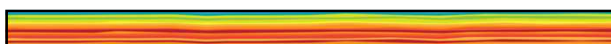


Ethics for Engineers
An SPE Webinar

May 13, 2014

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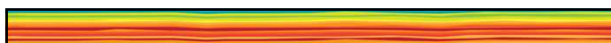
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Lawyer Jokes 19,900,000

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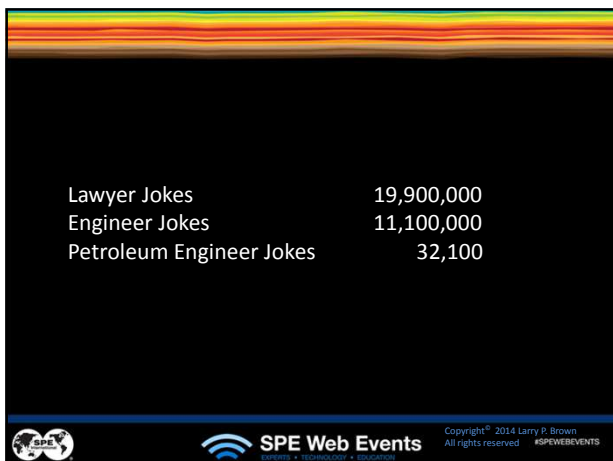
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Lawyer Jokes 19,900,000
Engineer Jokes 11,100,000

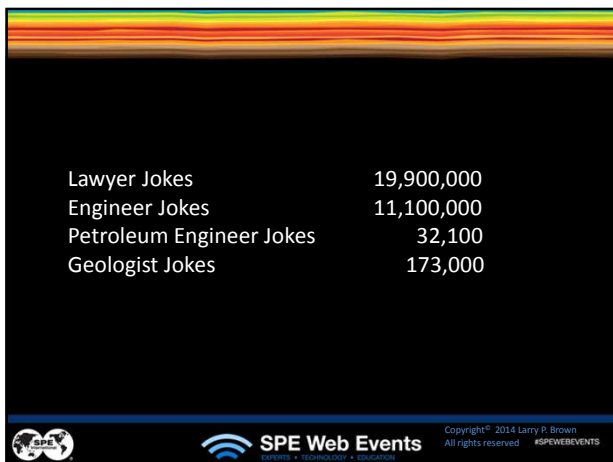
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Lawyer Jokes	19,900,000
Engineer Jokes	11,100,000
Petroleum Engineer Jokes	32,100

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Lawyer Jokes	19,900,000
Engineer Jokes	11,100,000
Petroleum Engineer Jokes	32,100
Geologist Jokes	173,000

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Outline

- CE requirements by state
- Things that can get you in trouble
- Ethics in history
- Let's make it simple
- SPE's Guide for Professional Conduct
- Application
 - The Engineering Proposal
 - Public Responsibilities v. Faithful Agent
 - When is it Bribery?
 - Use of "Engineer"
- What's next?
- References



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Continuing Education Requirements (per NSPE)

- | | |
|--|--|
| • Arkansas – 15 annually (1998) | • New York 36 (1) tri-annually (2001) |
| • California – none | • North Dakota – 30 bi-annually (2005) |
| • Colorado – none (under study) | • Oklahoma – 30 bi-annually (2002) |
| • Kansas – 30 bi-annually (1996) | • Pennsylvania – 24 bi-annually (2011) |
| • Louisiana – 30 (1) bi-annually (1999) | • Texas – 15 (1) annually (2005) * |
| • Michigan – 30 bi-annually (2013) | • Utah 24 bi-annually (2013) |
| • Montana – 30 bi-annually (1998) | • West Virginia – 15 annually (2013) |
| • New Mexico – 30 (4) bi-annually (1995) | |



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Ways to fulfill CE requirements –

- Commercial Courses
- College Courses – audit or credit
- SPE Courses
- SPE Webinars
- Self Study
 - Reading through the statute
- Professional Meetings
- Service in Professional Societies
- Preparing and presenting papers
- Publishing books
- Patents



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Before you're audited –

- Keep a record of attendance (PDH log)
- Keep attendance documentation



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Oklahoma Disciplinary

In the Matter of xxx, Case No. 2013-xxx; Through Consent: **For failing to meet the requirements for Continuing Education, xxx was found Guilty**, assessed an administrative fine of \$1,000.00 and was further ordered to complete the on-line Intermediate Studies in Engineering Ethics course offered by the National Institute of Engineering Ethics at Texas Tech University and provide proof of successful completion of said course, prior to application for re-licensure in the State of Oklahoma.



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Oklahoma Disciplinary

In the Matter of xxx, PE xxx, Case No. 2013-xxx; Through Final Order; **For failing to provide acceptable proof of attendance for the Professional Development Hours claimed when he renewed his Oklahoma Certificate of Licensure**; therefore, xxx has practiced fraud or deceit when renewing his Certificate of Licensure. xxx was found Guilty, his Certificate of Licensure is hereby Suspended for a period of two (2) years, assessed an administrative fine of \$1,000.00, and ordered to complete the on-line Intermediate Studies in Engineering Ethics course offered by the National Institute of Engineering Ethics at Texas Tech University. At the end of the two year suspension, xxx may apply to the Board for removal of the suspension.



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Texas Disciplinary

Violation: xxx, on behalf of his company, xxx, submitted an engineering proposal letter **using the designation "P.E."** after his name, and including, in his firm's title block, the word "engineering" when xxx **is not nor has he ever been a licensed professional engineer** nor is his firm xxx registered with the Board as an engineering firm.

Section/Rule Violated: Section 1001.004 (c) (2) (A) and (C), and 1001.301 (a), (b), and (c).

Resolution: Cease and Desist, and a \$1,950.00 administrative penalty.



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Texas Disciplinary

Violation: On September 13, 2012, xxx pled guilty and was convicted of **bribery of a public official**, and was incarcerated for 48 months for that offense, a felony. Pursuant to Board Rule 139.43(a), the **Board shall revoke the license of any licensee convicted of a felony and incarcerated** as a result of that conviction.

Section/Rule Violated: 139.43(a).

Resolution: xxx's Texas engineer's license was revoked.



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Texas Disciplinary

Violation: xxx was disciplined by another state in which he held an engineer license. Board Rule 137.65 authorizes the Board to take disciplinary action against a Texas licensed engineer if the **acts in the other state which resulted in a disciplinary action would also violate the Texas Engineering Practice Act or Board rules if done in Texas**. To resolve the Board's disciplinary action against him, xxx agreed to the voluntary revocation of his Texas professional engineer license.

Section/Rule Violated: 137.65.

Resolution: xxx's Texas engineer's license was revoked.

Section/Rule Violated: 137.65.

Resolution: One year probated suspension, a \$1,710.00 administrative penalty, and successful completion of an engineering ethics Level I course.

Section/Rule Violated: 137.65(b).

Resolution: One year probated suspension, a \$650.00 administrative penalty, and successful completion of an engineering ethics Level I course.

Section/Rule Violated: 137.65(b).

Resolution: Formal Reprimand of his Texas engineer license.



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§139.51 License Suspension Based on Delinquent Child Support

Pursuant to Texas Family Code, Chapter 232, on receipt of a final order by the OAG (Office of the Attorney General) regarding delinquent child support, **the board must suspend a professional engineer license until the OAG notifies the Board that the obligor has paid the child support, established a repayment schedule, has been granted an exception as part of a court-supervised plan or successfully contested the denial of licensure.**

An individual can also lose his

- Driver's License
- Hunting License
- Fishing License
- etc.

for non-payment of child support.



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The Cradle of Civilization

Mesopotamia – "The Land Between the Rivers"



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Ethics are the rules that allow society to function

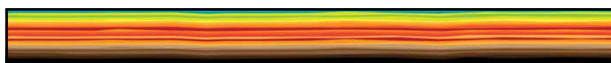
Codes of Behavior have been around for a long time

- 2350 B.C.: Reforms of Urakagina
- 2050 B.C.: Code of Ur-Nammu
- 1925 B.C.: Laws of Eshnunna
- 1860 B.C.: Laws of Lipit-Ishtar
- 1800 B.C.: Sumarian Laws
- 1750 B.C.: **Laws of Hammurabi** (282 "laws")
- 1650 B.C.: Edicts of Ammi-Saduqa
- 1450 B.C.: Hittite Laws
- 1280 B.C.: Ten Commandments (10 + 613)



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The Ten Commandments

Seven duplicated, in principle, the earlier laws and codes.

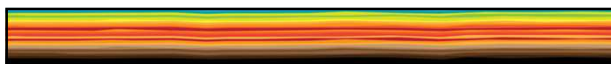
Three were new.

613 ancillary laws were added as case law and explanations of the Big 10.

Confusion and complexity abound!




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Let's make it simple:

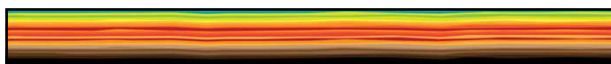
Jesus said there are only two laws.

Hillel (1st century B.C.) got it down to one: "Do not unto your neighbor what you would not have him do until you; this is the whole Law; the rest is commentary."

Steve Jobs (21st century A.D.) demanded simplicity, elegance and functionality.




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One of our objectives this morning will be to see if a single principle (law, code) fits over engineering ethics.

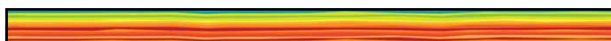
There's No Such Thing as Business Ethics
(There's only one Rule for Making Decisions)
John C. Maxwell

Maxwell says that one ethical principle encompasses all others whether in personal, business, technical, social or... settings. That principle is **The Golden Rule**.

Do unto others as you would have them do unto you.




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There are several versions of this Rule

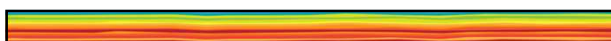
Negative: Don't do anything to others that you wouldn't want to be done to you.

Positive: Treat others as you would have them treat you.

Misunderstood: Do it to someone else before he does it to you.




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There are several versions of this Rule

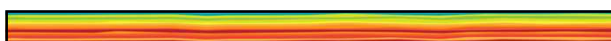
Negative: Don't do anything to others that you wouldn't want to be done to you.

Positive: Treat others as you would have them treat you.

The Principal Principle




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Two Questions to be answered:

1. Who are the "others"?
2. What are you planning to "do"?




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SPE Guide for Professional Conduct

SPE Professionals are to exhibit the **highest standards** of competency, honesty, integrity, and impartiality; and are fair and equitable; and accept a personal responsibility for adherence applicable laws, the **protection of the environment**, and **safeguarding the public welfare** in their professional actions and behavior. These principles govern professional conduct in serving the interests of the public, clients, employers, colleagues, and the profession.



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1. Offer services in the **areas of their competence and experience** affording full disclosure of their qualifications.
2. **Consider the consequences** of their work and societal issues pertinent to it and seek to extend public understanding of those relationships.
3. Are honest, truthful, ethical, and fair in **presenting information and in making public statements** reflecting on colleagues, professional matters and their professional role, whether verbal or through printed or electronic media.



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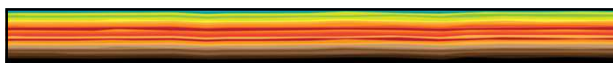
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4. Engage in professional relationships **without bias or prejudice** based on race, religion, gender, age, ethnicity, or national origin, attire, sexual orientation, marital status, socioeconomic status, political affiliation, or disability.
5. Act in professional matters for each employer or client **as faithful agents or trustees** by not disclosing without consent, or taking improper advantage of anything of a proprietary or confidential nature concerning the business affairs or technical processes of any present or former client or employer.



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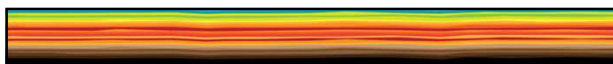


6. Disclose to affected parties known or potential **conflicts of interest** or other circumstances which might influence or appear to influence judgment or impair the fairness or quality of their performance.

7. Are responsible for **enhancing their professional competence** throughout their careers, for promoting others to advance their learning and competence and not falsely obtaining competency credentials through misrepresentation of experience or misconduct.





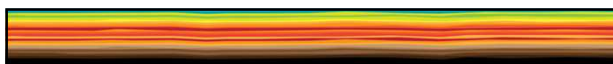


8. **Accept responsibility for their actions**; seek and acknowledge criticism of their work; offer honest and constructive criticism of the work of others; properly credit the contributions of others; and do not accept credit for work that is not theirs own work.

9. When perceiving a consequence of their professional duties to adversely affect the present or future public health and safety shall formally advise their employers or clients, and subordinates and, if warranted, consider further **disclosure** to appropriate parties.







10. Seek to adopt technical and economic measures to render **potentially adverse impacts** to environment or the health, safety, and security of the public as low as reasonably practicable.

11. Act in accordance with **all applicable laws and the canons of ethics** as applicable to the practice of engineering as stated in the laws and regulations governing the practice of engineering in their country, territory, or state, and lend support to others who strive to do likewise.





12. Do not engage to offer or accept **bribes** or facilitate payments, either directly or indirectly, not only in compliance with anti-bribery laws but also in maintenance of high professional and ethical standards.

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Engineering Proposal (suggested by Bill Cobb and modified)

A company sends out a request for proposal to several consultants. The request contains several specific items which must be addressed in the proposal. Your company responds with a detailed plan, adding some new ideas which you think should be addressed in the project.

Is it ethical for you to suggest additional tasks beyond those which were specified?

Yes ☐

No ☐

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Engineering Proposal (continued)

The company likes your ideas and thinks that they should be included in the project. However, your cost estimate, even without the proposed extension, is more than that of the other two consultants who bid the job.

The company considers returning to the other bidders, showing them your proposal and asking them to rebid along the lines of your proposal.

Is the company's plan ethical? Yes ☐

No ☐

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Engineering Proposal (continued)

The company decides that it would be improper to show your proposal to the other consultants because of the confidentiality statement you included in your proposal but decides to rewrite the request for proposal specifying your ideas as requirements and send it out again for response.

Does this approach fit within good ethical practice?

Yes ☐

No ☐

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Engineering Proposal (continued)

As the engineer responsible for responding to the company's second, revised request for proposal, you are aware that the new specifications are developed from a competitor's proposal.

Can you ethically respond to the request, including the new specifications in your new proposal if the company shows you the competitor's proposal?

Yes ☐

No ☐

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Engineering Proposal (continued)

Can you ethically respond to the request, including the new specifications in your new proposal if the company includes the competitor's ideas without mentioning where they came from?

Yes ☐

No ☐

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Avoiding the Ethical Dilemma

For the consultant

- Include a confidentiality statement with your proposal
- Copyright your material

For the company

- Don't steal other's ideas; it's wrong
- If you like the consultant's ideas, open negotiation on fees.

What ideas do you have? (submit them to the discussion forum)

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Public Responsibilities v. Faithful Agent
(from onlineethics.org)

The State Pollution Control Authority advises the Bright Corporation that it has 60 days to apply for a permit to discharge manufacturing wastes into a body of water.

In order to convince the Authority that it will meet the environmental standards, the Bright Corporation employs Persaud, an engineer, to perform consulting engineering services and submit a detailed report. After completing the studies, Persaud concludes that the discharge from the plant will violate environmental standards and that the corrective action will be very costly to Bright. Persaud verbally notifies the company, which terminates its contract with Persaud with full payment for the services performed. It instructs Persaud not to render a written report to the corporation.

A short time later, Persaud learns that the Authority has called a public hearing, where the Bright Corporation will present data to support its claim that the present plant discharge meets minimum standards.

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Public Responsibilities v. Faithful Agent
(continued)

Did the company act ethically in dismissing Persaud and directing him to not prepare a report?

Yes

No

Did the company act ethically in ignoring Persaud's work for their presentation?

Yes

No

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Public Responsibilities v. Faithful Agent
(continued)

Is Persaud obliged to report the violation of environmental standards to the Authority?

Yes ☐
No ☐

Does Persaud have any residual obligation to the Bright Corporation that would stand in the way of doing so?

Yes ☐
No ☐



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For Persaud, this case presents an obvious conflict between two provisions of the SPE code

9. When perceiving a consequence of their professional duties to adversely affect the present or future public health and safety shall formally advise their employers or clients, and subordinates and, if warranted, consider further disclosure to appropriate parties.

5. Act in professional matters for each employer or client as faithful agents or trustees by not disclosing without consent, or taking improper advantage of anything of a proprietary or confidential nature concerning the business affairs or technical processes of any present or former client or employer.



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The statute defines priorities.
From Texas (and probably other states)

§137.55 Engineers Shall Protect the Public
(a) Engineers shall be entrusted to protect the health, safety, property, and welfare of the public in the practice of their profession...

(c) Engineers shall first notify involved parties of any engineering decisions or practices that might endanger the health, safety, property or welfare of the public. When, in an engineer's judgment, any risk to the public remains unresolved, that engineer shall report any fraud, gross negligence, incompetence, misconduct, unethical or illegal conduct to the board or to proper civil or criminal authorities...



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When is it Bribery? (from onlineethics.org)

In an effort to become better known in the engineering community, Marketwise Pipe Manufacturing Company hires Susan, an expert in marketing. Susan suggests that Marketwise offer a complimentary seminar to educate engineers on the current advances in the selection and use of pipe in construction. She suggests that Marketwise extend invitations to several local engineers and that they offer refreshments at the seminar, including a buffet luncheon during the seminar and a cocktail reception immediately following.

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When is it Bribery? (continued)

If you were an executive at Marketwise, how would you respond to Susan's suggestion?

Accept it

Tell her it has ethical problems

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When is it Bribery? (continued)

Suppose that Marketwise takes Susan's suggestion and extends an invitation to Terry, a local engineer who is new to the area. Terry is not sure how to respond to this invitation. Being new to the area, attending such a seminar will give him the opportunity to meet and network with other engineers. Furthermore, learning more about the selection and use of pipes would be helpful to Terry. On the other hand, Terry knows he will be purchasing pipes at some point in the future and wonders if accepting the invitation might later create a conflict of interest. In addition, Terry wonders if accepting the invitation will amount to a bribe.

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When is it Bribery? (continued)

Is this a conflict of interest or an acceptable business practice?

Conflict of interest ☐

Acceptable business practice ☐

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When is it Bribery? (continued)

If Terry accepts the invitation, can he claim the presentation as a continuing education credit?

Yes ☐

No ☐

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Another Dilemma?

7. Are responsible for enhancing their professional competence throughout their careers, for promoting others to advance their learning and competence and not falsely obtaining competency credentials through misrepresentation of experience or misconduct

12. Do not engage to offer or accept bribes or facilitate payments, either directly or indirectly, not only in compliance with anti-bribery laws but also in maintenance of high professional and ethical standards.

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Use of "Engineer" part A (from onlineethics.org)

Alexander is a well-known professional engineer in his community. He decides to run for a political office in his county-- fulfilling what he believes is his obligation to participate in public affairs. He is contemplating using as his slogan the following: "Alexander: Engineering A Better County."

Should Alexander use this slogan in his campaign?

Yes ☐

No ☐



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Use of "Engineer" part B (from onlineethics.org)

Alfred is a sole practitioner in search of a new advertising slogan. He hires Francy, a professional marketing executive, to help him out. Francy suggests that Alfred market himself as "The Everything Engineer" in his promotions. Alfred is concerned. This slogan might imply that he can *do everything*; that is, that he is competent as an engineer in all disciplines, contexts and areas. This might be misleading. Are there limits placed on a practitioner's ability to practice several disciplines in several contexts?

Yes ☐

No ☐



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From the SPE Guide

1. Offer services in the areas of their competence and experience affording full disclosure of their qualifications.
3. Are honest, truthful, ethical, and fair in presenting information and in making public statements reflecting on colleagues, professional matters and their professional role, whether verbal or through printed or electronic media.



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And more advice from the Texas Statute...

§137.71 Firm Names

Pursuant to §1001.405(e), a business entity that is not registered with the board may not represent to the public by way of letters, signs, or symbols as a part of any sign, directory, listing, contract, document, pamphlet, stationery, advertisement, signature, or business name that it is engaged in the practice of engineering by using the terms:

- (1) "engineer,"
- (2) "engineering,"
- (3) "engineering services,"
- (4) "engineering company,"
- (5) "engineering, inc.,"
- (6) "professional engineers,"
- (7) "licensed engineer,"
- (8) "registered engineer,"
- (9) "licensed professional engineer,"
- (10) "registered professional engineer,"
- (11) "engineered," or
- (12) any abbreviation or variation of those terms listed in (1)-(11) above, or directly or indirectly use or cause to be used any of those terms in combination with other words.



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A Request

Will you take a moment to encourage a young engineer to strongly consider professional licensing and support him or her through the process?

Will you encourage him or her to volunteer for and actively participate in SPE activities?

If you have material for a case study, can you share it for possible inclusion in a future ethics presentation?



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And a Challenge

• Get ethically fit!

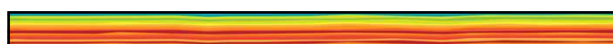
- ✓ Check your decisions against the Golden Rule
- ✓ Get familiar with the SPE Guide to Professional Conduct
- ✓ When in doubt, check out the state statute
- ✓ Take a look at the onlineethics.org website
- ✓ Check out SPE.org under "Training" and click on "Test your Engineering Ethics"



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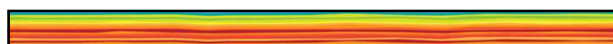
https://www.ok.gov/pels/Continuing_Education/Rules/

<http://www.spe.org/about/docs/professionalconduct.pdf>




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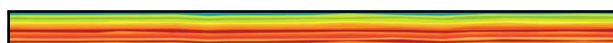


Questions?




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Thanks for participating!




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