

**OPERATION AND MAINTENANCE OF PLANT**

**CALIFORNIA STATE UNIVERSITY,  
DOMINGUEZ HILLS**

**Report Number 99-44  
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## **ABBREVIATIONS**

BA	Business Affairs – Office of the Chancellor
BP	Budget Planning – Office of the Chancellor
CAMS	California Academy of Math and Science
CPDC	Capital Planning, Design & Construction (previously Physical Planning & Development) – Office of the Chancellor
CSU	California State University
CSUDH	California State University, Dominguez Hills
MMS	Maintenance Management System
OMP	Operation and Maintenance of Plant
PM	Preventive Maintenance
RA	Resolution of the Committee on Audit – CSU Board of Trustees
SAM	State Administrative Manual

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## INTRODUCTION

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### PURPOSE

Our overall audit objective was to ascertain the effectiveness of policies and procedures related to the administration of the Operation and Maintenance of Plant (OMP) and to ensure that controls addressing current and future facility requirements are in place.

Within the overall audit objective, specific goals included determining whether:

- ▶ the administration and management of the OMP program and facilities planning functions provide clear lines of organizational authority and responsibility;
- ▶ budgeting procedures adequately address OMP funding, ensure that one-time funding allocations are used for their designated purpose, and include procedures to monitor budget versus actual expenses;
- ▶ a comprehensive program is in place that identifies all maintenance/repair requirements including preventive maintenance, facility repairs, deferred maintenance, custodial services, and grounds keeping;
- ▶ the maintenance/repair program includes productivity/performance standards, quality control and employee training to ensure that quality work is performed effectively and efficiently;
- ▶ administrative controls over the maintenance/repair program are adequate, and the maintenance management system includes work order scheduling, costing and control; backlog reports; and productivity tools;
- ▶ non-maintenance work is adequately controlled and fully charged back to the customer in accordance with CSU directives;
- ▶ all non-general fund operations and chargeable costs have been identified in accordance with CSU directives and are fully charged back to the operations;
- ▶ chargebacks are adequately controlled and properly valued;
- ▶ maintenance materials, supplies, and equipment are adequately controlled and accounted for properly;
- ▶ a utilities management program has been established in accordance with CSU policy; and
- ▶ the campus physical master plan is maintained in accordance with CSU policy.

## SCOPE AND METHODOLOGY

This review emphasized but was not limited to compliance with state laws, Board of Trustee policies, and Office of the Chancellor and campus policies, letters and directives. June 1998 to date was the primary period of review.

Our primary focus involved the internal administrative and accounting controls over the operation and maintenance of plant functions. Specifically, we reviewed and tested:

- ▶ budget allocation and monitoring procedures;
- ▶ identification of maintenance/repair requirements;
- ▶ work order processing and completion of preventive maintenance tasks;
- ▶ procedures for controlling custodial services and grounds keeping;
- ▶ procedures for controlling and processing chargebacks for non-maintenance work and costs associated with non-general fund operations;
- ▶ procedures for controlling and accounting for maintenance materials, supplies and equipment;
- ▶ implementation of a utilities management program; and
- ▶ maintenance of the campus physical master plan.

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## BACKGROUND

In response to the systemwide risk assessment conducted during 1996, which included input from officers representing the Chancellor's Office and each CSU campus, the Board of Trustees directed this review of Operation and Maintenance of Plant at its January 1999 meeting.

The Legislative Analyst's Report on the 1979/80 budget addressed the need to protect the substantial public investment represented by CSU facilities, and the Legislature subsequently directed the CSU to implement a preventive maintenance program on each campus. In December 1979, a CSU Task Force on Plant Maintenance was appointed to explore preventive maintenance needs for the system and concluded that the concept of preventive maintenance was too narrow in scope to accommodate the total maintenance needs of the CSU. Consequently, a concept of "Planned/Programmed Maintenance" was proposed, incorporating preventive maintenance as well as systematic planning and programming. The CSU Executive Council reviewed the task force report and approved the concept in March 1981.

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## INTRODUCTION

In April 1981, Executive Order No. 343, *Establishment of Planned/Programmed Maintenance*, was issued. It stated that “effective immediately, each campus shall initiate a Planned/Programmed Maintenance Management system that will provide systematic maintenance of State owned campus facilities, program future special maintenance and repair project requirements, identify deferred maintenance needs, and schedule replacement of Group I equipment.”

In 1983, the Office of the University Auditor reviewed *Plant Operations* at eight campuses and issued a systemwide report. The Board of Trustees subsequently accepted the systemwide report and addressed nine implementing actions in Trustees’ Resolution RA 9-83-057. These actions were adopted in CSU directive BA 84-25, *Implementation of Trustees’ Resolution RA 9-83-057 (Plant Operations)*, dated July 25, 1984.

Throughout this report, we will refer to the program as operation and maintenance of plant (OMP). The titles of the departments assigned responsibility for managing CSU campus operation and maintenance of plant include, among others, physical plant and plant operations. At California State University, Dominguez Hills, the Physical Plant manages the OMP program.

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## OPINION

We visited the California State University, Dominguez Hills campus from September 8, 1999, through October 11, 1999, and audited the procedures in effect at that time.

In our opinion, the administration and management of the OMP program provided clear lines of organizational responsibility, and budget-monitoring procedures were effective. Areas requiring improvement are referenced in the executive summary.

## **EXECUTIVE SUMMARY**

The purpose of this section is to provide management with an overview of conditions requiring their attention. Areas of review not mentioned in this section were found to be satisfactory. Numbers in brackets [ ] refer to page numbers in the report.

### **MAINTENANCE MANAGEMENT PROGRAM [6]**

#### **PROGRAM IMPLEMENTATION AND ADMINISTRATION [6]**

Implementation and administrative controls over the TAMIS maintenance management system were not adequate. Full implementation and adequate administrative controls over the maintenance management system ensures effective and efficient management of the campus maintenance and repair program and decreases the risk of system breakdowns.

#### **WORK ORDER CONTROLS [8]**

Procedures and oversight over the work order process were not adequate. Maintaining adequate controls and oversight over the work order process ensures maintenance and repairs are performed timely and decreases the risk of system breakdowns.

#### **PREVENTIVE MAINTENANCE [9]**

Implementation and administrative controls over the preventive maintenance (PM) program were not adequate. A fully operational preventive maintenance program decreases the risk of system breakdowns and ensures effective and efficient PM scheduling and coverage for campus equipment and facilities.

#### **QUALITY CONTROL [11]**

A comprehensive quality control program had not been implemented. Implementation of such a program decreases the risk of system breakdowns and deterioration of facilities and grounds and helps to ensure that work is performed in accordance with established procedures.

## **CHARGEBACKS AND NON-MAINTENANCE WORK [12]**

### **CHARGEBACK CONTROLS [12]**

Procedures regarding reimbursement (chargebacks) to Physical Plant for services rendered were unsatisfactory. Adequate controls of chargebacks increases the likelihood for timely, accurate, and complete reimbursement to physical plant for services rendered.

### **NON-GENERAL FUND ACTIVITIES [14]**

Services provided to non-general fund activities were not always fully reimbursed to the campus. Strengthening chargeback procedures to non-general fund activities increases the likelihood for full and timely compensation to physical plant and increases the funds available for campus maintenance and repairs.

## **MAINTENANCE MATERIALS AND EQUIPMENT [16]**

### **MAINTENANCE MATERIALS AND SUPPLIES INVENTORY [16]**

Maintenance materials and supplies inventory procedures were unsatisfactory. Strengthening inventory procedures decreases the risk of lost assets and could result in lower overall inventory costs.

### **SMALL HAND TOOLS AND EQUIPMENT [17]**

Accountability over small hand tools and equipment required improvement. Proper accountability over small hand tools and equipment decreases the risk of lost or stolen assets.

## **UTILITIES MANAGEMENT [18]**

The campus utilities management program was in need of improvement. Improving this program will ensure that the general fund is fully compensated for utilities provided to self-supporting and external organizations and may result in increased energy efficiency.

## **ADMINISTRATION AND BUDGETARY CONTROLS [20]**

A comprehensive policies and procedures manual had not been developed for the Physical Plant. Internal controls are strengthened when policies and procedures are documented and communicated to employees.

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## OBSERVATIONS, RECOMMENDATIONS, AND CAMPUS RESPONSES

### MAINTENANCE MANAGEMENT PROGRAM

#### PROGRAM IMPLEMENTATION AND ADMINISTRATION

Implementation and administrative controls over the TAMIS maintenance management system were not adequate.

We noted that:

- ▶ Management reporting had not been defined and implemented to permit effective administrative control. Open and closed work order reports were not generated to facilitate review of work order backlog, status and aging.
- ▶ A process had not been defined to systematically account for hours expended on routine/daily maintenance work such as custodial, grounds, pool cleaning, etc. We found that hours expended on routine custodial work were not recorded in the TAMIS system.
- ▶ Productivity/performance standards and measurement had not been defined and implemented to permit effective time management and administrative control.
- ▶ TAMIS system controls were deficient in several respects:
  - The system archiving process had not been fully defined. We noted archived records with active and hold status. In addition, three 1999 work orders were noted on the archive list.
  - System backup procedures had not been formalized to ensure required backup is performed when work control employees are absent.
  - TAMIS did not prevent duplicate scheduling of preventive maintenance.

CSU directive BA 84-25, *Implementation of Trustees' Resolution RA 9-83-057*, dated July 25, 1984, states that a work order system that reasonably accounts for all resources within plant operations will be implemented on each campus.

Executive Order #343, *Establishment of Planned/Programmed Maintenance*, dated April 29, 1988, states that each management system shall incorporate a current, comprehensive schedule for all maintenance work to be accomplished in a timely manner.

SAM §20003 states that a satisfactory system of internal administrative control shall include an established system of practices to be followed in the performance of duties and functions as well as an effective system of internal review.

The interim physical plant director indicated that the capabilities of the TAMIS system have not yet been fully explored and utilized; and the need for additional programming has not been determined. He further indicated that the appropriate level of staffing has not been identified for use of the TAMIS system and appropriate training has not been given to TAMIS system users.

Inadequate implementation and administrative controls over the maintenance management system increases the risk of ineffective and inefficient management of the campus maintenance and repair program and could result in system breakdowns.

### **Recommendation 1**

We recommend that the campus:

- a. develop and implement management reporting to monitor work order status, backlog and aging;
- b. analyze the cost/benefit of establishing procedures to account for hours expended on routine/daily maintenance and measure productivity; and
- c. define and implement effective TAMIS system controls including system backup, archiving and data entry.

### **Campus Response**

- a. The type of reports and the components to be included in the reports have been identified in order to properly monitor the status, backlog and aging of Work Orders. The report component of TAMIS is being modified to develop these reports. This will also include identifying the frequency of when the various reports are to be generated. To be completed by June 1, 2000.
- b. The analysis of how long it takes to perform routine and frequently performed non-maintenance tasks has begun. For each service unit within Physical Plant: grounds, custodial, and trades, a task check list is being developed which will include a space for recording the length of time taken for completion of each task. Each unit will record the length of time it takes to perform tasks for a period of one month. An average time will be developed for the completion of each task. This will be used as the benchmark for the time it takes to complete maintenance and non-maintenance tasks. The data will also be used as a benchmark for identifying employee productivity standards. It is planned that there will be a periodic re-evaluation of the time expended. Evaluation benchmark data to be completed by July 1, 2000.
- c. Controls for the TAMIS system back-up, data entry and archiving have been defined and completed. Data entry codes have been developed to better identify the various types of Work Order, PM, maintenance and non-maintenance. Codes have also been defined in TAMIS to automatically schedule maintenance and PM's. Back-ups are scheduled on a daily basis and the archiving program has been corrected to only archive closed Work Orders that are more than

ninety days old. Full implementation will be completed using the revised coding upon completion of the software upgrades. Implementation date for using revised data codes is June 1, 2000.

## WORK ORDER CONTROLS

Procedures and oversight over the work order process were not adequate.

We noted that:

- ▶ Standard work order processing steps had not been developed, formalized and implemented.
- ▶ Our review of 608 work orders with an Active (A) status (18 - 1997, 195 - 1998 and 395 - 1999) disclosed the following:
  - 403 of 608 (66%) had been completed;
  - the status of the remaining 148 of 608 (24%) could not be readily determined;
  - 70 of the work orders were coded Maintenance but should have been coded Chargeback;
  - 25 of the work orders were coded Chargeback but should have been coded Maintenance; and
  - of 105 work orders coded as Chargeback, at least 50 were properly coded as Chargeback and had been completed. These need to be reviewed and charged back.

CSU directive BA 84-25, *Implementation of Trustees' Resolution RA 9-83-057*, dated July 25, 1984, states that a work order system that reasonably accounts for all resources within plant operations will be implemented on each campus.

Executive Order #343, *Establishment of Planned/Programmed Maintenance*, dated April 29, 1988, states that each management system shall incorporate a current, comprehensive schedule for all maintenance work to be accomplished in a timely manner.

SAM §20003 states that a satisfactory system of internal administrative control shall include an established system of practices to be followed in performance of duties and functions as well as an effective system of internal review.

The interim physical plant director indicated that the capabilities of the TAMIS system have not yet been fully explored and utilized; and the need for additional programming has not been determined. He further indicated that appropriate training has not occurred with respect to the work control system/process.

Inadequate controls and oversight over the work order process increases the risk that maintenance and repairs will not be performed on a timely basis and system breakdowns will occur.

## **Recommendation 2**

We recommend that the campus:

- a. develop and implement formalized work order processing procedures;
- b. establish procedures to monitor the status of work orders to expedite completion of work and closure of completed work orders; and
- c. review the status and coding of all work orders currently in an active status to determine if the work still needs to be done and should be charged back.

## **Campus Response**

- a. Work Order processing procedures have been drafted and are currently under review. The new Work Order processing procedures will be completed by June 1, 2000.
- b. Procedures to monitor the status of Work Orders have been incorporated into the Work Order processing procedures. Procedures to be completed by June 1, 2000.
- c. The review of the status and coding of all currently active Work Orders is in process. These Work Orders will also be reviewed to determine if a chargeback is needed. The Work Order codes for Chargeback work are being revised with the changes to the TAMIS software. The review of the status of current Work Orders and related coding will be completed by June 1, 2000.

## **PREVENTIVE MAINTENANCE**

Implementation and administrative controls over the preventive maintenance (PM) program were not adequate.

We noted that:

- ▶ The TAMIS system preventive maintenance program was not fully functional and utilized for all PM work. For example:
  - PM work of a routine nature was being processed through the work order system and PM work of a more periodic nature was being processed through the PM system. As a result, there was no centralized record of PM work performed.
  - PM work orders processed through the PM system were not being “closed out” such that there was no record of the work being done. As a result, there was no equipment PM history being maintained, no record of PM system backlog and no automated PM scheduling reports.

- The maintained item equipment list in the PM system had not been updated, and procedures had not been established to update the list for equipment replacements.
- ▶ Controls did not ensure that PM work was properly coded and work order numbers properly assigned. We found numerous instances of non-PM work being coded as PM and regular work order numbers being assigned to PM work.
- ▶ Procedures had not been established to track completion of PM work performed by third parties via contract.
- ▶ Scheduled PM work was not always performed. Our review of 30 PM work orders scheduled between July 1 and August 31, 1999 disclosed that 60% were not completed.

Executive Order #343, *Establishment of Planned/Programmed Maintenance*, dated April 29, 1988, states that each management system shall incorporate a current, comprehensive schedule for all maintenance work to be accomplished in a timely manner.

SAM §20003 states that a satisfactory system of internal administrative control shall include an established system of practices to be followed in performance of duties and functions as well as an effective system of internal review.

The interim physical plant director indicated that the capabilities of the TAMIS PM module have not yet been fully explored and utilized; and the need for additional programming has not been determined. He further indicated that the appropriate level of staffing has not been identified for use of the PM module and appropriate training has not been given to the PM module users.

A PM system that is not fully operational increases the risk of ineffective and inefficient PM scheduling and coverage for campus equipment that may result in system breakdowns.

### **Recommendation 3**

We recommend that the campus:

- a. complete development and implementation of the TAMIS system preventive maintenance module, including PM scheduling and backlog reports and equipment PM history records;
- b. strengthen procedures to ensure that all preventive maintenance tasks, including those that are contracted to third parties, are properly coded and performed in a timely manner; and
- c. establish procedures to ensure that all newly acquired equipment is added to the planned/programmed maintenance program.

### **Campus Response**

- a. The PM module of TAMIS is being developed. Included in this development is the revision of the TAMIS coding. Controls for proper coding of PM and non-PM work are being incorporated into the Work Control system procedures. The reports being developed for TAMIS will include the PM scheduling and backlog. The updating of the campus-wide equipment inventory list will be completed by June 1, 2000. The equipment PM history records will be linked to the Inventory module of TAMIS. The PM module implementation, coding, related reports, procedures and updated equipment inventory records will be completed by June 1, 2000.
- b. The Work Control procedures and related coding will provide a mechanism to identify PM tasks to be completed by campus personnel and third party vendors. Work Control procedures and related coding are scheduled to be completed by June 1, 2000.
- c. Procedures are currently being drafted for use of the TAMIS Inventory Control module. These procedures will include the manner in which equipment will be added to and removed from the campus inventory records. As previously mentioned the Inventory Control module will be linked to the PM module in TAMIS. Again, procedures are being drafted for tracking and scheduling of PM work. Inventory Control and Work Control procedures are scheduled to be completed by June 1, 2000.

### **QUALITY CONTROL**

A comprehensive quality control program had not been implemented.

We noted that:

- ▶ routine documented quality control checks of grounds keeping were not performed;
- ▶ custodial inspection sheets were not being used; and
- ▶ routine documented quality control checks of maintenance and non-maintenance work orders were not performed.

SAM §20003 states that a satisfactory system of internal administrative control shall include an established system of practices to be followed in performance of duties and functions as well as an effective system of internal review.

Executive Order #343, *Establishment of Planned/Programmed Maintenance*, dated April 29, 1988, requires that the maintenance management program include a procedure which will provide management with a means to measure the effectiveness of planned/programmed maintenance.

The interim physical plant director indicated that even though supervisors/managers responsible for maintenance areas have not used forms to record inspections, inspections have occurred.

A lack of fully implemented quality control procedures increases the risk that work will not be performed in accordance with established procedures and could result in system breakdowns and deterioration of facilities and grounds.

#### **Recommendation 4**

We recommend that the campus establish and implement a comprehensive formalized quality control program to ensure compliance with physical plant work standards.

#### **Campus Response**

The campus has already begun development of a formalized quality control program to address Physical Plant work standards. The analysis of how long it takes to perform routine tasks and frequently performed non-maintenance tasks has begun. For each service unit within Physical Plant: grounds, custodial, and trades, a form is being developed that will include a checklist of tasks and space to record the time taken for completion of each task. Each unit will record the length of time it takes to perform routine/daily maintenance and frequently performed non-maintenance tasks for a period of one month. An average time will be developed for the completion of these tasks. This will be used as the benchmark for maintenance and non-maintenance task/project scheduling as well as employee productivity standards. Manager inspection forms are also being developed. It is planned that there will be a periodic re-evaluation of the time expended. Evaluation of benchmark data to be completed by July 1, 2000.

## **CHARGEBACKS AND NON-MAINTENANCE WORK**

### **CHARGEBACK CONTROLS**

Procedures regarding reimbursement (chargebacks) to Physical Plant for services rendered were unsatisfactory.

We noted that:

- ▶ Labor rates used to value chargebacks were not current, the method used to develop the rates was not appropriate, and benefits were not charged as required.
- Straight time labor was charged at \$17.25 per hour, regardless of which trade performed the work, and the rate had not been changed in at least ten years. In addition, supporting documentation could not be provided to support the development of the rate being used.

- Although we were told that overtime labor is charged at one and one-half times an employee's current actual labor rate, we were unable to match overtime rates being used to current payroll records. In addition, no supporting documentation could be provided for the overtime rates being used.
- ▶ Supporting documentation could not be provided to substantiate the 15% overhead rate being used.
- ▶ Procedures used to estimate chargeback work orders did not ensure that current costs are used. Chargeback procedures permit estimated amounts to be charged when actual amounts exceed estimates.
- ▶ Controls over chargebacks did not ensure accuracy. Our review of 25 chargebacks processed from June 1 through August 31, 1999 disclosed that labor and material amounts charged did not agree to supporting documentation in 12 of 25 (48%) instances.
- ▶ A formalized reconciliation process was not in place to ensure that physical plant received credit for all chargebacks.

CSU directive BA 84-25, *Implementation of Trustees' Resolution RA 9-83-057*, dated July 25, 1984, states that each campus will develop a chargeback system, and campus policy and procedures must ensure the return of all costs to the plant operations budget. Additionally, the policy should include reimbursement for overhead that would normally be calculated as a percentage of total costs.

CSU systemwide directive BP 86-69, *Staff Benefits – Billing Rates for Services of General Fund Employees*, dated September 29, 1986, states that campuses will be responsible for the derivation of benefit rates applicable to the campus and compliance with SAM §8740.

SAM §8740 establishes the formula for determining hourly rates including staff benefits for the billing of services of employees paid on a monthly basis.

SAM §20003 states that a satisfactory system of internal accounting and administrative control shall include a system of record keeping procedures adequate to provide effective accounting control over assets, liabilities, revenues, and expenditures.

The interim physical plant director indicated that the chargeback rates currently being used were adopted as a result of a recommendation made by a Campus Chargeback Committee. He further noted that the capabilities of the TAMIS system have not been fully explored and utilized; and the need for additional programming has not been determined with respect to the chargeback system. Additionally, the appropriate level of staffing has not been identified for use of the chargeback system and appropriate training has not been given to the chargeback system users.

Inadequate controls over chargebacks increase the risk of inaccurate, incomplete, and untimely reimbursement to physical plant and reduce funds available for campus maintenance and repairs.

### **Recommendation 5**

We recommend that the campus:

- a. establish procedures to ensure that current labor and benefit rates are used for chargebacks;
- b. substantiate the validity of the overhead rate and apply that rate to total work order cost;
- c. establish procedures to review all chargebacks prior to issuance to ensure the accuracy of labor and material costs; and
- d. establish verification procedures to ensure that credit is received for all chargebacks.

### **Campus Response**

- a-c. A comprehensive evaluation is currently being conducted to determine both direct and indirect chargeback cost rates for time and materials. The campus policy to be proposed will include the additional cost of employee benefits for chargebacks identified as not being funded by state general funds, e.g. auxiliaries, off-campus groups, etc. Procedures are being developed for implementation of this policy. These procedures will be incorporated into the campus Work Control procedures. Policies and procedures are scheduled to be completed and implemented by July 1, 2000.
- d. Development of reconciliation procedures to address credit being received by Physical Plant for chargeback costs has begun. These procedures will also be incorporated into the overall Work Control procedures. Policies and procedures to be completed and implemented by July 1, 2000.

### **NON-GENERAL FUND ACTIVITIES**

Services provided to non-general fund activities were not always fully reimbursed to the campus.

We noted that:

- ▶ Although the California Academy of Math and Science (CAMS) was being charged for certain support services, a formalized agreement had not been finalized to ensure proper reimbursement.
- ▶ The CSU Dominguez Hills Foundation and Extended Education were not assessed for basic custodial service.
- ▶ The campus policy for reimbursement of services rendered when facilities are leased to third parties had not been updated since 1996.

CSU directive BA 84-25, *Implementation of Trustees' Resolution RA 9-83-057*, dated July 25, 1984, states that each campus will develop a chargeback system, and campus policy and procedures must ensure the return of all costs to the plant operations budget.

CSU directive BA 83-30, *Policy on Chargeable Services to Self-Supporting Operations*, dated December 28, 1983, states that funds provided from the general fund may be used to provide support for ancillary operations that are not funded through the general fund if there is recovery of the cost of such support. In the absence of specific CSU policy, recovery for the cost of support shall include the incremental costs of providing the support. If trade-offs are appropriate, they shall be clearly documented, valued in accordance with supportable cost studies, and otherwise not in conflict with state, system or campus regulations. Support provided shall be in accordance with appropriate written agreements that include the basis and rationale for the valuation.

SAM §8752 indicates that state policy is for departments to recover full costs whenever goods or services are provided to others.

SAM §20003 states that a satisfactory system of internal accounting and administrative control shall include a system of record keeping procedures adequate to provide effective accounting control over assets, liabilities, revenues, and expenditures.

The interim physical plant director indicated, in previous years, agreements were made for many of the non-general fund activities, which resulted in the current chargeback practices.

Failure to implement chargeback procedures to non-general fund activities reduces the likelihood for complete and timely compensation to physical plant and reduces the amount of funds available for campus maintenance and repairs.

### **Recommendation 6**

We recommend that the campus review all services performed by the physical plant for non-general fund activities and strengthen procedures to ensure proper reimbursement.

### **Campus Response**

A comprehensive evaluation of actual costs for services performed by Physical Plant for non-general fund and third party entities, e.g. CAMS, Auxiliaries, off-campus groups, etc. is being conducted. Revisions to agreements with these organizations/groups will be developed and will include actual cost reimbursements. The campus Facilities Utilization chargeback policies and procedures are also being revised to incorporate actual cost reimbursement. Policies and procedures implementation scheduled to be completed by July 1, 2000.

## MAINTENANCE MATERIALS AND EQUIPMENT

### MAINTENANCE MATERIALS AND SUPPLIES INVENTORY

Maintenance materials and supplies inventory procedures were unsatisfactory.

We noted that:

- ▶ No comprehensive written/computerized record of physical plant materials and supplies inventory existed. As a result, physical plant inventory was not being recorded on the campus balance sheet.
- ▶ The last physical inventory was performed in 1996.
- ▶ Formalized policies and procedures had not been developed for effective materials management.
- ▶ Warehouse management stated that trades personnel often entered the warehouse to obtain materials and supplies.

SAM §3535 requires state agencies to maintain unit stock records and conduct physical inventories if they operate warehouses with gross floor space exceeding 4,000 sq. ft., average annual inventory investment in expendable goods exceeding \$50,000, annual issues of expendable goods exceeding \$100,000 or expendable goods inventory consisting of 400 or more stock items. In addition, each state agency must develop internal policies and procedures for effective materials management within each organizational unit that maintains continuing inventories of expendable goods.

CSU systemwide directive BA 84-25, *Implementation of Trustees' Resolution RA 9-83-057*, dated July 25, 1984, states that internal controls over the purchase, storage and use of plant operations department materials be developed and implemented at the campuses.

SAM §20003 states that a satisfactory system of internal accounting and administrative control shall include segregation of duties appropriate for proper safeguarding of state agency assets and a system of record keeping procedures adequate to provide effective accounting control over assets, liabilities, revenues, and expenditures.

The work control coordinator indicated that the TAMIS inventory module was never fully developed following the physical plants conversion from the MMS to the TAMIS system about three years ago. The interim physical plant director indicated that locks to the physical plant warehouse had been changed to prevent unauthorized personnel from having access; however, it is recognized that there is a need for a more effect control mechanism.

Lack of sufficient inventory controls increases the risk of lost or stolen assets and leads to higher overall inventory costs.

### **Recommendation 7**

We recommend that the campus:

- a. develop a comprehensive record of physical plant materials and supplies inventory;
- b. develop formalized internal policies and procedures for effective materials management;
- c. establish procedures to ensure that physical inventory, including reconciliation to perpetual records, is performed on an annual basis; and
- d. establish procedures to ensure adequate physical security over all items maintained in inventory.

### **Campus Response**

- a-c. Physical Plant will conduct an inventory of materials and supplies. Supplies and materials to be used for maintenance and non-maintenance work will be issued using Work Orders. It is planned that the Inventory Control module of TAMIS will be used to track these items. The materials requested using a Work Order will identify the account number to be charged and coded to specify maintenance work or non-maintenance chargeback work. The Work Control/chargeback module will interface with the Inventory module. Reconciliation of the inventory will be done on a regular basis. Policies and procedures for inventory management will be developed as part of the comprehensive Physical Plant Policies and Procedures. The inventory and the procedures for Inventory Control and Work Control processes are scheduled to be completed by June 1, 2000.
- d. Materials housed in the Campus Stores will be issued by Campus Stores personnel. Items will be issued by use of a Work Order. The materials that are distributed and returned will be logged into the Inventory Control module that will interface with the Work Control/chargeback module of TAMIS. The Campus Stores, Inventory and Work Control modules, and related policies and procedures are scheduled to be completed and fully operational by June 30, 2000.

## **SMALL HAND TOOLS AND EQUIPMENT**

Improvement is needed in the area of accountability over small hand tools and equipment.

We noted that:

- ▶ a list was not maintained of custodial equipment;
- ▶ a list was not maintained of grounds equipment, except for power equipment which was completed before the end of fieldwork; and
- ▶ trade shops did not maintain lists of equipment and tools.

SAM §20003 states that a satisfactory system of internal accounting and administrative control shall include a system of recordkeeping procedures adequate to provide effective accounting control over assets, liabilities, revenues, and expenditures.

The planner/estimator and scheduling manager indicated that a system to account for hand tools and equipment had been developed about seven years ago, but was never implemented.

Not maintaining accountability over small hand tools and equipment increases the risk of loss.

### **Recommendation 8**

We recommend that physical plant establish a comprehensive and uniform control system for small hand tools and equipment.

### **Campus Response**

An inventory will be performed of existing hand tools, campus-wide equipment and other equipment in the Physical Plant department. Equipment that needs to be surveyed will be done through the procedures established for Inventory Controls. Equipment and tools that do not need to go through the equipment survey process before they are discarded will be automatically removed from the list. As new items are purchased, they will be added to the list. Procedures and policies for maintaining equipment and tools lists will be included in the Inventory Controls and the comprehensive policies and procedures being developed for the Physical Plant department. The list of Physical Plant equipment and tools will be reconciled on an annual basis. Procedures for Inventory Controls and maintenance of lists for Physical Plant hand tools and equipment will be completed by July 1, 2000.

## **UTILITIES MANAGEMENT**

The campus utilities management program was in need of improvement.

We noted that:

- ▶ a current annual five-year energy conservation and utilities management plan was not maintained;
- ▶ monthly energy consumption reports had not been submitted to CPDC since May 1998;
- ▶ auxiliaries were not being correctly charged back for utilities; and
- ▶ feedback from faculty, staff and students on the effects of energy conservation on instructional programs was no longer being solicited.

Executive Order #538, *Policy Statement on Energy Conservation and Utilities Management for the CSU and Energy Consumption Reduction Goal for 1992/93 Compared to 1986/87*, dated February 1, 1989, states that:

- ▶ all CSU campuses will implement a utilities chargeback system to recover the cost of utilities provided to self-supporting and external organizations;
- ▶ each CSU campus will develop, implement and update a campus-wide five-year Energy Conservation and Utilities Management Plan;
- ▶ on a monthly basis, the CSU will monitor energy usage on all campuses and the headquarters buildings (Capital Planning, Design and Construction requires the submission of monthly Energy Consumption Reports and uses these reports to update a systemwide energy consumption database); and
- ▶ the campus energy/utilities manager shall solicit feedback from faculty, staff and students on the effects of energy conservation on instructional programs.

SAM §20003 states that a satisfactory system of internal administrative control shall include an established system of practices to be followed in the performance of duties and functions as well as an effective system of internal review.

The interim physical plant director indicated that due to time constraints of existing staff, the reports were not always completed and/or completed in a timely manner. He further indicated that the energy conservation committee has not been meeting on a regular basis.

A less than satisfactory campus utilities management program reduces the likelihood that the general fund will be fully compensated for utilities provided to self-supporting and external organizations and may result in decreased energy efficiency.

### **Recommendation 9**

We recommend that the campus:

- a. obtain clarification from CPDC regarding the need for a current campus-wide five-year Energy Conservation and Utilities Management Plan and comply as instructed;
- b. submit energy consumption reports to CPDC on a monthly basis;
- c. establish procedures to ensure the accuracy of billing rates charged to self-supporting and external organizations; and

- d. establish procedures to solicit feedback from faculty, staff and students on the effects of energy conservation on instructional programs.

### **Campus Response**

- a-d. The campus will contact CPDC to determine the required reporting time schedule for updating of the campus-wide five-year Energy Conservation and Utilities Management Plan. Additionally, the campus will verify with CPDC the needed frequency for submitting energy consumption reports. Enron, the CSU electrical supplier, is being contacted to determine whether or not they can supply campuses with the needed information for electrical usage. Energy consumption reports are now scheduled to be prepared on a regular basis and will be submitted as required by CPDC. Appropriate reimbursement for energy consumption by non-general fund users will be addressed and included in the Physical Plant policies and procedures, the Work Control/Chargeback procedures, and Facilities Utilization procedures. Procedures are also being developed to solicit feedback from faculty, staff and students on the effects of energy conservation on instructional programs, e.g. using surveys and/or other mechanisms. Reporting requirements and procedures to be completed and implemented by June 1, 2000.

## **ADMINISTRATION AND BUDGETARY CONTROLS**

A comprehensive policies and procedures manual had not been developed for the Physical Plant.

SAM §20003 states that the nonexistence of policy and procedural or operational manuals is a danger signal of a vulnerable control system.

The planner/estimator and scheduling manager indicated that the work control manual has not been updated and revised since the implementation of TAMIS. The interim physical plant director indicated that there have been many procedures and policies developed for individual areas/ tasks; however, in some cases, not all policies and procedures have been put in writing. He further indicated that staff time had not yet been devoted to compile the existing written policies and procedures.

Internal controls can be compromised if they are not properly documented and communicated to all employees.

**Recommendation 10**

We recommend that physical plant develop and distribute comprehensive policies and procedures to all physical plant employees.

**Campus Response**

Comprehensive policies and procedures are being drafted for all functions within the Physical Plant department and will be distributed to employees. Policies and procedures to be completed and distributed to employees by July 1, 2000.

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## APPENDIX A: PERSONNEL CONTACTED

<u>Name</u>	<u>Title</u>
Dr. James Lyons, Sr.	President
Margaret Coda-Messerle	Director, Facilities Planning
Domenic Del Re	Director, Physical Plant (Interim)
Faye Edwards	Administration Services Supervisor
Janice Ely	Director, Internal Audit
Alvin Hall	Custodial Manager
Delores Hendricks	Department Secretary
Kathy Hughes	Director, Business Process Management
Ron Lamb	Manager of Building Trades
Estella Leonard	Work Control Clerk
Richard Ontiveros	Grounds Manager
George Pardon	Vice President, Administration and Finance
Randy Sharp	Director, Physical Plant
Steve Slimp	Associate Director, Physical Plant
Ezekial "Bo" Thomas	Locksmith II
Dennis Weight	Planner/Estimator, Scheduler Manager
Tom Wood	Work Control Coordinator