

Office of the Inspector General

Kenneth S. Apfel  
Commissioner of Social Security

Inspector General

Review of the Social Security Administration's Monitoring of Selected Facilities Management Projects

The attached final report presents the results of our review entitled, "Review of the Social Security Administration's Monitoring of Selected Facilities Management Projects" (A-13-97-02005). The objective of our review was to respond to questions raised in a letter from Congressman Robert L. Ehrlich, Jr. concerning cost overruns for two construction projects at the Social Security Administration and the maintenance and replacement of Kathabar dehumidifying equipment.

You may wish to comment on any further action taken or contemplated on our recommendations. If you choose to offer comments, please provide them within 60 days. If you wish to discuss the final report, please call me or have your staff contact Pamela J. Gardiner, Assistant Inspector General for Audit, at (410) 965-9700.

David C. Williams

Attachment

cc:

OIG/ES

Reading File

Subject File

SSA\OIG\OA\CMARKOW ITZ \ch\11-20-97 97-02005.FNL

Report File

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# EXECUTIVE SUMMARY

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## OBJECTIVES

The first objective of this evaluation was to determine reasons for cost overruns connected with two construction projects for which the Social Security Administration (SSA) contracted--one at SSA Headquarters in Woodlawn, Maryland, and the other at the Metro West Complex in Baltimore, Maryland. The second objective was to review the maintenance of the Kathabar equipment that dehumidifies the air for the Metro West Complex.<sup>1</sup>

## BACKGROUND

We initiated a review based on a letter from Congressman Robert L. Ehrlich, Jr. concerning cost overruns of two construction projects and the maintenance of equipment that dehumidifies the air for the Metro West Complex in Baltimore, Maryland. Specifically, the Congressman asked about the recently constructed Annual Wage Report (AWR) computer room that requires major modifications due to deficiencies in the original workmanship. He also asked how much it would cost SSA to repair this room. This computer room is located at SSA's Metro West Complex in Baltimore, Maryland. The second construction project involves renovations of a fitness center located at SSA Headquarters in Woodlawn, Maryland. Congressman Ehrlich was concerned that the contractor may have been overpaid and whether the contractor coordinated with SSA's engineers during the course of the work. The Congressman also requested information about a dehumidifying system, called a Kathabar. He asked if it is being replaced because it has never been maintained properly; and if so, what the cost would be to replace it.

We examined contracts, construction and maintenance documents, correspondence, memos, and other available records related to the computer room and fitness center. We interviewed private engineering consultants and SSA

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<sup>1</sup> A Kathabar system is a desiccant dehumidification system that chemically dehumidifies using a lithium chloride solution as the desiccant. It cools and dehumidifies all of the outdoor air brought in through the ventilation system for the Metro West building. If outdoor air is not conditioned properly by the Kathabar unit, the air distributed through out the building collects additional moisture in ceiling ducts. The presence of excess moisture has been identified by experts as a source for microbial growths; and this presence, in some instances, has been linked to considerable health hazards.

mechanical, electrical, architectural and structural engineers, and SSA building contract maintenance personnel. We also reviewed a copy of the October 1996 report prepared by an outside engineering and architectural firm hired by SSA to make recommendations for reconstruction of the computer room. In addition, we conducted an on-site inspection of the computer room and Kathabar locations within the SSA Metro West building.

## **RESULTS OF REVIEW**

We found several conditions leading to construction cost overruns of the AWR computer room which were caused by not following formal procedures to document contract deficiencies and monitor contract performance. The General Services Administration (GSA) did not take action to ensure contractor compliance during construction and legal disputes extended final acceptance of the contract, leaving deficiencies unresolved. Problems with the fitness center's construction also involved inadequate monitoring of the construction contract. Finally, lack of training and failure to implement an improvement plan caused ineffective maintenance of the Kathabar system and the need for its premature replacement.

## **CONCLUSIONS AND RECOMMENDATIONS**

### **AWR Computer Room and Fitness Center**

- Follow controls and procedures that require documentation of construction deficiencies so that SSA can hold the contractor responsible for correcting construction deficiencies before payment.
- Follow contract requirements and include Division of Architecture and Engineering Services (DAES) staff in ongoing monitoring of the construction process before change orders are approved.
- Follow procedures that require the Contracting Officer (CO) to take corrective action on construction deficiencies when first reported.
- Coordinate legal matters with GSA regarding the expenditure of Agency funds due to contract noncompliance and failure to exercise penalty provisions.

### **Kathabar System**

- Ensure that the Kathabar system is properly tested and maintained.
- Properly train maintenance and engineering personnel on the newly installed Kathabar system.

- Implement the enhanced inspections called for in the 1995-1996 Kathabar work plan recommended by the outside consultant firm.

## **AGENCY COMMENTS**

SSA had a number of general comments in its response to the Office of the Inspector General (OIG). SSA did not agree with the report findings that additional costs for the construction projects were caused by ineffective monitoring of contracts or that the Kathabar system was ineffectively maintained. In addition, SSA expressed concern that pertinent information was not included in the preliminary version of the report, appropriate staff had not been interviewed, and the auditors talked with some individuals not on the project teams who were not familiar with the contract specifications. See Appendix A for the full text of the Agency's comments.

## **OIG RESPONSE**

The construction deficiencies we reported concerning the AWR computer room were also identified and documented in a report that SSA requested from a private contractor. Construction deficiencies in the fitness center were also identified in a report prepared by SSA's project officer and architectural and engineering staff. Our review of SSA project files and other evidence indicated that written guidance and procedures requiring monitoring and team inspections were not followed to ensure adherence to contract requirements. We reviewed all documentation supplied to us by SSA and conducted interviews with staff identified by SSA, including those whom we believed possessed the first-hand knowledge needed to technically assess both renovation projects.

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# TABLE OF CONTENTS

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	Page
<b>EXECUTIVE SUMMARY</b> .....	i
<b>INTRODUCTION</b> .....	1
<b>RESULTS OF REVIEW</b> .....	5
AWR COMPUTER ROOM CONTRACT CLOSED WITHOUT DEFICIENCIES BEING CORRECTED .....	5
• Written Procedures to Document Contract Deficiencies and Monitor Contractor Performance Existed but Were Not Followed ....	5
• SSA and GSA Did Not Take Action to Ensure Contractor Compliance during Construction .....	6
• SSA Hired Another Architectural Firm to Assess the Deficiencies ....	7
CONTRACT REQUIREMENTS WERE NOT FOLLOWED IN OVERSEEING THE FITNESS CENTER PROJECT.....	8
• Contractor Privy to Office of Acquisition and Grants and DAES Disagreements .....	11
SSA'S MANAGEMENT OVERSIGHT OF KATHABAR SYSTEM INEFFECTIVE.....	11
• Proper Maintenance Procedures Not Implemented.....	11
• Failing North Kathabar Replaced .....	12
<b>CONCLUSIONS AND RECOMMENDATIONS</b> .....	13
<b>APPENDICES</b>	
APPENDIX A - SSA Comments to the Draft Report	
APPENDIX B - Major Contributors to This Report	
APPENDIX C - SSA Organizational Chart	

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# INTRODUCTION

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## OBJECTIVES

The first objective of this evaluation was to determine reasons for cost overruns connected with two construction projects for which SSA contracted--one at SSA Headquarters in Woodlawn, Maryland, and the other at the Metro West Complex in Baltimore, Maryland. The second objective was to review the maintenance of the Kathabar equipment that dehumidifies the air for the Metro West Complex.

## BACKGROUND

We initiated a review based on a letter from Congressman Robert L. Ehrlich, Jr. concerning cost overruns of two construction projects and the maintenance of equipment that dehumidifies the air for the Metro West Complex in Baltimore, Maryland. Specifically, the Congressman asked about a recently constructed computer room that requires major modifications to repair deficiencies in the original workmanship. He also asked how much it would cost SSA to repair this room and why the contractor was paid if the construction was deficient. This computer room is located at SSA's Metro West Complex in Baltimore, Maryland. The second construction project involves renovations of a fitness center located at SSA Headquarters in Woodlawn, Maryland. Mr. Ehrlich asked if cost overruns were due to lack of management oversight. The Congressman also requested information about a dehumidifying system, called a Kathabar. He asked if it is being replaced because it has never been maintained properly; and if so, what the cost is to replace it.

### **Multiple Components Involved in Construction Management and Oversight**

Responsibility for construction management and oversight falls under the authority of three SSA components within the Office of the Deputy Commissioner for Finance, Assessment and Management. The Office of Facilities Management's (OFM) Office of Realty Management (ORM) directs SSA's national realty program. Under ORM, the Division of Project Management (DPM) has the overall responsibility for assigning a Project Officer (PO) to ensure adequacy of construction designs and coordination during both the design and construction phases. These responsibilities include day-to-day construction management, inspections, and certification of invoices. The Office of Outlying Buildings

Management provides building maintenance and has skilled staff available to assist in construction oversight.

External to SSA, the actual contract is administered by GSA. A CO and a Contracting Officer's Technical Representative (COTR) are assigned to the contracted project. GSA's CO is the only person with authority to give direction to the contractor. GSA's COTR, assisted by his/her own team of inspectors, is responsible for ensuring that designs are completed on time, construction is managed, inspections are made, and invoices are certified.

### **ORM Written Review Procedures**

ORM has written review procedures to be used by DPM. Guidance is given so team members will understand their roles as members of a project review team. During design and construction phases, the DPM project manager is officially designated as the PO. The PO acts on behalf of the Agency and is to fully cooperate with GSA's CO and COTR to resolve any issues with engineering and construction contractors. Team members or components staff members cannot contact the contractor without the PO's knowledge and approval.

### **Construction of the AWR Computer Room**

In April 1993, a contract was awarded by GSA, in consultation with SSA, for a fast-track project to construct a computer room to house the AWR operation. This construction was required to implement Agency plans to permanently move the AWR operation from the National Computer Center building in Woodlawn, Maryland, to the Metro West building in Baltimore, Maryland. It was imperative to complete construction prior to the end of the 1993 tax year in order to preclude processing the AWR operation in two locations. This data operation facility occupies approximately 11,000 square feet. The computer room consists of three data storage rooms and two computer room work areas. The contract was initially awarded for \$451,000; but, due to contract modifications, the final cost totaled \$568,004.

During the planning and construction of the computer room, an SSA PO was expected to provide oversight, as well as report to GSA's COTR.<sup>2</sup> Effective and timely communication between the PO and COTR is essential. If the PO becomes aware of any deviations from contract objectives, these deviations must be

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<sup>2</sup> SSA guidelines require DPM's PO to function as the "eyes and ears" of the project, monitor the construction site, and report to GSA's COTR.

reported to the CO. Such notification enables the CO to consider exercising contract provisions that ensure that the contractor is in compliance with contract requirements and specifications.<sup>3</sup>

### **Construction of the Fitness Center**

The fitness center, located at SSA Headquarters in Woodlawn, Maryland, was expanded because membership had increased significantly and more space was needed. The contract was awarded in July 1993 and construction was completed in June 1994. For the fitness center project, unlike the AWR computer room, the CO was selected from SSA's Office of Acquisition and Grants (OAG) rather than from GSA. The PO was assigned from SSA's DPM. The PO oversaw the project and reported construction progress to OAG. The PO also worked with DAES, which designed the project, provided the drawings and specifications, and provided technical input to ensure adherence to the design and specifications during construction.

### **Monitoring the Kathabar System**

The Kathabar system is a dehumidification system which chemically dehumidifies the air by using a lithium chloride solution. The system is located in the Metro West building. There are two Kathabars: one serves the North Building and the other serves the South Building. This system cools and dehumidifies all of the outdoor ventilation for the Metro West building. If outdoor air is not conditioned properly by the Kathabar unit, the air that is distributed throughout the building collects additional moisture in ceiling ducts. The presence of excess moisture has been identified by experts as a source for microbial growths and, in some instances, this presence has been linked to considerable health hazards, e.g., legionnaires' disease. Problems have been experienced with both systems over the years, but the system serving the North Building was in a state of critical disrepair and was replaced in April 1997.

## **SCOPE AND METHODOLOGY**

We examined contracts, construction and maintenance documents, correspondence, memos, and other available records related to the computer room and fitness center. We interviewed engineering consultants and SSA mechanical,

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<sup>3</sup> GSAR 552.246-75 guarantees - If within any guarantee period, the CO finds that guaranteed work requires repair or change because of defective or inferior materials, equipment, or workmanship, or is not in accordance with contract requirements, the contracting officer shall notify the contractor in writing. The contractor must promptly, and without additional expense to the Government, correct all guaranteed work and all damages resulting from the unsatisfactory guaranteed work. If the contractor fails to proceed promptly, the Government may have such work performed at the expense of the contractor.



electrical, architectural and structural engineers, and SSA building contract maintenance personnel. We also reviewed a copy of the October 1996 report prepared by an outside engineering and architectural firm hired by SSA to make recommendations for reconstruction of the computer room. In addition, we conducted an on-site inspection of the computer room and Kathabar locations within the SSA Metro West building.

Our evaluation was conducted from November 1996 to June 1997. This inspection was conducted in accordance with the *Quality Standards for Inspections* issued by the President's Council on Integrity and Efficiency.

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# RESULTS OF REVIEW

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## AWR COMPUTER ROOM CONTRACT CLOSED WITHOUT DEFICIENCIES BEING CORRECTED

Although SSA and GSA acknowledged construction deficiencies, the AWR computer room contract was closed out without resolving many of the problems. We found several circumstances contributing to the premature closure and the subsequent additional costs incurred in order to correct the deficiencies.

### *Written Procedures to Document Contract Deficiencies and Monitor Contractor Performance Existed but Were Not Followed*

Specific guidelines establish a system for reporting deficiencies as they are discovered. The guidelines also provide for systematic monitoring and follow-up documentation of the work being done to correct deficiencies. There is also written guidance within OFM requiring team inspections during the different phases of construction. Even though DFM has written guidance and procedures to explain the responsibilities of on-site staff and the FO during construction, the procedures were not followed. On-site staff reported they were unaware of these procedures and uncertain about the reporting requirements.<sup>4</sup> Contract staff, who were also responsible for building maintenance, were not provided with a construction schedule which would have enabled them to monitor progress of work scheduled for completion on any given day.

In January 1994, the AWR computer room was occupied after construction was substantially completed. Immediately, numerous substantive complaints were reported by the occupants to the building maintenance personnel<sup>5</sup> concerning high temperature and humidity levels, malfunctioning of the automatic temperature control system, and water leakage into the computer room space. The building maintenance staff immediately responded to these complaints and attempted to service and maintain the computer room. However, they found they could not repair the air conditioning and temperature panels because there was no access to the control units. This situation was only the first in a series of many complaints that the building maintenance staff would attempt to service. They informally

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<sup>4</sup> These guidelines require on-site staff to participate in progress inspections, serve as team members, and meet progress schedules.

<sup>5</sup> Building maintenance personnel at the Metro West building consists of private, on-site contractors and SSA maintenance staff. Both service the building full-time.

reported these conditions and others to the PO with the belief that the reported deficiencies would be brought to the contractor's attention for prompt correction.

During our interview with the PO, we were told that formal documentation of construction progress to GSA's CO TR was not required nor was formal substantiation of deficiencies needed. This particular project was not seen by the PO as large, costly, or complicated enough to necessitate giving other team members a construction schedule to check for progress.<sup>6</sup> We were also informed that the PO felt that his individual inspections were sufficient and that he did not regularly involve other team members in required inspections. Moreover, he reported directly to GSA's CO TR without regularly conferring with other team members during construction. It should be noted that neither the PO nor the CO had a daily presence at the construction site and only monitored its progress on an irregular basis.

### ***SSA and GSA Did Not Take Action to Ensure Contractor Compliance During Construction***

SSA and GSA shared responsibility for monitoring the contract. Multiple deficiencies were reported to GSA by SSA on separate "punch lists"<sup>7</sup> during three different time periods after substantial construction was completed. GSA had its own inspection team to perform oversight duties and had the opportunity to observe any deficiencies and have the contractor correct deficiencies as they were identified. However, GSA did not take any action to address deficiencies until construction was substantially completed and the AWR computer room was occupied.

GSA's CO TR acknowledged that construction errors were identified while construction was in progress. However, GSA closed out the contract after 18 months of disputes concerning these deficiencies without requiring the contractor to correct the deficiencies. GSA instituted legal procedures to impose penalties only after the room was completed and occupied. GSA's CO TR thought the contract needed to be closed out for practical reasons; i.e., the AWR staff needed to use the room and the equipment warranty was going to expire in a year.

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<sup>6</sup> Federal Acquisition Regulation 52.236-15 Schedules for Construction Contracts - The contractor shall, within 5 days after the work commences on the contract . . . prepare and submit to the CO for approval . . . a practicable schedule showing the order in which the contractor proposes to perform the work, and the dates on which the contractor contemplates starting and completing . . . the work.

<sup>7</sup> During the final walk-through by building maintenance staff, they inspect the outstanding deficiencies and identify them on a "punch list." This list is provided to GSA's CO TR, who is obligated to make sure that these problems are corrected within a reasonable time.

SSA and GSA did not take action to have the deficiencies corrected during construction. Improved construction data and oversight between SSA and GSA are needed for enforcing contract compliance. Concurrent inspections performed throughout construction could have prevented this condition. All on-site building staff must be given a construction schedule in order to oversee construction progress on a daily basis and produce progress reports to which management responds as deficiencies are reported. If these conditions had been met, both GSA and SSA would have been in a better position to assess the potential liability of the contractor.

### ***SSA Hired Another Architectural Firm to Assess the Deficiencies***

After GSA closed out the contract, problems persisted with the AWR computer room and SSA hired an outside architectural firm, Sorg and Associates, to assess the deficiencies and recommend how to repair them. In its October 1996 report to SSA, Sorg and Associates confirmed multiple deficiencies that were attributable to the original workmanship, including deficiencies in the design, construction, and operational conditions in the computer room. The report, which cost \$73,000, recommended general design and construction corrective measures. Items that had been consistently, but informally, reported by the building maintenance staff during construction were also investigated, documented, and confirmed.

Some of the specific design and construction deficiencies cited in the report included: improperly installed H VAC<sup>8</sup> equipment, improperly installed piping on the roof level, fire alarm speakers placed above the suspended ceiling, improperly sized condensation drain piping, electrical design deficiencies, failure to test and certify newly installed electrical and mechanical systems, failure to obtain the contractor's verification that the computer room H VAC equipment installation requirements complied with the equipment manufacturer's standards, and an air conditioning unit improperly supported by the roof's structure. In December 1996, we asked the PO, his immediate supervisor from DPM, and GSA's CO TR if they could comment on the findings of this report; we were informed that they had not read it.

SSA has recently contracted to redesign the AWR computer room due to changes in user needs and also repair deficiencies due to the original construction. This contract has been awarded for \$418,824.

SSA incurred additional costs for the outside firm's assessment and will incur renovation costs, in part, due to ineffective contract management by both GSA and SSA. During construction, opportunities were missed to take action to ensure

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<sup>8</sup> Heating, Ventilation and Air Conditioning

that these deficiencies were corrected. SSA's OFM management was unable to effectively take action to ensure that GSA did everything possible to represent

SSA's interests to the contractor. This was further compounded by the uncertainties and ineffectiveness in following reporting and monitoring procedures internal to SSA, and between GSA and SSA.

## **CONTRACT REQUIREMENTS WERE NOT FOLLOWED IN OVERSEEING THE FITNESS CENTER PROJECT**

The administration of the contract during the renovation of the fitness center was the responsibility of OAG. The CO assigned from OAG is the only person authorized to modify the contract or take action to enter or change a contractual commitment on behalf of SSA. DPM's PO and DAES staff were assigned to monitor the contractor's performance in accordance with the contract documents and relay technical information when potential problems occurred. The PO and DAES were to provide on-site monitoring and technical direction to the CO in order to ensure that the work was within the scope of the contract. Their technical oversight would enable OAG to make informed decisions about issuing change orders or contract modifications at an additional cost to SSA. However, the final decision to accept or decline change orders is made by OAG.

The construction management process is controlled by the contract documents and internal procedures that require coordination between the CO, DPM and DAES. The contract documents, which consist of architectural drawings, a written contract, and specifications, must be followed so that DAES and the PO can adequately monitor, troubleshoot, and respond to problems as they occur. The failure to follow contract requirements and the lack of coordination while monitoring the fitness center project resulted in cost overruns and inconsistent review of contractor performance during renovation.

The specific control functions of this contract were to: hold regular conferences with the contractor, conduct on-site visits, approve technical data submitted by the contractor, and provide adequate direction to the contractor. Many of these contract functions were not followed. For example:

- Construction was started without a pre-construction meeting involving all contract parties. This meeting was not scheduled until midway through construction, at which point the PO and DAES staff had concerns about coordination with OAG and monitoring the contractor's performance. These concerns involved clarification of the specifications, reporting requirements to OAG involving the change order process, and procedures for monitoring and measuring construction progress.

*The contract required a pre-construction conference to review construction documents. This meeting should cover all matters that need to be clarified in order*

*to avoid a misunderstanding of the contract requirements. These matters usually include clarification of the specifications or the contents of the statement of work; quality control, reporting requirements, and procedures for monitoring and measuring construction progress. During this pre-construction meeting, the construction schedule is discussed to ensure time commitments for completion and to show the sequence in which the work is to progress.*

- Change orders 1,3, and 6 were prepared and work was completed even though the contractor had not submitted a notification to the CO which should have included submission of shop drawings and an estimate of the cost for additional work. Change order 3 was fully funded despite the PO's concern that the additional work was already included in the original contract. During these situations, DAES staff did not evaluate whether the change order was valid or how the work was to proceed.

*The contract required the contractor to notify the CO in writing of a pending change order. This permits the Government to evaluate the requested change and: (1) confirm that it is a valid change, direct the mode of further performance, and plan for its funding; or (2) countermand the change and notify the contractor that no change is considered to have occurred.*

- Regarding the work related to change order 6, the contractor failed to file a report with the CO specifying how demolition work would be performed. The contractor was told to remove a door and enlarge the door entrance. The change order specified that if the door was filled with concrete, he was to cut the jamb so he wouldn't damage the wall. DAES and PO daily logs indicate that the contractor hammered the jamb and damaged the wall. No notification was provided by the contractor prior to demolition explaining his approach to resolving the unanticipated site condition. As a result of the damage the contractor caused to the door jamb, the cost of the change order was increased and subsequently approved for funding.

*The contract required that if unanticipated mechanical, electrical, or structural elements which conflict with the intended function or design are encountered, the contractor is to submit a report to the CO identifying such conditions in written accurate detail. The contract also requires that the contractor is responsible for damages caused by defective workmanship*

- Additional funding was approved for change order 8 to construct protective barriers, even though the cost was already included in the contract.

*The contract required the construction of dust-proof enclosures or partitions for protection where dusty or dirty work was performed at no additional cost to the Government.*

After the project ended, to help avoid future misunderstandings, the PO and DAES staff conferred through formal memos about the project and submitted a report to OAG and DPM management making recommendations to improve oversight and better document contract changes. They further recommended that management establish contractor requirements to provide a baseline construction project schedule, show percentages of completion at regular meetings, and conduct meetings prior to the start of construction to ensure that all parties have an understanding of the project and its requirements. The following are highlights from the report DAES and the PO submitted to their management and OAG reaffirming the results of our review:

- Three different COs were assigned by OAG, resulting in interruption in continuity because meeting notes and discussion results were not passed on to successors.
- DAES staff requested, prior to the start and during the project, a pre-construction meeting with OAG to discuss the roles of key SSA personnel in connection with the project. This meeting did not take place until midway through the project. Prior to this meeting, the contractor was making major deviations from contract specifications and construction documents. DAES staff and the Project Manager (PM) made an effort to bring these problems and deviations to OAG's attention on numerous occasions but were denied the opportunity to present them formally to OAG.
- DAES staff periodically notified OAG of contract objectives not being met by the contractor during the project. No corrective action was initiated by the OAG representative and the contractor was permitted to continue work even though contract objectives were not being met.
- There was confusion among SSA project representatives as to their roles and their relationship with the contractor regarding contractual and technical direction. As a result, the project suffered from a loss of quality, higher costs, and scheduling and management deficiencies.

The final cost of the fitness center was \$210,687, of which approximately \$40,000 was due to contract changes. DAES staff and the PO maintain that some of the \$40,000 could have been saved if contract provisions had been followed and if the internal administrative procedures between OAG and DPM had been effectively implemented. We concur with that conclusion.

We believe OAG management should ensure that contract requirements are implemented and systematically followed during construction. This would also



ensure that contract changes are valid and not due to a lack of construction planning, and all additional costs associated with contract changes are allowable.

### **Contractor Privy to OAG and DAES Disagreements**

When progress meetings took place, procedural problems that existed between OAG and DAES were openly discussed with the contractor present. DAES and PO daily logs show that items for discussion included incorrect specifications, improper construction management procedures, failure to provide contract documentation to all parties involved, delay of the contract due to lack of money, the availability of money for change orders, turnover of the contracting official (three times), and questions regarding the correct documentation for the change order process.

DAES recorded in its daily log that these situations should not have been discussed in the presence of the contractor and that this information enhanced the contractor's position because he was made aware of the lack of oversight controls. In response to our draft report, SSA stated that

"It was possible that, during the exchange of a progress meeting, the contractor may have witnessed disagreement on aspects of the project among various team members. However, we have no evidence to support that he used these meetings to intuit a lack of project oversight or to in some way increase contract costs to his advantage."

DAES staff was also informed, in the presence of the contractor, that the lead architect was no longer to impart technical advice at all during the meeting. DAES staff and the PO made requests to meet with their management and OAG in private to discuss these organizational problems and construction deficiencies, but they were not given an opportunity to do so. We believe that SSA staff could more efficiently and effectively monitor the provisions of a contract if they presented a unified approach when interacting with a contractor.

### **SSA'S MANAGEMENT OVERSIGHT OF KATHABAR SYSTEM INEFFECTIVE**

SSA HVAC engineers, building contractors, and manufacturing consultants reported that technical problems with the Kathabar system have persisted as a result of improper maintenance, especially due to lack of training of maintenance personnel and testing of the equipment. After reviewing available inspection data from 1980 to April 1996 from SSA and outside consultants, we found that maintenance problems persisted over the entire span of time.

#### ***Proper Maintenance Procedures Not Implemented***

As early as 1980, an outside consultant recommended that certain parts of the Kathabar system be replaced or adjusted to eliminate leakage in order to lower the air supply humidity to acceptable levels. A 1994 summary of activities prepared by a private consultant concluded: (1) the building contractors did not appear to conduct an active program to maintain and evaluate the effectiveness of the Kathabar system; (2) neither the building maintenance contractor nor Metro West facility staff conducted temperature, relative humidity, or airflow measurements; and (3) the building managers were not effectively using their Kathabar subcontractor. The outside consultant concluded that, without external assistance from them, the building managers would not be capable of evaluating or correcting identified deficiencies in the Kathabar system.

An April 7, 1996 report<sup>9</sup> revealed that outside consultants once again recommended that SSA implement primary and enhanced engineering maintenance for both Kathabars. The document also states that SSA should implement all of the proposed 1995-1996 maintenance work plan recommendations that had not been implemented to date.

### ***Failing North Kathabar Replaced***

SSA replaced the failing North Building's Kathabar system with a new "Kathapac" system which was installed in April 1997. The cost for replacing the North Kathabar was \$50,000. The Kathapac is currently being operated and maintained by the contractor, but soon SSA personnel will take over the maintenance. SSA's building maintenance staff and the on-site contractors have received training from the Kathapac manufacturers. SSA's FM will evaluate the adequacy of training they have received and, on the basis of those findings, SSA must determine if further training is necessary before they take over this maintenance function from the manufacturer.

In addition to the high cost for this equipment, additional health and safety aspects must be considered to ensure that the equipment is maintained adequately and tested regularly. An SSA document<sup>10</sup> also showed that the cost of relocating employees would be extremely prohibitive and the logistical problems would be overwhelming if the Kathabar is not maintained properly.

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<sup>9</sup> Summary Report and Recommendations of the 1995 Cooling Season, Telecommunications Service Center Metro West Intervention Project, by Neil C. Davis, Federal Occupational Health Contractor.

<sup>10</sup> An internal memorandum to GSA's Chesapeake Realty Service from SSA's ORM, dated October 16, 1996.

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# CONCLUSIONS AND RECOMMENDATIONS

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In answer to Congressman Ehrlich's inquiry about cost overruns and monitoring of construction sites by SSA, as well as the replacement and maintenance of the Kathabar system, we found several areas that need improvement. To avoid future inefficiencies and unnecessary spending, we recommend that SSA:

## AWR Computer Room and Fitness Center

1. Follow controls and procedures that require documentation of construction deficiencies so that SSA can hold the contractor responsible for correcting construction deficiencies before payment.
2. Follow contract requirements and include DAES staff in ongoing monitoring of the construction process before change orders are approved.
3. Follow procedures that require the CO to take corrective action on construction deficiencies when first reported.
4. Coordinate legal matters with GSA regarding the expenditure of Agency funds due to contract noncompliance and failure to exercise penalty provisions.

## Kathabar System

5. Ensure that the Kathabar system is properly tested and maintained.
6. Properly train maintenance and engineering personnel on the newly installed Kathabar system.
7. Implement the enhanced inspections called for in the 1995-1996 Kathabar work plan recommended by the outside consultant firm.

## **SSA's General Comments**

SSA had a number of general comments in its response to OIG. SSA did not agree with the report findings that additional costs for the construction projects were caused by ineffective monitoring of contracts or that the Kathabar system was ineffectively maintained. In addition, SSA expressed concern that pertinent information was not included in the preliminary version of the report, appropriate staff had not been interviewed, and the auditors talked with some individuals not

on the project teams who were not familiar with the contract specifications. In addition, SSA was disappointed that the draft report continued to contain a number of inaccuracies and omissions critical to objectively evaluating events that transpired. SSA indicated that it was impractical to apply a traditional audit approach to complex issues with implications beyond the construction project. In addition, SSA noted that to approach these issues from the perspective that increased oversight would have solved these problems is not well-founded.

## **0 IG Response to General Comments**

The construction deficiencies we reported concerning the AWR computer room were also identified and documented in a report that SSA commissioned entitled Investigation and Evaluation of the Annual Wage Report Computer Room Expansion Project. This report was prepared and issued by the architect and engineering firm of Sorg and Associates on October 4, 1996. Construction deficiencies were also identified in the report Renovations & Alterations to the Social Security Administration Fitness Center prepared and issued by SSA's architectural and engineering staff and the PO for the project. Our review of SSA project files and other evidence obtained during the course of the evaluation corroborated that written guidance and procedures requiring monitoring and team inspections were not followed to ensure adherence to contract requirements. We also reported on studies prepared by an outside consultant in 1994 and 1996 which attributed the Kathabar system malfunctions to improper maintenance and recommended improved training and enhanced engineering maintenance. We reviewed all documentation supplied to us by SSA and conducted interviews with appropriate staff identified by SSA. We also conducted interviews with others whom we believe possess the first-hand knowledge needed to technically assess both renovation projects and the criteria under which these projects were to be monitored.

Specific SSA comments and OIG responses concerning each recommendation follow:

### **AWR Computer Room and Fitness Center**

- 1. Follow controls and procedures that require documentation of construction deficiencies so that SSA can hold the contractor responsible for correcting construction deficiencies before payment.**

#### SSA Comment

SSA has controls and procedures in place to document construction deficiencies. These procedures provide for day-to-day construction management, inspections, documentation of contractor construction

deficiencies, and timely notification to the contracting authority; i.e., SSA's OAG and GSA. All project team members in O FM are given a copy of the procedures to review at the beginning of a project. Team members are assigned on a rotating basis. At one time or another, nearly all O FM employees have served on project teams. In addition, team members are made aware of their responsibilities under Federal Acquisition Regulation (FAR) through mandated training.

#### OIG Response

Our review disclosed that controls and procedures to document construction deficiencies were not implemented on a day-to-day basis while construction was in progress. We also could not find evidence in SSA files that team inspections were part of the monitoring process during construction.

- 2. Follow contract requirements and include DAES staff in ongoing monitoring of the construction process before change orders are approved.**

#### SSA Comment

This is standard O FM practice. Written procedures specifically address establishing a multi-disciplinary project team. The project team routinely includes architectural and engineering staff, as well as security, environmental, health and safety, and shop personnel (electricians, operating engineers, plumbers, and carpenters).

#### OIG Response

During our review of both projects, we found that ongoing monitoring of construction in process was ineffective and that existing procedures were not followed. There was a lack of coordination among the various components who were required to participate on project teams; therefore, adequate oversight of the construction process was not ensured. Technical staff on both projects were not assigned clear roles to evaluate the progress of construction. These technical staff and managers confirmed that they did not take part in a coordinated team effort and were not directed to participate in all phases of the construction planning process. These phases included participating in pre-construction meetings, receiving the construction schedule to measure the contractor's progress, daily site visits, progress meetings, inspections with GSA, and producing progress reports to identify deficiencies.

- 3. Follow procedures that require the CO to take corrective action on construction deficiencies when first reported.**

SSA Comment

SSA has procedures in place for responding timely to reported and documented construction deficiencies. FAR and the terms and conditions of OAG and GSA construction contracts address and provide for such corrective action. The CO can choose from several kinds of corrective actions (verbal admonishments, written admonishments, de fault termination's, etc.) depending upon the CO's determination of the nature and severity of the situation.

OIG Response

Our review disclosed that construction deficiencies were not identified during the construction process. We believe that inadequate monitoring and inspections while work was in process prevented the identification of deficiencies during construction.

- 4. Coordinate legal matters with GSA regarding the expenditure of Agency funds due to contract noncompliance and failure to exercise penalty provisions.**

SSA Comment

SSA routinely coordinates with GSA during construction projects, and has input and recommends corrections for contract noncompliance. During construction, a penalty is imposed by withholding a percentage of the contractor's monthly progress payment. After substantial completion and/or beneficial occupancy (date of final acceptance) and the generation of a "punch list" (problems to be addressed), the CO may impose penalties if the contractor fails to correct "punch list" deficiencies. However, the contractor is given every opportunity, including prolonged negotiations, to correct deficiencies before penalties are imposed. The final decision to impose penalties rests with the contracting authority (OAG or GSA) and its legal staff.

OIG Response

GSA waited until the computer room was occupied and substantially completed prior to initiating legal procedures to impose penalties. We believe the timely imposition of penalty clauses for failure to comply with contract provisions would have resulted in correction of deficiencies prior to expiration of warranty periods.

## Kathabar System

### **5. Ensure that the Kathapac system is properly tested and maintained.**

#### SSA Comment

The new Kathapac system, which replaced the Kathabar system in the North Building of Metro West, was tested and has been operating correctly since April 1, 1997. The new system is being operated and maintained according to the manufacturer's specifications. SSA maintains inspection logs which document inspections of the new system by the maintenance contractor.

#### OIG Response

We believe SSA's continued attention to inspections and operational maintenance will maximize the life of the new Kathapac system.

### **6. Properly train maintenance and engineering personnel on the newly installed Kathapac system.**

#### SSA Comment

All contract maintenance personnel and all SSA employees responsible for overseeing the maintenance and inspection of the system have been trained. This is supported by documentation. The Metro West building's maintenance contract expires in August 1997. If the new contract is not awarded to the current contractor, training will be scheduled for all new maintenance personnel.

#### OIG Response

We agree with SSA's plan to train new maintenance personnel.

### **7. Implement the enhanced inspections called for in the 1995-1996 Kathabar work plan recommended by the outside consultant firm.**

#### SSA Comment

The enhanced inspections recommended in the report are being conducted. Inspection reports document temperature and humidity measurements from 1995 to the present.

#### OIG Response

We note that SSA is implementing this recommendation.



# **A P P E N D I C E S**

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# APPENDIX A

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SSA'S COMMENTS TO THE DRAFT REPORT

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# APPENDIX C

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SSA ORGANIZATION CHART

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# APPENDIX B

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