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THE COMPTROLLER'S ROLE
IN FACILITIES MANAGEMENT

by

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This thesis examines the role of the comptroller in the area of Facilities Management. Though facilities management is often the largest consumer of operational resources handled by the comptroller, this field has historically been left strictly to the control of staff officers of the Civil Engineer Corps. The fiscal climate of the 1990s will reward line managers who are able to work in partnership with their facilities managers. This thesis provides a framework of understanding on which such a partnership can be built.

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The Comptroller's Role
In Facilities Management

by

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ABSTRACT

This thesis examines the role of the comptroller in the area of facilities management. Though Facilities Management is often the largest consumer of operational resources handled by the comptroller, this field has historically been left strictly to the control of staff officers of the Civil Engineer Corps. The fiscal climate of the 1990s will reward line managers who are able to work in partnership with their facilities managers. This thesis provides a framework of understanding on which such a partnership can be built.

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I. INTRODUCTION

A. PURPOSE

The purpose of this thesis is to examine the role of line managers with respect to the operation and maintenance of real property assets in the Navy. Specifically, this study will investigate the knowledge required by station comptrollers and commanding officers to effectively interface with public works officers or public works centers to meet the needs of the station.

This thesis will form the basis for a working knowledge of the complex world of facilities management for the newly assigned comptroller, who has in many cases had little or no prior concern with such issues. As such, it will serve as an addition to the current text for the Practical Comptrollership Course (NPS Monterey) as well as providing suggested inputs to the Prospective Commanding Officer courses (OPNAV).

B. BACKGROUND

The average shore station in the U.S. Navy spends from 60 to 80 percent of its annual operating budget on activities related to the operation and maintenance of real property, utilities, and transportation services. The Navy is served by staff officers of the Civil Engineer Corps (CEC) who provide expert technical assistance in this area to the line managers

who are ultimately responsible for executing the mission of the station. The station commanding officer (CO) is served by a comptroller staff upon whom he or she relies for budget planning and execution, internal auditing, and resource and financial management. Unfortunately, there has been a tendency for the CO and comptroller to live in a separate world from their Public Works Officer (PWO). This is to some extent unavoidable due to the very specialized nature of the facilities management field, and the specialized language used by CEC officers in their daily work. The same problems exist between line managers and other staff officers, such as those from the Supply Corps. The interface between line managers and supply officers is more routine below the commanding officer level however, because whether they come from aviation, surface line, or submarines, all officers use parts and supplies handled by their unit supply officer. Furthermore, the comptroller billets at many of our shore installations are filled by supply officers. Public works officers, on the other hand, are often outside the sphere of normal experience for most line officers until they reach a high level of responsibility that includes the upkeep of their facilities. The public works function is managed from behind the scenes, with the only direct contact often being at the level of the serviceman who comes by to replace a burned out bulb. Finally, the requirements of the facility operation and maintenance business have led to the historic development of

a specialized system of accounting and record keeping that is difficult to translate into forms useful to line managers.

All of this is, however, not a valid excuse for Comptrollers or Commanding Officers to "give up" on trying to understand and to be prepared to make effective decisions about facilities management issues. Line managers need to establish more consistent and committed dialogue with the facilities experts who provide staff support. More mutual understanding is essential so that a more productive partnership results. The need for an improved partnership between facilities staff and line managers has prompted changes in the PCO (Prospective Commanding Officer) course sponsored by OPNAV in Washington, D.C. This course now includes more time allotted to facilities management, and a new desk reference for COs concerning public works functions.

With the budget cuts that seem inevitable at this point in history, there can be little doubt that effective decision making with regard to this major portion of the shore station's budget will be very important. Historically, when faced with such cuts, the military has chosen to sacrifice the condition of its facilities for the preservation of operational capability. There will be similar pressures in response to the current situation. Commanding Officers will be faced with very difficult choices about what to maintain and what to let go. A better understanding of the recommendations of his facilities expert and of the reasoning

behind those recommendations will allow more effective decisions to be made.

C. METHODOLOGY

The research for this thesis was done mainly by direct interview, either in person or over the phone, with a broad selection of line and staff officers familiar with facilities management issues. The study group included Commanding Officers and comptrollers from a variety of activities including air stations, training centers, naval stations, and supply depots. Several expert sources within the Civil Engineer Corps of the U.S. Navy also gave much helpful information.

Following a thorough review of the available literature in this area, interviews and data collection were conducted over a period of eight weeks, with follow up interviews as required for clarification.

D. A NOTE ON STYLE

The second and third chapter of this thesis are intended to be used as a supplement to an existing course taught at the Naval Postgraduate School, Monterey, California. For the sake of readability the strict style normally used for theses will be slightly relaxed to allow the usage of second person nouns. The usage of the term "he" or "she" is intended generically,

as is the possessive "his" or "her." It should be understood that either term is equally applicable to all such usages.

II. PUBLIC WORKS PRIMER

A. INTRODUCTION

Though few line managers have contact with public works on a regular basis, the operations related to facilities support generally consume 60 to 80 percent of a shore station's operating budget. For those stations that have their own public works (PW) department, PW is usually the largest employer of civilian personnel on base. In such cases a major portion of the O+MN (operations and maintenance, navy) budget and a significant amount of the civilian personnel account are directed towards the operation (including utilities) and maintenance of real property. In addition, Public Works service contracts of many varieties from groundskeeping to roof repair often make up the majority of contractual obligations for most bases.

Much of what this money is spent on can be compared to home ownership for the average family. Public Works is responsible for the maintenance, repair, alteration, improvement, and or disposal of the buildings on your base. In most cases, PW owns, operates, and maintains all the utility systems within the perimeter fence including: electrical transmission lines and substations, steam, air, water, gas, and sewage lines, steam plants, and sewage treatment plants.

(This differs from home ownership in many areas.) Public Works administers and maintains Navy housing. They provide transportation services, and operate and maintain all transportation and heavy equipment including fire and crash/rescue equipment. PW is responsible for groundskeeping throughout the base, including maintenance of all roadways and railways. They are responsible for environmental protection, cleanup and restoration, and handling hazardous wastes.

Even this short listing makes it clear that, though they may have little direct contact with Public Works, there are few decisions made by line managers that do not have some implication for facilities management.

OPNAVINST 11000.16A makes the Commanding Officer responsible for the material condition of the base. The role of the comptroller is a focal point for resource management. With such a large percentage of the budget supporting facilities management, why do so few comptrollers have a working knowledge of their largest customer's business? To some extent, the answer is "acronyms."

B. NAVFAC TRANSLATED

NAV what?

NAVFAC stands for the Naval Facilities Engineering Command. Then why isn't it NAVFEC? For the same reason the Naval Supply Systems Command isn't NAVSSC. SUP stands for supply, FAC stands for facilities, hence it's NAVFAC. NAVFAC

is the major claimant that serves the Navy in facilities matters similarly to NAVSUP on material matters. NAVFAC is peopled by staff officers of the Civil Engineer Corps (CEC) and by thousands of civilian specialists from engineers to environmentalists. Headquartered in Alexandria, Virginia, NAVFAC conducts its support mission through seven Engineering Field Divisions (EFDs) serving different geographical regions throughout the world. These EFDs have the primary mission of supporting activities in their area, and they respond to requests from major claimants, activity COs or their PWOs. NAVFAC has one well known operational arm, the SEABEES (a word play on CBs for Construction Battalions). CEC officers serve tours in Public Works, Contracting (Military Construction contracts or MILCON), Staff billets at EFDs or type commands (TYCOMS), and with the Seabees.

Some of the greatest confusion for line managers results from CEC officers using acronyms like OICC, ROICC, ACE, SCE and so on. This confusion is often exacerbated when it is learned that the officer you call your PWO (Public Works Officer) is sometimes the OICC and or ROICC. The officer you think of as your PWO may actually be a Staff Civil Engineer (SCE). It is not hard to get lost in these acronyms and find ourselves giving up on even attempting to talk with these people. Line managers can end up walking away muttering about "staff pukes." This is the sort of communication problem that

must be overcome by comptrollers so they can work successfully with facilities managers.

OICC stands for Officer In Charge of Construction. The R in ROICC stands for "resident" and the distinction has to do with where the ultimate administrative contracting authority (as opposed to judicial authority) for a particular type or dollar amount of contract is located. Your PWO usually will have "Contracting Officer" authority on small service contracts and so is an OICC for those contracts. Depending on the level of his "warrant" (legal authority to contract) he may be the OICC for some construction contracts. At some level of contracts (usually a dollar amount) the authority required shifts to a higher official, usually the Commanding Officer of the EFD that represents your area. Depending on the volume of MILCON work in your area your PWO may be the ROICC for this work (reporting to the OICC at the EFD) or the ROICC may be a separate office with no other Public Works responsibilities. Figure 1 on the next page should help you visualize these relationships. (The term "dual- hatted" is used for officers who have responsibilities to two different chains of command, in this case to the station and to the EFD.) Occasionally, the OICC, or ROICC designation is preceded by an "A" for assistant or a "D" for deputy.

The primary facilities manager at an activity has different titles depending on whether the activity gets its facilities support from a Public Works Department (on some of

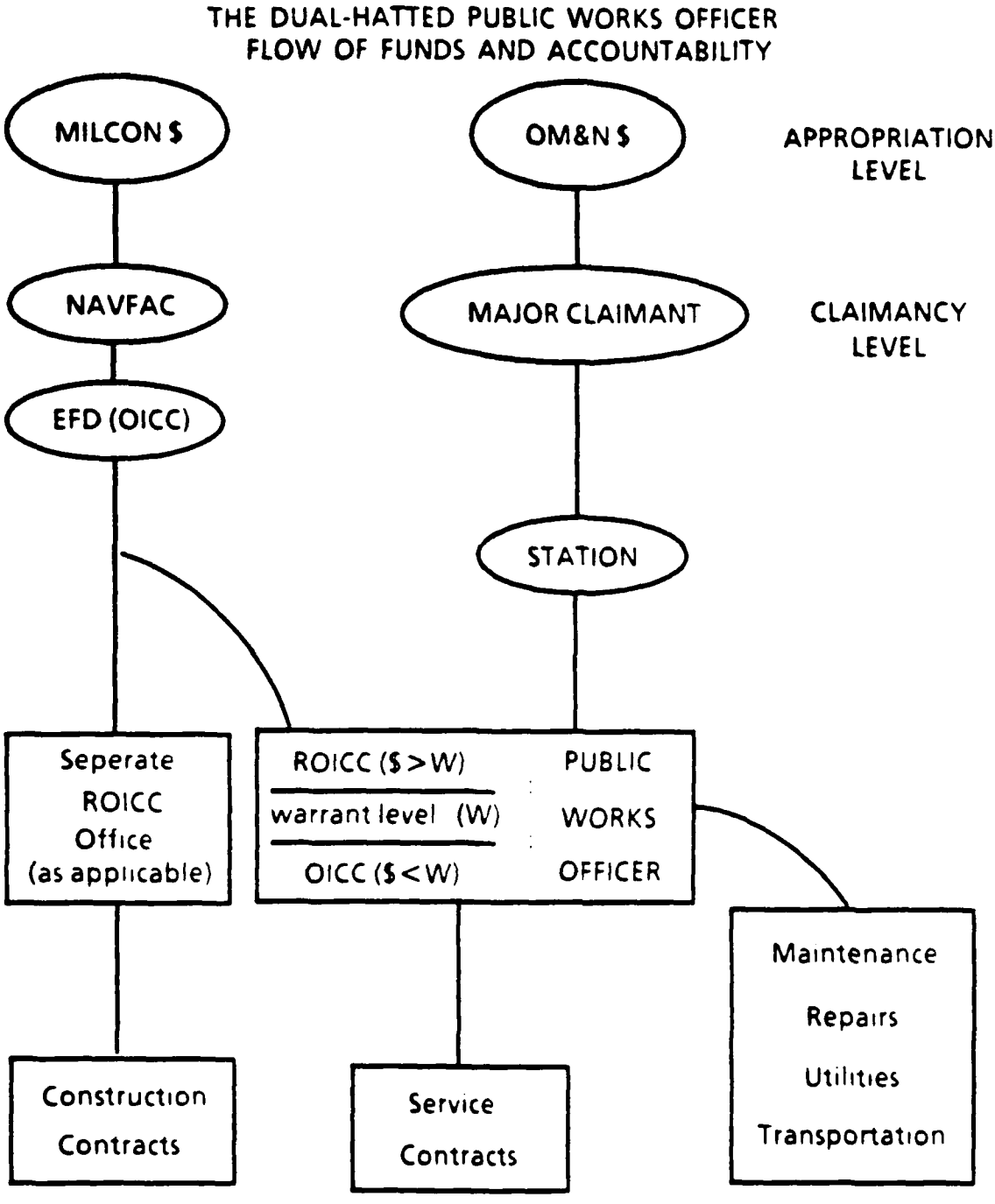

Figure 1. The Dual-Hatted Public Works Officer Flow of Funds and Accountability

the larger or more isolated stations) or from a Public Works Center (PWC) serving many activities in a concentrated Naval activity area such as San Diego or Pearl Harbor. Tenant

activities on or near installations with a large Public Works Department may get their support from this department under a reimbursable host-tenant agreement. In this case the department is called a Public Works Lead Activity (PWLA). The facilities expert for the activity will be called a PWO if part of a department, or a Staff Civil Engineer (SCE) if served by a PWC or PWLA. In both of these cases this individual reports to the CO of the activity. Some small independent activities (often tenant commands) may not have their own in house facilities representative, in which case the public works center that serves them will assign an Activity Civil Engineer (ACE) as a liaison and point of contact for all facilities matters. The ACE reports to the CO of the PWC, but his primary mission is satisfaction of the customers he represents.

The above explanation should eliminate the majority of problems in understanding who is who and what each person's job is. Comptrollers who begin to work closely with their facilities representative will undoubtedly run into other specialized acronyms, some of which will be dealt with later. The important thing is to recognize that these acronyms are quite manageable if you take time to find out what they mean.

C. FUNDING/ACCOUNTS

The primary appropriations used in the facilities management area are: O&MN (Operation and Maintenance, Navy),

FHCON and FHOPS (Family Housing Construction,and Operations, Navy), MCON (Military Construction, Navy or MILCON), and OPN (Other Procurement, Navy). Of these, family housing is centrally managed and will normally not be an administrative concern to the station comptroller. As will be shown in detail later, construction in excess of $200,000 is also not normally a station administrative concern, instead being handled at the claimant level through the OICC chain of accountability. This is not to say that station COs are not concerned with housing or MILCON, because continued advocacy is critical to the success of both.) Facilities managers have little contact with OPN money, mostly in making submissions for desired funding to claimants. Most of the funding for facilities management comes from O&MN sources. This includes maintenance, repair, construction, and equipment installation. Part of O&MN is known as MRP (Maintenance of Real Property) and is subject to a lower spending limitation called the MRP "floor." This provision was added to assure that the Navy's investment in property is not sacrificed to divert funds to exigent mission requirements.

Another source of the historical inability of comptrollers to understand facilities managers is the use of a different language concerning sub-accounts. Comptrollers are familiar with the concept of sub-activity groups, or SAGS as they are called. Public Works has for many years used what it calls sub-function categories (SFCs) in much the same way. PWOs

often refer to money classified as "M1, R1, P1, N1, etc. These are well understood and meaningful terms to public works managers, but a source of great confusion to others. Some Public Works departments have recognized the need to shift over to the use of SAGS to improve communication with the comptroller. A full translation list can be derived by comparing accounts used by your Public Works administrative section to your SAG listing. For a representative translation list see figure 2. This listing will change from year to year based on what your major claimant asks for in the budget call. General guidance can be found in the NAVCOMPT manual, volume 2, Chapter 4.

Public Works generally tracks costs by Job Order Numbers (JONs) which are created within the PW accounting section and to which PW managers assign appropriate costs. The JON system tends to be extremely large and complex and, depending on the resources available, might well be a strong candidate for audit assistance from the comptroller. On many bases the assignment of costs to cost centers and especially to reimbursable customers can be a contentious issue. Timely review of the JON system could be helpful in raising confidence in these cost assignments.

D. SPENDING AUTHORITY

Line managers should be aware of some of the important limitations on spending authority that facility managers must

DESCRIPTION-NON LABOR	SAG	COST CENTER SUBCOST CENTER	SFC
Maintenance of Real Property (MRP):			
Maintenance	FA	4BFC	M-1
Minor Construction	FB	4BFF	R-1
MRP Special Projects:			
Maintenance	FA	4CFH	M-2
Construction	FB	4CFJ	R-2
Base Operations:			
Telecommunications	FN	4AFA	L-A
Transportation	FR	4AFB	L-7
Utilities	FC	4AFD	N-1
Engineering Support	FD	4AFE	P-1
HW	FT	4AFL	P-1
Mission Support:			
Audio Visual	MZ	4AFK	A-8
DESCRIPTION-LABOR			
Maintenance of Real Property (MRP):			
Maintenance	FA	43PC	M-1
Minor Construction	FB	43PF	R-1
MRP Special Projects: None			
Base Operations:			
Telecommunications	FN	44PA	L-A
Transportation	FR	44PB	L-7
Utilities	FC	44PD	N-1
Engineering Support	FD	44PE	P-1

Figure 2. Typical Translation List

comply with. These limitations are separate from Title 31 section 1517 considerations (the law restricting government managers from spending more than they have been given), and apply to specific projects on an individual basis. COs have been relieved for cause for exceeding these limitations, and

the potential of being directed to break these rules is a recurring nightmare for PWOs. Many line managers have attempted to circumvent these rules by putting together projects in bits and pieces. The term for this is "incrementalization" and it is easily recognizable to auditors. If you attempt to get around these rules, remember that all the good tricks have already been tried.

In simple terms the station CO has authority for minor construction and alteration up to $100,000, and for repairs or specific maintenance projects up to $200,000. Projects for NIF (Navy Industrial Fund) activities are up to $500,000 for maintenance or repair. Beyond these limitations, approval of the project is required from the major claimant. See figure 3 for details. Also bear in mind that there is a ten percent cap on minor alteration and construction, meaning 90 % of MRP must go towards maintenance. Most problems arise from the minor construction and alteration limitation, as this is the category of work that most of the discretionary spending falls into. Maintenance is only that work necessary to keep a facility at its designed operative status, while repair is only that work to return a facility to that status from some degraded condition. For that reason most of the good ideas that change a facility to make it more effective, efficient, or pleasant fall into the minor construction and alteration category. Some projects seem to straddle the fence, in which

case it's probably better to be conservative and go to the claimant.

E. DEPARTMENT VS. CENTER

Two primary forms of facilities support are in use today. The first is a direct means through a PWD. Similar to a supply department, the Public Works Department is a dedicated asset of the activity, with the PWO answerable directly to the CO. This relationship is viewed by many COs as a great asset in terms of responsiveness and flexibility. The alternative format provides facilities support indirectly through an external source on a reimbursable basis. The PWC concept is based on the concentration of overhead costs to minimize duplication and maximize utilization. PWLAs are based on the same premise, but on a smaller scale. Both PWCs and PWLAs operate on a reimbursable basis, but PWCs handle accounting and overhead differently, in accordance with the rules for NIF activities.

One of the realities of working through a PWC is that you are working with a large bureaucracy. It is not unusual for customers to complain about how slowly PWCs respond, though they can be quite responsive to identified priorities. The key to success is communications. Because PWCs (or PWLAs for that atter) deal with numerous customers, they perform best when priorities are clearly identified. Many PWCs keep a running list of the top ten priorities for each customer. The

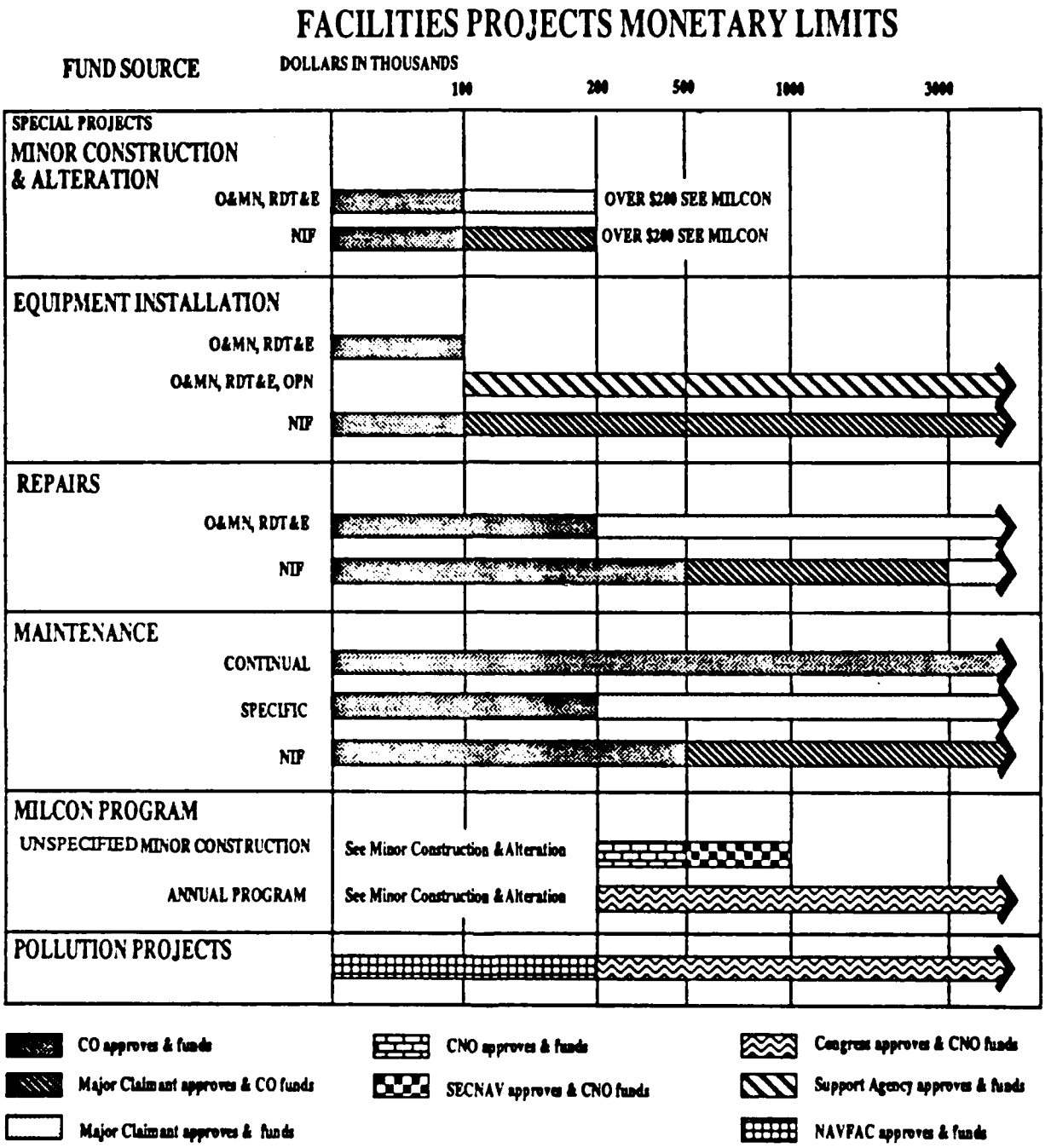

Figure 3. Facilities Projects Monetary Limits

customer must work closely with the PWC to keep this list current. This is the concern of the SCE or ACE acting as

liaison to the productive forces at the PWC. Even so, it requires a commitment to ongoing dialogue and concern from the line officials who are the facilities consumers.

F. GENERAL PROSPECTUS

The general outlook for defense funding in the 1990s is one of steady decline. This build down will have serious consequences for facilities managers, but even more for line managers who must make the ultimate decision on priorities. When asked what lessons he hoped could be learned by COs preparing to take charge of a base, one SCE said, "Just let them come prepared for visible deterioration of their facilities due to lack of maintenance resources." This theme was amplified by the business manager of a major PWC who commented that the Navy's facility condition is "at its zenith" right now. He expects to see a decade of decline wherein buildings are not painted, roofs are not repaired, and grounds are not maintained. "Take a look around," he said, "this is the best you'll ever see it."

The decline actually started in FY 87 but, in part because of the long term of execution for many construction and maintenance contracts, the effects on the facilities themselves are just beginning to show. A graphic indication of the outlook for the future is contained in figure 4, which compares currently expected MRP funding against two important

facilities condition indicators. These indicators require a short explanation.

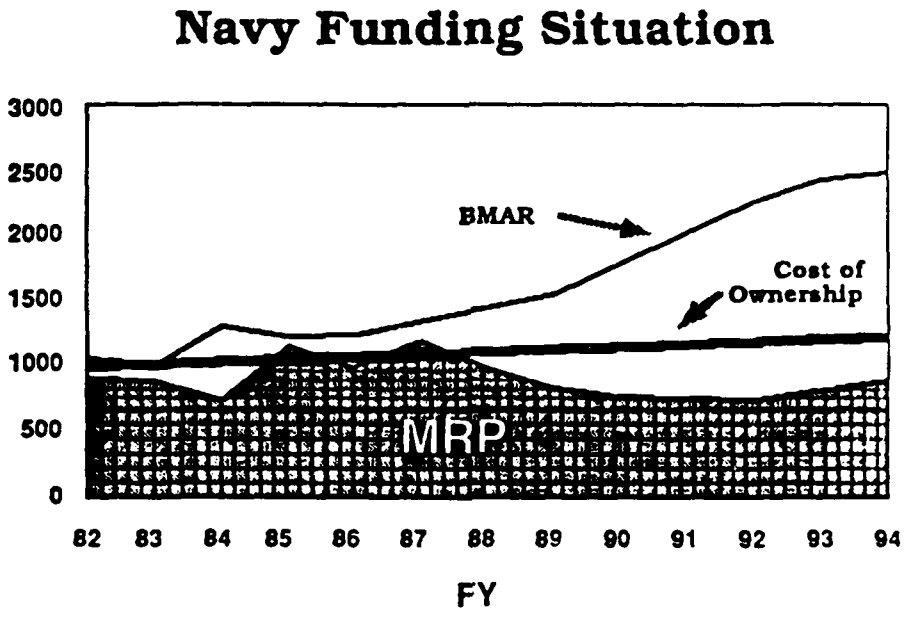

Figure 4. Navy Funding Situation (In Millions of Dollars)

The Backlog of Maintenance and Repair (BMAR) is an indicator of the current estimated dollar value of deficiencies of your base's facilities. Each base conducts an annual inspection of all facilities comparing their material condition against minimum standards for the assigned mission. (Each facility is compared against standards of habitability and functionality based on its intended purpose.) Estimates are made to show the expected cost to restore each facility to its minimum standard. The results of this yearly inspection are known as the AIS (Annual Inspection Summary). The AIS

shows the net change in overall facilities condition for your base, and includes a running total of your deficiencies known as the BMAR for your base. Figure 4 includes a Navy wide BMAR.

MRP funding is broken down into four levels by facilities managers. They are:

1) Funds to offset annually generated requirements. (Fixing those items that broke this year.)

2) Funds to offset growth due to backlog deterioration. (Costs associated with deferring the correction of previous years problems- "what's broke gets broker".)

3) Funds to offset inflation.

4) Funds to systematically reduce the backlog.

The SHOREFLEP (Shore Facilities Life Extension Program) was originally hoped to eliminate all BMAR by 1994. To do this MRP funding would have to include levels one through four. The "cost of ownership" concept is concerned with how much MRP funding is required to simply tread water, avoiding further growth of the backlog. As can be seen this would require funding through level three. Figure 4 makes the generous assumption of no inflation and hence the "cost of ownership" line reflects only levels one and two.

Figure 4 makes clear that the outlook for facilities is very poor. NAVFAC intends to try to educate congress with the idea of "cost of ownership", hoping to elicit funding at that level in FY 91. Unfortunately, the consensus of NAVFAC experts interviewed is that this is unlikely.

What are the implications of this grim picture for line managers?

First off, there should never be any problem making very good use of any year end release of additional funds. More likely is that line managers will be faced with very tough decisions about which facilities will receive maintenance and which will be abandoned. The need for vertical program cuts, mission elimination, and base closure on a national scale will be reflected on a base-wide scale in the decisions facing the CO. Older and or less efficient buildings may need to be removed (vertically cut) from support with dwindling MRP funds. Many occupants may be forced to consolidate their work spaces into another facility. Conceivably, even whole sections of large bases could be "put in mothballs," allowing huge savings on utilities support to these areas.

Prioritizing all expenditure of scarce MRP funds is critical. Both the facilities expert (PWO or SCE) and line managers must very clearly understand priorities. The facilities expert must understand the mission priorities, and the line manager must understand the maintenance priorities that derive from the choices he makes in the mission area.

The next chapter will discuss the use of the priority matrix as well as several other cost avoidance techniques, and current issues in facilities management.

G. SUMMARY

The facilities management function consumes up to 80% of the operating budget for many Navy shore activities. As one of the largest consumers of resources handled by the comptroller, the Public Works function should not be a "black box" to line managers. The specialized language and accounting systems used by facilities managers can be easily understood by line managers who make the effort to understand. This understanding will be more critical than ever in the face of the expected build down of defense.

Besides 1310 and 1517 violations, COs are also restricted in their spending authority for specific projects. In general terms these limitations are $100,000 for minor construction and alteration and $200,000 for repairs. Incrementation is not a viable approach to exceeding these limitations.

III. EFFICIENCIES/ISSUES

A. ESTABLISHING PRIORITIES

Our discussion leaves little doubt that setting priorities rationally will be very important in the 1990s. Some commands are known for the open and competitive process of resource allocation that occurs annually amongst departments for O&MN dollars. Comptrollers and COs at these stations see this process (of advocacy, concession, and ultimately consensus,) as a reasonable means of establishing priorities. Other stations do not go to this trouble, instead relying on the comptroller to make the baseline allocation (control numbers for departments) behind a closed door. Similarly diverse methods are used for allocating MRP resources at different stations. Some stations leave these decisions totally to the discretion of the PWO. Better results occur through a partnership of the PWO and comptroller.

When Maintenance and Repair (M+R) dollars available fall well short of requirements, picking and choosing where you put your money becomes critical. Some facilities will have to go without. The expertise of the facilities manager is required to help identify the impacts of short term decisions on future cost and serviceability. Some decisions that look good to line managers in the short term can have disastrous long term

consequences. (Deferring routine maintenance on utility systems is a common example.) Unfortunately, the PWO or Staff Civil Engineer does not always have a current or complete understanding of the mission requirements. Line officers usually do not understand the implications for facilities of what may seem like insignificant changes to their mission. Here again, a meeting of the minds between line and staff managers is crucial to success. Navfac has consistently recommended a quarterly "station planning board" meeting to identify priorities and provide mission-oriented feedback to facilities managers. Like the head to head resource allocation technique noted above, the station planning board idea yields better understanding. Beyond this it can save money through the avoidance of costly decisions. It is worth making time for.

Your PWO should have a system for identifying his priorities. Some variation of a "priority matrix" is a helpful tool in this area. This matrix plots the importance of a repair (based on the mission significance of the facility) against its urgency in terms of deferrability. This results in some facilities consistently having maintenance or repair deferred, even if urgently needed, because the facility does not have a significant mission impact. Note that a clear understanding of mission significance is crucial to the facilities manager's assigning appropriate priorities. Line managers must ensure that he has this part of the picture.

B. MIDYEAR REVIEW AND END OF YEAR RELEASE

Funding for facilities management tends to come in bursts during mid-year reviews and end of year releases. Comptrollers know that in time of need, the first person to call with the question "How much can you spend?" is the PWO. What most comptrollers don't understand is that you must spend money during the lean months to be prepared to spend money during the periods of windfall. Many line managers would be justifiably hesitant to spend money on "planning exercises" when there is so much real work to be done. But to be able to answer "Yes, I can spend as much as you can get me" the PWO must have shepherded the projects in question through the design and approval chain to the point of readiness. This will usually require that O&MN dollars be spent on Engineering and design, even though money may be very short at the time.

To be effective, your PWO must have a list of projects in varying dollar amounts that are ready to go as soon as funding is available. To complicate matters, she wants to have multiple projects in these dollar categories, because her top priority projects may have lead times to award contracts that exceed the time allowed for response to a year end situation. If she cannot obligate the government in time (by awarding a contract), she will have to drop to a lower priority project that is executable.

The discussion above centers on the idea of contracting to spend year-end money because in house forces cannot

"consume" large amounts of resources in the short timeframes required. Contracts, on the other hand, need only be awarded before the end of the fiscal year, leaving up to two years to actually receive and pay for the work. Activities served by a PWC have an advantage in this regard. The PWC can combine large quantities of a given type of work (roofing for instance) into "project orders" which are instantly obligable because of standing contracts held by the PWC. These "indefinite quantity" contracts specify the type of work to be accomplished, and obligating your year end dump money is virtually as easy as adding your projects to an already existing list. NAVCOMPT manual, volume 3, section 3 covers project order rules.

The down side of the convenience of project orders has to do with the nature of PWCs as large organizations which respond best to the items on a given customer's "top ten list". Remember that the PWC has up to two years to execute the contract and expend the funds. As any comptroller knows, money that is not expended during this period lapses into the successor or "M" account. Some Major Claimants have the policy that any amount lapsing into the "M" account will be reduced from station funds in the future. To combat this, many comptrollers justifiably demand that all outstanding project orders be closed out before lapsing. But this response misses the boat. The correct response is to work closely with the PWC to ensure that project order work is identified as a priority

so it is never a threat to lapse. Again, this shows the need for a more consistent and committed working relationship between comptrollers and facilities managers. Based on such dialogue, easy procedures to end the project order problem were instituted at PWC San Diego.

C. COST AVOIDANCE

As we have seen, the Navy-wide incentive for an aggressive cost avoidance program will be very strong in the coming years. Just as certainly, responding to the cuts will be a matter of initiative left to individual stations. The range of responses will be as broad and creative as are the conditions and staffs at these stations. But discussion with experts from NAVFAC and with station COs, comptrollers, and facilities managers reveal several areas of common concern where we can learn from each other. An awareness of these issues is worthwhile for all station managers, line or staff.

1. Utilities Operations

Throughout the discussion so far we have referred to the operation and maintenance of facilities. In dollars, the single most important operational consideration is the power bill. The Navy-wide power bill last year was over 800 million dollars. For a small activity, in this case Naval Training Center, San Diego, the utilities bill was planned at 25% of the total station budget of $36 million. The top NAVFAC Public Works expert estimates that "another 10 to 15 percent savings

is available" in this area. Reviewing NTC's unfunded requirements listing shows that a 10% savings on utilities could have funded all their civilian labor shortfalls plus their first four facilities-related requirements.

How can we improve in this critical area? The first recommendation is to push ownership of the problem to the users. The best means available is to incentivize subunit or cost center managers by arranging to reward their savings. Unfortunately, most bases have so few meters that accurately tracking usage is impossible. But it is not impossible to estimate proportional usage for tenant commands and cost centers. Using these estimates (which are often already in use for billing purposes within your PWD) to redistribute savings achieved by the station would provide an incentive for tenants and cost centers to eliminate waste.

Creating such a proportional incentive distribution system is a step in the right direction. Unfortunately, proportional incentives are only a partial answer. The reason is that users will still make choices that promote waste. Consider a use of power that costs the system $1,000, but that is worth only $110 to the user. If the user is one of 10 users, all of whom pay 1/10 the cost, then the user's cost is only $100. Since he values the power at more than $100, he will decide to use $1,000 worth of power. This will result in a waste of $890. Individual metering, however, would have faced him with the true cost of $1,000, leading him to decide

not to use the power. The endorsement of the comptroller for metering project proposals can help bring cost reality to users. The metering investment (along with the appropriate incentives passed down by the comptroller) can pay for itself in a short period and save even more in the future.

Second, stations need to devote enough resources to preventive maintenance on utilities systems to ensure they perform with physical efficiency. The fuel consumption rate of improperly "tuned" boilers can be very wasteful. Many stations have steam plants over 40 years old. Deferring planned preventive maintenance is often more costly due to lost efficiency than the scheduled maintenance would have been.

Stations should also take advantage of external sources of help with efficiency problems. Most EFDs (Navfac Engineering Field Divisions) offer help in these areas, with steam trap surveys, infrared analysis, and power grid analysis. Other external sources should not be ignored. One facility in San Diego is receiving support from the city on water conservation projects. Similarly, many power companies can be very helpful with plans to achieve more favorable rates by rescheduling demand to off peak hours.

Finally, don't forget to periodically review the number of phone lines and computer access lines you are paying for. Often these lines are established for a temporary project but then never go away. A complete verification of line and equipment charges and requirements should occur at least every

three years. Comptrollers can be very helpful in completing such an internal review.

2. Self-Help

As funds become very short, the ability to do some things for yourself is crucial. As one comptroller put it, "We'd die without our self-help program."

Self-help is a program that provides a shore duty opportunity for Seabees. If your station treats it as no more than that then the loss is yours. A well run self-help program can substantially reduce costs if you properly support it. The program is designed to use the expertise of a small group of Seabees leveraged by the addition of station sailors on temporary duty. Station COs can make this program a powerful asset through their advocacy, making sure that sufficient manpower is made available.

What can self-help do for you? It is really your one great chance to get around many of the restrictions (imposed by Congress at the behest of organized labor) against using military labor for construction work. The limitations are that self help can be used only for projects associated with morale, welfare, recreation, habitability, or base beautification, etc. (See OPNAVINST 11000.8 series for details.) Broadly applied, this is a great latitude for significantly improving the appearance of a base and the living and working conditions of the troops. It is not just

for small painting jobs. While at NAS Miramar, I directed a project for the MWR department which converted the previous Navy Exchange building into a multi-purpose recreation center through self-help. This project included demolition of the original interior, installation of new floors, walls, and ceilings, plumbing and electrical service installation, and equipment installation. The availability of a strong self-help program made this project possible, because the cost of contract execution was too high.

The possibilities for self-help are impressive if the program is properly used and supported. Don't fail to take advantage of it.

3. Centrally Managed Funds

One of the most overlooked ways to save money for facilities is to use someone else's. Each year several centrally managed funds end up with money to spare because not enough applications for support were submitted by activities. It is comparable to scholarship funds available to students which are not used because the students are not aware of their eligibility. For many stations this means that scarce O&MN funds are being spent on things a central fund would have been glad to pay for. Examples of such funds include pollution abatement funds managed by NAVFAC, safety improvement funds managed by NAVOSH, Construction Equipment funds from NAVFAC,

Warehousing funds from NAVSUP, Equipment funds from BUMED, etc.

It is well worth your time to be familiar with these funds and their purposes. Many of the projects on your wish list could be eligible for external support.

4. Identifying Needs

The importance of taking the time to establish a close working relationship with your facilities support managers is nowhere more important for cost avoidance than in the process of identifying what is actually needed. The official process asks a user to jump knee deep into red tape by "submitting a work request" to the internal bureaucracy of the Public Works organization. So the user identifies what he wants. His boss, in redrafting the request into the proper form, often changes and embellishes it. When received by Public Works, Planners and estimators investigate and interpret the job, identifying material requirements and writing orders for production personnel. If all goes according to plan, the user gets PW's interpretation of his boss' version of what he thought he wanted.

The problem and the great waste stem from the large disparity between what he wanted and what was really needed as a minimal requirement. To avoid costs, knowledgeable people must attempt to identify the easy way to meet the requirement. People who can explain the underlying problem that drives the

request must meet with people who have a broad knowledge of alternative ways to solve that problem. An example of the good things that happen when people talk to each other was experienced by the author at NAS Jacksonville. An unfunded special project had been a supply department priority for several years. It involved eonstruction of a new fuels testing lab at an estimated cost of $200,000. (Safety inspectors were threatening to shut down the current operation due to safety violations.) High level managers from Public Works, Supply, and Safety took the initiative to meet in the field to discuss the options available. The result was identification of the easy way to meet the requirement, in this case the installation of an available piece of equipment into a renovated existing space at a cost of just over $5,000.

Most jobs require at least one visit to the proposed worksite before any final plans are drawn up. Line managers can help by making sure that a knowledgeable user representative (one who can identify the driver for change and acceptability of proposed alternatives) is available and has the time to hash things out. Further time can be saved if the user feels free to talk to facilities people before filling out his work request. It is important that everyone take the time to look for the easy way to get the job done. The abyss between what users say they want, what they actually want, and what they really need is a poor place to deposit our scarce resources.

D. ENVIRONMENTAL ISSUES

Concern for the environment is a consistent theme in the media, but what has it to do with comptrollers? The fact is that environmental considerations can have profound effects on your station's operational budget, both positive and negative. These effects can even extend directly to your CO through personal liability. More on this later. Fortunately, the Navy has a strong support structure in the environmental area. OP-45 is responsible for policy and for ensuring that adequate resources are available. NAVFAC provides the technical expertise and field support. Now let's look at the current state of affairs for the Navy with respect to the environment with an eye towards cost avoidance and even cost recovery.

1. Regulatory Overview

The National Environmental Policy Act (NEPA) is the law that prescribes the requirements for the planning phase of any project that effects the environment. The Navy instruction implementing NEPA is OPNAVINST 5090.1. Improper or insufficient compliance can cost your station or your claimancy a bundle. A simple housing project (200 units in Washington state) was delayed two years at an additional cost of nine million dollars because of such deficiencies. Stations should be prepared to invest the time and effort during initial planning of any MILCON, unprogrammed minor construction, or special project. Your Engineering Field

Division is staffed to assist in this area. Failure to devote enough resources here can be very costly.

Probably the larger area of concern for station managers is the day to day import, use, collection, treatment, handling, and/or discharge of hazardous wastes or materials. Sovereign immunity (restricting liability of federal installations) has been significantly eroded in the last several years. Base COs may now be held personally liable for discharges from their base. For instance, when an oil spill of any size got into the river at NAS Jacksonville, it was up to the discretion of a fisheries and wildlife officer to decide whether to issue a citation to the station CO. The fine for the "ticket" was $10,000. Fortunately the base was well prepared to respond quickly and effectively to these spills, and has therefore yet to be cited.

The governing law here is the Resource Conservation and Recovery Act (RCRA), with OPNAVINST 5090.1 again being the Navy reference. The OPNAV instruction includes a long list of COs' responsibilities under this act.

2. Controlling Environmental Compliance Costs

The underlying premise of federal regulation in the environmental area is one of cradle-to-grave accountability. For this reason, the key to cost avoidance is to minimize your use or creation of hazardous materials or wastes. Line managers can really help in this area by setting the proper

tone for the station. The CO must accept ownership of every hazardous substance that comes aboard her station or is created from operations aboard her station, and understand that, like it or not, she is responsible for its ultimate proper disposal. This ownership principal should be passed down the line to the managers of all operations that consume hazardous materials or create hazardous byproducts. The power of the ownership concept is in the incentives it gives to cost centers to avoid the use of these materials in the first place. Cost centers should bear the expense of disposal of their wastes, and should know they will receive some of the benefit of eliminating those costs. From the CO down to the motor pool mechanic, each person should have an incentive to minimize the import of hazardous substances into his domain, and to ensure their proper disposal.

The motor pool mechanic can make a bigger difference than you might think. Many maintenance areas collect waste oil in a bowser or central holding tank. In some areas this waste oil is a sellable product for which buyers will offer free pickup and a certain price per gallon, as long as the waste oil is not contaminated with certain chemicals (usually halogens). The mechanic who takes a shortcut and dumps air conditioning compressor fluid into the waste oil bowser can convert 1000 gallons of good waste oil worth $200 and free pickup into 1000 gallons of hazardous waste that costs two dollars per gallon to dispose of plus a 500 dollar pickup fee.

Some operations have 10,000 gallon bowsers. Similar problems occur in the life cycle of other substances.

Passing the incentives of ownership to cost centers can substantially change the behavior of users at the level where it is most effective. Unfortunately, many installations treat the environment as a public works problem only. In the usual approach, public works is expected to receive and handle the disposal of whatever the user generates. This approach seldom generates the incentive for major change.

Where the incentive for change has been strong enough, creative solutions have arisen. The threat of a complete shutdown at Naval Air Rework Facility Pensacola due to inability to properly treat paint stripping effluents was the inspiration for an innovative solution. Plastic media blasting (like sandblasting but with plastic particles) has replaced the chemical stripping that previously generated tons of hazardous waste per year. Smart managers should be able to find some incentive system short of a threat from the EPA.

NAVCOMPT has taken the first step towards establishing a rational incentive structure. Beginning in FY 90, individual activities will be billed for the costs of hazardous waste disposal. Tracking of ownership will also become more effective because OPNAV has recently directed each shore base generator of hazardous wastes to have its own identifier. Comptrollers should not hesitate to pass the ownership to cost centers.

For answers to technical problems, the Navy has two good central sources of expertise in this area. NEESA, the Naval Energy and Environmental Support Agency, and NCEL, the Naval Civil Engineering Laboratory are both located at Port Hueneme, CA. NEESA and NCEL are working with industrial activities to eliminate all pollutants by the year 2010. Contact your EFD for assistance.

Finally do not forget to investigate the possibility of letting centrally managed funds pay for your improvements. Environmental Restoration (DERA) funds are available to support hazardous waste reduction or site cleanups. Pollution abatement funds are available to correct problems identified by new regulations. NAVOSH funds can correct Occupational Safety or Health problems, as can asbestos abatement funds. See NAVFACINST 6240.3a and 5100.14a.

3. Hazardous Waste Cleanup

Unfortunately, many of our bases face environmental problems that only remedial corrective action can solve. Several naval installations have long buried hazardous waste sites that are already on the superfund list. The Navy's program to clean up these problems is the Installation Restoration Program (IRP). IRP is a three-phase program that selects the worst sites and makes assignments to the National Priorities (superfund) List as appropriate. In phase two a Technical Review Committee (as required by CNO letter of 18

Oct 1988) is established and the plan for cleanup is selected with public input to the process. After EPA approval, the actual cleanup begins in phase three. This process may require your support for a period of several years.

Other sources of possible remedial action requirements include the replacement of PCB transformers and the removal of asbestos. Your Facilities Manager should have a current list of all PCB transformers and a program for their replacement. The replacement of interior PCB transformers should remain a high priority on your base. Asbestos is controversial at this point, with many experts now saying that if it is not torn up it poses no threat. Be aware that if the decision is made that asbestos must be removed, the costs can be very high.

4. Recycling

Recycling is the good news on the environmental front page. Current regulations allow the proceeds of recycling to be funneled to the MWR department. Because of the abundance of scrap metal at some of the older stations, recycling can be a boon to those who need it most. Naval Station San Diego has collected 1.2 million dollars for its MRP program through recycling. As a result, the sailors there now have one of the best furnished and equipped gyms on the west coast. Much of this was from recycling scrap steel which was an abundant eyesore prior to its recognition as a commodity. Newer

stations also have many opportunities to recycle. The amount of waste paper alone from an average base is staggering. The problem for managers is to figure out how to efficiently collect on this potential. The recent expansion of public sector recycling activities is creating new markets for recycleables, and new opportunities to help MWR stay afloat. Comptroller staffs can help in these efforts by looking out for recycling opportunities while performing their internal auditing functions. Furthermore, through their power to influence incentives, comptrollers can elicit the cooperation of the entire base.

E. COMMERCIAL ACTIVITIES AND THE RISE OF CONTRACTING

The percentage of overall maintenance and repair services accomplished by contract has grown rapidly over the past two decades, as the size of the average public works department has declined. Much of this shift has been due to the influence of the "commercial activities" program as directed by OMB (Office of Management and Budget) circular A-76. COs have been forewarned to expect mixed results from a shift to contractor operations in the public works arena, with early savings often accompanied by a perceived drop in service, and nearly always by a real drop in flexibility. The drop in flexibility is what should be understood by comptrollers. For all but a few special cases, shifting from in-house accomplishment to contract accomplishment causes a shift to

more of a fixed cost structure for the overall station budget. This is because most of the contracts lock the buyer into some minimum level of services for a fixed price. Under this structure, management has very little discretion over executing planned jobs or even over the timing of cash expenditures. The PWO may no longer be able to slide or accelerate jobs to help the comptroller with her expenditure rate.

F. SUMMARY

This chapter has shown, again and again, the critical need for the PWO and the comptroller to act as a team, to understand each other's business, and to have open channels that are used on a daily basis for communication.

The need to properly identify facilities maintenance priorities was shown to be dependent on this communication. Without it, the PWO may misunderstand the real mission priorities.

Being prepared for the mid-year and end-of-year funding surges requires preparation that must be funded during the rest of the year.

Cost avoidance is a command-wide problem. Comptrollers can help to incentivize command wide participation in the areas of utility conservation, self-help utilization, and the correct identification of "the easy way" to meet command needs. Comptrollers can help in the search for opportunities to take

advantage of centrally managed funds to let someone else pay for it.

Environmental issues, similarly, are not just a Public Works problem. Station-wide incentives should be in place to minimize the generation of hazardous wastes and to maximize the benefit of recycling opportunities.

A working partnership between the comptroller, and his largest customer, the Public Works Officer, is necessary to meet the challenges of the future. The barriers of language and expertise are easily overcome. The outlook for Navy facilities is a tough one. The partnership you establish with your Facilities manager could make the difference between success and failure.

IV. CONCLUSION

A. STUDY FINDINGS

The results of this study indicate that the ability of comptrollers to understand and work with their facilities managers will be crucial to continued mission accomplishment for the Navy in the 1990s. Any artificial barriers to effective managerial decision making must be removed, and line and staff must work as a team.

The current comptroller training offered at the Naval Postgraduate School does not sufficiently address this requirement. It is therefore suggested that chapters two and three of this thesis be adopted as additions to the Practical Comptrollership Course.

B. FURTHER STUDIES

This thesis is the result of numerous interviews with a wide variety of activity line officers (mainly comptrollers and Commanding Officers) as well as staff experts from the facilities management field. It is not intended to be considered an exhaustive reference, but to provide a basic understanding of facilities-related issues to comptrollers or other line managers who need insight into these issues.

There are doubtless other important lessons to be learned for the effective and efficient management of our Navy shore

facilities. It is hoped that the improved understanding promoted by this work will allow these lessons to be more quickly learned and applied.

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