



UNC CSA

Office of Internal Audit

Fuel Inventory Review

March 5, 2015

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March 5, 2015

Dr. Randy Mills, Interim Vice Chancellor for Finance and Administration
Winston-Salem State University
103 Blair Hall
Winston-Salem, NC 27110

Dear Dr. Mills:

Internal auditing standards require that we follow-up on reported observations and recommendations to ensure that management actions have been effectively implemented or that senior management has accepted the risk of not taking action. The following report addresses the findings noted in the internal audit report of the university's stored fuel released on February 24, 2014.

The *Audit Findings and Responses* section of the report includes a restatement of Internal Audit's original findings and recommendations, the university's response and corrective actions plan, and a summary section explaining Internal Audit's follow-up review procedures, conclusions, and current recommendations, where applicable.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "S. Henry".

Shannon B. Henry
Chief Audit Executive

cc: Elwood L. Robinson, Ph.D., Chancellor
Ms. Rosalba Ledezma, Interim Associate Vice Chancellor, Facilities
Mr. Frank Lord, Controller
Audit Committee, WSSU Board of Trustees

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BACKGROUND, OBJECTIVES AND SCOPE

Winston-Salem State University (WSSU) maintains fuel oil for heating purposes and diesel fuel for emergency power generators and small utility vehicles. Annually, at the end of the fiscal year (FYE), the Office of Facilities Management (Facilities) conducts a physical inventory of the university's stored fuel to maintain asset accountability. For the FYE 2014, the Office of Internal Audit participated in the physical inventory to follow-up on the university's progress toward resolving findings included in the prior year's audit report and verify the university's stored fuel quantities.

As part of our follow-up of the previously reported issues, we worked along with the university's Office of Environmental Health and Safety (EHS) to have the university's largest fuel tanks tested to ensure the fuel is usable and of safe and marketable quality. The results of the fuel tests warranted revaluation; therefore, we recalculated the value of the fuel oil, based on the available evidence, and determined that the Facilities balance of \$302,216.26 was overstated by \$29,280.56. As a result, for the FYE 2014, the university's reported inventory balance for fuel was Internal Audit's accepted value of \$272,935.70.

Selection of this review was based upon a comprehensive plan to assess the internal control environment across all divisions of WSSU.

The objectives of our review were as follows:

- To assist the university's controller in ensuring the stored fuel quantities and capacities are reasonable for financial statement purposes; and
- To ensure that adequate controls are in place to safeguard stored fuel oil and diesel fuel.

To conduct our review we performed the following procedures:

- Observed the physical inventory and compared physical counts of inventory to perpetual records of the university;
- Reviewed applicable university policies; and
- Interviewed university employees, including consultation with EHS.

Engagements completed by the Winston-Salem State University Office of Internal Audit are conducted in conformance with the *International Standards for the Professional Practice of Internal Auditing*, published by the Institute of Internal Auditors.

This report presents the results of our review.

AUDIT FINDINGS AND RESPONSES

PRIOR YEAR FINDING:

1. STORED FUEL OIL QUANTITIES EXCEED THE UNIVERSITY'S REQUIREMENTS.

- During our review, we noted that the university has approximately 91,000 gallons of stored fuel oil valued at approximately \$300,000. We noted further that the university has not purchased fuel oil since March of 2011. According to university staff, the university's main source for heating is natural gas. As such, the 91,000 gallons of fuel oil is being maintained for back-up purposes only.

Quantity decisions are important to an institution because they can result in a significant commitment of resources. Decisions on quantity should be based on a realistic measurement of product need, consumption rate and required lead-time for inventory replenishment.

Having and maintaining more fuel oil than is required, the university may incur unnecessarily high risks associated with possible loss or environmental damage. There is also a potential for contamination of fuels stored for excessively long periods.

Recommendation: The university should evaluate stored fuel oil quantities and realistic product need. If the university determines that it has invested more money into fuel oil than necessary, actions should be taken to recover resources and reduce further loss.

University Management's Response: Management will calculate based on a catastrophic event and loss of natural gas service during the winter months of a reasonable duration how much fuel oil will need to be used to keep normal campus operations running. With this quantity known, the university will seek to either sell the additional fuel (if any) back to our supplier (if feasible), or burn down the inventory to the needed level (at a savings of purchased natural gas) whichever would result in the greatest return for the university. It is unknown at this time when these measures could be implemented, particularly given the burn down option and the approaching end of our heating season.

INTERNAL AUDIT'S FOLLOW-UP REVIEW OF ACTIONS TAKEN BY MANAGEMENT

We determined the following related to the details mentioned in the audit finding above (as of our report date):

Corrective Actions Implemented by University Management:

- University management identified a supplier that is willing to purchase up to half of the amount of fuel for 65% of the State of North Carolina's contract price at the time of transaction. Given the potential for loss, as the current price of fuel is lower than the purchase price, management decided that it's in the best interest of

AUDIT FINDINGS AND RESPONSES *(continued)*

the university to maintain the excess fuel in anticipation of a future increase in the price of fuel to mitigate loss to the university.

- Further, according to the service agreement with the provider for the university's main source of heating (natural gas), all business, operational, mechanical or other risks associated with the interruption or curtailment of service is assumed by the customer. As a result, management feels the decision to maintain the university's alternative heating source, fuel oil, is a prudent choice in the case of a gas shortage and/or emergency situation. Management determined, based on the measured inventory in the fuel oil tanks, the existing quantity of fuel (approximately 90,000 gallons) would keep normal operations running for an estimated four months.
- During the review, Internal Audit consulted with the Office of Environmental Health and Safety (EHS) to determine if there were environmental concerns related to the storage of the fuel. Based on the length of time the fuel had been stored with limited use, we determined that it was in the best interest of the university to assure that the fuel is of marketable quality. Therefore, based on our recommendation, EHS contracted with an outside company to test the fuel in the three largest, most valuable tanks, accounting for approximately 99% of the total value of the university's reported fuel. The results, according to EHS, revealed there is minimal contamination to the fuel in the tanks. Further, while there was some biological growth, the severity and the quantity was not sufficient to significantly detract from the quality of the product. In each tank, such contamination is at or very close to the bottom of the respective tank. As such, according to the outside company, each tank can yield between 90% and 95% of its contents for use or other routine means in accordance with established environmental guidelines.

INTERNAL AUDIT'S OPINION:

It is our opinion that the issue related to excess fuel has been resolved.

PRIOR YEAR FINDING:

2. THE UNIVERSITY DOES NOT USE CONTROLS TO PREVENT UNAUTHORIZED ACCESS TO DIESEL FUEL.

- During our review, we noted that there are eight above ground diesel fuel tanks. We noted further that all eight tanks are outdoors and accessible, however, only one of the eight tanks is locked.

Failing to secure stored diesel fuel increases the opportunity for use of university property for personal benefit and the university incurring other loss or liability.

AUDIT FINDINGS AND RESPONSES (continued)

Recommendation: The university should implement physical security measures such as gates, fences, and/or locks to secure stored diesel fuel.

INTERNAL AUDIT'S FOLLOW-UP REVIEW OF ACTIONS TAKEN BY MANAGEMENT

We determined the following related to the details mentioned in the audit finding above (as of our report date):

Corrective Actions Implemented by University Management:

- The university has implemented physical security measures for eight of nine diesel fuel tanks. *This is one more tank than was reported by management last year, FYE 2013. The lack of accounting for the added tank was discovered during our review in the prior year (Finding #3) and incorporated into the university's accounting mechanisms for FYE 2014.*

Recommendations not addressed by University Management:

- One of the university's nine fuel tanks does not have physical security measures. During our inspection of the unsecured tank, we noted that the locks were broken as they were in the lock position, however did not lock.

INTERNAL AUDIT'S OPINION:

It is our opinion that the issue related to the physical security of the fuel tanks has been partially resolved.

INTERNAL AUDIT'S RECOMMENDATION:

The university should implement physical security measures to ensure that the remaining tank is secure.

PRIOR YEAR FINDING:

3. THE FUEL INVENTORY SPREADSHEETS WERE INCOMPLETE AND CONTAINED MEASUREMENT DATA THAT THE UNIVERSITY COULD NOT VERIFY.

- Based on our review and inquiry of staff, the university maintains a diesel fuel tank for the operation of utility vehicles. We noted, however, that the diesel fuel quantities stored in this tank are not measured annually and are not reflected in the university's reported inventory balance.
- During our review, we noted that some of the measurements used for diesel fuel tanks are based on historical data for which the university was not able to

AUDIT FINDINGS AND RESPONSES *(continued)*

provide support or verify. This raises the question of reliability of the measurements used for diesel fuel tanks.

The reported amount of inventory affects the amount of current and total asset balances reported on the university's financial statements.

Failing to use accurate measurement data may result in an invalid valuation of the university's inventory balance and undetected product loss.

Recommendation: The university should obtain the exact dimensions of each fuel tank owned and operated by the university and ensure that the fuel spreadsheets are updated, accurate and all-inclusive. Further, the university should ensure that measurements are based on known standards and that supporting documentation of dimensions and measurement data is maintained for accountability, audit and review purposes.

INTERNAL AUDIT'S FOLLOW-UP REVIEW OF ACTIONS TAKEN BY MANAGEMENT

We determined the following related to the details mentioned in the audit finding above (as of our report date):

Corrective Actions Implemented Post-Audit:

- The university updated the spreadsheets to include the missing diesel fuel tank.
- Management provided Internal Audit with documentation supporting measurements for seven of the nine diesel fuel tanks. In some cases, given the age of the tanks, we were not able to verify via a third party that the supporting documentation did in fact pertain to the tanks in question; however, all of the support provided appeared reasonable.

Recommendations not addressed by University Management:

- The data on Facilities' spreadsheets regarding the amount of fuel on hand contained the following discrepancies:
 - i. The price per gallon on the spreadsheets excludes applicable fees and taxes, required for valuation on the university's financial statements.
 - ii. The spreadsheets included footnotes that appeared outdated and had no apparent relation to the data present in the spreadsheets. As a result, we were unable to determine the reasoning behind certain numbers used in the spreadsheet's supporting formulas.

The lack of third party verification for the tanks appears to be the result of a history of poor recordkeeping. In addition, there are no documented procedures in place to govern the fuel inventory or upkeep of the fuel spreadsheet used to verify the amount on hand.

AUDIT FINDINGS AND RESPONSES (continued)

INTERNAL AUDIT'S OPINION:

It is our opinion that the issue related to incomplete and unverifiable data has been partially resolved.

INTERNAL AUDIT'S RECOMMENDATION:

The university should ensure that the fuel spreadsheets are kept up-to-date and accurate.

PRIOR YEAR FINDING:**4. THE UNIVERSITY HAS NO DOCUMENTED POLICIES OR PROCEDURES FOR THE SAFEGUARDING AND ACCOUNTABILITY OF STORED FUEL.**

Documented policies and procedures are the foundation for identifying and instituting internal controls for the protection of assets. Further, documented policies and procedures provide institutions with the tools necessary to ensure essential functions are being conducted appropriately and efficiently, and that necessary steps to address risks are taken.

Recommendation: The university should strengthen the control structure over stored fuel by developing and implementing policies and procedures. The policies and procedures should be developed in such a way to ensure management's directives are carried out and that necessary steps to address risks are taken.

INTERNAL AUDIT'S FOLLOW-UP REVIEW OF ACTIONS TAKEN BY MANAGEMENT

We determined the following related to the details mentioned in the audit finding above (as of our report date):

Recommendations not addressed by University Management:

- The university has not developed policies and procedures for the safeguarding and accountability of stored fuel.

INTERNAL AUDIT'S OPINION:

It is our opinion that no progress has been made toward resolving the issue related to policies and procedures for safeguarding and accounting of fuel oil.

INTERNAL AUDIT'S RECOMMENDATION:

The university should strengthen the control structure over stored fuel by developing and implementing policies and procedures. The policies and procedures should be developed

AUDIT FINDINGS AND RESPONSES *(concluded)*

in such a way to ensure management directives are carried out and that necessary steps to address risks are taken.

Internal Audit will conduct a Post-Follow-Up Review for the effective implementation of all recommendations to ensure the university has completely resolved these findings.