

**Amendment to Purchase Order 47010191
Humber Treatment Plant
Rehabilitation of Digesters 1 to 6**

Date:	February 4, 2010
To:	Public Works and Infrastructure Committee
From:	Executive Director, Technical Services Director, Purchasing and Materials Management Division
Wards:	Ward 5 – Etobicoke Lakeshore
Reference Number:	P:/2010/Internal Services/pmmd/PW10007pmmd (AFS #9022)

SUMMARY

The purpose of this report is to request the authority to amend Purchase Order 47010191 in favour of Kenaidan Contracting Limited for the construction services related to the rehabilitation of Digesters 1 to 6 at the Humber Treatment Plant. The total amount being requested is \$191,113.40 net of GST.

Purchase Order 47010191 was amended by an additional \$500,000.00 net of GST on April 7, 2009, from \$42,963,084.11 for an amended total value of \$43,463,084.11 net of GST in accordance with the City's Financial Control By-law. The total increase to the original order with the requested amount of \$191,113.40 will be \$691,113.40 (1.6%).

The contract completion date was extended from December 2008 to November 30, 2009.

RECOMMENDATIONS

The Executive Director of Technical Services and the Director of Purchasing and Materials Management Division recommend that Public Work and Infrastructure Committee grant authority to:

1. Amend Purchase Order 47010191 for the refurbishment of Digesters 1 to 6 at the Humber Treatment Plant with Kenaidan Contracting Limited by an additional amount of \$191,113.40 net of GST, revising the current contract value from \$43,463,084.11 to \$43,654,197.51 net of GST.

FINANCIAL IMPACT

The amendment for an additional \$191,113.40 net of GST increases the current contract value with Kenaidan Contracting Limited from \$43,463,084.11 to \$43,654,197.51 net of GST. Funding is available in the 2010 Toronto Water Capital Budget in account CWW005 (Wastewater Equipment). The work relating to the amendment for additional funding has already been undertaken by Kenaidan Contracting Limited. The required contract increase is needed to process the final invoices.

The Deputy City Manager and Chief Financial Officer has reviewed this report and agrees with the financial impact information.

BACKGROUND

Contract 04FS-47WP, Tender Call 226-2004 for the refurbishment of Digesters 1 to 6 at the Humber Treatment Plant (HTP) was awarded to Kenaidan Contracting Limited (Kenaidan) by Council on November 30, December 1 and 2, 2004 by adoption of Policy and Finance Committee Report No. 9, Clause No. 17.

The rehabilitation of the Digesters 1-6 is required to make the digestion tanks structurally sound, to bring them up to Building Code standards and to improve the efficiency and performance of the digesters. Purchase Order 47010191 in the amount of \$42,963,084.11 net of GST, was issued to Kenaidan for the construction.

The amendment was for additional work to accommodate operational constraints and changes (i.e. additional sludge quantities to be removed) that were necessary due to actual field conditions which could only be determined during the construction phase and as a result were beyond the contractor's control.

COMMENTS

The Order to Commence Work was issued on February 8, 2005 with a tendered completion time of 130 weeks. The established completion date for the contract was July 22, 2008. Construction was delayed due to several issues beyond the Contractor's control including the following key issues:

1. Cleaning of the digesters took significantly more time than anticipated for several reasons: a) there was increased sludge quantities beyond those estimated and provided for in the contract, and quantities could only be verified once the digester was removed from service in the construction phase; b) the removal of sludge from the digesters was reduced from the specified rate in the contract, due to operational problems encountered during the dewatering activities, which was negatively impacting the plant treatment capabilities at both the Humber Treatment Plant and the Ashbridges Bay Treatment Plant. The lower dewatering rate took a greater amount of time to complete than originally allowed for in the contract, but reduced the impact of the construction activities on the operational performance of these two critical wastewater treatment plants.

2. Increased purging requirements – in order to put the refurbished digesters back in service in a safe manner, the air must be removed (or ‘purged’) by displacing it with nitrogen to eliminate the potential risk of a methane gas explosion. City staff modified the purging requirements to provide a more robust, secure and safe process. These modifications to the requirements meant that the contractor needed to increase the volume of air purged to include the volume of air under the tank covers in addition to the piping system. The increased purging requirements required a substantial increase in the amount of time to complete the work. Furthermore, other miscellaneous process complications necessitated plant operations staff to request several disruptions (and associated delays) to the purging activities.

As a result of the above, Substantial Performance was achieved on April 29, 2009 with full completion on November 30, 2009. Kenaidan Contracting Limited initially requested an extension to January 30th, 2009 and indicated that a claim would be submitted for direct costs only related to the extension. Subsequently, weather constraints delayed the purging of the last digester for commissioning purposes and additional contract work was authorized associated with piping changes and miscellaneous structural improvements and enhancements to the facility for health and safety considerations. The contract extension request was subsequently modified to November 30, 2009 to accommodate this work. The total compensation claim requested for the direct costs is \$171,586.20 plus GST. The City and its engineering consultant Genivar Consultants have reviewed the contractor’s claim and find it to be fair and reasonable and recommend acceptance. The total time extension requested is 16 ¼ months and Genivar agrees that this is reasonable. The contractor’s claim is for direct costs only and it only includes the 9 ¼ months up to Substantial Performance. The contractor’s claim for field and supervisory staff time has been proportioned to reflect the actual site inspection services performed on an as needed basis as opposed to full time involvement during the 9 ¼ months.

Additional costs are also being claimed associated with the purging of Digesters 1 and 2. The original specification requirement was to purge only the gas lines prior to testing as per industry standards. The purging procedure was later modified by Plant Operations to include the purging of the volume of air under the tank cover to ensure the optimum safest procedure for commissioning a digester at the Humber Plant. The purging for Digesters 1 and 2 had to be repeated. The additional cost for this work is \$19,527.20 plus GST.

Based on the above, it is recommended that Purchase Order 47010191 to Kenaidan Contracting Limited be amended by an additional amount of \$191,113.40 net of GST. This increases the contract value with Kenaidan Contracting Limited from \$43,463,084.11 to \$43,654,197.51 net of GST.

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SIGNATURE

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