

## *My Two Bits*

How much does America trust its licensed engineers? How much do licensing officials trust engineers? The questions may be more intriguing than you'd figure. Let's start with the first.

How much does America trust its licensed engineers? A lot! Licensed engineers need only put their seal and signature on a report or set of plans affecting thousands, even millions of lives and – voila – that's it. That dam, tunnel, bridge, highway, or whatever will get built, just about no questions asked. "How do we know it won't collapse?" John Q. Public might ask. "You see this?" a building official might respond, pointing to a seal and signature. "The seal and signature of a registered, professional engineer." End of discussion.

Now, you know, and I know, that even the best engineers can make mistakes, although seldom the big ones that lead to catastrophic failure. The engineers – while human, of course – are really good to begin with, take pride in their instruments of professional service, and almost always pass their instruments through a rigorous quality assurance system.

And as for the really lousy engineers...well, in reality, the bad engineers generally take on less-visible assignments, where their low-quality deliverables lead to higher costs, delays, and inconvenience, but little more, because those who retain them generally aren't smart enough to have responsibility for a project of any true significance.

The real problem, as I see it, are all the engineers in the middle; the ones who range from good to not that good, but almost always seem willing to compromise the quality of their output and quality assurance to make a small scope and budget "work."

Still and all, from the top to the bottom, from the best engineers to the worst... See that seal and signature? Trust me.

Now, question two: How much do licensing officials trust engineers? To find the answer to that question, walk with me as we enter the world of the weird. On the one hand, these licensing officials – engineers themselves – are the good folks who establish the criteria for becoming a licensed engineer, and those criteria are not easily satisfied. But once they are, those with a P.E. get to apply their seal and signature, which, in the world of construction, are just about almighty. Unless, of course, we're talking about continuing education for professional engineers.

I don't mind at all that continuing education is required; it should be. What I find absurd, however, is that the engineers who can sign and seal reports, plans, and other instruments of professional service – thereby making them sacrosanct – are not trusted to actually have met their continuing education requirements even though they sign, seal, and submit a statement saying they have; e.g., "Last year I earned X-many CEUs or PDHs by attending the educational events, and/or by reading the books, periodicals, and papers, or by doing any number of other things, all listed below." Why aren't they permitted to do that? Why have states developed elaborate mechanisms for spot-checking/auditing the truth of licensed engineers' continuing education claims? Because... because... Well, I guess there's really only one answer: Because whoever is in charge of licensing doesn't trust licensees to be honest about continuing education. But they can be trusted to be honest about their reports, plans, and so on, given that the signature and seal on those instruments mean, in essence, "I am competent to do what I have applied my seal and signature to, and I either did it myself, or I had it done, in whole or in part, by others who worked under my direct supervision." Knowingly or not, people bet their lives on that assumption of honesty; that trust that, in fact, licensed engineers will preserve and protect the public's health, education, and welfare, just the way they're supposed to.. "But," say the regulating engineers to their regulated brethren, "You can't be trusted to vouch for your continuing education. That's why we do the spot-checking. After all, we may catch an offender or two, and the fear of being caught should discourage those of you who are borderline honest from doing something dishonest."

So I have this radical idea: If the regulating peers distrust their practicing peers' integrity so much that the latter cannot be trusted to tell the truth about CEUs and PDHs, even if their reports about them carry a signature and seal, I say that the public should not trust the practitioners to tell the truth about anything they put their signature and seal to, and especially the things that are of genuine consequence. As a member of the public myself, and being given a choice between auditing a licensed engineer's continuing education claims vs. auditing the engineer's professional integrity and competence that gets incorporated into the instruments of professional service that affect my well-being every day, I say – please – do the integrity and competence thing.

Imagine this: There I am driving a busload of kids over a bridge, and this one little boy – John Q. Public's son Jimmy – asks, “Gee, Mr. Bus Driver. How do I know this bridge is safe?”

“Relax, Jimmy,” I respond with an air of smug confidence. “The engineer who designed this bridge was spot-checked last year by the state board of registration.”

“Wow,” says Jimmy, absolutely awe-struck. “And what did they find?”

“That the engineer actually did what he said. He obtained 36 continuing education units in a classroom setting.” And then I add to myself, “Of course, he may have been working on his laptop the whole time, doing goodness knows what.”

Seriously, now, wouldn't it be better to be able to say, “Relax, Jimmy. In our state, the board of registration for professional engineers has a system in place for spot-checking the competence of licensees who develop the reports, plans, and other instruments of professional service that we rely on every day. While it's not a perfect system, it does help weed out some of the folks who are incompetent.”

I submit that either a seal and signature are trusted or not. If they are, then for goodness sake allow those who have them to sign and seal statements that attest to the fact that they

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have done what they are supposed to have done, exactly as they do with their instruments of professional service. And if they can't be trusted to do that, then spot-check licensees for continuing competence and integrity, because that is a heckuva lot more important than continuing education.

Just ask Jimmy.