4. Maintenance Division Management

- **The leadership shortcomings and conflicts among the members of the Maintenance Division's current top-level management have greatly hindered the Division's effectiveness. The disrespect, disloyalty, and lack of trust between the General Superintendent and his immediate subordinates are pervasive. The appearance of favoritism on the part of the General Superintendent has hindered the Maintenance Division's effectiveness. Thus, projects that would be challenging in a positive work environment with a strong management team, such as implementing an automated maintenance management system, or transforming an unorganized and chaotic storeroom into an effective operation, become much more difficult.**

- **The Maintenance Division does not have a consolidated procedures manual for performing its work, does not report its performance on basic maintenance effectiveness measures, has one of the most poorly organized storerooms that our auditors have observed, had, until the progression of this management audit, the most disorganized and blighted storage yards ever observed by the auditors, has poor tool and equipment controls, has not provided a safe, healthy, and harassment-free work environment, has not implemented the Avantis facility maintenance management system in an effective manner (see Section 13), and has a top management team that is entirely dysfunctional.**

- **In a survey conducted by the Budget Analyst, Maintenance Division staff supervisors and managers were asked on an individual, confidential basis to list the three top actions which, in the opinion of the supervisor or manager, would most benefit the performance of the Division. Fifty percent of those queried stated that an action to (a) resolve turmoil, (b) instill integrity, or (c) to improve leadership at the upper-management level, was needed.**

- **In order to address these issues, the Budget Analyst recommends that the Port change the organizational structure to remove a management layer between the General Superintendent and Maintenance supervisors, to modify lines of reporting to achieve consistency of command, and to eliminate one non-essential position. Further, the Budget Analyst recommends that the Executive Director perform an examination and evaluation of the leadership changes that need to be made in the Maintenance Division.**

Maintenance Division Mission and Organization

The mission of the Maintenance Division is to provide a full range of facility services to the Division's clients: the Real Estate, Maritime, and Engineering/Environmental Divisions of the Port. The Maintenance Division provides maintenance and repair of the Port's superstructures, substructures, vehicles, and utility systems and also provides construction services at the request of its clients. The Division also provides garbage pickup, roadway cleaning, public roadway repair, and public access space maintenance and repair along the 7.5 miles of the Port's waterfront.

Authorized 110 FTE permanent positions or 45.8 percent of the Port's 240 authorized FTE permanent positions, the Maintenance Division is the Port's largest organizational element. The current organizational structure of the Maintenance Division is shown on the following page. The upper management of the Division consists of the following five positions:

- Classification 9375, Assistant Deputy Director
- Classification 9363, Superintendent of Harbor Maintenance (2 positions)
- Classification 7263, Maintenance Manager
- Classification 9330, Construction/Maintenance Supervisor II

The classification 9375, Assistant Deputy Director, or General Superintendent, is responsible for the management of the Maintenance Division. The position reports to the Deputy Director, Engineering and Maintenance.

One classification 9363, Superintendent of Harbor Maintenance, or Assistant Superintendent, manages the electricians, roofers, and other trades that, in general, maintain the Port's superstructures.

The second classification 9363, Superintendent of Harbor Maintenance, manages the pile worker crews that are primarily responsible for maintaining the Port's substructures, the ironworkers and welders, the machinists, and the stationary engineers.

The 9330, Construction/Maintenance Supervisor II, or General Foreman, supervises the auto mechanics, the gardeners, the asphalt workers, and the truck drivers and laborers who provide garbage pickup, roadway cleaning, and perform various other tasks.

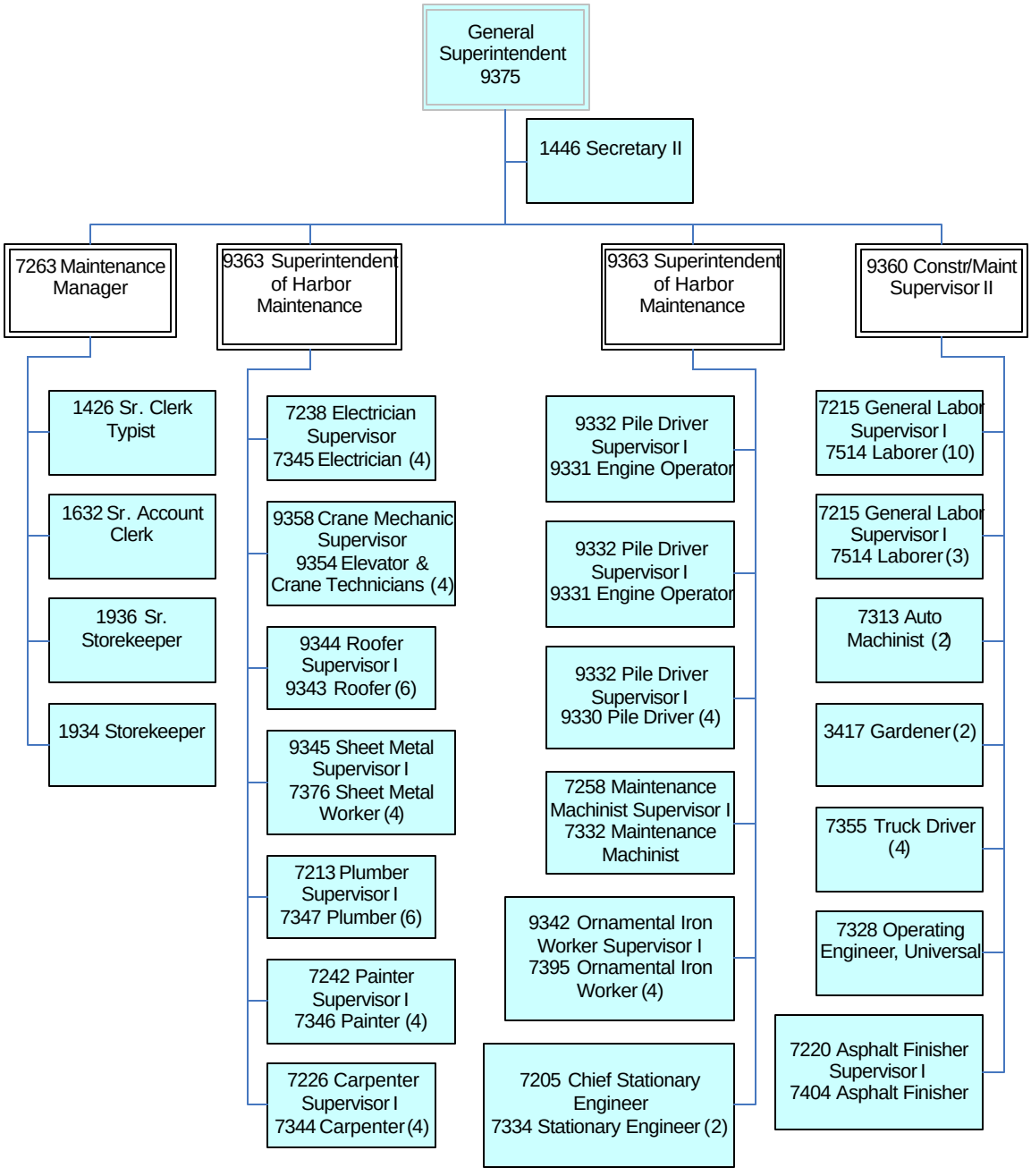
The classification 7263, Maintenance Manager is responsible for operating the automated system through which the General Superintendent and the Assistant Superintendents control work assignments, monitor progress on work assigned, and control the ordering, storing, and issuance of material.

The Maintenance Division employs only journeymen craft personnel in its building trades; no apprentices are employed. The journeymen are highly skilled in the various

trades: some have many years of experience in the Maintenance Division, and some have years of experience with other City departments or in private industry.

Exhibit 4.1

Maintenance Division Organizational Chart



One trade that is unique to the Port within the City is that of classification 9330, Pile Worker, of which the Port is authorized 13 fulltime equivalent (FTE) positions. The Pile Workers are responsible for inspecting and repairing all concrete and wood piling

throughout the Port. The work involves heavy timber framing and requires the use of chainsaws and other specific tools for installing piles and related materials.

Prior to the current year, Pile Worker crews worked on pile driver rigs that had a drop hammer powered by steam driven engines for driving the piles. The steam rigs have recently been replaced with updated equipment, such as rotating diesel cranes with diesel driving hammers mounted on barges.

The Pile Workers include one crew of certified construction divers. This crew uses surface supplied air and hard-hat diving equipment to perform underwater inspections and repairs of all type piling, seawalls, and breakwaters. Divers are essential to making repairs under piers where pile rigs cannot gain access. Making repairs from below the surface allows business establishments to continue operating during the repairs. The dive crew also maintains barges, pile drivers, and push boats by inspecting the bottoms for damage and assuring that the sacrificial anodes[1] are intact and working. Finally, the dive crew operates a fleet of boats to assist all other crafts and engineering personnel for inspections and repairs along the seven and one-half miles of Port waterfront.

Prior to 1997, the Maintenance Division was located at Pier 46, but relocated to Pier 50 in that year in order to make room for SBC Park. Pier 50, Shed D, the current Maintenance Division location, is approximately one-quarter of a mile across China Basin and south of SBC Park. The Pier 50 facility houses offices and work areas for the Maintenance Division's managers and most of the Division's trades; however, various other facilities on Port property support Maintenance Division operations, including laborer facilities at Fisherman's Wharf and the Agricultural Building, maintenance trailers for the pile workers at Piers 15 and 19, and a corporate yard at Pier 90.

Maintenance and Material Control Procedures

Policies and Procedures Manual

Port Maintenance, which has reportedly been in existence in one form or another since the 19th century, does not have a consolidated procedures manual for its maintenance operations. Every other City and County of San Francisco maintenance department that we visited in conjunction with this management audit had procedures manuals for maintenance operations. Examples of topics covered in procedures manuals are shown in below Table 4.1.[2]

[1] An anode is an electrode or terminal by which current enters an electrolytic cell. A sacrificial anode is an anode that is attached to a metal object subject to electrolysis and is decomposed instead of the object.

[2] Taken from the procedures manuals of the Bureau of Water Pollution Control of the San Francisco Public Utilities Commission.

Table 4.1

Procedures Manual Example Contents

Procedures Manual Examples	
Maintenance Management	**Materials Management**
1. Systems Summary 2. Work Order Procedure 3. Backlog Tracking 4. Daily Work Schedule 5. Weekly Maintenance Plan 6 Job Card Procedure 7 Job Standard Procedure 8 Lubrication, Mechanical Inspection and Preventive Maintenance 9. Warrant Tracking 10. Failure Analysis 11 Work Order Summary Log 12. Vendor Equipment and Repair Tracking 13. Work Assignment, Monitoring and Control 14. Management Reports 15. Procedure and Form Revision 16. Contractor Control 17. (Future Addition) 18. Job Control	1. Policy and Functions of Materials Management 2. Authorization to Withdraw Materials from the Warehouse 3. Control of Tools 4. Receiving 5. Warehouse Issues and Credits 6. Bin Locations 7. Warehouse Scheduled Deliveries 8. Low Value Items (Free Stock) 9. Back Orders and Stock Reservations 10. Repaired Components (Stock) 11. Inventory Stratification 12. Cost of Ordering and Cost of Carrying 13. Active Inventory 14. Inactive Inventory 15. Technical Review 16. Cycle Inventory 17. New Stock Requests 18. Trial of Commodity 19. Purchase Requisitions 20. Expediting of Purchase Requisitions 21. Management Reporting

Policies and procedures serve multiple functions, including the following:

- A self-regulating control standard for performing work,
- An efficiency and effectiveness tool incorporating best practices or lessons learned, and
- A training and indoctrination tool for newly assigned personnel.

Absence of an up-to-date policies and procedures manual for the Maintenance Division is a major deficiency that should be corrected on a priority basis. The procedures manual should be a dynamic document, continually incorporating updated information. The Maintenance Division can use appropriate sections of other departments' policies and procedures manuals as starting points in the development of their own. However approached, a good procedures manual is a guidance, control, and training tool that the Maintenance Division needs to develop on a priority basis. A policies and procedures manual would serve to standardize such supervisory functions as checking on work crews and controlling tools and equipment, which are currently not standardized practices within the Maintenance Division, as discussed later in this section of the audit report.

According to the General Superintendent, the Maintenance Division is currently developing a consolidated procedures manual based on the procedures manual developed by the Public Utilities Commission's Bureau of Water Pollution Control.

Storeroom Management

The state of organization and appearance of the Maintenance Division's storeroom is one of the worst that the Budget Analyst auditors have ever observed.

The storeroom is unkempt, with a crust of dirt on most of the items stored. At the outset of this management audit, the storeroom was in essence a highly disorganized warehouse, with items of inventory commingled with all manner of non-inventoried items, such as relics taken from the Ferry Building. Lately, there have been improvements made to the organization of the storeroom.

Many of the shelves in the storeroom do not have bin locations. Thus, as is the procedure in auditing storerooms for the accuracy of inventory, one cannot obtain an inventory bin location, proceed to that location, and determine whether the actual number of inventoried items matches what is recorded in the inventory records. Our method of testing the accuracy of the inventory records was to proceed to the inventory shelves, accompanied by a Port supervisor who had written inventory records, and to search those written inventory records for the matching item number with that shown on the shelf. The results of this process were as follows:

Table 4.2

Storeroom Inventory Audit Result

Item	Inventory Record Count	Actual Count	Comments
Coupling, Conduit, Rigid, ¾"	20	25	Item No. 17615
Connector, Rigid ¾"	37	37	Item No. 17350
Cover, Condulet[3], 2"	0	1	Not in Inventory Records; Item No. 17870
Lumber, Plywood, 3/8"	3	33	Item No. 42005
Lumber, Plywood, ¾"	29	40	Item No. 42015
Steel Stock, Round Bar, Angle Iron, Flat Bar	0	Numerous	Not in Inventory Records
Loose Large Condulet on Shelf	12	12	Item No. 16646
Heavy Duty Hand Cleaner	0	11	Item No. 93147
Heavy Duty Hand Cleaner	12	11	Item No.
Anchoring Cement Bags			Not in Inventory Records; No Item No.

As shown in Table 4.2, the Maintenance Division does not have an accurate inventory of what is contained in its storeroom. The consequences of deficient storeroom

[3] A condulet is an electrical wiring junction box.

management and poor inventory control range from the potential for overstocking, thus wasting Port funds, to undetected losses of Port materials and supplies.

Concerning inventory turnover, which provides information on how much the storeroom is used, calculations based on the Maintenance Division's inventory value of $965,025.47 (which cannot be relied on as an accurate number, as evidenced by the storeroom inventory audit results, above) and issuances from inventory for the first five months of FY 2003-2004, which are shown below:

Table 4.3

Issuances from Inventory

Month	Issued Amount
July, 2004	$7,879.71
August, 2004	7,571.24
September, 2004	13,332.98
October, 2004	6,761.51
November, 2004	2,388.38
December, 2004	5,009.96
Total	**$42,943.78**

Annualizing the first six months of FY 2003-2004 yields the figure of $85,887.56. Dividing issuances of $85,887.56 by the inventory value of $965,025.47 yields an annual turnover rate of 8.9 percent. Stated differently, on the basis of the numbers obtained, it would take the Maintenance Division 11.2 years for issuances from inventory to cumulatively add up to $965,025.47.

An inventory turnover rate of 8.9 percent is absurdly low. In comparison, the Water Supply and Treatment Division of the Water Department, based on a reported inventory value of $381.348.75 and a six-month issuances sum of $134,859.52, had an inventory turnover percentage of 70.7 percent. Stated differently, it would take the Water Supply and Treatment Division approximately one year and five months to turn over its inventory.

In like manner, the Moccasin storeroom of the Hetch Hetchy Project, based on a reported inventory value of $247,872.88 and a six-month issuances sum of $173,587.95 turned it's inventory over at an annual rate of 1.4 times for the first six months of FY 2003-2004.

If the inventory value of the Port Maintenance storeroom is accurate, which cannot be determined from Port records, the Port has 11 times the value of its inventory needed for one year of operations. Strengthened storeroom management and significant

improvement to inventory control should become an immediate priority for Maintenance Division management.

Table 4.4

Inventory Turnover

Storeroom Facility	Reported Inventory Value	Annualized Issuances from Inventory	Annual Inventory Turnover Rate	Months Needed to Turn Over Inventory
Moccasin	$247,873	$347,176	1.40	8.6
Water Department	$381,349	$269,719	0.707	17.0
Port Maintenance Division	$965,025	$85,888	0.089	134.8*

*****Equivalent of 11.2 years

Control of Tools and Equipment

Tools and equipment of a specified dollar value should be inventoried, informally tracked, and re-inventoried at least annually. According to the General Superintendent, historically, each shop maintained an inventory of tools with a value of at least $500 and equipment on 5 by 7 index cards.

A check of various trade shops by the Budget Analyst for tools and equipment yielded mixed results. Although some of the shops maintained such inventories, others had no inventory of tools and equipment.

In response to a Budget Analyst inquiry, the General Superintendent also reported that all data on the index cards were transferred to an Excel spreadsheet and that he has mandated that tracking of all tools and equipment with a value of $150 is to be completed by March of 2004. The Budget Analyst believes that such a policy, if enforced, would provide reasonable assurance concerning accounting for tools and equipment. The Budget Analyst also believes that such a tool and equipment inventory policy should be a part of a Policy and Procedures Manual, previously discussed.

During the course of this management audit, the auditors received numerous allegations of improper and illegal ordering and misuse of Port material, including the following statement from the Port's Maintenance Manager who has responsibility for procurement, the storeroom, and the Avantis System implementation.

> Tools are "walking" away at an alarming rate . . . . Everyone involved is denying their existence, pointing fingers at everyone else. Someone needs to perform an unscheduled inspection of all [name] lock-ups and job sites and take inventory.

Control of Port Property

Port areas designated as storage areas for Port supplies and equipment should be free of the private property of Port employees. However, at the initiation of this management audit, a proliferation of private property, much of it in a dilapidated condition, existed on Port grounds. The auditors observed all manner of private property items stored in the yard outside of Shed D, including vehicles, some of which were up on blocks, trucks, vans, boats, and miscellaneous items of various descriptions. The corporate yard at Pier 90 was of a similar nature.

Not only were the storage areas in an unsightly condition, but the existence of private property intermingled with Port property is inconsistent with exercising proper control over Port property.

The auditors discussed the unsatisfactory storage and control situation with the General Superintendent, and with the exception of a truck that remains in the maintenance yard at Pier 50, Port property in those two locations has been cleared of the private property that we originally observed.

Management Control of Maintenance Work and Productivity

In order to measure the effectiveness and efficiency of maintenance work, maintenance organizations maintain efficiency and effectiveness statistics and publish reports on the results of their maintenance activities over specific time periods. In some maintenance organizations, the processes of preparing work data for analysis are primarily automated; other maintenance organizations use primarily manual methods. Both methods have been effective in assisting maintenance organizations in managing work assignments, re-allocating resources, and identifying problem areas, although the trend in large maintenance organizations is definitely toward automated systems, such as the Avantis system being implemented by Port Maintenance, as discussed in more detail below. Concerning Port Maintenance however, neither an automated nor a manual system has been used in the past.

Maintenance organizations have standardized means of measuring and reporting maintenance performance. Table 4.5 below lists some of the standard measurements and states their functions.

Table 4.5

Maintenance Performance Measures for Management Control of Maintenance Work

Name	Report Purpose
Scheduling Compliance Report	A comparison of work accomplished that had been planned to work accomplished that had not been planned. The higher the percentage of planned work accomplished the better, since unplanned work is generally disruptive and more costly.
Preventive Maintenance Compliance Report	A comparison of actual preventive maintenance work to planned preventive maintenance work. Preventive maintenance results in better equipment reliability, reduced emergency repairs, and longer equipment life.
Backlog Report	A report that provides the backlog of planned work, normally in weeks, by trade and by the Department as a whole. This report should be reviewed periodically and the work re-prioritized. The Backlog Report is also an important tool in managing workload, staffing, and budgeting.
Personnel Report	A comparison of the hours recorded in the maintenance management system with those recorded in the payroll system, if they are separate systems. Paid hours should be identical in the systems.
Productivity Report	A comparison of the planned or estimated time or cost of a job compared to the actual time or cost in labor and materials to complete the work. A standard can be applied to common repairs and maintenance projects. Estimates should be reviewed for repetitive maintenance work to better reflect the actual time required to accomplish the work.

To be useful, the performance measures shown should be calculated for Port Maintenance as a whole to provide a measure for Division-wide actual performance compared to planned performance and for time-series analysis of productivity, but should also be calculated for each of the trades in order to determine where problem areas are. Thus, for each of the performance measures shown above, there would be calculations for the plumbers, the electricians, etc.

The Water Pollution Control Division of the Public Utilities Commission uses a set of management-by-objectives measures that can serve as a guide for using the Avantis System in a comparable manner.

In contrast to having available performance measures for each trade and Division-wide, the data available for analysis from the Maintenance Division is very limited. For example, in response to an inquiry concerning the percentages of total maintenance time devoted to major maintenance categories, the Maintenance Division responded as follows:

> Currently, approximately 35% is Capital Projects, 5% Preventive Maintenance, with smaller percentages attributed to Facility Damage, Tenant Requests, and the remaining categories. Essentially, the percentage of maintenance time on these activities is not currently clearly defined. It is the goal Maintenance to better identify each of our activities and more clearly define the percentages of our efforts to these activities.

As of the writing of this report, the Maintenance Division has begun to accumulate information on work actually performed, but has much work remaining to refine the work category definitions and the development of performance measures. According to the General Superintendent, the Maintenance Division expects to have a fully functioning maintenance performance reporting system by August of 2004 for each trade and Division-wide.

Concerning the control of maintenance crews, in response to an inquiry concerning written procedures requiring supervisors to physically inspect the work of their crews, the Maintenance Division answered that though there is no written policy requiring such physical inspection, one of the maintenance superintendents requires his supervisors to do so. In other words, approximately one-half of the Maintenance Division supervisors are required to physically inspect the work performed by their crews, while the other one-half is not so required. Further, in response to an inquiry as to whether there are written procedures requiring that supervisors perform impromptu inspections of work crews, the Maintenance Division responded as follows:

> Currently, no. One of the goals and intentions of the developing Quality Control Program is to incorporate procedures for inspections, both routine and impromptu.

As an example of lax supervision of work crews, after observing over a period of time the apparent high popularity and high frequency of use of a well-known waterfront eatery by Port Maintenance staff, the Budget Analyst monitored the establishment and determined that on one particular day there were a total of seven Port maintenance vehicles at the establishment at one time during work hours, between 8:05 a.m. and 9:15 a.m. Some of the vehicles were parked at the establishment for in excess of one hour.

Many Port employees, including those not assigned to Port Maintenance, are aware of the use of the particular establishment by maintenance personnel, at all hours of the day. Maintenance Division management is well aware of the practice described, but, the practice has continued.

The Avantis Maintenance Management System

Background

Avantis is the facility maintenance management system selected by the Maintenance Division in 2001 to facilitate the management of maintenance activities. As stated in the Port's *Avantis FMMS Accounting User Reference Guide*, "The purpose and intent of the system is to meet the Port's defined needs in the areas of maintenance tracking, work order management and materials management."

Section 13 of this audit report, concerning the Port's Information Systems, includes a detailed account of the Port's maintenance management information needs, the relationship of those maintenance management information needs to other information needs, such as accounting and finance, the steps leading to the procurement of the Avantis system, and the problems that the Port has incurred in implementing the Avantis system. The Information Systems section of this audit report includes a segment on the Avantis facility maintenance management system that provides information on the need for such a system, the functional requirements, and the development process.

System Costs

Based on information provided by the Port's Accounting Section and the Port's Information Systems unit, the Port has expended the following amounts for the Avantis system license fees, consulting costs, RFP assistance, and software, but not including in-house costs:

Table 4.6

Avantis System External Costs

Cost Item	Cost Amount	Item Totals
License Fees		$169,590
Consulting Fees		
Implementation Assistance	302,800	
Implementation Assistance	135,000	
RFP Assistance	103,808	541,608
Software Maintenance/Support/ Upgrade Fees (rate of $43,800 each calendar year)		74,071
Total		**$785,269**

In addition to the costs shown above, the Port's Information Systems unit reports that it has expended approximately $582,330 in staff costs on the Avantis project proposal development, system development, and system implementation as of March 1, 2004. Thus, the Avantis system costs, not including the Maintenance Division, total approximately $1,367,599. The amount of staff costs expended by the Maintenance Division, which has not been accounted for, would be very high.

Avantis Implementation

According to the Port, Avantis went operational in December of 2002. As stated in the Information Systems section of this audit report, "Interviews with Information Systems staff indicated that the implementation of Avantis has not been smooth. . . . Not only are significant functions not operational, implementation of the primary function, the work order module, has been problematic." The Information Systems section provides additional information on Avantis implementation problems, as follows:

> As can be seen in the table, a full nine months after implementation, almost 55 percent of Maintenance staff time is being recorded as indirect time – that is time not spent on a specific Port facility, asset, or capital project. Either Maintenance staff are spending a significant amount of time on indirect activities, which is a management issue in and of itself, or Maintenance staff are inaccurately coding their time. The Avantis project manager has since conducted an analysis of indirect time worked by Maintenance staff between July of 2003 and March of 2004. The analysis, which distributes indirect time to a very detailed and low level, can be used by maintenance management to refine the Avantis coding structure, improve the accuracy of time coded, and/or improve work assignments and Maintenance staff productivity.

In addition to problems in recording time expended on work orders, most of the work is not being planned in Avantis. Planning is the process of allocating labor by trade, materials, and equipment to a work order. Planning work orders in a facility maintenance management system is an absolute necessity to obtain useful information from the system. As of the writing of this audit report, planning within Avantis has been assigned to the Maintenance Division supervisors (foremen). The Budget Analyst reviewed the state of planning within the Maintenance Division in February of 2004 and found that few supervisors are planning their work using the Avantis system, although the Avantis system became operational in December of 2002.

There is much resistance from supervisors and from journeymen to the Avantis project. The upfront cost of learning the computer screens and form inputs is a laborious and grievous task for some of the supervisors, who view the system as an impediment to getting work accomplished. Further, not all of the top management team are fully supportive of the Avantis project.

The Maintenance Division has recently initiated a concerted effort to make Avantis operational, and plans to soon implement the "work order scheduling" module of the system. Work order scheduling is the process of assigning specific workers to work tasks on specific dates. The Budget Analyst checked with the Port of Portland, which implemented the Avantis system prior to the Maintenance Division's attempt at implementation and which served as a "model" for the Maintenance Division in reviewing Avantis capabilities and benefits. The Port of Portland Maintenance Manager reported that their organization had not yet initiated scheduling as a part of their facility maintenance management system. The Budget Analyst also queried the Port of San Diego on whether they had instituted scheduling and received a negative response.

Based on the problematic nature of the Avantis system thus far, and the fact that other ports that we queried that have implemented facility maintenance management systems but have not implemented the scheduling module of such systems, we believe that the best course of action would be to achieve proficiency and stability in work order time accounting and planning prior to embarking on work order scheduling.

However, the Budget Analyst is not recommending that the Maintenance Division achieve success in time accounting and planning and inventory management prior to implementing the scheduling module. The reason for this is that if the Maintenance Division can successfully implement the major modules of the Avantis system in a single significant effort, the benefits for the Division in terms of morale, a sense of accomplishment, a sense of confidence in facing new challenges, and the improved management control that the Avantis would afford, would be significant.

Workplace Environment

The City's Human Resources Director, in response to a November of 2002 complaint of harassment and retaliation filed by a female Maintenance Division employee, issued a decision in a letter dated August 28, 2003. The Human Resources Director stated:

> I have reviewed [the Department of Human Resources staffperson who conducted the investigation] investigative report and I have determined that, although the verbal slurs were clearly offensive, there is insufficient evidence to find that the behavior met the standards for sexual harassment or retaliation. Mr. [name] conduct, however, was sufficient to constitute violation of the City's Sexual Harassment Policy.

Concerning the general work environment in the Maintenance Division, the Director of Human Resources made the following statement:

> Although I have not made a finding of discrimination, the investigation of [name] complaint revealed that employees in the Port's Maintenance Division behave improperly and supervisors do not effectively ensure a

> harassment-free work environment. The investigation supported that employees commonly engage in seriously inappropriate and offensive verbal conduct. Witnesses described the working environment to include swearing, name-calling, 'anatomy related comments' and gender-based slurs. Such conduct is in violation of the City's policy that prohibits harassment in the workplace, and, if unchecked, could result in findings of illegal harassment and discrimination.

In response to the foregoing finding, the Port's Executive Director issued a memorandum to Port Maintenance Division employees, dated November 3, 2003, citing the Human Resources findings, enunciating that such conduct was in violation of Port policy and would not be tolerated, and announcing that the Port's Director of Human Resources had been directed to initiate a retraining program in harassment prevention and prevention of workplace violence.

During the period of July 1, 2002, through March 18, 2004, members of the Maintenance Division were involved in two formal grievances and 26 formal complaints concerning a variety of issues, including sexual harassment by a vendor, "prepping" for a promotive interview, and alleged violence in the workplace.

The Budget Analyst did witness an abuse of position by a supervisor against a subordinate during this management audit. The Maintenance Division General Superintendent provided assurance that counseling action was taken and there were no adverse actions against the aggrieved employee. However, this cited action and two other incidents, one involving an alleged threat and another involving alleged verbal abuse, should serve to put on notice the General Superintendent and other Maintenance Division managers and supervisors, as well as higher management throughout the Port, that only through diligent monitoring of the workplace environment, reinforcement through training, and taking decisive disciplinary action when warranted, can reasonable assurance of a healthy workplace environment be achieved.

Government Jobs

"Government jobs" is the Maintenance Division term for working on non-government, private property, such as working on a private vehicle. The Budget Analyst was informed that the occurrence of government jobs in Port shops was widespread in the past, but had largely ceased since the inception of this management audit. The auditors did not observe anyone performing government jobs during the course of this management audit.

The memorandum on the following page speaks to the existence of private property in Maintenance Division shops and a written order by a supervisor to cease performing "government jobs." Although the auditors did not observe any private property in the maintenance shops, private automobiles, trucks, boats, and a variety of other private property were located on Port property in the Pier 50 maintenance yard, outside of the Maintenance Division shed, until very recently.

Port of San Francisco
Ironworker Shop

Memo

To: Ironworker shop
From: Carl Baker
CC: Guadalupe Thomas
Date: 03/05/03
Re: Removal of personal items from Port of San Francisco Property

Today, Guadalupe Thomas and I did a Storm Water inspection of the Combined Ironworker/Welder shop.

All non-Port items are to be removed from Port property within a reasonable period of time.

EG:

Wheels and tires

Bikes and parts

Bird cages

Bed frames

Boxes of personal items.

All Personal are to report to the shop every Friday at 2pm to clean the shop and trucks.

No more government jobs are to be done using port time, materials or equipment.

• Page 1

TOTAL P.02

Role of the Chief Stationary Engineer

The Maintenance Division was authorized a classification 7205, Chief Stationary Engineer, position for the first time in its FY 2001-2002 budget. Prior to that authorization, and going back many years, the Port had been authorized two classification 7334, Stationary Engineer, positions. Currently, and going back to at least FY 1993-1994, the Port has not been authorized any classification 7335, Senior Stationary Engineer, positions. Thus, there is one Chief Stationary Engineer position for only two Stationary Engineer positions.

In general, incumbents holding Stationary Engineer positions are responsible for the operation and maintenance of large physical plant installations. The following excerpt from the class specification for the Chief Stationary Engineer position provides examples of the responsibilities of the classification:

> Under general direction, is responsible for the operation and maintenance of pumping, heating and ventilating plant machinery and equipment in a large complex installation; directs the operation of a large and complex water filtration plant; plans, assigns and directs the activities of subordinate personnel engaged in plant maintenance and operation activities; and performs related duties as required.

Operation and maintenance of the Ferry Building, prior to its transfer to a developer and renovation, represented the largest work load for the Port's stationary engineers. Maintenance and operation of the Ferry Building and all of the other stationary engineer work required of the Port was performed by the two classification 7334, Stationary Engineers, supplemented with as-need labor. However, the Port ceded responsibility for the operation and maintenance of the Ferry Building to a developer in March of 2001.

A comparison of the Port's span of control of the Chief Stationary Engineers position to that of the Airport is illustrative. The Airport is authorized the following positions within the stationary engineer career field:

- Chief Stationary Engineer 3
- Senior Stationary Engineer 13
- Stationary Engineer 43

The Port, on the other hand, is authorized the following positions:

- Chief Stationary Engineer 1
- Senior Stationary Engineer 0
- Stationary Engineer 2

In practice, the General Superintendent, who is reportedly a very close friend of the incumbent Chief Stationary Engineer, has assigned responsibilities to the Chief Stationary Engineer that have nothing to do with the responsibilities of the position or supervision of the two Port Stationary Engineers. Accordingly, the Chief Stationary Engineer is responsible for the two-person Port Meter Shop and for managing the Maintenance Control Center.

The assignment of these duties to the Chief Stationary Engineer and the appearance of favoritism that exists between the Chief Stationary Engineer and the General Superintendent is a source of much controversy and ill-will within the Maintenance Division. Irrespective of such feelings, the position of Chief Stationary Engineer is not required at the Port and in the judgment of the Budget Analyst is a misallocation of resources. Accordingly, the Budget Analyst recommends that the classification 7502, Chief Stationary Engineer, position be eliminated from the Port's FY 2004-2005 Budget, which would result in annual savings of approximately $96,842 in salary and fringe benefits.

Maintenance Division Management

Top Management

As previously stated, the Maintenance Division's top management consists of the following authorized positions:

- 9375 Assistant Deputy Director (General Superintendent)
- 9363 Superintendent of Harbor Maintenance (Assistant Superintendent) (2)
- 7263 Maintenance Manager
- 9360 Construction/Maintenance Supervisor II

Relations among the top five managers of the Maintenance Division are very poor: personal animosity is the rule rather than the exception and the personal conflicts between these individuals greatly impede the effectiveness of the Maintenance Division. There is a basic lack of trust amongst various members of top management that affects work assignments and many aspects of the Maintenance Division's operations – essentially everyone in the Maintenance Division is aware of the existing dysfunctional management situation, as are many at Pier 1 (as the Port's headquarters is called), including the Executive Director and the Deputy Director of Engineering and Maintenance. The dysfunctional management environment is part cause of and magnifies the significant problems within the Maintenance Division. The degree of disrespect and disloyalty is extraordinary.

The animosities exhibit themselves in the form of rancorous staff meetings, accusations of criminal misconduct, threats of grievances, formal complaints, protection of

"territory," and in various other forms, all dysfunctional behaviors from an organizational and management standpoint.

Of particular note, some managers and many of the journeymen resent the close personal relationship that exists between the General Superintendent and the Chief Stationary Engineer, discussed in the previous section. The general perception is that the General Superintendent is taking work away from the trades and giving it to the Chief Stationary Engineer in order to justify the Chief Stationary Engineer's position. The resentment is magnified by the fact that the General Superintendent's background is also as a stationary engineer.

In a survey conducted by the Budget Analyst, Maintenance Division supervisors and top managers were asked on an individual, confidential basis to list the three top actions which, in the opinion of the supervisor or manager, would most benefit the performance of the Division. Fifty percent of those queried stated that an action to resolve upper-management turmoil, instill integrity, or leadership at that level was needed. The leadership factor was followed by the need to improve the performance of the purchasing system and the need for additional staffing.

Maintenance Supervisors

Maintenance supervisors or foremen directly oversee the maintenance work performed, and in some cases, actually perform work along with the journeymen. As with any organization, the effectiveness of individual supervisors varies with the individual. In our interactions and observations of the supervisors' work, we did not encounter any whom we describe as ineffective. On the contrary, they are a hard-working, knowledgeable, and helpful group who harbor a number of grievances and frustrations over what they see as hindrances to getting their work accomplished. Among what the supervisors would describe as their significant grievances are 1) lack of clear and consistent leadership from top management; 2) inefficiencies in purchasing supplies, materials, and equipment; and 3) the General Superintendent's intention of using the Stationary Engineers as "first responders" to calls for maintenance assistance.

As a group, the evaluation of the Budget Analyst is that the supervisor level of management at the Port is satisfactory and would be more effective with improved top-level management of the Maintenance Division.

Management Control: General

The issues discussed in this report section, such as the storing of private property on Port property, helps to bring into focus a larger management problem at the Port: the management problem of how to deal with a legacy of bad practices that have been accepted over the years. It doesn't take an expert to observe that private property should not be stored on Port property, or that a maintenance organization the size of the Maintenance Division should have written procedures. It doesn't take an expert to

observe that there is something seriously wrong with the Maintenance Division's storeroom, which is by far the worst we have ever observed because of disorderliness, safety problems, and filth. It doesn't take an expert to realize that something is wrong with the supervision of work crews when one can observe up to seven Port Maintenance vehicles at a diner on Port property during work hours, between 8:00 a.m. and 9:00 a.m. All of these conditions were there for management, including the Executive Director and the Deputy Director of Engineering and Maintenance, to see, and yet, to the knowledge of the auditors, actions were not taken to correct these conditions and situations.

A positive management control environment helps everyone do a better job, and in order to have a positive management control environment, an organization needs to have standards. In the modern work environment, that means standards that are well thought out and developed through a participatory process. Such standards must be explained to all and adhered to by all, if they are to be respected. Deviations of all types should be dealt with swiftly and fairly. Management has to believe and live by the standards. Management behavior that is not authentic, and that acts in contravention of announced standards will meet with derision and disrespect, especially in a work environment such as exists in Port Maintenance where, personal relationships are primary and information or disinformation travels quickly.

Morale within the Maintenance Division could certainly stand for some improvement. Concerns about layoffs and concerns about work processes that might eventually replace one trade with another are contributing factors. Other factors that weigh heavily on the work environment are the poor relations among the top managers and what can be described as a "cultural" battle. Without doubt, the Port needs to improve and modernize many of its maintenance management practices. However, the change needs to be administered wisely and with the support of the management team. That support does not currently exist at the Port Maintenance Division.

A Recommended Organizational Change

The Budget Analyst recommends that the Maintenance Division implement changes to achieve the organizational structure located below. The factors driving the recommendation are as follows:

- Remove a management layer between the General Superintendent and the Supervisors (the General Foremen and the Foremen) by eliminating one Assistant Superintendent position and making two General Foremen and the other Foremen direct reports of the General Superintendent and the Assistant Superintendent, who would work as a single management team.
- Achieve unity of command in the management structure: the General Superintendent and the Assistant Superintendent as a single unit would jointly manage the entire workforce. Currently, in addition to the General Superintendent, the workforce is managed by two Superintendents and a General

Foreman, each of whom is responsible for separate segments of the organization. Differing ways of doing things causes many problems and much confusion.

- Eliminate nonessential positions.

Accordingly, we recommend that one classification 9363, Superintendent of Harbor Maintenance, position be deleted, which would result in reduced expenditures of approximately $125,302 annually in salary and fringe benefits. The recommended reorganization would require the creation of one new classification 9360, Construction/Maintenance Supervisor II, at an approximate cost of $106,893 in salary and fringe benefits, at the top step, for a net expenditure reduction of $18,409.

Conclusion

The leadership shortcomings of the Port Maintenance Division and conflicts among the members of the Division's current top-level management have greatly hindered the Division's effectiveness. The disrespect, disloyalty, and lack of trust between the General Superintendent and his immediate subordinates are pervasive. The appearance of favoritism on the part of the General Superintendent has hindered the Maintenance Division's effectiveness. Thus, projects that would be challenging in a positive work environment with a strong management team, such as implementing an automated maintenance management system, or transforming an unorganized and chaotic storeroom into an effective one, become much more difficult.

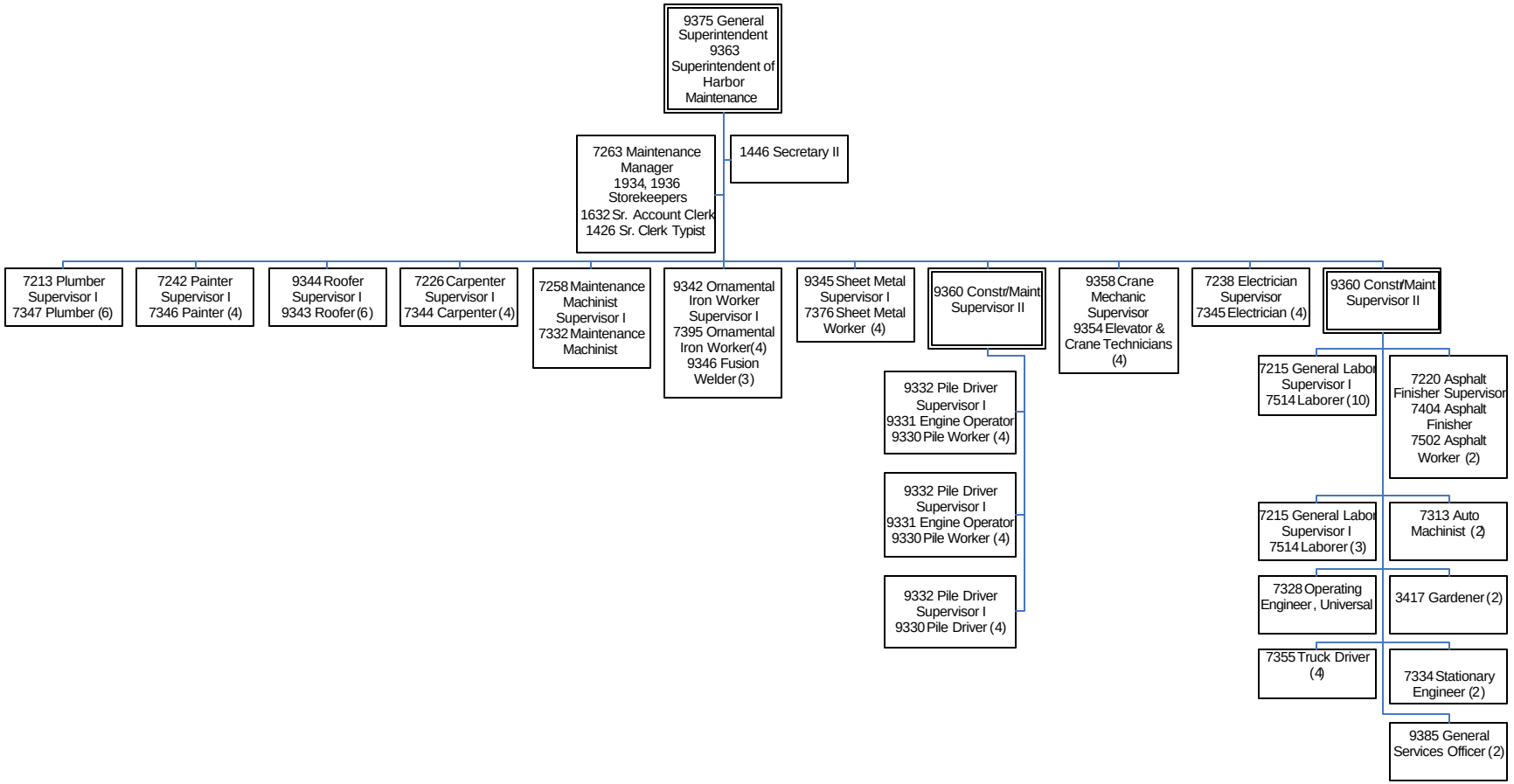
The Maintenance Division does not have a consolidated procedures manual for performing its work, cannot report its performance on basic maintenance effectiveness measures, has one of the most poorly organized storerooms that the auditors have observed coupled with an almost total absence of inventory management, had, until the progression of this management audit, the most disorganized and blighted storage yards observed by the auditors, has poor tool and equipment controls, has not provided a safe, healthy, and harassment-free work environment, has not implemented its facility maintenance management information system in an effective manner, and has a top management team that is entirely dysfunctional.

In a survey conducted by the Budget Analyst, Maintenance Division staff supervisors and managers were asked on an individual, confidential basis to list the three top actions which, in the opinion of the supervisor or manager, would most benefit the performance of the Division. By a wide margin, the most mentioned action was to resolve upper-management turmoil and instill integrity and leadership at that level.

Based on the deficiencies and leadership problems cited in this audit section, the Port Executive Director should perform his own examination and evaluation of the leadership changes needed to make the Maintenance Division an effective organization and take action to provide the Maintenance Division with effective leadership.

Exhibit 4.2

Recommended Maintenance Organization



Recommendations

The Port Commission should:

4.1 Reorganize the Maintenance Division to remove a management layer between the General Superintendent and supervisors, to achieve continuity of command in the management structure, and to eliminate one nonessential position.

The Executive Director should:

4.2 Using the information contained in this audit section and other information available, perform an examination and evaluation of the leadership changes needed to make the Maintenance Division an effective organization.

4.3 In accordance with the recommendation to have the Maintenance Division report to the Chief Harbor Engineer due to the recommended elimination of the Deputy Director of Engineering and Maintenance (See Section 1 on Strategic Planning and Organization of the Port of San Francisco), insure that the Chief Harbor Engineer requires that the Maintenance Division develop an effective mission statement and objectives that are challenging, but achievable.

4.4 Delete the classification 7205, Chief Stationary Engineer, from the Port's FY 2004-2005 Budget.

4.5 Substitute one classification 9360, Construction/Maintenance Supervisor II position, for one classification 9363, Superintendent of Harbor Maintenance, position.

4.6 Report to the Finance and Audits Committee of the Board of Supervisors on the status of these recommendations to improve the operations of the Maintenance Division during FY 2004-2005 after January 1, 2005.

The General Superintendent of the Maintenance Division should:

4.7 Initiate and complete the development of a policies and procedures manual.

4.8 Allocate staff resources and efforts to successfully implementing the Avantis facility maintenance management system.

4.9 In congruence with implementing the Avantis system, transform the existing disorganized and unkempt storeroom into one that has effective inventory control and is efficient, economical, and supportive of the Maintenance Division's mission.

4.10 Using the Avantis system, develop performance measures that can determine the effectiveness, economy, and efficiency of the Maintenance Division.

4.11 Institute and enforce standards for supervisory control of work crews.

4.12 Standardize and enforce an effective tools and equipment control system.

4.13 Ensure that Port storage yards are not used for storing private property.

4.14 Emphasize to all Maintenance Division personnel the absolute necessity of having a harassment-free work environment.

4.15 Ensure that the practice of performing non-Port related and personal activities on Port time and with Port resources is not permitted.

Costs and Benefits

Our proposed recommendations would not result in increased costs to the City. The elimination of one classification 9363, Superintendent of Harbor Maintenance, position, would result in savings of approximately $125,302 annually in salary and fringe benefits. The recommended reorganization would require the creation of one new classification 9360, Construction/Maintenance Supervisor II, at an approximate cost of $106,893 in salary and fringe benefits, at the top step, for a net savings of $18,409. The elimination of the classification 7502, Chief Stationary Engineer, position would result in annual savings of approximately $96,842 in salary and fringe benefits. Therefore, reduced expenditures from position changes would total $115,251 ($18,409 plus $96,842) annually.

However, the most significant benefits of implementing the proposed recommendations cannot be calculated directly. Adequate inventory controls will save the Port the cost of carrying inventory that should be procured on a purchase order or by direct purchase. The Budget Analyst noted that it takes 134.8 months, or more than 11years, for items held in inventory in the Maintenance Division to turn over. Adequate inventory controls will also reduce the amount of inventory shrinkage. A policies and procedures manual would serve to standardize such supervisory functions as checking on work crews and controlling tools and equipment, which are currently not standardized practices within the Maintenance Division. Effective management of tools and equipment will reduce replacement costs for those items and help to instill a sense of discipline within the Maintenance Division. By employing effectiveness and efficiency performance measures, the Maintenance Division would have objective measure of its performance, which could be used to set more challenging performance objectives.

Based on the problematic nature of the Avantis system thus far, and the fact that other ports that we queried that have implemented facility maintenance management systems have not implemented the scheduling module of such systems, the Budget Analyst

questions the Maintenance Division's ability to implement all of the major components of the Avantis system at once. However, the Maintenance Division is currently allocating significant resources to the effort and the payoff, if successful, will be significant.

During the period of July 1, 2002, through March 18, 2004, members of the Maintenance Division were involved in two formal grievances and 26 formal complaints concerning a variety of issues, including sexual harassment by a vendor, "prepping" for a promotive interview, and alleged violence in the workplace. By ensuring a harassment-free work environment and employing corrective action against any breaches of harassment-free work environment policies, the top management and supervisors of the Maintenance Division would be providing a workplace where all have the opportunity to perform at their highest level. Further, by making known that harassment will not be tolerated, and by taking effective action should an instance occur, such instances, which require time and effort to process, should be reduced.

By performing an examination and evaluation of the leadership changes needed to make the Maintenance Division an effective organization and then by acting on the results of that examination and evaluation, the Executive Director of the Port would be taking the action without which the other recommendations, even if fully implemented, would not yield the optimum results. Above all else, effective management and leadership is needed at the Maintenance Division.