



Metropolitan St. Louis Sewer District

Review of Engineering Design and Construction Management Contracts/Invoices

Fiscal Year 2015

May, 2015

This report is intended solely for the use of The Metropolitan St. Louis Sewer District (“MSD”) and is not intended to be and should not be used by any other parties without the prior written consent of MSD.

The Metropolitan St. Louis Sewer District
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Management Contracts/Invoices
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INTRODUCTION

To continue the efforts and commitment of the District to enhance organizational governance, an engagement to perform a limited review of the invoices and contracts related to engineering design and construction management services was included in the Risk Assessment and Audit Plan for Fiscal 2015.

Infrastructure improvements and upgrades for the collection systems are required by on-going regulatory requirements and the Consent Decree that was issued April 27, 2012. As such, the District has been in the process of planning for, designing, and performing major construction over the past several years as part of the Capital Improvement and Replacement Program (CIRP). The Environmental Protection Agency is requiring the District to spend a minimum of \$4.7 billion for CIRP compliance.

The District has not performed an audit of this nature in recent years. This engagement supplements and serves as a complementary engagement to the on-going process to review overhead rates performed by Internal Audit (IA).

SCOPE & OBJECTIVES

Scope and Objectives

Scope: The scope of this engagement consisted of a review of contracts and related invoices for engineering design and construction management contractors providing services to the District during the period of January, 2011 through December, 2014.

Objectives: The overall objectives of this engagement were to:

- Ensure the invoices submitted by the contractors:
 - Are prepared accurately.
 - Are supported by appropriate documentation.
 - Are prepared using appropriate labor rates and prepared in accordance with the terms of the contract.
 - Contain overhead amounts that are accurately and properly calculated using rates that were reviewed and/or agreed to by the District.
 - Contained costs that are allowable per the provisions of the contract.
 - Do not contain costs already absorbed (paid by) by the District.
- Ensure District procedures to review, approve, and process engineering consultant invoices are properly designed and implemented.
- Ensure the structure of each contract is adequately designed, incorporating provisions or mechanisms that adequately control costs.

METHODOLOGY

Methodology

To accomplish the above objectives, Internal Audit (IA):

- Obtained a report detailing the population of District engineering consultant contracts for the scope period and made a selection of contracts from the population (both cost plus and lump sum).
- Reviewed and analyzed the provisions of each contract selected.
- Obtained a report detailing the disbursement/billings population for the contracts selected.
- Selected disbursements/billings for each of the selected contractors.
- Reviewed and tested each transaction selected by reviewing the supporting documentation and making inquiries of District personnel as well as contractor personnel, as necessary.
- Performed walkthrough procedures with District personnel to gain an understanding of the procedures utilized by the District for reviewing, approving, and processing billings for such contracts.

OVERALL CONCLUSION AND RESULTS

In the opinion of Internal Audit, in all significant respects, the controls and procedures utilized to process engineering design and construction management invoices were effectively designed and implemented. However, IA did identify opportunities for improving internal controls and improving the District's efforts to control costs. These opportunities are discussed in detail in the *Opportunities for Improvement* section of this report.

Initial Inherent Business Process Risk: Moderate Risk # Overall Assessment of Engagement Results: Satisfactory **

DEFINITIONS

How Results Are Assessed

** Engagement results are evaluated as *Satisfactory*, *Generally Satisfactory* or *Unsatisfactory*.

- **Satisfactory** (*clean opinion*) – No significant engagement findings² or material weaknesses³ were noted. Engagement findings¹ may have been noted.
- **Generally Satisfactory** (*qualified opinion, i.e. "except for"*) – Results contain significant engagement findings². No material weaknesses³ were noted.
- **Unsatisfactory** (*adverse opinion, immediate Management attention required*) – Significant engagement findings² and/or material weaknesses³ were noted.

Types of Findings

1. Engagement Finding (#Low Risk): An engagement finding is a condition that could adversely affect the organization but is less severe than a significant engagement finding or significant deficiency. Classification includes process or control deficiencies that are not significant deficiencies as well as includes other low risk or low impact conditions.

2. Significant Engagement Finding (# Moderate to High Risk): A significant engagement finding is a condition that could adversely affect the organization. Definition includes all types of findings, such as irregularities, waste, ineffectiveness, conflicts of interest, illegal acts, errors, and significant deficiencies in internal control over financial reporting as well as other significant internal control weaknesses. A significant deficiency is defined as a deficiency, or a combination of deficiencies, in internal control over financial reporting that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

3. Material Weakness (# High Risk): A material weakness is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the financial statements will not be prevented or detected and corrected in a timely basis. For internal audit purposes, the definition also includes material and/or severe irregularities, waste, ineffectiveness, conflicts of interest, illegal acts, errors, and other material control weaknesses, etc.

(The term "material weakness" should be thought of as a serious category of significant engagement findings and/or significant deficiencies. However, not all significant engagement findings and significant deficiencies are material weaknesses.)

^ - Definitions are based on guidance from the IIA Standards, GAAS, and the PCAOB.

- Risk is assessed at the District (Entity) Level. (Risk to the District as a whole)

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OPPORTUNITIES FOR IMPROVEMENT

1. Review of Invoices

IA selected six contractors for review, reviewing six invoices from each contractor for a total of 36 invoices. From this review, IA noted the following:

- Two of the contractors billed costs for specific tasks that were performed by staff positions that were not consistent with the staff positions listed in the proposal. For example, one contractor billed for a senior scheduler position despite the fact no such position was contained in the contractor's submitted proposal.
- For three of the contractors, the direct labor rates for various personnel positions on the invoices were not supported by the direct labor hourly rates contained in the submitted proposal or by any subsequently received labor rate schedules. IA was unable to substantiate the accuracy of the rates.
- Invoices for one contractor did not contain documentation to support line item charges for subcontractor and consultant costs. Unsupported costs amount to approximately \$23,300.

Recommendation:

IA recommends that the Engineering Department develop and implement an invoice review checklist. The use of a checklist will assist staff in performing a more uniform, complete and effective review for each invoice received.

Schedules of annual wage rates should be provided by contractors and utilized as part of the review process.

Risk Rating at District (Entity) Level: Low
Risk Rating at Business Process Level: Moderate

Process Owner Response: [The Engineering Department agrees with both the recommendations presented above.](#)

[Engineering will develop a checklist that will be provided to contractors as a guide in preparing invoices and that will also be used by Department staff when reviewing invoices.](#)

[Engineering will require the contractor to submit a complete list of all job titles that may be billable on the contract along with the associated wage rate ranges for these job titles as part of the initial fee negotiations and will require that these rates be updated annually as part of the contract amendment fee negotiation. Verification that the rates charged are within the agreed upon ranges will be included as a checklist item during the invoice review process.](#)

Date of Implementation: [The checklist is being developed now and will be in use by May 30, 2015. Annual wage rate lists will be obtained upon contract renewals and with all new contracts as applicable.](#)

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OPPORTUNITIES FOR IMPROVEMENT

2. Structure of Contracts

As part of this engagement, IA reviewed the structure of and the overall administrative approach taken for each contract contained within the scope. As a result of this review, IA identified potential opportunities for improving the District's ability to control costs for these types of contracts.

Recommendation:

To improve the District's ability to control costs, IA recommends that the District considers implementing the following contract provisions or approaches for administering these types of contracts:

- Utilize the following approach for overhead rates:
 - Establish an agreed-upon overhead rate to be utilized for each contractor for each project year:
 - Require the rate to be calculated and submitted by the contractor using a standardized template structure developed and provided by the District.
 - As part of the submission made by the contractor, require supporting documentation and explanations of variances (threshold TBD) from prior year line item amounts.
 - Require the rate calculation to be reviewed and evaluated by Internal Audit (IA) prior to contract execution.
 - Establish and finalize the rate based on the results of the review/evaluation and discussions held between District Management and the contractor.
- Utilize the following approach for fixed fee rates (multipliers for profit):
 - Develop and implement a District schedule of rate standards for fixed fee multipliers for these types of contracts:
 - Schedule should take into consideration items such as:
 - ✓ Contract types: engineering design, construction management, etc.
 - ✓ Duration and the frequency of the services to be provided.
 - Establish the appropriate fixed fee for each contract based on the District's schedule of fixed fee multipliers.

Currently, a fixed fee multiplier of 12% is utilized for all such contractors. In addition, the prime contractor receives an additional 5% on all subcontractor invoiced amounts for the construction management contracts.

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OPPORTUNITIES FOR IMPROVEMENT

Risk Rating at District (Entity) Level: Low

Risk Rating at Business Process Level: Moderate

Process Owner Response: In response to bullet item one - overhead rates: the Department agrees with this recommendation and will work with the internal audit staff to develop a standardized template for overhead rates and supporting documentation to be used by the District's consultant contractors. Current procedures provide for an initial review of overhead rates prior to contract execution and at annual intervals with the appropriate contract adjustments the following review period, this process will continue. The Department believes this will allow for thorough review and cost control for the District.

Date of Implementation: August 28, 2015

Process Owner Response: In response to bullet item two - fixed fee rates: the Department agrees with this recommendation and will develop a schedule that includes a range of fixed fee multipliers for use in negotiations on future consultant contracts. The developed schedule will take into consideration contract type, project duration, frequency of services to be provided, readiness to serve, extensive experience required, special knowledge, and acceptance of risk. The Department will utilize and document known and accepted industry values for the development of the schedule. The Department must acknowledge that the fixed fees being utilized on current contracts are within the industry accepted range for services being provided. The Department also understands the need for adjustments when appropriate.

Date of Implementation: August 28, 2015

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Internal Audit Engagement Team:

MSD Internal Audit:

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Ron Steinkamp

Adam Rouse

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