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November 9, 2004

To: Policy and Finance Committee

From: Works Committee

Subject: Contract No. 04FS-47WP, Tender Call No. 226-2004
Humber Treatment Plant, Rehabilitation of Digesters 1-6
(Ward 5 – Etobicoke-Lakeshore)

Recommendation:

The Works Committee on November 9, 2004, recommended to the Policy and Finance Committee that City Council adopt the staff recommendations in the Recommendations Section of the report (November 3, 2004) from the Acting Commissioner of Works and Emergency Services and the Chief Financial Officer and Treasurer respecting Contract No. 04FS-47WP, Tender Call No. 226-2004, Humber Treatment Plant, Rehabilitation of Digesters 1-6.

City Clerk

Trudy Messer/lv.025

c: Acting Commissioner of Works and Emergency Services
Chief Financial Officer and Treasurer
Executive Director, Technical Services
Director, Purchasing and Materials Management

(Report dated November 3, 2004, addressed to the
Works Committee from the
Acting Commissioner of Works and Emergency Services
and the Chief Financial Officer and Treasurer)

Purpose:

The purpose of this report is to advise on the results of the Tender issued for the rehabilitation of Digesters 1-6 at the Humber Treatment Plant, in accordance with specifications as required by Works and Emergency Services Department, and to request authority to award a contract to the recommended bidder.

Financial Implications and Impact Statement:

Total contract award for Contract No. 04FS-47WP identified in this report is \$45,970,500 including GST, with the cost to the City of \$42,963,084 net of GST. This project is included in the 2005 Water and Wastewater Services Capital Budget Request. Funds to cover the cost of this work will be available in the Water and Wastewater Capital Project CWW005. WBS Element for this contract is CWW005-92. The contract is for modification and re-roofing of Digesters 1-6, Humber Treatment Plant.

There is no related 2004 cash flow requirement, however future year cash flow commitments total \$8,103,000 in 2005, \$13,367,290 in 2006, \$12,053,271 in 2007 and \$9,439,523 in 2008 that require Council approval are included in the 2005 Water and Wastewater Services Capital Budget Request. Project cost approval in 2004 was necessary to award the contract during the current year for cash flows in 2005-2008. The engineering estimate for this project was \$30,000,000 including all applicable taxes.

Recommendations:

It is recommended that:

- (1) a project cost of \$42,963,084.11, net of GST, be approved in capital account CWW005-92 Modification and Re-roofing of Digesters 1-6 at the Humber Treatment Plant with no cash flow requirement in 2004 and future year commitments of \$8,103,000 in 2005, \$13,367,290 in 2006, \$12,053,271 in 2007 and \$9,439,523 in 2008;
- (2) subject to approval of Recommendation (1), Contract No. 04FS-47WP, Tender Call No. 226-2004 for the rehabilitation of Digesters 1-6 at the Humber Treatment Plant be awarded to Kenaidan Contracting Ltd. in the total amount of \$45,970,500 including all taxes and charges, being the lowest Tender received;
- (3) this report be forwarded to the Policy and Finance Committee for consideration; and
- (4) the appropriate officials be authorized and directed to take the necessary action to give effect thereto.

Background:

Digesters 1-6 consists of four primary digesters and two secondary digesters. These digesters are over 40 years old and have developed structural cracks that require major restorative work. The gas piping installation does not meet the current gas code requirements and the mixing system is old, highly inefficient and requires regular maintenance work. Further, the process control system can only be minimally automated and requires constant operator attention. The secondary digesters have deteriorated floating steel roofs that allow leakage of digester gas that is a major safety concern. The gas leak is also a significant source of odour for the surrounding neighbourhood, as confirmed by the recent plant odour assessment study. Results of the odour sampling done under the odour study indicated that odour levels along the perimeter of the plant are significantly higher in comparison to odour levels deemed acceptable by the Ministry of the Environment.

Given the integrated piping, mechanical, electrical and instrumentation systems, as well as the interactive operation of the above digesters, the rehabilitation of Digesters 1-6 will have to be properly planned and co-ordinated. This is to allow for the rehabilitation works to proceed with minimal impacts to plant operations. As such, only two digesters can be rehabilitated while interim provisions are implemented for the other four digesters to be kept in operation. Thus, the requirement for the proposed rehabilitation works to be done under one contract but in three phases.

Accordingly, in July 2001, the engineering firm of MacViro Consultants Inc. was retained for the design and contract administration and supervision of the proposed rehabilitation works. The design of the proposed rehabilitation works was completed in the early part of 2004.

The Tender was advertised on July 19, 2004, in the Daily Commercial News and on the City's internet website with a closing date of October 6, 2004.

The Bid Committee at its meeting held on October 6, 2004, opened the following Tenders for Contract No. 04FS-47WP, Tender Call No. 226-2004 for the rehabilitation of Digesters 1-6 at the Humber Treatment Plant:

<u>Tenderer</u>	<u>Price Complete Including All Charges and Taxes</u>
Kenaidan Contracting Ltd.	\$ 45,970,500.00
Black and MacDonald Limited	\$ 50,979,075.00

Comments:

The Tender documentation submitted by the recommended bidder has been reviewed by the Acting Commissioner of Works and Emergency Services and was found to be in conformance with the Tender requirements.

Both Tender prices received are higher than the pre-tender estimate. An analysis of the quotation breakdown received from Kenaidan Contracting Ltd., the lowest bidder, revealed that the following key factors were considered in their Tender price:

- (a) Market Condition and Activities – Currently, all major water and wastewater contractors are busy with other construction projects throughout the Greater Toronto Area (GTA). Municipalities in the GTA (including the City of Toronto) have in place significant capital investment programs designed to meet growth demands, repair older infrastructure and enhance existing treatment systems. Consequently, prices for construction projects have shown an increasing trend.

From consultations with other municipalities, consulting engineering firms and construction companies, present market conditions will likely remain for some time. Several municipalities are now tendering for the construction of major water and wastewater projects and the construction industry is preparing their work force to respond accordingly.

Based on the above, construction prices related to water and wastewater plant facilities are not expected to decline in the very near future; and due to the ageing infrastructure, non-compliance with current regulatory requirements and odour issues, it is imperative that this project move forward.

- (b) Union Contracts - Contracts pertaining to electrical, mechanical and other major trades indicated by the contractor will be re-negotiated next year, and the potential labour cost increase was reflected in the Tender price.
- (c) Market conditions related to escalation in the price of reinforcing steel, structural steel, stainless steel piping and miscellaneous metal - Since January 2004 steel and other metal prices have increased significantly in price due to increased world-wide demand, especially by China. As an example, the cost of reinforcing steel has increased from \$1,300 per tonne in January 2004 to \$2,600 per tonne in July 2004. The increases have ranged from \$100 to \$400 per month. This escalation in steel prices was reflected in the Tender price.
- (d) Site Conditions - The rehabilitation of digesters is a complex and malodorous exercise, and contractors frequently charge a premium price to the harsh environment. The close proximity of residential properties and constrained working areas have also contributed in complexity for the construction of this facility.

Works and Emergency Services staff have compared the bids to the estimated cost and found the price of the recommended bidder to be reasonable given the above-noted issues.

The Fair Wage Office has reported that the recommended firm has indicated that it has reviewed and understands the Fair Wage Policy and Labour Trades requirements and has agreed to comply fully.

Conclusions :

This report requests authority to award a contract for the rehabilitation of Digesters 1-6 at the Humber Treatment Plant, in accordance with specifications to Kenaidan Contracting Ltd., being the lowest Tender received.

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