Georgia Department of Audits and Accounts
Performance Audit Division
Greg S. Griffin, State Auditor
Leslie McGuire, Director

Why we did this review

This follow-up review was conducted to determine the extent to which the Georgia Department of Corrections addressed the recommendations presented in our February 2012 Special Examination (#11-38).

The 2012 Special Examination was conducted at the request of the House Appropriations Committee. The committee requested we review GDC's provision of maintenance services at its correctional facilities.

We recommended action to address deficiencies related to monthly maintenance reports, cost accounting, inventory of supplies and materials, and performance measurement.

About GDC

Prison facility maintenance is monitored by GDC's Engineering and Construction Services Division. The division provides technical expertise, project funding, and project management skills to the various GDC facilities.

GDC state prisons can house a range of 200 to 5,000 inmates. GDC maintains 10.2 million square feet of building space across all state prisons and 14 million square feet across all GDC state-owned facilities. State prisons vary in security level, mission, function and age. Facility maintenance is provided by GDC maintenance staff, external contractors and inmates.

Follow-Up Review – Maintenance of State Prisons

GDC can still improve cost and activity tracking for preventive maintenance

What we found

The Georgia Department of Corrections (GDC) has taken steps to improve the quality of its maintenance program data. However, it has not taken all recommended actions that would improve the management of the program.

State prisons are now using a consistent monthly maintenance report (MMR) format, but they still use different approaches for compiling the underlying data. GDC has also not taken other recommended actions to improve cost accounting of maintenance activities, implement best practice performance measures, ensure an accurate inventory of supplies and materials at facilities, or ensure manufacturer recommended maintenance schedules are integrated into facility schedules.

In 2012 a shortage of reliable information prevented us from conducting a thorough assessment of efficiency and effectiveness of state prison maintenance. At the time, GDC did not receive uniform data or even standardized formats of monthly maintenance reports from prison facilities. This made the compiling of basic preventive maintenance activity problematic and the data ineffective for analysis. In September 2013 GDC hired a private contractor to begin to compile MMRs to determine whether all facilities comply with reporting standards.

Our analysis of data compiled by the contractor shows that most facilities are now submitting MMRs using a consistent format, though some facilities still do not submit reports regularly. During the eight month period between July 2013 and February 2014 only 16 of 28 facilities submitted a complete set of MMRs to GDC Regional Engineers, while 4 of 28 submitted five or fewer

reports, with one prison submitting no MMRs. We found that one of the four regions submitted far fewer MMRs on average than counterparts (see **Exhibit 1**).

Exhibit 1
MMRs Submitted to GDC (07/13-02/14)

Region	% of MMRs Submitted to GDC
Southeast	66%
Central	91%
Southwest	97%
Northern	98%
Total	**88%**

Source: DOAA Analysis of GDC MMRs

Our analysis also suggests that facilities have improved their counting of work orders, but improvements are still needed. During the original examination, facilities were inconsistent in how work orders were counted. For example, some prisons counted the same type of work completed on 10 kitchen ovens as a single preventive maintenance work order while other prisons would count this as 10 separate work orders. The new MMR calculates work orders completed based on the number of unique pieces of equipment serviced, leading to the potential for greater consistency across prisons.

While the automated calculation of complete and incomplete preventive work orders is an improvement, the reports are still unreliable because prisons use different methods for entering the data that serves as the basis for the calculations. For example, some prisons do not enter all pieces of equipment that should be maintained each month, contrary to the instructions that accompany the MMR. We found that the prisons' misuse of the MMR could make it appear that all preventive maintenance has been completed, even when it may not be the case. GDC must have complete uniformity before being able to tally results across all facilities.

GDC has also not adopted additional best practice performance measures. As noted in the original report, facility management industry experts recommend a variety of performance measures to assess the performance of a maintenance program. Examples of measures suggested include:

- work orders and spending per asset, building, trade;
- timeliness of work order completion;
- ratio of preventive to corrective work orders or time spent on each;
- maintenance cost changes over time; and
- maintenance costs per square foot or inmate.

Finally, GDC has not adopted other recommendations intended to improve the efficiency and effectiveness of maintenance operations. In the original report, we noted that state prisons did not maintain an inventory of supplies and materials needed for upcoming preventive maintenance orders, nor did they include manufacturer-recommended maintenance instructions on work orders or the equipment itself. These findings could result in delays or deficiencies in the work performed.

GDC's Response: *GDC stated that it agreed with the contents of the report, including the fact that GDC has "made improvements in the management of (its) maintenance operations. We acknowledge that we have room for further enhancements and we continue to address those issues to the best of our abilities." Regarding specific findings, GDC noted that the Southeast Region Engineer position was vacant for a portion of the time under review, contributing to missing reports, and that GDC's expectation is that all maintenance is performed in accordance with manufacturer's standards."*

The table below summarizes the findings and recommendations in our 2012 report and actions taken to address them. A copy of the 2012 Special Examination, Maintenance of State Prisons 11-38 may be accessed at http://www.audits.ga.gov/rsaAudits.

Maintenance of State Prisons
Follow-Up Review, June 2014

Information currently available does not allow for a thorough assessment of the efficiency and effectiveness of state prison maintenance programs.

Partially Addressed – *In the original audit, we found that GDC's central office was receiving inconsistent information from state prisons, making the compilation of basic preventive maintenance activity problematic. We also found that best practice performance measures were not utilized. GDC has taken limited steps to improve data quality but has not adopted additional performance measures.*

	Original Recommendations	Current Status
RECOMMENDATIONS	*GDC should ensure that all prisons are uniformly reporting the same information by providing guidance and training related to counting and classifying work orders and on how to maintain quality information.*	Shortly after the original audit, GDC officials met with regional engineers to discuss the methods for classifying work orders; however, no standardization was adopted, and GDC has not offered any formal guidance or training on how to count or classify work orders since. GDC officials indicated that this is part of a long-term plan but has not been addressed yet. Our review of GDC's new Monthly Maintenance Report (MMR) found that its design leads to a consistent method of counting work orders (e.g., each piece of equipment serviced is counted as a work order). However, we also found that prisons used different methods to list their monthly activity, resulting in continued inaccurate and inconsistent information in the reports.
	GDC should require all prisons to use the same Monthly Maintenance Reports format.	GDC standardized the MMR in July 2012 and hired a contractor in September 2013 to analyze information from the MMRs to evaluate facilities and track the percentage of preventive maintenance completed each month. Between July 2013 and February 2014, 88% of expected MMRs were reported to management with most of the non-reporting prisons located in the Southeast region.
	GDC should provide additional guidance regarding classifying repair and maintenance expenditures.	GDC has not provided additional guidance regarding the classification of expenditures.
	GDC should consider requiring prisons to track additional measures needed to improve program management.	GDC has not adopted any of the best practice performance measures put forth in the original examination. GDC Engineering does not require regional or facility engineers to track any additional performance measures.

Maintenance of State Prisons
Follow-Up Review, June 2014

While GDC has made preventive maintenance a priority, certain elements of planning could be improved.

Not Addressed – *In the original audit, we found that preventive maintenance was prioritized by GDC. However, we also found that maintenance teams did not regularly integrate manufacturer recommendations or track supplies and materials, leading to maintenance delays. GDC has taken no steps to address these deficiencies.*

Original Recommendations		Current Status
RECOMMENDATIONS	*GDC should require prisons to include manufacturer and management suggested maintenance schedules and tasks either on preventive maintenance work orders or on the equipment.*	GDC officials stated that they do not yet require that prisons include manufacturer or management suggested maintenance tasks and schedules on work orders or on the equipment. During the original audit, we noted that the State of Georgia Construction Manual suggests including this information as part of the preventive maintenance system.
	GDC should require prisons to maintain an accurate inventory of supplies and materials.	GDC does not require facilities to track inventory needed for maintenance. As stated in the original examination, an accurate and updated inventory tracking method, even in the absence of a centralized information management system, can reduce delays and improves cost calculations.
Maintenance costs per square foot are most affected by prisons' maintenance staffing level, security level, and unique maintenance responsibilities.		**Not Applicable** – No Recommendations
Available information shows that contractors perform a small portion of the prisons' routine maintenance and that inmates frequently assist maintenance staff.		**Not Applicable** – No Recommendations
4 Findings		**0 Fully Addressed** **1 Partially Addressed** **1 Not Addressed** **2 Not Applicable**

The Performance Audit Division was established in 1971 to conduct in-depth reviews of state-funded programs. Our reviews determine if programs are meeting goals and objectives; measure program results and effectiveness; identify alternate methods to meet goals; evaluate efficiency of resource allocation; assess compliance with laws and regulations; and provide credible management information to decision-makers. For more information, contact us at (404)657-5220 or visit our website at www.audits.ga.gov.