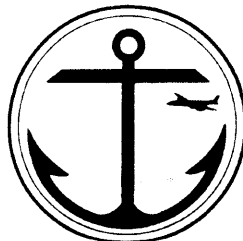


INTERNAL AUDIT REPORT

2011-12

Proximity Card Access Control System
Anchorage Water and Wastewater Utility
September 26, 2011

MUNICIPALITY OF ANCHORAGE
Internal Audit Department
632 W 6th Avenue, Suite 600
P.O. Box 196650
Anchorage, Alaska 99519-6650
<http://www.muni.org/audit>



OFFICE OF THE INTERNAL AUDITOR
Peter Raiskums, CIA, CFE, CGFM
Director
Phone: (907) 343-4438
Fax: (907) 343-4370
E-Mail: raiskumspw@muni.org

MUNICIPALITY OF ANCHORAGE



Office of the Internal Auditor
632 W. 6th Ave.. Suite 600

Phone: 907-343-4438
Fax: 907-343-4370

Mayor Dan Sullivan

September 26, 2011


Honorable Mayor, Members of the Assembly, and Board of Directors of the Anchorage Water and Wastewater Utility:

I am pleased to present **Internal Audit Report 2011-12, Proximity Card Access Control System, Anchorage Water and Wastewater Utility**, for your review. A brief summary of the report is presented below.

In accordance with the 2011 Audit Plan, we have completed an audit of the Proximity Card Access Control System at Anchorage Water and Wastewater Utility. The objective of this audit was to determine if the proximity card access control system adequately controlled facility access. Specifically, we selected and reviewed employees' and contractors' proximity card authorization forms and compared them to a card holder report generated by the proximity card access control system to determine if the cards were properly issued and managed in compliance with the policies and procedures. We also determined if Anchorage Water and Wastewater Utility had sufficient internal controls in place to prevent unauthorized use of the cards.

Based on our review, we determined that procedures used to issue and control the proximity cards required strengthening. Specifically, access privileges programmed for each proximity card did not always agree with the approved authorization form. Employee proximity cards were not always returned or deactivated upon termination of employment. Also, proximity cards issued to contractors were not always returned when projects were completed. Finally, there was a lack of supervisory and management oversight of the proximity card access control system and the proximity card policy and procedure could be improved.

We made six recommendations in connection with this audit. Management was responsive to the findings and concurred with the recommendations.


Peter Raiskums, CIA, CFE
Director, Internal Audit

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Office of the Internal Auditor
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Phone: 907-343-4438
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September 26, 2011

Internal Audit Report 2011-12
Proximity Card Access Control System
Anchorage Water and Wastewater Utility

Introduction. Anchorage Water and Wastewater Utility (AWWU) uses a proximity card access control system (Card System) called “Diamond II”. The Card System permits a person to enter a facility by placing a plastic card near an electronic card reader. Each card can be programmed to allow a user to enter or exit selected facilities at specific dates and times. AWWU implemented portions of the Card System in 2007 at all of its major facilities, except for the Girdwood Wastewater Treatment Facility.

According to AWWU management, the Card System is a replacement for the traditional key entry system. It was implemented because, unlike the traditional key entry system, it can easily accommodate lost, damaged, or stolen proximity cards. AWWU’s Policy and Procedure (P&P) 25-1, *Photo Identification/Proximity Cards*, governs the use of the Card System.

Objective and Scope. The objective of this audit was to determine if the Card System adequately controlled facility access. Specifically, we selected and reviewed employees’ and contractors’ proximity card authorization forms and compared them to a card holder report generated by the Card System to determine if the cards were properly issued and managed in compliance with the P&P. We also determined if AWWU had sufficient internal controls in place to prevent unauthorized use of the cards.

The audit was conducted in accordance with generally accepted government auditing standards, except for the requirement of an external quality control review, and accordingly, included tests of accounting records and such other auditing procedures as we considered necessary in the circumstances. The audit was performed during the period of April through May 2011. The audit was requested by AWWU Management.

Overall Evaluation. Procedures used to issue and control the proximity cards required strengthening. Specifically, access privileges programmed for each proximity card did not always agree with the approved authorization form. Employee proximity cards were not always returned or deactivated upon termination of employment. Also, proximity cards issued to contractors were not always returned when projects were completed. Finally, there was a lack of supervisory and management oversight of the Card System and the proximity card policy and procedure could be improved.

FINDINGS AND RECOMMENDATIONS

1. Access Privileges Did Not Always Match Approved Authorization Form.

- a. Finding.** Access privileges programmed for each proximity card did not always agree with the approved authorization forms.
 - ***Facility Access Privileges Did Not Always Match*** – Cards for 11 of 27 AWWU employees and 8 of 27 contractors were programmed with different facility access privileges than what was authorized. For example, one employee card permitted access to the AWWU headquarters building, information technology area, all of AWWU's treatment facility gates and main buildings, and a restricted access area. However, the authorized access form only approved access to the AWWU headquarters building.

- ***Card Expiration Date Did Not Match*** - Card expiration dates in the Card System did not match authorized expiration dates for 12 of 27 contractors. For example, one contractor card had an expiration date of July 1, 2028. However, the approved access form had an expiration date of October 1, 2010.
- ***Card Expiration Date Not Specified*** - The card expiration date was not specified on the approval form for 12 of 27 contractors, thus Information Technology (IT) staff issued most of the cards with a default expiration date of 20 years from the issue date. As a result, contractors had access to AWWU facilities after their contract with AWWU had been completed.
- ***More Cards Issued Than Authorized*** –We found more cards were issued than what was authorized for 4 of 27 contractors. For example, one contractor was issued 16 proximity cards, but only 4 cards were authorized.
- ***Contractors' Name Not Match*** - We found that the proximity cards were issued under different names than the name listed on the approved form for 2 of 27 contractors.
- ***Access to Restricted Area Given Without Proper Authorization*** - Proximity cards were issued with access privileges to restricted areas without proper authorization for 4 of 27 current AWWU employees and 3 of 27 AWWU contractors. For example, four AWWU employees and two contractors were given access to a restricted access area and one contractor was given access to the IT server room without proper authorization.

- b. **Recommendation.** The AWWU General Manager should require IT staff to program proximity cards only as specified by the approved proximity card authorization forms.

- c. **Management Comments.** Management stated, “Management concurs with these findings. Management has instructed affected employees that formal documentation is required for all access requests and that email messages are not considered formal documentation. In addition, the IT Division has designed and is testing a SharePoint system for electronically tracking all access requests and authorization approvals for the Proximity Card Access Control System.”
- d. **Evaluation of Management Comments.** Management comments were responsive to the audit finding and recommendation.

2. **Employee Cards Not Always Returned.**

- a. **Finding.** Employee proximity cards were not always returned upon termination of employment. Specifically, 11 of 30 former AWWU employees whose employment terminated between January 1, 2010 and April 30, 2011, did not return their proximity cards. AWWU P&P 25-1 states that “Photo Identification/Proximity Cards are the Utility’s property. Employees must return them to the Help Desk/IT Division upon termination of employment.”
- b. **Recommendation.** The Employee Services Office staff should ensure that all employees terminating employment return their proximity cards to the IT Division.
- c. **Management Comments.** Management stated, “Management concurs with this finding and has instructed ES staff and supervisors to ensure all employees return their proximity cards as part of their out processing procedures.”
- d. **Evaluation of Management Comments.** Management comments were responsive to the audit finding and recommendation.

3. **Employee Cards Not Always Deactivated.**

- a. **Finding.** Employee proximity cards were not always deactivated upon termination of employment. Specifically, we found 5 of 30 terminated employees' cards we reviewed were still active. Moreover, we found some of the cards had been used to gain access to AWWU facilities after the employees' termination date. For example, IT staff received a notification of employment termination from the Employee Services Division on November 30, 2010 for one employee. The employee terminated employment on December 1, 2010 yet the card was not deactivated and was used on February 7, 2011 to enter the Eklutna Water Treatment Facility. The card was still active during our audit.
- b. **Recommendation.** The IT staff should deactivate employee proximity cards upon notification of termination of employment.
- c. **Management Comments.** Management stated, "Management concurs with this finding. Management has updated the P&P to reflect that the departing employee's non-represented supervisor will collect the proximity card during the employee termination process and will forward said card to the IT Division. The IT Division has designed and is testing a SharePoint system for electronically tracking all access and termination requests and authorization approvals for the Proximity Card Access Control System."
- d. **Evaluation of Management Comments.** Management comments were responsive to the audit finding and recommendation.

4. **Contractor Cards Not Always Returned.**

- a. **Finding.** Proximity cards issued to contractors were not always returned when projects were completed. AWWU P&P 25-1 states that “Photo Identification/Proximity Cards are the Utility’s property. . . . Contractors must return them to their project manager upon termination of contract or completion of Utility business.” According to AWWU project managers and IT staff, they did not ask the contractors to return the cards because the cards should have expired. However, our review revealed some cards were still active even though the contractors were no longer working at AWWU.
- b. **Recommendation.** The AWWU General Manager should require that project managers ensure that contractors return proximity cards upon termination of the contract or completion of utility business.
- c. **Management Comments.** Management stated, “Management concurs with these findings. Affected employees have been counseled. The IT Division has designed and is testing a SharePoint system for electronically tracking all access and termination requests and authorization approvals for the Proximity Card Access Control System.”
- d. **Evaluation of Management Comments.** Management comments were responsive to the audit finding and recommendation.

5. **Card System Management Could Be Strengthened.**

- a. **Finding.** Management oversight of the Card System could be improved. For example, AWWU staff could not tell us who was responsible for the Card System. As a result, there was no evidence that basic management information had ever been generated or

even requested by management. Consequently, we found no evidence that reports had been produced indicating the number of active cards, the number of cards issued to employees and contractors, who had access to restricted areas, who tried to enter restricted areas but was denied, and who had terminated employment but still had an active card. Many of the problems identified in this audit could have been avoided with better supervision and oversight.

- b. **Recommendation.** The AWWU General Manager should assign management responsibility for the Card System.

- c. **Management Comments.** Management stated, “Management concurs with this finding. The IT Division Director has been given the responsibility for oversight of this system.”

- d. **Evaluation of Management Comments.** Management comments were responsive to the audit finding and recommendation.

6. **Lack of Comprehensive Policy and Procedure.**

- a. **Finding.** The policy and procedure for proximity cards could be improved. While AWWU P&P 25-1 provided some guidance for proximity cards, it did not address other important aspects of the Card System. For example, P&P 25-1 did not address the following:
 - who collects the proximity cards upon termination of employment,
 - who is responsible for the collection of fees for lost/stolen cards,
 - the deactivation of unreturned cards, and
 - the control of authorization forms to prevent them from being modified by employees or the contractors.

- b. **Recommendation.** Policy & Procedure 25-1 should be revised to clarify the controls over proximity cards.

- c. **Management Comments.** Management stated, “Management concurs with this finding. P&P 25-1 has been updated per the recommendations of this audit. A copy of the revised document is attached to this response.”

- d. **Evaluation of Management Comments.** Management comments were responsive to the audit finding and recommendation.

Discussion With Responsible Officials. The results of this audit were discussed with appropriate Municipal officials on June 7, 2011.

Audit Staff:
Scott Lee