

DATE ISSUED: November 15, 2000

REPORT NO: 00-255

ATTENTION: Honorable Mayor and City Council
Council Docket of November 20, 2000

SUBJECT: COMNET: Westinghouse Process Control, Inc. Amendment No. 23

SUMMARY:

Issue - What action should the City Council take regarding authorization of Amendment 23 of the Westinghouse Contract?

Manager's Recommendations - Authorize the City Manager to enter into Amendment 23 to the existing Agreement with Westinghouse Process Control, Inc., for a not-to-exceed amount of \$5,573,958, bringing the total contract amount with Amendment 23 to \$121,232,280.

Fiscal Impact - This action will result in an expenditure of \$5,573,958, \$2,009,563 of which is a fixed amount for work that has been bid and negotiated, and \$3,564,395 for additional services. Funds will be transferred from various CIPs to the COMNET CIP 45-920.0 to fund this amendment. This action will be Phase Funded for fiscal years 2001 and 2002, resulting in a revised total contract amount of \$121,232,280.

BACKGROUND

On August 8, 1994, the City Council (R-284490) authorized the City Manager to execute a contract with Westinghouse Process Control, Inc., the lowest responsible bidder for the Wastewater Operations Management Network (COMNET) CIP 45-920.0.

The purpose of the COMNET system is to integrate the monitoring and control of all the treatment, storage, metering, and pumping facilities in the Metropolitan Wastewater Department (MWWD) sewerage system. Ultimately, more than 200 site locations will be linked and monitored by the system. The system has the ability to monitor and, in most cases, control the flows and treatment processes of the MWWD facilities from a central control and information center (COMC), located at the Metro Operations Center (MOC II), in the Kearny Mesa area. When completed, the COMNET system will be able to monitor and control over 25,000 process points throughout the system, providing Operations and Maintenance staff with the ability to efficiently monitor and control plant processes. The major facilities are connected to COMC by a fiber optic system which provides fast and reliable communication. The COMNET system also integrates all the plant support automation systems into a shared network with the facility distributed process control system to provide monitoring and control. These systems include: fire alarms, plant paging systems, card access systems, Closed Circuit Television Systems (CCTV), Maintenance Management Systems (MMS), Laboratory Information Management Systems (LIMS), Process Control Training Simulator (PCTS), energy management systems, and electronic operations and maintenance manuals.

At the time that the original contract was approved in 1994, it was identified that subsequent amendments would be needed as new facility designs were completed in the future. Westinghouse's competitively bid contract included unit prices, which have been used in the subsequent amendments, including Amendment 23.

DISCUSSION

It is requested that City Council approve Amendment 23 with Westinghouse to provide the following fixed scope of work for the projects listed below. This work has been bid and negotiated with Westinghouse for an amount not to exceed \$2,009,563.

SOUTH BAY WATER RECLAMATION PLANT (SBWRP) REVISED CONTROL STRATEGIES FOR EXPANSION CIP (42-910.6)

Provide the Distributed Control System (DCS) Control Strategy Revisions for the SBWRP Expansion Project in six (6) phases and on a schedule which accommodates the Construction Contractor's schedule. Funding for this work has already been authorized by City Council (R-291142 and 291806) as part of the approval of the South Bay Water Reclamation Plant Expansion. (Negotiated Price \$1,632,263)

GUF B&C (GAS UTILIZATION FACILITY) - REVISIONS TO THE CONTROL STRATEGIES CIP (46-179.0)

Provides for the DCS Control Strategy Revisions to the GUF B&C Project. The revisions to the DCS Programming are required to coordinate the system controls with the final design and the equipment installation. Initial funding for this work was already authorized by City Council (R-290394) as part of the approval of the GUF B&C Upgrade and Expansion. (Negotiated Price \$377,300)

Amendment No. 23 also includes the following scopes of work. This work has not yet been negotiated with Westinghouse, but it is expected not to exceed \$3,564,395.

DCS activities and/or changes for the following Facility Construction Contracts that are currently in construction or are projected to start within the next few months:

1. The annual allocation for the Metro Biosolids Center (MBC), which is required to support the enhancement of the plant operation. These enhancements include the modification to the chemical storage tank, which will allow operators to manually switch over to the next chemical storage tank in queue; the modification to the biogas compressor control, which will provide the automatic control of the compressors; and the implementation of an automatic wetwell cleaning strategy, which will reduce the labor required to maintain the wetwells. The funding for these changes is from the MBC Annual Allocation for plant upgrades. (Estimated Cost \$172,720)
2. The South Bay PCTS (Process Control Training Simulator) programming, which

is required for plant operator training. The hardware for the PCTS System was previously funded under Amendment No. 16. This training simulator software allows the operation staff to simulate possible problems which may be seen in the field, and develop procedures to appropriately handle them. The PCTS also allows the operation staff to test and trouble shoot new and/or modified software prior to loading in an actual field device. The PCTS installation will better train operators to handle routine and unexpected situations, therefore mitigating future problems and costs. (Estimated Cost \$500,000)

3. The North City Sodium Hypochlorite (SHC) Modification, which is required to improve storage, containment, and chemical handling of SHC for prechlorination of the influent to the Electrodialysis Process Demineralization Facility. This modification will also improve SHC feed control, which will allow the plant to operate more efficiently and cost-effectively. (Estimated Cost \$324,594)
4. The Point Loma Digester C1/C2 Upgrade Base Scope of Work, which provides the DCS Programming under the Point Loma Digester C1/C2 Facility Contract, which is currently in the bid phase. (Estimated Cost \$1,281,000)
5. Funding for the following sites is required for DCS activities needed during start-up and testing. These contingency funds will be used for system modifications and enhancements to accommodate actual field conditions.
 1. The Point Loma Chemical Feed Upgrade (Estimated Cost \$59,622)
 2. The GUF B&C Upgrade (Estimated Cost \$37,703)
 3. The DCS Programming for the South Bay Water Reclamation Plant (SBWRP) (Estimated Cost \$718,844)

4. The Point Loma Headworks, Odor Control and Grit Processing Facilities (HOG3R) Base Scope of Work (Estimated Cost \$340,291)
5. The DCS Software Programming for the Grove Avenue Pump Station (GAPS) (Estimated Cost \$129,621)

FISCAL IMPACT

The total cost of this Amendment is \$5,573,958. Of this amount, \$2,009,563 is for negotiated scope of work for the Point Loma and South Bay projects. Funds for these projects have been previously authorized by Council (R-291142, R-291806, and R-290394). The remaining \$3,564,395 will be funded by the COMNET CIP (45-920.0), after a transfer of \$822,254 from various other CIPs. Amendment 23 will be funded over two fiscal years, fiscal years 2001 and 2002.

CONCLUSION

The South Bay and Point Loma projects are currently under construction or undergoing start-up operations. The COMNET instrumentation and controls need to be installed for these projects in a timely manner in order to avoid delaying the facility construction contractors, which would result in cost impacts to the City.

It is recommended that Amendment 23 be approved. This amendment continues the scheduled plan of implementation for COMNET Phase I, which is expected to be completed by the end of 2002.

ALTERNATIVE

Do not approve Amendment 23. This is not recommended because, without this amendment, all projects associated with this request will not be able to operate or start up properly.

Respectfully submitted,

F. D. Schlesinger
Metropolitan Wastewater Director

Approved: Frank Belock, Jr.
Deputy City Manager

SCHLESINGER:JMM:ar