

JANUARY 19, 2016

# LOS ANGELES FIRE DEPARTMENT



RALPH M. TERRAZAS  
FIRE CHIEF

December 21, 2015

BOARD OF FIRE COMMISSIONERS  
FILE NO. 16-005

TO: Board of Fire Commissioners

FROM:  Ralph M. Terrazas, Fire Chief

SUBJECT: BRYCER UPDATE

FINAL ACTION:	<input type="checkbox"/> Approved	<input type="checkbox"/> Approved w/Corrections	<input type="checkbox"/> Withdrawn
	<input type="checkbox"/> Denied	<input type="checkbox"/> Received & Filed	<input type="checkbox"/> Other

## SUMMARY

Fire protection systems are the first line of defense against the ravages of fire in any building. Without working systems, the building and its occupants are subject to an increased risk of danger. Additionally, poorly maintained fire alarms create false alarm issues and tax the Fire Department's emergency resources. The Fire Department is responsible for overseeing the compliance on approximately 100,000 systems within a jurisdiction that encompass an area of 470 square miles.

The Fire Department partnered with Brycer LLC to implement the proprietary software and service solution – The Compliance Engine (TCE). The TCE program was started on February 1, 2015, and is ongoing. The initial start comprised the City's high-rise buildings and expanded to all City buildings as of July 2015.

## RECOMMENDATION

That the Board:  
Receive and file.

## FISCAL IMPACT

The program is fully funded by the companies who perform the certification testing of the life/safety systems as the contractors are paid to perform the test by the building owner. To this date, approximately 250 companies participate in the program that employs 500 licensed testers.



The TCE process operates at no cost to the City or the Fire Department and has resulted in the following benefits to the City and the Fire Department:

1. Reduced the number of past due fire protection systems within our 700+ high-rise buildings by 35%.
2. Reduced test report administrative time by 85% - saving the Fire Department 4,860 hours work.
3. Located 737 buildings and 947 systems not in our original database.
4. Identified 4,899 deficient systems that have been repaired or are in the process of repair.
5. Assisted with the implementation of a false alarm study to compare data from TCE with data from the National Fire Incident Report System (NFIRS) to reduce the overall false alarm numbers.
6. Geocoded properties –allowing for analytic analysis and priority status based on risk assessment.
7. Reduced the total number of past due system tests by 25% citywide.

## **DISCUSSION**

Most fire protection systems are required to be tested on an annual basis by a licensed and qualified technician. Within the City of Los Angeles, a team of 500 technicians are responsible for the testing of all systems. A test result document is required to be filled out by the tester during the system test to identify any failures found in the system during the test. Statistically, one or more deficiencies are found on 40% of all initial tests of systems. The Fire Department requires that these systems are repaired within 30 days, and follow-up documentation is submitted to close out the record. Test documents can be as many as 20 pages long and previously flowed into the Fire Department by email and mail to inboxes and fire stations across the City. This resulted in a time-consuming and impossible follow-up process for staff. The Fire Department did not have a central database to track this information and resources to ensure the system and building compliance. With TCE, this process has now been streamlined.

### **TCE Overview:**

TCE is a simple, Internet-based tool for the Fire Prevention and Public Safety Bureau (FPB) to track and drive code compliance, reduce false alarm activity, and provide a safer community. It provides a secure cloud environment in which the contractors that inspect, test, and maintain fire protections systems can submit their reports via the proprietary web portal direct to the code official, facilitating a more efficient review, tracking, and follow-up process with occupants to correct deficiencies and maintain systems.



Brycer LLC also provides a proactive service, in addition to the web-based technology, which includes hard and soft copy notifications to help increase testing and maintenance activity. The result is a comprehensive and accurate aggregation of data around which buildings have what types of systems, when they were last tested, and if there are any open deficiencies that could jeopardize their successful deployment in the event of an incident. With TCE, the FPB is better equipped and more efficient in its mission to drive 100% code compliance with fire/life safety laws.

The goal of the project:

1. Properly identify all fire protection systems.
2. Ensure that all systems are properly tested and maintained.
3. Reduce false alarms.
4. Reduce time spent administering test reports.
5. Community Risk Reduction.

The initial data collected to implement TCE was obtained from the FPB inspection data program, Fire Prevention Application (FPA). This data indicated that 62% of the fire protections systems associated with these 700+ buildings were non-compliant with testing. The FPB established a data clean-up program which resulted in a non-compliance decrease to 59.1%. Through the implementation of this program and the dedicated work of the members, FPB data currently indicates non-compliance percentage of 29% for high-rise buildings in the City. That is a fire/life safety system compliance improvement of 30%. FPB's goal for the program is to continue to increase the compliance percentage another 19% in the next 7 months.

False Alarms:

The FPB is currently conducting a pilot program which will assist with identification of the relationship between false (unwanted) alarms and fire alarms which are non-compliant with system testing and certification. Battalion Chief Andrew Wordin is managing this project and looks to have substantial data in the near future.

## **CONCLUSION**

Nationally, more than 40% of all fire protection systems (fire alarms, sprinkler system, fire pumps, etc.) go without the required inspection, testing, and maintenance required to keep them working properly – putting the life-safety for all at risk. The City of Los Angeles is on par with National statistics. However, with TCE, FPB has seen a vast data management improvement in its monitoring of these fire protection systems.



With our success, Atlanta, San Francisco, and Chicago have all contacted the Fire Department to provide them guidance on implementation. The City of Long Beach recently implemented TCE after seeing our improvements. With Mayor Garcetti adopting the Fire Prevention Bureau as an Innovation Center, we are well on our way to optimizing our work force to a mobile, cloud-based platform.

Board report prepared by John N. Vidovich, Deputy Chief, Bureau of Fire Prevention and Public Safety.