dept.	Course	Hours Lec.	Hours Lab	Qtr. Hours Atp.	Qtr. Hours Pass	Grade	Grade Points
	423 98 8135 FALL 1980 01 PN								
	INTRO CHEMISTRY 1	CH	101	3		2	2	C	4
	PRECAL WITH TRIG	MH	160	5		5	5	A	20
	GRAPH COMM DESIGN	TS	102		6	2	2	B	6
	TECH & CIVILZTN 1	HY	204	3		3	3	C	6
	ENGLISH COMP	EH	101	3		3	3	C	6
	QTR GPA CUM TOT GPA HA HP GP								
	2.80 2.80 15 15 42								
	423 98 8135 WINTER 1981 01 PN								
	ANAL GEOM & CALC	MH	161	5		5	5	B	15
	ENGLISH COMP	EH	102	3		3	3	C	6
	INTRO CHEMISTRY 2	CH	102	3		2	2	B	6
	TECH & CIVILZTN 2	HY	205	3		3	3	B	9
	GEN CHEM LAB	CH	103			1	1	A	4
	QTR GPA CUM TOT GPA HA HP GP								
	2.86 2.83 29 29 82								
	423 98 8135 SPRING 1981 01 PN								
	GEN CHEM LAB	CH	104		3	1	1	B	3
	FUNDS OF CHEM 2	CH	104	4		4	4	C	8
	ENGLISH COMP	EH	103	3		3	3	D	3
	TECH & CIVILZTN 3	HY	206	3		3	3	C	6
	ANAL GEOM & CALC	MH	162	5		5	5	B	15
	EDUCATIONAL MEDIA	EM	200		4	2	2	A	8
	QTR GPA CUM TOT GPA HA HP GP								
	2.39 2.66 47 47 125								
	423 98 8135 FALL 1981 01 PN								
	ANAL GEOM & CALC	MH	163	5		5	5	C	10
	AM ST & LOC GOVERN	PU	210	5		5	5	C	10
	GENERAL PHYSICS 1	PS	220	3	3	4		F	
	INTRO COMP PROG	EE	201	3		3	3	B	9
	QTR GPA CUM TOT GPA HA HP GP								
	1.71 2.41 64 60 154								
	423 98 8135 WINTER 1982 02 PN								
	LINEAR DIFF EQUATN	MH	265	3		3	3	C	6
	APP MECH STATICS	ME	205	4		4	4	C	8
	ANAL GEO & CALC	MH	264	5		5	5	B	15
	GENERAL PHYSICS 1	PS	220	3	3	3	3	B	9
	GEN PHYS 1 LAB	PS	220			1	1	B	3
	QTR GPA CUM TOT GPA HA HP GP								
	2.56 2.44 80 76 195								
	423 98 8135 SPRING 1982 02 PN								
	TOPICS LINEAR ALG	MH	266	3		3		F	
	GENERAL PHYSICS 2	PS	221	3		3	3	C	6
	FAMILY & HUMAN DEV	FCL	137	3		3	3	C	6
	LINEAR CIR ANAL 1	EE	261	3		3		F	
	GEN PHYS 2 LAB	PS	221		3	1	1	B	3
	QTR GPA CUM TOT GPA HA HP GP								
	1.25 2.26 93 83 210								

DEGREE: BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING
DATE AWARDED: JUNE 7, 1985

Grading System: Passing Grades A, B, C, and D. F, Failure FA, failure, excessive absences. IN, Incomplete. X, Absent Examination. SF, Absent Examination, failing. W, Withdrawn. WF, Course dropped, failure. NR, no grade reported. S, Satisfactory. U, Unsatisfactory. NG, No Grade, Thesis and Dissertation Research Credit.

Suffix Letter X, Y or Z by course number(s) denotes field lab (off-campus) course.

GRADUATION REQUIREMENTS H.P. June 85 Hours 218

(OVER)

Windstorm Applications

- Experience Method
  - Supplementary Experience Record representing <u>design</u> experience in each subject area for at least two years.
  - Reference statement from a licensed PE in a related discipline (Structural, Civil, etc.).

Windstorm Applications

Page___ of ___ pages

SUPPLEMENTARY EXPERIENCE RECORD

(Refer to the instructions and example provided before completing this form. Only one copy of this form has been provided. Please make additional copies as required.)

APPLICANT'S FULL NAME: _____

DESCRIPTION OF WINDSTORM ENGINEERING/ DESIGN PERFORMED

ENGAGEMENT NO. _____ FROM: _____ TO: _____ (dates)

NAME OF EMPLOYER AND LOCATION: _____

ENGINEERING SUPERVISOR'S NAME(S) _____

I certify that the above Supplementary Experience Record is true and correct to the best of my knowledge.

Reference Provider's Signature **Date** **Applicant's Signature** **Date**

Windstorm Applications

WINDSTORM REFERENCE STATEMENT

(BEFORE COMPLETING THIS FORM, PLEASE READ THE REFERENCE STATEMENT INSTRUCTIONS. ONLY ONE COPY OF THIS FORM HAS BEEN PROVIDED. PLEASE MAKE ADDITIONAL COPIES OF THIS FORM AS REQUIRED.

TO BE COMPLETED BY APPLICANT

Verification for employment engagement # _____
Firm/Company Name _____ from _____ to _____ (dates)
Applicant's full Legal Name: _____

Note: Please refer to Sections 133.51, 133.53, 133.55 and 137.19 of the rules. Reference statements are confidential and not subject to release to the applicant, nor the Texas Public Information Act.

Reference Provider's Name (Typed or Printed): _____

Employed by (Include City, State & Zip): _____

Business Title: _____ Business Phone: _____

My current state of primary licensure is: (State) _____ , P.E. No.: _____ Expiration Date: _____

Other Professional Engineer Licenses Held:
(If licensed PE in state other than Texas, provide copy of pocket card or other verification)
State: ____ No. ____ Expiration Date: ____
My Field of Engineering Practice is: _____(engineering discipline as defined in 131.13)

Reference Evaluation is: ☐ Character & Personal Knowledge of Work Described in of SER **[Be sure to sign the SER]**
☐ Character & Review of SER only for Purpose of Reference Statement **[Be sure to sign the SER]**

You may attach a page on which to provide more information.

1. How long have you known the applicant? _____
2. Are you related to the applicant? ☐ No ☐ Yes If so, how? _____
3. Was/is your relationship with the applicant ☐ Personal? ☐ Business? _____
   Please explain: ____
   Dates of business relationship: From ____ to ____
4. Do you know of anything that would negatively affect the applicant's ability to practice as a windstorm design engineer?
   ☐ No ☐ Yes If yes, explain____
5. What have you observed that convinces you that the applicant (has/has not) adequately applied engineering education and experience in the practice of windstorm design?
   ____
6. Based on your knowledge and observations, do you believe that the applicant has reached a level of competency to be placed on the Roster of Engineers Qualified to be Windstorm Inspectors? ☐ No ☐ Yes
   Please explain and add additional comments: ____

_____
Reference Provider's Signature Date

WS reference 11/11

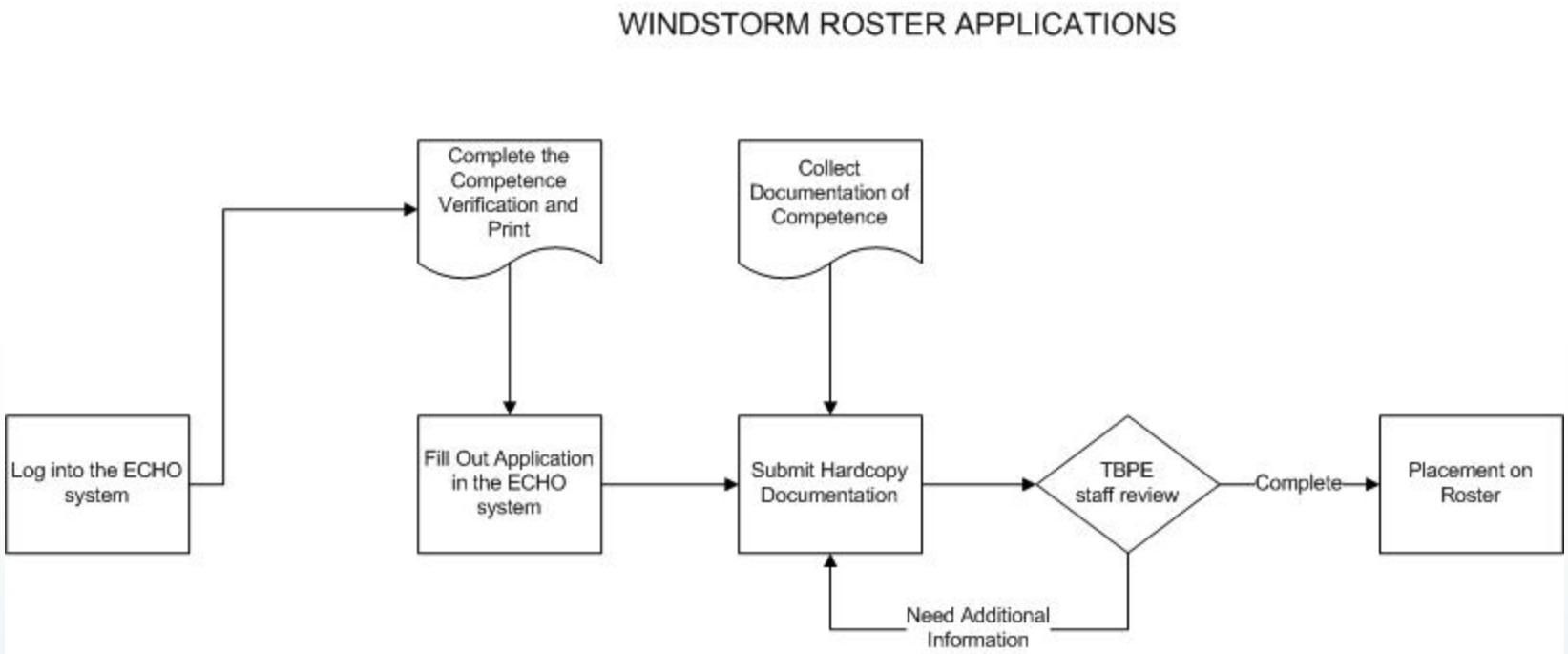
Windstorm Applications

- Start accepting applications – January, 2012
- http://www.tbpe.state.tx.us/windstorm.html

Windstorm Applications

- Online Application
  - ECHO system
  - No Fee
  - Windstorm Competence Verification
  - General Application Questions
    - Other documentation submitted separately:
      - SERs and References
      - Exam info
      - Transcripts

Windstorm Applications



Windstorm Applications

- Q: Who will be reviewing the applications to be on the roster?

- A: Applications will be handled in the TBPE Licensing department using existing procedures for assessing competence.

Windstorm Questions

- Q: If I apply and get my name on the TBPE roster, can I do windstorm inspections?

- A: No. The roster only indicates that you are qualified to do windstorm related engineering activities. You will still be required to apply to the Texas Department of Insurance (TDI) to be appointed as a Qualified Windstorm Inspector.

Windstorm Questions

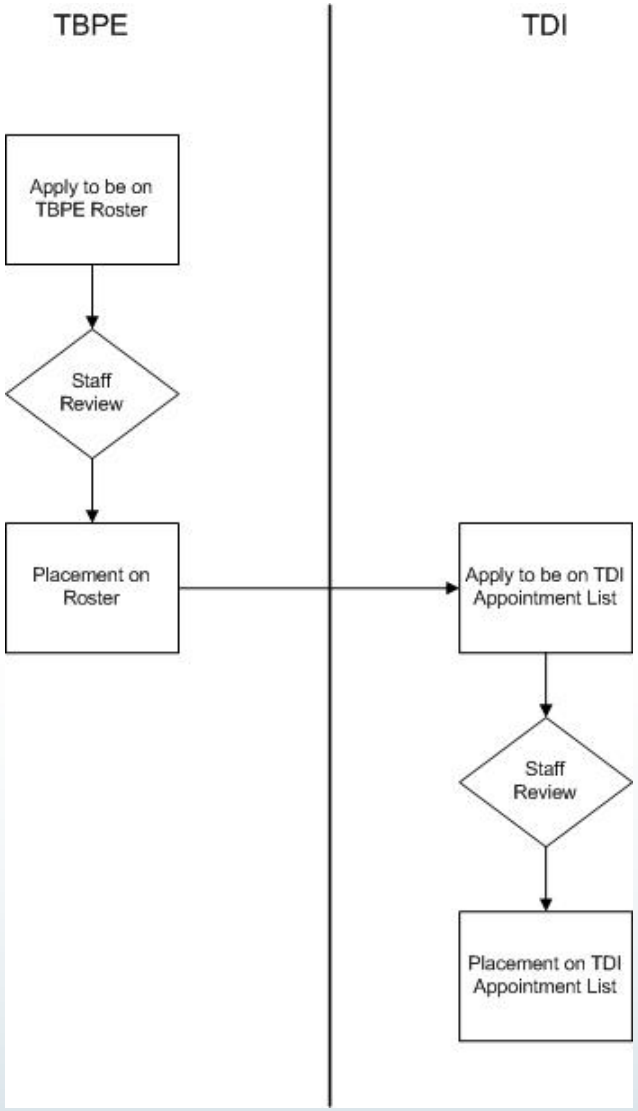
- Q: If an engineer is currently doing windstorm design and inspections will he/she have to go through the application process to be put on the list of qualified inspectors?

- A: Yes. The Roster of Engineers Qualified to be Windstorm Inspector Candidates (roster) is specifically for the purposes of reviewing the qualifications of engineers who want to be windstorm inspectors.

Windstorm Questions

- Q: If an engineer currently holds an appointment as a Windstorm Inspector from TDI will he/she have to go through the new application process to be put on the roster?

- A: Yes. Engineers who currently hold appointments as Windstorm Inspectors and want to continue to do inspections will have to be on the new TBPE roster and will have to re-apply with TDI.


TBPE
TDI
Apply to be on TBPE Roster
Staff Review
Placement on Roster
Apply to be on TDI Appointment List
Staff Review
Placement on TDI Appointment List

Windstorm Questions

- Q: Will there be additional continued education requirements to be on the TBPE roster as a Windstorm Designer?

- A: Not for the TBPE roster. The requirements for continued education as a Texas licensed engineer will remain the same. TDI may require continued education to be a Windstorm Inspector.

Windstorm Questions

- Q: Will there be an annual renewal process to remain on the roster?

- A: Not for the TBPE roster. A listing on the roster does not expire. An engineer must simply remain in good standing as a Texas licensed engineer.

Windstorm Enforcement

Windstorm Statutory Requirements

- **Sec. 1001. 056. Construction or Repair of and Plans for Certain Buildings**
- (c) The exemption provided by this section does not apply to a person or entity that is:
- (1) providing engineering design or inspection services necessary to comply with windstorm certification standards for a residential dwelling under Subchapter F, Chapter 2210, Insurance Code;

Windstorm Statutory Requirements

- **Sec. 1001.653. Compliance With Building Codes; Enforcement**
  - (a) The board, in consultation with the Texas Department of Insurance, shall adopt rules requiring an engineer who is providing engineering design services to comply with windstorm certification standards.
  - (b) The board may inspect a structure to ensure an engineer's compliance with Subsection (a).

Windstorm Statutory Requirements

- **Sec. 1001.653. Compliance With Building Codes; Enforcement (Cont)**
  - (c) If the board determines that an engineer's engineering design services related to windstorm certification standards do not comply with the standards, the board may:
    - (1) issue an emergency order prohibiting the engineer from entering into a contract to provide design services related to compliance with applicable windstorm certification standards for a period not to exceed 30 days;
    - (2) remove the engineer from the roster described by Section 1001.652(b); or
    - (3) determine that a structure was not constructed, altered, remodeled, enlarged, repaired, or added to according to the applicable windstorm certification standards and report that finding to the association and the Texas Department of Insurance.

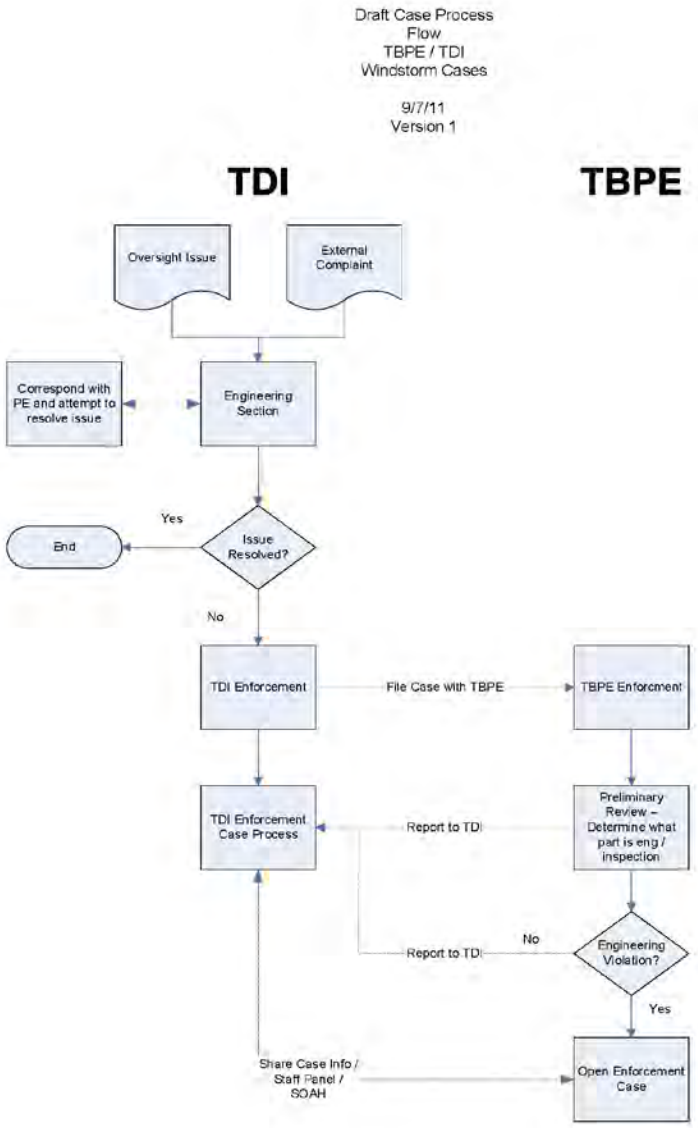
Windstorm Statutory Requirements

- **Sec. 1001.653. Compliance With Building Codes; Enforcement (Cont)**
  - (d) The board shall give the engineer notice of any action under this section.
  - (e) A violation of this subchapter, including a violation of the windstorm inspection standards, is grounds for disciplinary action under Section 1001.452

Windstorm Enforcement

- Q: Who will be responsible for inspection protocol and standards?

- A: TDI will continue to oversee the rules and enforcement related to windstorm inspections.


Draft Case Process
Flow
TBPE / TDI
Windstorm Cases
9/7/11
Version 1
TDI
TBPE
Oversight Issue
External Complaint
Correspond with PE and attempt to resolve issue
Engineering Section
Yes
End
Issue Resolved?
No
TDI Enforcement
File Case with TBPE
TBPE Enforcement
TDI Enforcement Case Process
Report to TDI
Preliminary Review – Determine what part is eng / inspection
Report to TDI
No
Engineering Violation?
Yes
Share Case Info / Staff Panel / SOAH
Open Enforcement Case

Windstorm Statutory Requirements

- **Sec. 139.35(b). Suggested Sanctions for Windstorm Related Violations (New Rules)**

Ethics Violations	Failure to follow TDI qualified windstorm inspection procedures.	§§ 1001.652 and 137.19	Reprimand/$1000.00
	Failure to design a structure associated with windstorm insurance that did not comply with cited windstorm code design criteria.	§§ 1001.652, 1001.653. and 137.19	1 year suspension / $2000.00 / Roster Removal

Contact TBPE

- David Howell, P.E.
- David.Howell@tbpe.state.tx.us
- 1917 IH-35 South, Austin, TX 78741
- Phone: 512-440-3054
- www.tbpe.state.tx.us