Presentation Title: "Code Enforcement: Using Technology to Compliment the Inspection Process"

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I. Formative Evaluation – Planning

Our evaluation was based on having numerous fire systems with inspection, testing, and maintenance (ITM) issues and no solid tracking or follow up process regarding ITM _post_ initial acceptance & functional testing. We lacked method(s) of immediacy to address ITM deficiencies & impairments, and needed to reduce nuisance fire alarms. A change in our Fire Code enforcement approach was needed. The following goals were established:

- ➢ Educate ourselves to available custom technology options for ITM tracking solutions
- ➢ Create analytic baseline for ITM compliance *(1-3 years)* & reduce nuisance alarms by 10%+
- ➢ Decrease staff time on ITM issues *(focus on deficiencies/impairments of systems)*
- ➢ Utilize proactive notification approach *(compliance without citation)*
- ➢ Prepare ITM solution via legislation *(mindful of costs & user friendly)*

II. Process Evaluation – Implementation

ITM issues needed to be brought to the forefront of our enforcement. Any strategy implemented needed to be cost effective, simple to implement/integrate/ manage, business friendly, and sustainable. Prior to implementation, it was imperative to educate many to our goals and listen to all regarding concerns. Implementation strategy approaches were based on:

- ➢ Educate/advocate city leaders
- ➢ Introduce and solicit feedback from contractors
- ➢ Host educational summit for all contractors *(delivery by FM & ITM vendor rep)*
- ➢ Establish requirement via legislation *(establish firm timeline to implement)*
- ➢ Go live - monitor progress & behavior, customer service & re-evaluate frequently

III. Impact Evaluation – Short Term Results

Behavioral changes from building owners, contractors and our staff have been positive. Stakeholders are engaged & educated to drive life safety via required ITM. Since educating and tracking automated renewal, overdue & deficiency notifications through the ITM solutions vendor, ITM compliance has changed from reactive to proactive. The ITM vendor's platform is easy to use, cost effective, consistent, & fair. This is measured by the number of contractors registered, volume of reports, & feedback provided to improve ITM outcomes/exposures. OFM staff likes the integration of a technological solution for ease, access and timeliness. This compliments their efforts and critical thinking skills. They're better with time management, have an increased knowledge base, are more confident and have developed an expertise regarding ITM issues. Our analysis eight months into the implementation:

- ➢ Implementation completed – some contractors were slow to register/use
- ➢ Contractors positive feedback *(ease of use, service calls up, owners more cooperative)*
- ➢ Deficiencies & IMPAIRMENTS corrected sooner w/o OFM action = less re-inspections
- ➢ Nuisance alarms reduced

➢ OFM staff more involved with ITM issues, better enforcers & more efficient
➢ Stakeholders education on value of ITM improved
➢ ITM vendor is customer service focused and accommodating

IV. Outcome Evaluation – Long Term Results

We are now much stronger in tracking ITM annually than ever before. OFM staff knows before they inspect if systems function properly, affording us the ability to refocus efforts on more risky locations and issues. We believe that this is the future of enforcement; one that is logical, measurable and sustainable.

➢ The analytics indicate 25.2% systems deficient & 74.8% are compliant.
➢ Low cost/big results – OFM staff monitor ITM (property may/may not have been inspected)
➢ All data submitted is controlled by OFM
➢ Ease of use – contractor comments very favorable
➢ Reduced nuisance alarms by 10%+ (Nuisance alarm 2011: 1,212 / 2012: 1,033 / 2013: 937)
➢ Automated notice issuance very proactive in addressing ITM deficiencies
➢ Timely notification regarding ITM impairments – immediate code action taken
➢ 24/7 access for OFM staff and elimination of paper submitted reports
➢ On-going evaluation - baseline for fire protection systems ITM compliance 1-3 years
➢ Future survey to contractors: May 2014 (full year of implementation) for feedback & input
➢ Reduction in administrative cost and time for OFM

Recommendations for others:

Budgetary constraints greatly impact time and resources for all departments. Understanding the need to verify code compliance regarding fire protection systems is paramount to fire & life safety. Ask yourselves:

➢ Are time/resources an issue for your department or division?
➢ Do you have current data on life safety systems? Are systems compliant/deficient/impaired?
➢ Is access to ITM data immediate and easy or lost in volumes of non-current paper reports?
➢ Is your staff efficient? Can eliminating paper work streamline their enforcement efforts?
➢ Do you have nuisance alarm issues? Is your community educated to ITM issues?
➢ Do contractors, owners, & staff understand deficiencies versus impairments?

Conclusions:

Our experience with our ITM solutions vendor has been very positive. Frankly, we regret not moving in this direction years earlier. Clearly, given code requirements for ITM and the dangers associated with systems that lack compliance or plain fail, a current, relevant, and sound ITM technology solution should be established. Our mantra is drawn from fire service history in commercial occupancies; system and egress failures injure or kill. Below are a few recommendations:

➢ Implement a mandatory ITM compliance solution via legislation
➢ Understand your nuisance alarms statistics & investigate relevant reduction solutions
➢ Partner with an ITM vendor that is innovative, cost & user friendly, provides data migration, strong administrative services and solid customer service
➢ Work collaboratively with contractors via workshops, webinars and meetings
➢ Include these requirements as part of your amended fire prevention code
➢ Focus on tools, strategies, and techniques that save lives & reduce economic damages from fire