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Audit Report

AUDIT OF DEPARTMENT OF DALLAS FIRE-RESCUE

FIRE INSPECTIONS

(Report No. A12-005)

February 10, 2012

City Auditor

Craig D. Kinton

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Executive Summary

The Department of Dallas Fire-Rescue (DFR) Policies and Procedures and inspection forms that specify compliance requirements for the Dallas Fire Code, International Fire Code with Local Amendments, National Fire Protection Association Standards, and the Dallas Building Code with Local Amendments (Fire Regulations) are not complete or consistent. As a result, the risk of DFR noncompliance with Fire Regulations is not fully mitigated.

The DFR cannot ensure that all buildings and locations that should receive Fire Inspections (Inspections) are inspected and that these Inspections are performed timely. In addition, DFR cannot ensure that all permits associated with certain Inspections are issued and/or issued timely. (Note: Not all Inspections require or result in a permit). As a result, fire risks within the City of Dallas (City) may not be identified and timely corrected, and the City may lose Inspection permit revenue.

**Inspection and Life Safety
Education Division
Inspection Responsibilities for
Occupancies**

- Assembly
- Business
- Educational
- Hazardous
- Institutional
- Residential (Multi-family)

Source: DFR Policies and Procedures

We recommend the Fire Chief ensure that DFR Policies and Procedures and inspection forms are up-to-date and completely and consistently aligned. Specifically:

- The DFR Policies and Procedures should be reviewed annually to reflect the most current Fire Regulations
- The DFR inspection forms should include:
 - The most current Fire Regulations source citations
 - The most current revision date

We also recommend the Fire Chief in coordination with the Interim Director of the Department of Communication and Information Services (CIS):

- Evaluate whether all four computer systems (Customer Request Management System, Firebase System, POSSE Work Management System, and the Pay1 Billing System) are required or whether the Inspection process and/or data could be streamlined

In addition, we recommend the Fire Chief:

- Implement a process to periodically verify that the physical addresses in Firebase are up-to-date
- Implement a formal process to monthly reconcile the data included in the computer systems used in the Inspection process to ensure that Inspections that occurred are documented, permits are processed correctly, appropriate fees are collected, and that these fees are applied to the appropriate accounts.

The objective of the audit was to verify compliance with regulations for fire inspections. The audit period covered Fiscal Year (FY) 2009 through FY 2011; however, certain other matters, procedures, or transactions occurring outside that period may have been reviewed to understand and verify information related to the audit period.

Management's response to this report is included as Appendix V.

Audit Results

Overall Conclusions

The Department of Dallas Fire-Rescue (DFR) Policies and Procedures and inspection forms that specify compliance requirements for the Dallas Fire Code, International Fire Code with Local Amendments, National Fire Protection Association Standards, and Dallas Building Code with Local Amendments (Fire Regulations) are not complete or consistent. The DFR cannot ensure that all buildings and locations that should receive Fire Inspections (Inspections) are inspected and that these Inspections are performed timely. In addition, DFR cannot ensure that all permits associated with certain Inspections are issued or issued timely.

Policies and Procedures and Inspection Forms Are Not Complete and Do Not Consistently Align with Fire Code Regulations

The DFR Policies and Procedures and inspection forms that specify compliance requirements with Fire Regulations are not complete or consistent. As a result, the risk of DFR's noncompliance with Fire Regulations is not fully mitigated and it is not clear whether the DFR Policies and Procedures or the inspection forms are aligned with the most current Fire Regulations or with each other. Specifically:

- The DFR Policies and Procedures were last updated on November 16, 2009 and were based upon the 2006 International Fire Code. (Note: The latest version of the International Fire Code is 2012; however, the City of Dallas [City] has not yet adopted the 2009 International Fire Code).
- Inspection forms:
 - Do not indicate the most current revision date
 - Do not include Fire Regulations source citations

Audit tests comparing forms, identified by DFR as used in the inspection process to comply with Fire Regulations, to the forms included in the DFR Policies and Procedures Manual (Manual) showed the following:

- Five forms identified by DFR did not have a corresponding policy and procedure in the Manual (see Appendix II)
- An additional five forms were not included in the Manual (see Appendix II)

- Twenty-six forms were identified by DFR as “Not Applicable”; however, eight of the 26 forms are still in the Manual

Fire Regulations specify requirements for fire inspections. The DFR Policies and Procedures and inspection forms must be up-to-date and completely and consistently aligned to ensure that the City complies with Fire Regulations. In addition, DFR Standard Operating Procedures for the Inspection and Life Safety Education Division state that the Manual will be reviewed and updated on an annual basis.

Recommendation I

We recommend the Fire Chief ensure that DFR Policies and Procedures and inspection forms are up-to-date, complete, and consistently aligned. Specifically:

- The DFR Policies and Procedures should be reviewed annually to reflect the most current Fire Regulations
- The DFR inspection forms should include:
 - The most current Fire Regulations source citations
 - The most current revision date

Please see Appendix V for management’s response to the recommendation.

Fire Inspections May Not Be Complete or Timely

The DFR cannot ensure that all buildings and locations that should receive Fire Inspections (Inspections) are inspected and that these Inspections are performed timely. In addition, DFR cannot ensure that all permits associated with certain Inspections are issued and/or issued timely. (Note: Not all Inspections require or result in a permit). As a result, fire risks within the City may not be identified and timely corrected, and the City may lose Inspection permit revenue.

There are several issues that prevent DFR from managing the Inspection process (building/location identification, Inspection, permitting, and fee collection) more effectively. Specifically:

Computer Systems Used in Fire Inspection Process

Firestore – A computer records management database that lists the physical addresses of all commercial and multi-tenant locations

POSSE – A work management system used to issue permits and Certificates of Occupancy.

Customer Request Management System (CRMS) – A database the City established to maintain fire code complaints and service requests

PAY1 – A component of the SAP system that is used to process the Department of Dallas Water Utilities' bills and payments as well as the DFR's inspection and permit payments.

Source: City of Dallas DFR

- The database, Firestore, which DFR uses to track physical addresses, may not be complete. Firestore was created in Fiscal Year (FY) 2007 based upon Dallas County Appraisal District (DCAD) information and input from DFR employees assigned to Fire stations. Firestore is updated when DFR receives notification of new construction; however, DFR does not have a periodic process to compare the Firestore information to DCAD or other available databases. As a result, DFR cannot ensure that Firestore contains a complete population of all buildings and locations requiring Inspections.
- The DFR uses four separate computer systems in the Inspection process (see textbox above). Because these computer systems are not integrated and DFR does not have a formal reconciliation process that reconciles permit applications to payment receipt data in the Pay1 System, data integrity issues exist among the systems. For example, from October 2010 through July 2011 the Fire Permits Issued Report generated from the Pay1 System shows a total of 3,430 permits issued. A Pay1 System query for the same timeframe shows 3,478 permits were issued; however, the DFR Monthly Activity Report shows 3,221 permits. (Note: The Daily Inspection Sheets are the source documents for the DFR Monthly Activity Report and the Pay1 System). These data integrity issues occur because Inspection information is manually entered by DFR (Inspectors and Office

- personnel) and by Special Collections personnel into multiple computer systems.
- The only identifying data field common to all four systems is the location address; however, because the physical address is not restricted as to form, i.e., the information is manually input, the information is subject to input errors, and the physical address field cannot be matched between the four computer systems. As a result, DFR cannot extract data from these systems and compare Inspection information among the systems to ensure the data is accurate and complete.
 - Some locations requiring an Inspection do not have permanent addresses, such as a tent or special event occupancies that are transitory in nature. There is little DFR can do to ensure all such locations are identified and inspected because DFR must generally rely upon the owner/sponsor to notify DFR that an inspection is needed.

Recommendation II

We recommend the Fire Chief in coordination with the Interim Director of the Department of Communication and Information Services (CIS):

- Evaluate whether all four computer systems (CRMS, Firebase, POSSE, and Pay1) are required or whether the Inspection process and/or data could be streamlined

We also recommend the Fire Chief:

- Implement a process to periodically verify that the physical addresses in Firebase are up-to-date
- Implement a formal process to monthly reconcile the data included in the computer systems used in the Inspection process to ensure that Inspections that occurred are documented, permits are processed correctly, appropriate fees collected, and that these fees are applied to the appropriate accounts

Please see Appendix V for management's response to the recommendation.

Appendix I

Background, Objective, Scope and Methodology

Background

Inspection and Life Safety Education Division

The Department of Dallas Fire-Rescue's (DFR) Inspection and Life Safety Education Division (Division), currently contains the Fire Marshal responsibilities of Codes, Inspections, Injury Prevention and Education, as well as Fire and Alarm Investigation, Explosive Ordinance, and Internal Affairs.

The Division provides services to reduce the occurrence of fire and fire deaths or injuries through municipal code development and enforcement and public fire safety and injury prevention education. This Division provides fire watch staffing for the protection of the public in the event of malfunctioning fire alarm and sprinkler systems. In addition, the Division coordinates a free smoke alarm and installation program.

The Division is charged with inspecting all of the businesses in the City of Dallas (City). This responsibility includes all educational, retail, office, assembly, multi-family residential, manufacturing, industrial, healthcare, and other institutional occupancies in both high-rise and low-rise buildings. Additional responsibilities include inspecting locations where hazardous materials are used, stored, or sold which are of particular concern due to the potential loss of life and property in the event of a fire.

Regulatory Requirements

Dallas Fire Code

Chapter 16, "Dallas Fire Code" of the City Code, as amended, is composed of the most recently adopted editions of the International Fire Code Institute, as adopted and amended by the Dallas City Council. Dallas City Code Chapter 16 - 2007 Dallas Fire Code Sections 103 and 104 empower the Fire Prevention Division to implement, administer and enforce the provisions of the fire code.

2006 International Fire Code

The International Fire Code establishes minimum regulations for fire prevention and fire protection systems using prescriptive and performance-related

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provisions. This code is founded on principles intended to establish provisions consistent with the scope of a fire code that adequately protects public health, safety, and welfare; provisions that do not unnecessarily increase construction costs; provisions that do not restrict the use of new materials, products or methods of construction; and, provisions that do not give preferential treatment to particular types or classes of materials, products, or methods of construction.

National Fire Protection Association

The mission of the international nonprofit National Fire Protection Association (NFPA), established in 1896, is to reduce the worldwide burden of fire and other hazards on the quality of life by providing and advocating consensus codes and standards, research, training, and education.

Building Inspection Office

The Building Inspection Office improves the quality of life for Dallas citizens by ensuring compliance with established construction standards and by enforcing City codes.

Automated Systems

The DFR uses the following four computer systems in the inspection and associated revenue collection process:

Customer Request Management System

The Customer Request Management System (CRMS) is a database the City established to maintain fire code complaints and service requests. Complaints and service requests are entered into CRMS through the City's 311 System, the DFR Officer on Duty (OD), or by other City departments, such as Building Inspection Engineering. Division inspectors use CRMS to create and track the status of service requests and to generate service request numbers for all activities, such as fire watch staffing and Inspections conducted within the Division.

Firebase System

The Firebase System is a computer records management database that lists all commercial and multi-tenant locations. Firebase is used by the Emergency Response Bureau (ERB) and the Division. The Division uses Firebase as a management tool to determine what has been inspected, what needs to be inspected, and who is responsible for the inspection. Using Firebase, the ERB and the Division can determine the workload for any given station, shift, inspection entity, or inspection category.

POSSE Work Management System

The POSSE Work Management System is a modifiable, off-the-shelf software solution implemented and maintained by the Department of Sustainable Development's Building Inspection Section. The Division's inspectors assigned to New Construction use POSSE to record Inspections and acceptance tests of life safety systems. Master permits cannot be finalized and Certificates of Occupancy (CO) issued for new buildings or additions unless the fire inspector has green-tagged the life safety permits. Division inspectors can access the system and search for permits issued and existing COs (both temporary and permanent).

PAY 1 Billing System

PAY1 is a component of the SAP system that is used to process the Department of Dallas Water Utilities' bills and payments, as well as DFR's revenues and the revenues of other City departments. The Division's revenues that are processed in PAY1 include Fire Permits, Re-inspection Fees, Fire Watch Fees, Overtime Reimbursements for New Construction, Special Events and Tradeshows, Plan Review Fees, Fire Code Sales, Open Records Fees, and High Risk Registration and Inspection Program Fees.

Inspection Permits

Applications for Inspection permits are completed and submitted to either the DFR Inspectors or Special Collections personnel for processing and entry into the applicable computer information systems. Permit payments can be: (1) paid in cash at DFR's Main Office located at 1551 Baylor Street; (2) collected by the DFR Inspector at the time of inspection if paid by check or money order; (3) mailed to the address on the receipt issued by the DFR Inspector; or, (4) paid online via the City's E-Pay (PAY1) system. There is no fee for routine inspections or the first re-inspection. Once payments are processed into the PAY1 system, a permit can be issued. Permits are printed from the PAY1 system and generally e-mailed to the applicant.

Objective, Scope and Methodology

The objective of the audit was to verify compliance with regulations for fire inspections. The audit period covered Fiscal Year (FY) 2009 through FY 2011; however, certain other matters, procedures, or transactions occurring outside that period may have been reviewed to understand and verify information related to the audit period.

This audit was conducted under authority of the City Charter, Chapter IX, Section 3 and in accordance with the Fiscal Year 2011 Audit Plan approved by the City Council. This performance audit was conducted in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective.

To achieve the audit objective, we performed the following procedures:

- Reviewed current DFR forms as identified by DFR personnel and used to perform Inspections and other associated tasks
- Interviewed DFR personnel who are knowledgeable of the Uniform Fire Code regulations (Fire Code), DFR policies and procedures, processes, and forms
- Reviewed relevant Fire Code associated within each DFR form as identified by DFR personnel
- Reviewed the policies and procedures associated with each DFR form as provided by DFR personnel
- Reviewed the processes associated with DFR forms through the inspection cycle
- Compared DFR forms used in the inspection process to the Fire Code
- Obtained and compared inspection related data from the four computer systems to each other and to external data sources; also compared the data to determine that permits resulting from Inspections were issued and the associated amounts were collected

Appendix II

Additional Forms Utilized Within the Inspection Process

	Procedure(s) / Inspection Forms	Omitted or Out-of-Date in the DFR Manual of Procedures (MOP)
1	High Risk Building or Occupancy Registration	Procedure Omitted
2	High Risk Registration and Inspection Program Invoice	Procedure Omitted
3	Pressure Reducing Valve	Procedure Omitted
4	Smoke Control System Inspection and Test Report	Procedure Omitted
5	New Construction Inspection Report Mobile Fueling	Procedure Omitted
1	Inspection Form Letter	Form Omitted
2	Overtime Reimbursement Form	Form Omitted
3	Re-inspection Form Letter	Form Omitted
4	Re-inspection / Permit Fee Receipt	Form Omitted
5	Standpipe Flow Test Report	Form Omitted

Appendix III

Occupancy Inspection Schedule

Immediate:

- Complaints

As Needed:

- New Construction (fire alarm and systems testing)
- General Requests / Smoke Detectors / Education Programs
- Special Events
- Trade Shows

Annual:

- High-Rise Building
- Boarding Home / Group Facilities
- State Licensed Facilities
- Hospitals
- Nursing Homes
- Public Assembly
- Hotels / Motels
- Schools
- Permitted Occupancies
- Hazard / Materials Occupancies
- Airports
- Malls (core annually and special systems)

Two Year Cycle:

- Apartments / Condominiums (low-rise) – core and public areas (ten percent of apartments unless a problem, then 90 to 100 percent)
- Warehouses
- Manufacturing

Three Year Cycle:

- General Business
- Low-Rise Building
- Strip Shopping Centers
- Malls – tenant spaces
- Emergency Operations Survey Inspection Responsibilities

Appendix IV

Major Contributors to This Report

Carol Smith, CPA, CIA, CFE, Audit Manager
Gale McFall, Project Manager
Kevin Hannigan, CIA, Auditor
Theresa Hampden, CPA, Quality Control Manager

Management's Response

Memorandum

RECEIVED

JAN 30 2012

City Auditor's Office



DATE: January 30, 2012

TO: Craig D. Kinton, City Auditor

SUBJECT: Response to Audit Report:
Audit of Department of Dallas Fire-Rescue Fire Inspections

Our responses to the audit report recommendations are as follows:

Recommendation I:

We recommend the Fire Chief ensure that DFR Policies and Procedures and inspection forms are up-to-date, complete, and consistently aligned. Specifically:

- The DFR Policies and Procedures should be reviewed annually to reflect the most current Fire Regulations
- The DFR inspection forms should include:
 - The most current Fire Regulations source citations
 - The most current revision date

Management Response / Corrective Action Plan

Agree Disagree

Historically, the Fire Inspection procedures and policies have been updated on an "as needed" basis with a thorough review occurring in conjunction with the adoption of a new Dallas Fire Code. Usually a new code is adopted every 3 to six years. The last fire code adoption occurred in 2007. Although the City did not adopt the 2009 version of the International Fire Code and Building Code series, an internal review of the Fire Inspection policies and procedures was conducted in 2009 to update existing procedures and to modify the format. The audit found five forms did not have a corresponding policy and procedures and five forms were not included in the Manual. Other forms that are informational only were included in the Manual. Corrections to this finding have been initiated and will be completed by March 15, 2012.

To ensure a consistent review and updating process of policies and procedures, the Division will begin conducting an annual review of policies and procedures to ensure the forms being used and the policies being enforced are consistent and aligned with the Fire

Code requirements. Additionally, fire code citations will be added to all inspection forms which are used for enforcement purposes to indicate the specific fire code section for the violation being cited and a revision date will be added to all forms. The Division is currently reviewing the 2012 International Fire Code in conjunction with the Regional Code Review Committee established by the North Texas Regional Council of Governments. The regional code review is expected to be completed by October, 2012. It is expected proposed fire code adoption will be briefed to the Public Safety Committee in early 2013 and then the ordinance change will be submitted to the Council for adoption. Prior to the effective date of the new Fire Code, all policies and procedures will be reviewed and updated to align with the new code, forms will be updated and a revision date noted, and fire code citations will be added to those forms used for enforcement purposes.

Implementation Date

The corrections to the current Manual of Procedures will be completed by March 15, 2012.

The remainder of the implementation will be complete by April, 2013.

Responsible Manager

Debra Carlin, Assistant Chief/Fire Marshal

Recommendation II:

We recommend the Fire Chief in coordination with the Interim Director of the Department of Communication and Information Services (CIS):

- Evaluate whether all four computer systems (CRMS, Firebase, POSSE, and Pay1) are required or whether the Inspection process and/or data could be streamlined

We also recommend the Fire Chief:

- Implement a process to periodically verify that the physical addresses in Firebase are up-to-date
- Implement a formal process to monthly reconcile the data included in the computer systems used in the Inspection process to ensure that Inspections that occurred are documented, permits are processed correctly, appropriate fees collected, and that these fees are applied to the appropriate accounts

Management Response / Corrective Action Plan

Agree Disagree

The Interim Director of CIS has initiated a review of the four computer systems used by Fire Inspections to determine the business processes being used and whether any changes can be made to streamline the processes and/or the data entry requirements. The Fire Chief and his staff will work closely with CIS on this project.

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The audit states the Department cannot ensure all buildings and locations that should receive a fire inspection are inspected and that these inspections are performed timely. This statement is based on the possibility that addresses may be missing from the Firebase database and that periodic verification is necessary to ensure validity of the data. Firebase was implemented in November 2008 and addresses are updated as changes are noted by Fire Station personnel or Fire Inspectors. It will be impossible to ensure the database is 100 percent accurate at all times. The original survey, database development and validation occurred over a seven month period. As information is received on new occupancies from Building Inspection, the information is entered into the Firebase database. However, it is not uncommon for businesses to by-pass the permitting and Certificate of Occupancy process. Those businesses may be missing from the database. Although inspectors and fire station personnel do enter new addresses as they discover them and delete those addresses that have been demolished, a more structured review of the database will ensure a higher degree of data integrity. The Fire Department will conduct a sampling of physical addresses in 2012 to verify whether all changes from the sampling area have been made to the database. After the sampling is completed, the Fire Chief will develop a process to determine the most effective method of periodically verifying physical addresses in Firebase.

A manual process is currently utilized to ensure the data entered in the computer systems is consistent with the information contained in the inspectors' daily activity reports. A more automated reconciliation process will require assistance from CIS. If the current CIS review of the four computer systems does not identify a solution to automate the reconciliation process on a monthly basis, the Fire Chief will request additional assistance from CIS to develop and implement a reconciliation process. Any programming changes or new program/software acquisitions which are identified as necessary to support a more efficient data management and reporting system will be implemented into the technology budget as soon as practical.

Implementation Date

The CIS review will be completed by July 1, 2012. Any recommendations for any necessary technology upgrades will be submitted for consideration in the FY12-13 budget process.

Sampling of physical addresses in Firebase will be completed by October 1, 2012 and a process developed for ongoing verification will be completed by December 31, 2012.

Responsible Manager

Debra Carlin, Assistant Chief/Fire Marshal

Sincerely,



Louie Bright III, Interim Fire Chief
Dallas Fire Rescue Department