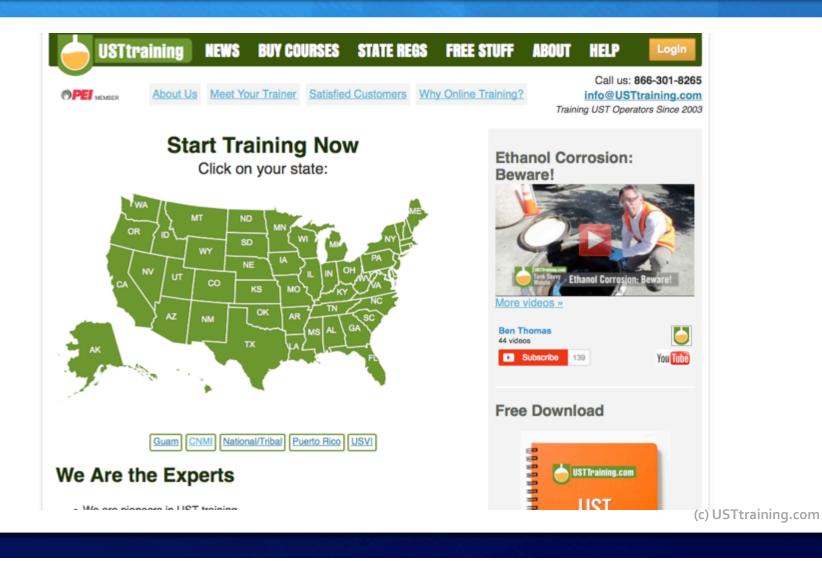


NISTM 2014 New England Storage Tank Conference Worcester, MA Dec. 4, 2014

UST Operator Training, Two + years later

Is it working?

Ben Thomas, USTtraining.com



National Training Perspective

- + Most states required UST training be completed by 8/8/12
 - + NY, NJ, NE, MO, PR are close to rule adoption
- + Lots of variety among states
 - Online/live, free/cost, exam/training, government/ private
- + Measurement of competency standard
- + Retake if out of compliance, a few with mandatory refreshers
- + SOC rates nationally from 25% 92%
- + Assumption: training improves SOC

New England Training Perspective

- + All New England states have training rules in place
- + Regional approaches sharing ICC reciprocity
- + Phased in at different times between 2010-2012
- + Verification process differs
- + Refresher requirements differ
- + Most states cannot verify exact compliance rates yet

Training Rules: How and How Long

State	Most Common Option	Since

+ CT State ICC exam	Spring 2012
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+ MA Online state training/exam 2011

+ ME Online TankSmart Late 2009

+ NH Free live state classes Early 2011

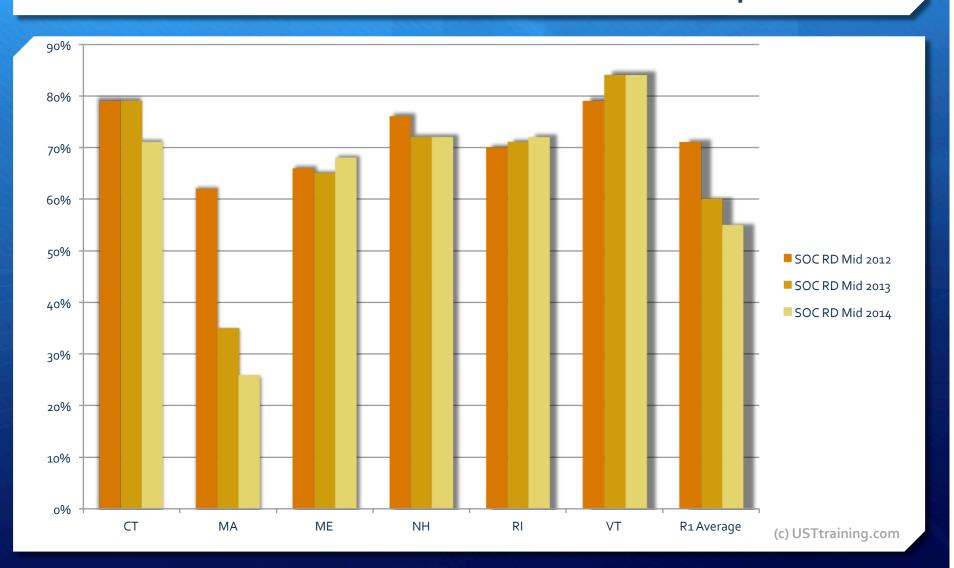
+ RI State ICC exam Spring 2011

+ VT State ICC exam 2010

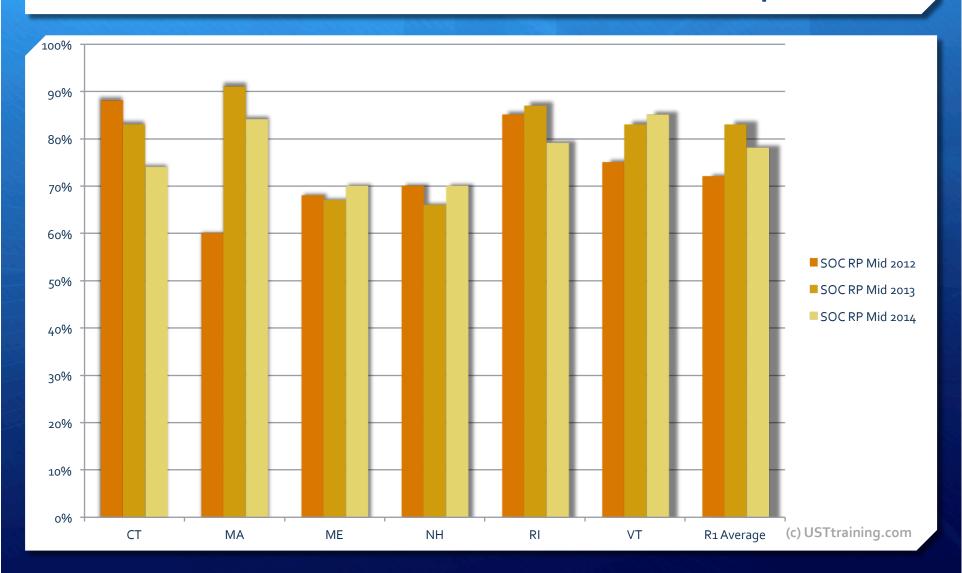
EPA Tracks UST Compliance

- + SOC = Significant operational compliance, values tracked since 1988
- + Three values
 - + Release Detection
 - + Release Prevention (spill/overfill/CP) and
 - + both
- + Basically means how likely are you, percentage wise 1-100%, to be in compliance with during an inspection with "mission critical" items?
- + Assumption is that SOC numbers should go up in all three categories due to operator training (c) USTtraining.com

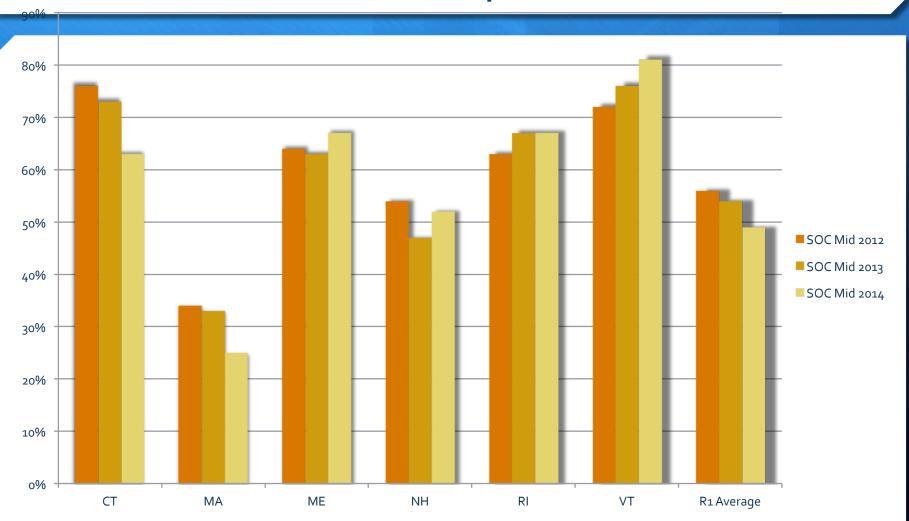
Release Detection SOC 2012-14



Release Prevention SOC 2012-14



Total SOC 2012-2014



(c) USTtraining.com

SOC as a measure of training success?

+ CT Down 13%

+ MA Down 9%

+ ME Up 3%

+ NH Down 2%

+ RI Up 4%

+ VT Up 9%

+ Average Down 7%

SOC RD + RP up only 0.6% between 2012-2014 Nationwide

Possible explanations?

- Enforcement posture changed (got tougher or weaker)
- SOC reporting or definitions changed
- Increase or decrease of inspections numbers or quality
- Length of time training rules in effect/available

- + Quality of training
- Actionability or inspiration of training
- Variety or limitations of training options
- Monthly inspections to reinforce training

Training Options Examined

- + ICC Exam
- + Live Classes
- + State Online Training and Exams
- + Other US options



ICC Exam

Pros

- + Standardized testing
- Third party/proctor controls
- + Hard to cheat on test
- Developed by SMEs
- Trackability of scores and users

Cons

- + Not necessarily state specific
- + Not facility specific
- + Accessibility
- + Can't ask questions
- + Not training, only assessment
- + Assumes operator will selftrain

(c) USTtraining.com

Live Classes

Pros

- + Personal face to face
- + Trainer knows if someone's "not getting it"
- + Easy to ask questions
- + Can be site specific
- + FREE in NH

Cons

- Travel and planning logistics
- + Free state training discourages third party vendors
- Harder to provide with turnover

State Online Class and Exam

Pros

- + Standardized testing
- Third party/proctor controls
- + Trackability of scores and users
- + Easy to update

Cons

- + Not facility-specific
- + Can't ask questions
- Need to have X amount of tech savvyness to use

Other US options

FREE ONLINE

- Kentucky, Idaho,
 Montana all offer online
 self-paced training
 customized to UST site
- + Indiana, South Dakota,
 Tennessee offer free
 online training but
 generic

PRIVATE VENDOR

- Oregon requires third party vendor training since 2003, all live classes
- + Colorado recently allowed self-paced online courses with phone interview at exit
- + Guam and CNMI paid for live training for all operators plus requires refresher every two years.com

What could be done differently?

States

- Be consistent with enforcement and inspections
- Be consistent with interpretations and definitions of SOC
- Evaluate effectiveness of established training options

States

- Determine effective of weekly/monthly inspections
- + Better verification of Class C training

What could be done differently?

Operators

- + Find weak spots in company's SOPs and get supplemental training
- + Train backups
- Scale Class C solution to high turnover
- + Keep better records

What about Class C operators?

- Can be trained by certified Class A/B operator or take third party course
- No New England state approves third-party vendors
- + How do states verify Class C compliance?



What operator training does not necessarily require

- + Facility specific training
- + State specific training
- + Identify and assigning roles and responsibilities
- + Identifying hazards and impacts
- + Trouble shooting and common problems
- + How UST equipment works
- + Daily/monthly inspections to reinforce (PEI RP 500/900)

Summary

- Overall New England SOC numbers dropped after training rules adopted
- Hard to compare states because of fluctuating state implementations
- + 3 states test only, 3 states train and test
- + Reciprocity doesn't help state specific rules
- + Monthly inspections may be helping reinforce info
- + Not all training is created equal

Ben's Forecast

- + States will see SOC improvement over 3-5 years
- + But proposed EPA rules, when adopted, will drive SOC numbers down again
- + Reciprocity will likely sunset
- + States will eventually enforce Class C better
- + States that analyze results of training will make regulatory improvements
- + States with best enforcement of operator training rules will get better SOC numbers

Four Types of Learners

They know they don't know

Student is aware that knowledge is lacking.

"I have an ATG but I don't know what it does"

They know they know

Student knows they know the material.

"How often do I look for leaks? My ATG has CSLD so I test all the time."

They don't know they know

Student is unaware they already know something.

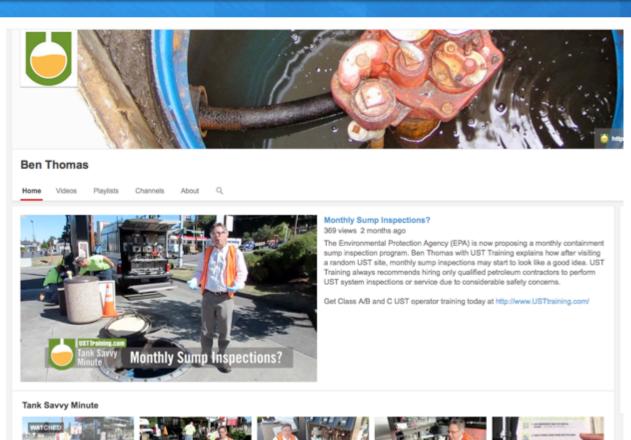
"You mean that 0.2 gph test means my tank is tight? I guess I knew that."

They don't know they don't know

Student is unaware that knowledge is lacking "Why do I need a tank gauge? If there was a leak it's show up in my inventory!"

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