UC IRVINE | INTERNAL AUDIT SERVICES

UC Irvine Health Facilities Management

Internal Audit Report No. I2014-202

August 25, 2014

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INTERNAL AUDIT SERVICES
IRVINE, CALIFORNIA 92697-3625

August 25, 2014

GREG EIKAM
DIRECTOR, FACILITIES MANAGEMENT
UC IRVINE HEALTH

RE: Facilities Management Audit
Report No. I2014-202

Internal Audit Services has completed the review of Facilities Management and the final report is attached.

We extend our gratitude and appreciation to all personnel with whom we had contact while conducting our review. If you have any questions or require additional assistance, please do not hesitate to contact me.

Mike Bathke

Mike Bathke
Director
UC Irvine Internal Audit Services

Attachment

C: Audit Committee
Alice Issai, Chief Operating Officer, UC Irvine Health
David Elgarico, Executive Director, Ancillary Services, UC Irvine Health

I. MANAGEMENT SUMMARY

In accordance with the fiscal year (FY) 2013-2014 audit plan, Internal Audit Services (IAS) reviewed business operations and financial activities within the UC Irvine Health Facilities Management (FM) department. Certain internal controls and process improvements could be strengthened to ensure compliance with University policies and procedures and/or best business practices. The following concerns were noted.

Trades Material Inventory – An effective inventory system is not in place to track the $1.7 million of inventory that flows through FM. Under this method, internal controls over inventory levels and supply usage are weakened. The current method of managing inventory is unrelated to the work order system making it difficult to track material usage and cost that should be directly related to and historically tied to specific users and assets. The details related to these issues are provided in section V.1**.**

Payroll Reconciliation and Overtime – Pre-authorization for employee overtime is not always obtained. Employees do not always clock in and out on schedule resulting in unaccounted overtime. Payroll timekeeping is not reconciled to labor reporting in the Maintenance Connection (MC) system (an application that integrates several of FM business processes) which weakens the ability to manage labor and maintenance costs. These issues are discussed in section V.2.

Building Assets and Preventative Maintenance – Building and equipment asset information are not always input in the MC asset module. In addition, existing assets in the system can be better defined and documented for completeness, which is essential for setting up maintenance procedures and preventative maintenance schedules. These issues are discussed in section V.3.

Service Contracts – Repair and maintenance contracting by outside vendors are performed in the absence of a service or performance contract. This issue is discussed in section V.4.

Purchase Order Prepared After Work Performed – In review of repair and maintenance contracting services, purchase orders (PO) are not always completed before the work is performed. In addition, sales tax was not always posted for materials purchased. The details related to these issues are provided in section V.5.

Security System Access Changes – A FM employee trained to service and repair the medical center building access control and security system (C-Cure) granted security clearance and access to various employees and/or contractors without authorization. The details related to this issue are discussed in section V.6.

As-Built Drawings - As-built drawings are not organized and stored properly to protect them against damage from the environment. As-built drawings should be better organized and stored to protect them against exposure to the environment and possible water damage. This issue is discussed in section V.7.

II. BACKGROUND

FM is responsible for the maintenance of all buildings, grounds, and utility systems at the medical center and off-site properties. FM has approximately 63 employees with an annual operating budget of $18 million. FM staff work on 34 onsite and nine off-site buildings consisting of over 33 acres of land, and are responsible for the operation of the steam plant, general and preventative maintenance, utility services and building equipment, grounds, and engineering support. Other services include non-maintenance support for renovations and remodels, department moves, equipment delivery and installation, meeting room set-up, audio/visual equipment management, and building systems management.

III. PURPOSE, SCOPE, AND OBJECTIVES

The scope of the audit focused on operational and financial activities from July 2012 to current. The review was designed to determine whether sufficient internal control measures are in place, ensure compliance with University policies and procedures, and demonstrate best business practices in business operations.

The audit included the following objectives.

1. Verify the appropriateness of internal controls over payroll processes.

2. Review the adequacy of procedures and controls over repair and maintenance services performed by outside contractors.

3. Review the sufficiency of internal controls over trades material inventory monitoring and tracking, including variance approvals and write-offs.

4. Review and evaluate maintenance and repair costs associated with work orders for accuracy and completeness.

5. Evaluate budget and accounting controls over funding as well as timely reconciliation of ledgers in accordance with University policy.

6. Verify the adequacy of internal controls over key access and locksmith practices.

7. Review the adequacy of building asset management practices and the preventative maintenance program.

IV. CONCLUSION

Certain internal controls within FM business operations and financial activities appear to be functioning satisfactorily. However, business risks and control concerns were identified in the MC system, trade material and supply inventories, payroll reconciliations and overtime pre-authorization, building asset management and preventative maintenance, repair and maintenance

contracts, PO and materials sales tax, building security access and management, and storage of as-built drawings.

Observation details were discussed with management, who formulated action plans to address the issues. These details are presented below.

V. OBSERVATIONS AND MANAGEMENT ACTION PLANS

1. Trades Material Inventory

Background

Over $1.7 million of inventorial materials/supplies is procured and managed by FM each year. The material stock room maintains an inventory of trade supplies valued at approximately $220,000, and is inventoried annually. Stock supplies and materials are drawn down and charged to work order numbers within their trades. In most cases, parts and materials are not expensed or used entirely on one job. Usually, they are stored for later use in shops, material lockers, shop vehicles, or in building supply closets.

Observation

Based on discussions with the FM Senior Superintendent, a physical inventory count is performed annually as required by University policy. However, a perpetual inventory system is not in place to track the $1.7 million worth of inventory that moves through the system. Currently, the inventory of trades materials and supplies are kept in a database and updated annually to reflect the revised inventory count at the end of the year. Under this method, internal controls over inventory levels and supply usage are weakened, which reduces the likelihood of detecting errors and omissions in the event of a loss, theft, overstocks, or product waste when items become obsolete. High value/theft sensitive items are at risk of being undetected if missing.

In addition, the current system of managing stock is unrelated to the work order system in MC, and requires an extensive amount of manual data analytics to provide this relationship. This method is not effective and is

labor intensive, which makes it difficult to manage, monitor, and report on inventory data as well as make effective business decisions surrounding inventory cost containment, utilization, and budget requirements.

Improving Inventory Control through MC

The inventory control feature is just one of many modules within MC that work together to provide a comprehensive Computerized Maintenance Management System (CMMS). This is typical in the facilities management and maintenance industry. MC connects facilities personnel to minimize investments in inventory, track maintenance costs, improve labor productivity, extend asset lifecycle, prevent and predict equipment failures, reduce equipment downtime, and lower the total cost of maintenance among other things.

To improve inventory tracking and usage, FM should implement the features of the inventory control module in MC. This inventory management module is an integral feature of MC and allows for tracking and usage of inventory, and managing on-hand, available, and reserved items in stock at multiple warehouse locations. Integration of these features within MC will allow for a direct relationship of stock or special order items to a specific work order, accurate reporting of material costs related to each job, and real time tracking of material usage for inventory control. This in turn will allow for "just-in-time" ordering and procuring of stock items and support establishing minimum and maximum inventory levels for all stock items based on usage. The ability to lookup stock availability in MC regardless of where it is warehoused will expedite throughput of work orders. A reduction in overstocking of infrequently used items and the elimination of stocking unused or limited use items can present a significant cost savings over time.

Other features offered within MC such as generating POs and automated ordering should be evaluated and considered as further opportunities to save time and money. In addition, other efficiencies and improvements will be realized within the reporting features of MC. Material costs can be directly related to and historically tied back to specific users and assets such as equipment, buildings, and locations. This relationship will provide FM the opportunity to accurately account for actual cost per asset classification, equipment ID, location, building, square footage etc. It will also provide more accurate and complete information for budget development and

decision making processes and increase the likelihood of detecting errors and omissions in the event of a loss, theft, or product waste when items become obsolete.

Management Action Plan

FM will implement the features of the inventory control module in MC to improve inventory tracking and usage. This will facilitate perpetual inventory tracking, which will allow management to track material usage for inventory control and accurately account for actual cost usage for repairs and maintenance on building assets.

All FM staff will be trained on the proper use of the inventory control system with full implementation of the features by December 31, 2014.

2. Payroll Reconciliation and Overtime

Background

Most FM employees use the electronic timekeeping system to clock in and out during their shift. Trades and plant operations employees typically have the opportunity to work overtime due to unexpected breakdowns or equipment failures that require immediate repairs.

FM uses MC to track maintenance costs, as well as set up preventative maintenance schedules for managing facilities and equipment. When repairs and maintenance work is performed, a work order is prepared within MC and assigned to an employee by trade.

Observation

Although the FM Office Manager performs weekly reviews of certain payroll accounts (grounds, facility maintenance, and plant operations), electronic payroll timekeeping, which includes overtime, is not reconciled to labor timekeeping in MC. IAS reviewed a sample of overtime on work orders and discovered on two occasions where trade employees did not enter their time in MC for an entire day. In addition, overtime of 30 minutes or less is not tracked in MC or traceable to a work order. This understates labor costs in

MC, which minimizes how much is being spent on a particular part of a building or maintenance problem.

In addition, internal control measures over pre-authorization of employee overtime could be further strengthened. FM management disclosed that trade supervisors are generally aware of overtime hours worked by FM tradesman. However, pre-authorization for employee overtime is not always obtained. Also, if employees do not clock in and out on schedule, and overtime is not pre-authorized, untracked overtime abuse could occur. For example, if an employee clocks in and out in excess of two minutes or more, overtime will be generated in tenth of an hour intervals. IAS noted that some FM employees were receiving overtime by clocking in a few minutes early for their shift (or a few minutes after). From June 01, 2013 through June 18, 2014 (380 days), IAS estimated that unauthorized/untracked overtime from clocking in a few minutes early (or a few minutes late – after shift) ranged from 145 hours to 312 hours at a cost ranging from $3,770 and $8,112. These overtime hours/costs are not accounted for in MC.

Management Action Plan

FM will incorporate the labor control system including overtime tracking and approval in MC and complete a weekly reconciliation with the electronic payroll system. This will enable management to monitor the accuracy and completeness of payroll costs and prevent unnecessary overtime.

All FM staff will be trained on the proper use of the labor control system with full implementation of the feature by December 31, 2014.

3. Building Assets and Preventative Maintenance

Background

FM utilizes MC primarily for the purpose of managing work orders and, to some extent, preventive maintenance on building assets. MC provides the ability to build an asset tree representing the locations and assets within facilities. Such software is commonplace in industry today but relies heavily on being thoroughly implemented. This is achieved by loading all available asset data, labor, material, and preventive maintenance procedures and frequencies into the system. Once maintenance procedures and preventative

maintenance schedules are performed, the system provides the ability to prevent and predict equipment failures, estimate asset useful life, track maintenance costs, reduce costly downtime of equipment, and reduce the total cost of maintenance.

Observation

IAS found that building locations and equipment assets are tracked in the asset module, but not to the extent necessary to fully utilize the features provided within MC. IAS reviewed an asset report from MC and noted that the equipment assets and related locations can be better defined and documented for completeness.

For example, the asset report for the Santa Ana Clinic (an off-site 50,000 sq. ft. building) contained only 11 roll-down fire doors, an ice machine, a chiller, and a cooling tower on the roof. IAS could not locate on the report other known equipment, such as fire suppression/alarm equipment, boiler, air handlers, and medical or control air/vacuum equipment that exists in the building.

In addition, the Gavin Herbert Eye Institute (GHEI) (a four story, 70,000 sq. ft. building) is the newest building in inventory. It offers an 8,000 sq. ft. eye clinic, 34 exam rooms, classrooms for medical students, a clinical research center for therapy trials, LASIK and plastic surgery facilities, and multiple operating rooms. However, the GHEI building room and asset inventory has not been completed. The asset report for the GHEI building only shows two air handlers, two water heaters, and one humidifier in MC.

Without the building assets and locations properly defined and documented in MC, setting up maintenance procedures and preventative maintenance schedules cannot be performed. This reduces the ability to prevent and predict equipment failures, estimate asset useful life, track maintenance costs, and reduce costly downtime of equipment, which could impact patient care and the total cost of maintenance.

Management Action Plan

FM will fully incorporate the asset management modules within MC. These modules include building assets, equipment management, material

inventory, labor management, work order procedures and costs, and preventative maintenance.

FM will perform continuous monitoring and reporting to provide performance indicators such as maintenance cost versus budget, overtime versus regular hours, preventative maintenance work orders overdue, and completed versus open. All FM staff will be trained on the proper use of the asset management modules by March 31, 2015.

4. Service Contracts

Background

On many occasions, FM procures the services of outside contractors, specialists, and service and repair workers to perform repair and maintenance, emergency repairs, and unscheduled maintenance on buildings and equipment. Procured services of this kind are generally performed using a non-blanket PO/Repair/Maintenance PO/Voucher. This is the preferred type of PO used for labor services such as electricians, mechanics, plumbers, and heating, ventilation, and air conditioning (HVAC) contractors.

Observation

IAS reviewed 32 POs from service related contractors from January 2013 through March 2014 (15 months) for appropriateness and compliance with policy. In general, IAS noted that the transactions were properly approved and supported, and related to the purpose of the funds charged. Even though there were POs in place for the work performed, IAS recommends that a fully executable service contract or performance contract be in place. Service contracts are important because they provide clarification and interpretation of the scope of work to be performed, expectations for furnishing labor, materials, services, and equipment to complete the work as well as general conditions, which include insurance requirements, license requirements, indemnification requirements, payment bond (if applicable), and resolution of claims among other things.

There are several risks and control concerns if proper procurement, repair and maintenance, and construction contracting are performed without a service or performance contract. Some of the risks include the following:

- Work performed is inconsistent with California Public Contract Code and UC Facilities Manual requirements;
- Work is not inspected by a licensed building inspector;
- Work does not comply with California Building Code;
- Work may not be performed by a licensed contractor and subcontractors;
- Contractors do not have appropriate insurance coverage and performance bonds, if applicable;
- Workers may not be paid prevailing wages (required for all projects on UC owned property);
- No right to inspect, copy and audit documents and records related to the work completed;
- Work is not performed under a UC contract which protects the University, and
- Work may not comply with federal ADA (disability) requirements.

Further discussions with FM management disclosed that although contracted repair and maintenance services are tracked in the general ledger by PO activity, they are not tracked in the MC system. In general, if an outside contractor is used to perform repair and maintenance services, a work order is prepared in MC. However, the labor and materials costs for work performed is not detailed within MC, which makes it difficult to track building maintenance, equipment repair, and preventative maintenance costs accurately.

Management Corrective Action

FM will review the repair and maintenance service activity and meet with purchasing management to determine the proper procurement method. Based on the type of maintenance work performed, and the value, FM and purchasing management can determine whether a PO or service contract is appropriate. Accordingly, repair and maintenance service activity of this kind will be recorded in MC to track labor and materials costs.

Also, FM management will continue to consult with Capital Design and Construction Projects on building code related services, as needed, to ensure ongoing compliance with current code requirements.

Appropriate FM staff will be trained on the proper use of MC by March 31, 2015.

5. POs Prepared After Work Performed and Sales Tax Not Posted

Observation

IAS noted that FM was not posting sales tax on certain transactions with purchased material. In addition, some POs were set up after the date the work was performed. IAS confirmed that the services were not performed for an emergency situation or after hours, where a PO could not be set up until the following business day. The following is a summary of observations.

- For eight of 32 (25 percent) transactions reviewed, the proper sales tax amount on purchased materials used in the repairs was not posted.

- For seven of 32 (21 percent) transactions reviewed, the contracted services were performed before the POs were set up in the purchasing system.

University policy requires that a PO be in place prior to the work being started by an outside contractor or service provider (committing University funds).

Management Action Plan

FM will notify all vendors/contractors in writing that all proposals and/or invoices require that materials and labor be broken out separately as a means to collect proper sales tax. FM will have this completed by September 30, 2014.

FM will also develop and implement a process to ensure that the proper payment mechanism (PO, blanket PO, contract) is in place before any work is performed by March 31, 2015.

6. Security System Access Changes

Background

Two FM employees (an electrician and locksmith) are trained technicians to service and repair the C-Cure system. They both have the same "system all" and full privilege access rights to the system as the Security Systems Administrator. These levels of access are necessary for mechanical and electrical repairs as well as to program new equipment, upgrade hardware and software, and conduct general preventative maintenance to the system and card access readers to ensure proper functionality. The Security Systems Administrator assigns clearance access to employee personnel, vendors, and temporary staffing placement.

Observation

IAS obtained a log of system access activity from the Security Systems Administrator for the FM technicians and reviewed the activity for appropriateness.

IAS noted that from June 2013 to January 2014 one of the technicians inappropriately granted clearance to various employees and/or contractor personnel 27 different times. IAS discussed this information with the FM Director and he stated that C-Cure system access rights were not clearly defined for the FM technicians. The FM Director discussed the issue with the technician and was advised that the clearance was granted for official FM business only and did not realize that clearance of this kind must be processed through the Security System Administrator.

Management Action Plan

The process for granting access to the C-Cure system was not clearly defined. During the course of the audit, the process has been defined and employees have been re-educated. FM management will monitor access activity periodically to ensure that inappropriate system access does not occur.

7. As-Built Drawings

Background

As-built drawings are a revised set of blueprints submitted by a contractor upon completion of a project or a particular job. They reflect all changes made in the specifications and working drawings during the construction process, and show exact dimensions, geometry, and location of all elements of the work completed under the contract. As-built drawings serve several important functions for FM. They can inform them of locations for wiring, plumbing, and other hidden components to make repairs and maintenance easier. They are also helpful for future renovations, and can be used as a base when creating remodeling plans at a later date. A local government or permitting agency may also require a copy of the as-built drawings to show locations of sprinkler pipes, fire alarms, and other safety devices.

Observation

The as-built drawings can be better organized and stored. IAS noted that some of the drawings were not filed and had been left out exposed to light after previous use.

IAS recommends that the drawings be filed and organized using architectural file cabinets. Using architectural file cabinets would keep the drawings away from damaging light exposure and prevent the risk of water damage from fire suppression systems above.

Management Corrective Action

FM will select and seek funding for architectural file cabinets to house all as-built drawings. Once a funding source has been identified, the architectural file cabinets will be purchased and the drawings will be organized and placed in the file cabinets for proper safekeeping and to protect against water damage. This will be completed by June 30, 2015.