



[This is an English version of the Summary Statement transmitted in French to the City Council and the Agglomeration Council]

**Report on the ozone disinfection
of wastewater project at the
Jean-R.-Marcotte wastewater treatment plant
(calls for tenders 10-11277, 10-11257 & 12-12107)
(Sections 57.1.10 & 57.1.23 of the *Charter of Ville de
Montréal, metropolis of Québec*)**

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SUMMARY STATEMENT

The Office of Inspector General conducted an investigation concerning three (3) main calls for tenders regarding the same Ville de Montréal project, namely the ozone disinfection of wastewater at the Jean-R.-Marcotte wastewater treatment plant in Montreal. The three (3) calls for tenders are as follows:

- Call for tenders 10-11277 "Professional services regarding technical expertise in ozonation relating to the ozone disinfection project at the Jean-R.-Marcotte wastewater treatment plant", i.e. the call for tenders aiming to retain an expert to advise the Station for the implementation of the wastewater disinfection project (hereinafter "call for tenders for an expert 10-11277"),
- Call for tenders 10-11257 "Qualification of suppliers of ozone systems", i.e. the call for tenders serving as the first qualifying phase for the selection of the eventual supplier of ozone systems (hereinafter "call for tenders for qualification of suppliers 10-11257"), and
- Call for tenders 12-12107 "Supply of the ozone unit for the Jean-R.-Marcotte wastewater treatment plant", i.e. the call for tenders serving as the second and last phase for the selection of the supplier of ozone systems (hereinafter "call for tenders for the supply of an ozone unit 12-12107").

This project aims to disinfect the wastewater that is treated before being discharged into the St. Lawrence River via the Jean R.-Marcotte wastewater treatment plant in eastern Montreal (hereinafter "Station")¹. After years of research and analysis, three (3) pilot-trials were carried out at the Station between 2005 and 2007 to determine which of the two technological processes, UV or ozone, is the best for disinfecting the City's wastewater. At the end of these pilot-trials, treatment by ozone was the chosen method of disinfection.

During these three (3) years, the pilot-trials using ozone were carried out by a single company, Degrémont, which had been selected by the City for this purpose. A multinational company involved in multiple fields, Degrémont is notably a supplier of ozone systems and would ultimately be the winner of the contract resulting from the call for tenders for the supply of an ozone unit 12-12107.

While the last pilot-trial in 2007 was used to validate whether the ozone injection system was a viable solution for the Station, it was designed by Pierre-André Liechti, then a Degrémont employee and internationally recognized ozone expert. According to him, the information obtained thanks to this pilot-trial enabled him, as well as Degrémont, to develop the patent for the "New U-Tube" to disinfect wastewater. It should be noted that Pierre-André Liechti is one of the three inventors of this patent.

The First Call for Tenders: Call for Tenders for an Expert 10-11277

The selection of ozone disinfection led the City to publish call for tenders for an expert 10-11277 in June 2010, seeking the professional services of an ozone expert. This expert would notably assist Station employees during the evaluation of bidders for call for

¹ It is possible for wastewater to have been treated yet remain not disinfected. The treatment of wastewater allows the elimination of solid matter and several toxic products before their discharge into the river, but it does not ensure disinfection from a microbiological point of view.



tenders for qualification of suppliers 10-11257, also launched in June 2010, as well as those received for call for tenders for the supply of an ozone unit 12-12107, published in 2013.

Pierre-André Liechti submitted a bid in which he expressed the opinion, without being required to, that the "New U-Tube" is the best way to disinfect water at the Station if the existing infrastructure was to be used. However, he did not mention that this solution is patented and that he is one of its inventors. Being the only bidder, he was awarded the contract resulting from call for tenders for an expert 10-11277 in October 2010.

As aforementioned, Pierre-André Liechti is an internationally renowned engineer and expert in the field of ozone and wastewater treatment, having worked at Degrémont for many years before his retirement in March 2008. Immediately after his retirement, he began a career as a consultant, also with Degrémont, in order to transfer all of his knowledge. The investigation reveals that he provided professional services to his former employer until the end of 2009, then again in June 2010, less than two (2) weeks before the publication of call for tenders for an expert 10-11277.

The investigation also reveals that, while this call for tenders was being drafted, several Station employees, including the Station director, the Station project manager and the engineer assigned to the project, communicated with Pierre-André Liechti. These exchanges aimed, among other things, to solicit the latter so that he would become the City's expert for the upcoming project.

During these discussions, a copy of the tender documents for call for tenders for an expert 10-11277 were sent by Station employees to Pierre-André Liechti. The facts reveal that Pierre-André Liechti then examined the tender documents and proposed criteria to Station employees that were ultimately retained in the final version of the call for tenders. Pierre-André Liechti himself would eventually confirm that he tried to draft the tender documents to his advantage and in favor of his candidacy by proposing criteria he knew he would meet.

Furthermore, not only was the call for tenders for an expert 10-11277 directed towards Pierre-André Liechti, but the investigation also reveals that Pierre-André Liechti gave false information when he submitted his tender.

Section 57.1.10 of the Charter of Ville de Montréal, metropolis of Québec states two (2) cumulative conditions for the Inspector General to intervene. First, she must find non-compliance with one of the requirements specified in the tender documents or contract, or that the information given during the contracting process is false. Second, she must be of the opinion that the seriousness of the breach observed justifies rescinding of the contract.

Regarding the first criterion, it is met for three (3) reasons. First, by participating in the drafting of the tender documents, Pierre-André Liechti contravened the provisions of the Instructions to Bidders aimed at promoting transparency. By submitting his bid, the bidder states that he did not participate in the drafting of the tender documents nor will he hire a person who participated in such a process. However, in light of the above, Pierre-André Liechti's solemn declaration in this regard is clearly false.

Next, a similar finding emerges regarding his declaration of absence of a conflict of interest with a potential supplier of ozone systems. The tender documents indicate that a bidder will be considered to have a conflict of interest with those of the City if he has been directly or indirectly under contract with a supplier of ozone systems in the 6 months prior to the submission of his tender. However, not only did he provide his professional advice to



Degrémont less than two (2) weeks before the publication of the call for tenders for an expert 10-11277, but Pierre-André Liechti was also aware of the situation in which he had placed himself, asking Degrémont to be discreet about the advice he was offering and not to mention his name.

Finally, Pierre-André Liechti contravened his obligation of independence, in particular by examining the submission of Degrémont which, as will be explained below, is based on the patent for the "New U-Tube" of which he is an inventor and in respect of which he demonstrated a favorable bias in his own bid as an expert. In doing so, if Pierre-André Liechti were to render a negative opinion or find a major non-conformity regarding Degrémont's bid, this would amount to disavowing in part the work he himself had accomplished during the pilot-trials and the patent that he had invented a few years earlier.

Regarding the seriousness of these breaches, the Inspector General is of the opinion that it has been established beyond a shadow of a doubt. The essence of a call for tenders for expert services, within the framework of a project as complex as that of ozone disinfection, is to have the certainty that it is possible to rely entirely on the advice of the selected expert. The point here is not to question the validity, or the accuracy of the extremely complex calculations previously carried out by Pierre-André Liechti, but rather to recognize that his actions, revealed by the present investigation, foster a nagging doubt as to the level of confidence that may be placed in him. For these reasons, the Inspector General concludes that the conditions of section 57.1.10 of the Charter of Ville de Montréal, metropolis of Québec are met and that the expert contract 10-11277 must be rescinded.

In addition, the Inspector General strongly denounces the conduct of the Station employees assigned to this project. Their actions demonstrate a clear will to favor Pierre-André Liechti and attest to a gross blindness regarding application of the rules for the award of public contracts for call for tenders for an expert 10-11277.

Second Call for Tenders: Call for Tenders for Qualification of Suppliers 10-11257

Simultaneously to publication of call for tenders for an expert 10-11277, the City published call for tenders for qualification of suppliers 10-11257. The first step in the process leading to the acquisition of an ozone unit, this call for tenders aimed to qualify the suppliers, who would then be the only ones authorized to submit bids on the call for tenders for the supply of an ozone unit 12-12107. After call for tenders for qualification of suppliers 10-11257, three companies were qualified, including Degrémont.

However, the investigation reveals that Degrémont was advantaged in two (2) distinct ways regarding this call for tenders, that is, by having been the only company to participate in the pilot-trials from 2005 to 2007 and, above all, having participated in the drafting of tender documents for said call for tenders.

First of all, the fact that the Station allowed only Degrémont to carry out the pilot-trials from 2005 to 2007 gave it an advantage when preparing its bid for the call for tenders for qualification of suppliers 10-11257. Whether it is qualified as a "psychological advantage", as does Pierre-André Liechti, or whether we accept Degrémont's point-of-view, put forth in its response to the Notice, that it is simply a "legitimate competitive advantage", the fact is that the pilot-trials carried out from 2005 to 2007 were an opportunity for Degrémont to test a solution in the Station's particular conditions and environment.



Yet, the documents for call for tenders for qualification of suppliers 10-11257 attached great importance to knowledge of the Station's particular environment and to proposing a solution adapted to its existing facilities.

Thus, although the situation stems once again from decisions made by Station employees, the fact remains, in the opinion of the Inspector General, that an advantage has been conferred on Degrémont by enabling it to be the only company to carry out the pilot-trials from 2005 to 2007, especially as the decision-making summaries submitted to elected officials indicated that all potential suppliers would have the possibility of validating their own proposed systems proposed, even though this was never the case.

The investigation by the Office of Inspector General also reveals that Degrémont obtained a preliminary version of the tender documents for the call for tenders for qualification of suppliers, and was able to suggest modifications to certain clauses.

As of February 2009, emails obtained during the investigation show that an employee of Degrémont sent to the microbiologist assigned to the Station's project the company's suggestions regarding modifications to be made to the tender documents for call for tenders for qualification of suppliers 10-11257. Some of these exchanges were made via the personal e-mail addresses of Degrémont and Station employees, with the titles of three (3) documents then transmitted all ending with "RevisionDGT.doc". The microbiologist assigned to the Station's project forwarded these documents to his colleagues who incorporated four (4) of the modifications proposed by Degrémont into the qualification specifications. They could ultimately be found in the final version of the tender documents.

At this point, it is important to remember that the call for tenders for qualification of suppliers 10-11257, being only a preliminary step in the process of awarding the contract for the supply of an ozone unit 12-12107, there is, as such, no longer any contractual process in which the Inspector General could intervene under section 57.1.10 of the Charter of Ville de Montréal, metropolis of Québec.

However, this observation cannot justify ignoring the seriousness of the breaches of conduct of the employees assigned to the Station's project. Admittedly, it should be noted that Degrémont did not hesitate to take advantage of the Station's employees' largesse, but it simply cannot be tolerated that they allow a potential bidder to have the opportunity to read and comment on draft versions of the tender documents and even less, agree to modify the documents accordingly.

Being the main architects of the advantages conferred on Degrémont, the fact that the tendering process was not directed towards the latter to the exclusion of any other supplier and allowed the qualification of three (3) bidders in no way excuses the unacceptable carelessness shown by the Station employees towards the integrity of the rules for awarding public contracts.

Third Call for Tenders: Call for Tenders for the Supply of an Ozone Unit 12-12107

Third, and last call for tenders analyzed in the context of this investigation, the call for tenders for the supply of an ozone unit 12-12107 is the second phase of the qualification process of suppliers carried out by the Station in order to select a supplier of ozone systems. Published on July 22, 2013, it was only open to three (3) companies qualified following the call for tenders for qualification of suppliers 10-11257. Ultimately, there were



only two (2) bidders, including the eventual winner, Degrémont. The contract resulting from this call for tenders is still in force today.

At the end of the investigation and of an in-depth analysis of each of the elements which emerged from it, one observation must be made regarding the contract for the supply of an ozone unit 12-12107. The Inspector General's investigation did not allow the identification of a non-compliance, as such, by Degrémont, with one of the specific provisions of these tender documents. This is not to say that the call for tenders for the supply of an ozone unit 12-12107 was not affected by breaches of integrity. However, they were caused by other actors.

On the one hand, it appears from the investigation that Pierre-André Liechti played a preponderant role during the work of the technical committee which served for the evaluation of the bids received on the call for tenders for the supply of an ozone unit 12-12107. The majority of the witnesses met, including Pierre-André Liechti himself, said that the difficulty of the analyzes that had to be carried out, and the latter's specialized expertise in this high-tech field compared to that of the other members meant that it was his analysis which was the determining factor in evaluating the bidders. Consequently, the conformity of the submissions was assessed mainly according to Pierre-André Liechti's analysis, who evaluated a submission which he considered to be based on his own invention, thus raising concerns about the independence of his role as an expert-consultant.

On the other hand, the decision not to comply with requests from other bidders to send them the data and results of the pilot-trials carried out from 2005 to 2007 was made by employees of the Station. From this, stems an appearance of favoritism towards Degrémont, which then had sole access to said data and results.

Admittedly, the facts preceding the award of the contract for the supply of an ozone unit 12-12107, as revealed by the investigation, raise questions likely to have an impact on the bond of trust with Degrémont. But since they do not constitute breaches of the requirements of the tender documents, a direct intervention by the Inspector General through section 57.1.10 of the Charter of Ville de Montréal is not possible.

Nevertheless, the Inspector General remains greatly preoccupied by the portrait emerging from all of the facts revealed and she is of the opinion that this bond of trust, in the absence of certainty as to its solidity, be placed under strict surveillance at the very least. In this sense, the development of the capacity, by the City's own personnel, to verify compliance with the contract's prescriptions is essential. The preservation of the integrity of contractual performance and the sound management of public funds, in particular those invested in the numerous contracts related to the project and awarded to other contractors, are at stake. Taken together, these contracts represent an investment of nearly five hundred million dollars (\$ 500 million) of which more than one hundred and sixty-five million dollars have already been committed (\$ 165 million).

In response to the Notice to an interested party, officials at the City's Water Department transmitted a recovery plan for the entire project, the City having ensured its viability to the Inspector General. The guidelines of the proposed framework include, among others:

- the creation of a new post of project manager;
- the establishment of two (2) committees, each consisting of four (4) independent experts who must review all of the project's main technical aspects and advise the City accordingly;



- *the exclusive assignment of a lawyer specializing in municipal contract management;*
- *periodic monitoring of the progress of the project by a committee of directors including the director of the Water Department; and*
- *supervision by the Comptroller General, who must report to the City's senior management.*

As such, the Inspector General takes note of the recovery plan submitted to her by the City. In light of this plan, there is a clear desire on the part of senior municipal management to act swiftly and take control of the project.

However, the Inspector General reiterates that a rigorous and continuous application of the measures provided for in the recovery plan is necessary and to this end, she will thoroughly verify their implementation.