



On Tuesday, June 30 Halifax Regional Council and the Halifax Water Board of Commissioners received an in-camera presentation of the findings of the forensic audit conducted into the January 14, 2009 malfunction of the Halifax wastewater treatment facility (WWTF).



Council and the public were also informed about next steps to address the restoration of the plant, to mitigate and significantly reduce odours in the downtown, and efforts to implement an interim solution to direct typical dry weather flows away from harbour outfalls through the plant for screening and discharge.

The report, prepared by consulting firm CH2M Hill, focuses on cause and provides further details about the chain of events that happened following the power outage at 2:25 a.m. Immediately following the outage two back-up generators came on, power to the plant was restored and the system brought on line.

After the process was stabilized, one of the generators providing power to three wastewater pumps overloaded, causing the wastewater pumps to shut down. This shutdown inhibited the electrical controls within the facility, including a panel that provided control power to the five pump system. As a result the wastewater pumps could not be restarted.

As a fail safe, the inlet (sluice) gate should have closed fully when the generator shutdown. The gate failed to close completely leaving the inlet (sluice) gate stuck open approximately five inches. More work will need to be done to fully understand why the gate failed to close.

With the gate open and the wastewater pumps not operating, the plant began to quickly fill with wastewater. Within roughly 20 minutes the wastewater was approximately 60 feet deep. The CH2M Hill findings show that there was nothing the operator present at the plant could have done to alter that sequence of events.

While Halifax Water and HRM have gained a better understanding of the sequence of events, questions remain as to why these critical systems malfunctioned leaving the plant vulnerable during the power outage. Further investigation is required and more information will need to be shared between the project partners to ensure improvements are made to reduce the risk of any such reoccurrence.

At this point the full report is not being publicly released at the recommendation of legal counsel. Early release of the report could potentially jeopardize efforts to learn more about what happened on January 14 and inhibit the ability of Halifax Water, HRM and project partners to focus on getting the plant back in full operation as soon as possible.

A number of initiatives are underway and significant progress has and is being made.

In the interim, steps are being taken to lessen the impact of the plant shutdown on the downtown. Ozone machines have been tested to determine how they may be used to significantly reduce odours. Recent tests with a small scale unit have been positive. Two larger units are now on order with the expectation that they will begin operating within two weeks.

Crews are currently on-site working on an interim plan that would see dry weather flows (normal flows entering the WWTF during dry weather only) diverted to the Halifax plant. These flows will be screened and discharged through the existing Halifax WWTF outfall pipe, which extends approximately one kilometre into the harbor and provides 50 -1 dilution. This interim measure will reduce odour issues, screen floatables and reduce impact on the wastewater collection system resulting from stagnant flows.

This activity is being undertaken as an interim measure and a number of technical challenges need to be overcome before it is possible. This measure is expected to take approximately two months to implement. This interim measure is underway concurrent with on-going work to restore the Halifax plant to full operation.

Five new wastewater pumps are being ordered with a delivery time of six months at a cost of approximately \$2 million installed. Insurance will cover the cost of these wastewater pumps, which is the largest single piece of equipment needing replacement.

In addition, mechanical/electrical contractors Black & MacDonald have been contracted to replace or repair mechanical and electrical equipment damaged in the flood. Black & MacDonald are presently on-site.

Halifax Water and HRM will continue to work diligently to restore the plant to full operation, and ensure all three of the Harbour Solutions Project wastewater treatment facilities are safeguarded from any similar type of occurrence.

It remains the intention of Halifax Water and HRM to see the Halifax plant back in operation in the spring of 2010, that any problems that led to the sequence of events that caused the flooding have been addressed, and that the water quality within Halifax Harbour is once again restored to levels enjoyed last summer by residents.

For up-to-date information please visit www.halifax.ca and click on the "Harbour Solutions Halifax Treatment Plant News" front page icon. This section is dedicated to the Harbour Solutions Project generally and the Halifax WWTF specifically.