



Solid Non-Hazardous Waste Disposal Site Inspection Report

Client:	The Corporation of the City of Peterborough Mailing Address: 500 George St N, Peterborough, Ontario, Canada, K9H 3R9 Physical Address: 500 George St N, Peterborough, City, County of Peterborough, Ontario, Canada, K9H 3R9 Telephone: (705)742-7777, Extension: 1763, FAX: (705)876-4621, email: bnelson@peterborough.ca Client #: 2061-4GSQTM, Client Type: Municipal Government, NAICS: 91391		
Inspection Site Address:	County and City of Peterborough Waste Management Facility Address: 1260 Bensfort Road Lot 13 14 15 Concession 13 14 former Otonabee Township, Otonabee-South Monaghan, Township, County of Peterborough District Office: Peterborough GeoReference: Map Datum: NAD83, Zone: 17, Accuracy Estimate: 1-10 metres eg. Good Quality GPS, Method: GPS, UTM Easting: 716804, UTM Northing: 4900786, UTM Location Description: Weigh scale, , LIO GeoReference: Zone: , UTM Easting: , UTM Northing: , Latitude: , Longitude:		
Contact Name:	Craig Simmons	Title:	Co-ordinator of Waste Management
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Last Inspection Date:	2010/09/14		
Inspection Start Date:	2013/03/12	Inspection Finish Date:	2013/03/21
Region:	Eastern		

1.0 INTRODUCTION

The County and City of Peterborough Waste Management Facility (CCPWMF or the Site) was inspected to assess compliance with the Site's Environmental Compliance Approval (ECA) and all applicable environmental legislation including Ontario Regulation 347. Prior to the inspection a file review was conducted including but not necessarily limited to: relevant legislation, Certificates of Approval, Annual Reports and previous Ministry inspections/incident reporting. The Site is located 6.4 km south of the City of Peterborough at 1260 Bensfort Road, in the former Township of Otonabee.

On Tuesday, March 12, 2013, I conducted an inspection of the Site with Mr. Craig Simmons, Co-ordinator of Waste Management, City of Peterborough. During this inspection aspects of the North and South Fill Areas were inspected.

On Wednesday, March 13, 2013, I conducted an inspection of the Site with Mr. Simmons. During this inspection we met to discuss the requirements of the Site's ECA.

On Thursday, March 14, 2013, I conducted an inspection of the Site with Mr. Simmons. During this inspection we met to discuss the requirements of the Site's ECA.

On Thursday, March 21, 2013, I conducted an inspection of the Site with Mr. Simmons. During this inspection we met to discuss the requirements of the Site's ECA.

2.0 INSPECTION OBSERVATIONS

Certificate of Approval Number(s):

The Site operates under Amended Environmental Compliance Approval No. A341508 (the ECA). The ECA was

originally issued in September 1979. The current ECA was issued on November 15, 2011 and it revoked and replaced all previous ECAs. The ECA approves a 27.5 hectare Waste Fill Area (9.5 hectares North Fill Area and 18 hectares South Fill Area) within a total site area of 158 hectares, which includes a 15 hectare groundwater easement zone (the Site).

Landfilling operations commenced at the Site in 1981 in the South Fill Area (SFA). In July 2002 the Site became the joint property of the County and City. Approval for the North Fill Area (NFA) was issued in July 2005. The SFA is completely separate from the NFA, that is to say that they are two separate landfills separated by approximately one kilometer.

2.1 FINANCIAL ASSURANCE:

Specifics:

There is no requirement for financial assurance for this site at the present time.

2.2 APPROVED AREA OF THE SITE:

Specifics:

The approved total area of the Site, including the SFA and the NFA, is 158 hectares.

The approved landfilling area/ footprint of the SFA is 18 hectares. The footprint of the SFA is clearly identifiable and it does not appear that waste is being landfilled outside of the approved area. The SFA stopped accepting waste in 2012.

The approved landfilling area/ footprint of the NFA is 9.5 hectares. The footprint of the NFA is clearly identifiable. Cell No. 2 began accepting waste on 2010/10/27. The footprint of the NFA is clearly identifiable and it does not appear that waste is being landfilled outside of the approved area.

2.3 APPROVED CAPACITY:

Specifics:

Condition No. 74 of the ECA states:

The Owner shall only accept and deposit waste at the SFA as long as there is available capacity as defined by the final contours for the SFA approved by this Approval. This Approval permits disposal of waste at the Site to fill an air space of 2,918,000 cubic metres (including waste, daily and interim cover material) for the SFA.

Condition No. 75 of the ECA states:

The Owner shall only accept and deposit waste at the NFA as long as there is available capacity as defined by the final contours for the NFA approved by this Approval. This Approval permits disposal of waste at the Site to fill an air space of 1,527,000 cubic metres (including waste, daily and interim cover material) for the NFA.

2.4 ACCESS CONTROL:

Specifics:

Access to the Site is controlled by fencing around the perimeter of the Site. Access points have gates with locks to restrict access during non-operational periods. The Site has an attendant on-duty at all times at the weigh scale, tipping face and recycling depot during hours of operation.

2.5 COVER MATERIAL:

Specifics:

Condition No. 94 of the ECA details the requirements for daily, interim and final cover. During the inspection there did not appear to be any violation of these conditions. There are conditions in the ECA that specifically address the use of contaminated soil as cover material and they are discussed below in this report. Condition No. 78 (ii) permits the use of wood chips and compost covers as alternative daily or interim cover.

2.6 WASTE BURNING:

Specifics:

There was no evidence of waste burning at the time of the inspection.

2.7 GROUNDWATER/SURFACEWATER IMPACT:

Specifics:

During the inspection there was no evidence of groundwater or surface water impacts at the Site. The Ministry's Technical Support Section continue to review and provide comments concerning groundwater and surface water monitoring matters related to the Site. These reviews have not identified any impacts to the natural environment requiring corrective actions.

In 2012 the Ministry and City worked together to monitor PCBs on a quarterly basis in the Site's leachate collection system and at the

Peterborough Water Pollution Control Plant. All samples except for one sample from the Site were non-detect for PCBs. One sample indicated a trace amount of PCBs in the leachate collection system. The Ministry is requiring the City to undertake quarterly monitoring for PCBs in the leachate collection system on a quarterly basis in 2013.

2.8 LEACHATE CONTROL SYSTEM:

Specifics:

A leachate control system is required at the Site and has been installed. The operation of the leachate control system was reviewed with Mr. Simmons and appears to be functioning properly. Leachate is collected from the SFA and NFA is discharged in a sewer forcemain which conveys the leachate to the City of Peterborough Water Pollution Control Plant. City staff have been advised that they shall ensure that operators qualified with the appropriate level of license are responsible for the operation of the sewage works associated with the Site.

2.9 METHANE GAS CONTROL SYSTEM:

Specifics:

A methane gas control system is required at the Site and has been installed. The operation of the methane gas control system was reviewed with Mr. Simmons during the inspection and appears to be functioning properly. The methane is currently burned off using one flare located near the public drop off area. Since the time of the last inspection 24 additional methane gas collection wells have been installed in the SFA. It is being planned that the methane generated from these additional wells and eventually from the NFA will be conveyed to a facility operated by Peterborough Utilities Inc. which will generate electricity. It is anticipated that this facility will be commissioned in April 2013.

2.10 OTHER WASTES:

Specifics:

There was no evidence during the inspection that wastes other than solid non-hazardous were being deposited at the Site. The Site does not appear to have accepted fully treated characteristic waste. The Site has weigh scales and a drop-off area for the residents from within the City and County to drop off waste from small vehicles that is later taken to the active landfill cell. Waste accumulated at the public drop-off area is compacted by a backhoe inside the storage bins. Vehicles then take the full bins to the tipping face. Large vehicles and municipal waste vehicles go directly to the tipping face after weighing in.

Currently, cardboard, metals, drywall, shingles, clean wood, tires, construction and demolition (c & d) waste are separated and shipped off-site for recycling as part of the Site's waste diversion program. The c & d recyclable materials are removed from the Site by M & M Disposal and then once processed the residual waste is returned to the Site to be landfilled. In 2007 the City began issuing fines for unseparated loads of waste. It is currently required that residents separate all organic yard waste (leaves, branches, grass clippings) and this yard waste is taken to the Harper Road composting facility. The City is planning to implement a household organic waste separation program. This program will divert all organic household waste to a different facility. All large appliances such as ovens, refrigerators, washers and dryers are separated and recycled for metal. All refrigerators are stored up-right and a contractor comes in weekly to remove the Freon and apply tags. The Site may accept biosolids from the Peterborough Water Pollution Control Plant. Solid waste from the water treatment process at the Peterborough Water Treatment Plant is disposed at the Site.

2.11 Compliance with the Conditions of Environmental Compliance Approval No. A341508.

17. (a) The Owner shall: (i) Within ninety (90) days of the date of this *Approval*, submit to the Director, for Director's signature, two copies of a completed Certificate of Requirement containing a registerable description of the Property; (ii) Within ten (10) calendar days of receiving the Certificate of Requirement signed by the Director, register the Certificate of Requirement in the appropriate Land Registry Office on title to the Property and submit to the Director the duplicate registered copy immediately following registration; and (b) Pursuant to Section 197 of the Environmental Protection Act, neither the Owner nor any person having an interest in the Property shall deal with the Property in any way without first giving a copy of this *Approval* to each person acquiring an interest in the Property as a result of the dealing.

Inspection observations: A review of the Ministry's records indicates that this condition has not been complied with. Please submit the required Certificate of Requirement to the Director and the District Manager.

27. A copy of the Terms of Reference (for the Peterborough Landfill Public Liaison Committee (PLPLC)) shall be provided to the District Manager within thirty (30) days of issue of this *Approval*. Any changes to the Terms of Reference shall be provided to the District Manager for information purposes.

Inspection observations: This document was due to be submitted to the Ministry on December 15, 2011. A review of the Ministry records indicates that it was not submitted by the City. Please submit a copy of the Terms of Reference to the District Manager.

37. Within 180 days of issuance of this *Approval*, the Owner shall submit to the District Manager a landfill operator's Operations and Maintenance Manual that is consistent with this *Approval* and that identifies the duties to be conducted by staff in key operational areas on a day to day basis. The operator's manual shall include:

a) Health and safety; b) Best Management Plans for dust, litter and odour; c) Operation and maintenance of the *Site*; d) Waste acceptance; e) Waste disposal area and development; f) Nuisance management; g) Leachate management; h) Landfill gas management; i) Surface water/Storm water management; j) Inspections and monitoring; k) Complaints; l) a detailed job

description of the duties of a *Competent Supervisor*; and m) Reporting and record keeping; n) The Operations and Maintenance Manual shall be: o) retained at the *Site*; p) kept up to date through periodic revisions; and q) be available for inspection by *Ministry* staff.

Inspection observations: This document was due to be submitted to the Ministry on May 13, 2012. A review of the Ministry records indicates that it was not submitted by the City. During the inspection it was reported that this report was a work in progress.

42.1 At least 2 years prior to closure, the Owner shall submit to the Director for approval, with copies to the District Manager, and the *PLPLC*, a detailed *Site* closure plan pertaining to the termination of landfilling operations at the South Fill Area (SFA), post-closure inspection, maintenance and monitoring, and end use. The plan shall include the following:

- a) plan showing *Site* appearance after closure; b) a description of the proposed end use of the *Site*; c) a description of the procedures for closure of the *Site*, including: i) advance notification of the public of the landfill closure; ii) completion, inspection and maintenance of the final cover and landscaping; iii) *Site* security; iv) removal of unnecessary landfill-related structures, buildings and facilities; and v) final construction of any control, treatment, disposal and monitoring facilities for leachate, groundwater, surface water and landfill gas; d) a schedule indicating the time-period for implementing sub-conditions i) to v) above. e) descriptions of the procedures for post-closure care of the *Site*, including: i.) operation, inspection and maintenance of the control, treatment, disposal and monitoring facilities for leachate, groundwater, surface water and landfill gas; ii) record keeping and reporting; and iii) complaint contact and response procedures; f) an assessment of the adequacy of and need to implement the contingency plans for leachate and methane gas; and g) an updated estimate of the contaminating life span of the SFA, based on the results of the monitoring programs to date.

Inspection observations: It appears that the SFA Closure Plan was submitted in December 2010 to the District Office, but it does not appear that it was submitted to Approvals Branch for review, as required. The SFA Closure Plan was required to be approved by the Ministry before closure activities began. This report needs to be submitted to Approvals Branch for formal review and approval.

Closure of the SFA is ongoing and it has been reported that closure of the SFA should be completed by October 2013. Please confirm, to the District office that the ongoing closure of the SFA is being completed in accordance with the originally submitted plan.

43. The SFA and/or the NFA and when applicable, the *Site* as a whole shall be closed in accordance with the closure plan(s) as approved by the *Director*.

Inspection observations: See observations under Condition 42.1. The SFA Closure Plan has not been approved by the Director.

48. Within one hundred and eighty (180) days of issuance of this *Approval*, the Owner shall provide a completed landscape plan for the *Site* to the District Manager with copies to the *PLPLC*.

Inspection observations: This document was due to be submitted to the Ministry on May 13, 2012. A review of the Ministry records indicates that it was not submitted by the City. Please submit a copy of the plan to the District Manager with confirmation that the plan has been submitted to the *PLPLC*.

59. Within 180 days of issue of this *Approval*, the Owner shall develop and submit to the District Manager a Best Management Practices for the control of dust, odour and litter from the *Site*.

Inspection observations: This document was due to be submitted to the Ministry on May 13, 2012. A review of the Ministry records indicates that it was not submitted by the City. Please submit the required Best Management Practices to the District Manager.

76. a) The Owner may receive at the *Site* up to a maximum of 85,000 tonnes per year of waste including contaminated soil for disposal at the *Site*; and b) In the event of an emergency, the Owner may request to the District Manager that the amount allowed to be received in one particular year be increased by 20,000 tonnes and the District Manager has the authority to grant written approval to such a request.

Inspection observations: During the inspection City staff reported that they had exceeded the limit in this condition by 1671 tonnes. This exceedence was as a result of a large amount of contaminated soil being accepted at the Site in December 2012. The City has a system which tracks incoming wastes, but does not have a procedure to ensure that the incoming waste is checked regularly to ensure that this condition is not exceeded. A procedure needs to be developed to ensure that this information is reviewed on a regular basis to ensure that this violation does not occur in the future.

78. The following materials, in the corresponding thickness, may be used as an alternative to soil as a daily and intermediate cover: i) non-hazardous contaminated soil that meets the Land Disposal Requirements of Regulation 347 and the *handbook*; and ii) Wood chips and compost overs consisting of processed chipped wood.

Inspection observations: It is reported in the 2011 annual report that shingles were used as alternate cover material. During the inspection it was reported that shingles are no longer used as daily cover material, but may be stock piled for to build roads within the landfill. Shingles accepted at the landfill would be considered a waste material and therefore must be covered daily.

79. The Owner shall keep a record of the delivery of all contaminated soil to the *Site*. The record shall include the following information as a minimum: i) The name and Approval number of the hauler; ii) The name and address of the generator of the waste; iii) The date and time of delivery; and iv) The quantity of waste delivered.

Inspection observations: A review of the current soil acceptance form used by the City reveals that it does not include Approval number of the hauler, the date and time of delivery and the actual amount of waste delivered. It does include contact information, but this may not always be the generator of the waste. The soil acceptance form needs to be updated and a copy submitted to the District Office.

80. The use of non-hazardous contaminated soil for daily/intermediate cover referenced in Condition 78 of this *Approval*, shall be subject to the Owner: a) making sure that the Generator has provided a signed statement with the following information at a minimum to the Owner regarding the contaminated soil including: i) the date; ii) the name of the Generator; iii) Generator Registration number, if the Generator has one; iv) the source of the non-hazardous contaminated soil; v) whether the non-hazardous contaminated soil was ever categorized as a listed or characteristic hazardous waste; vi) any records required by Section 79 and 84 of Regulation 347; vii) if the waste were a characteristic waste but has been treated, a copy of the Land Disposal Restrictions Form required by Regulation 347 or a notification stating that the waste was a characteristic waste and that the waste can be land disposed as per Sections 79 and 84 of Regulation 347; and viii) analytical test results of the contaminated soil; and b) taking all reasonable precautions to insure that the requirements of the *Land Disposal Restrictions* and the *Land Disposal Treatment Requirements* outlined in Regulation 347 are being followed at the *Site*.

Inspection observations: The City is currently not in compliance with this condition. The City does not require generators to submit a signed statement as described above. The soil acceptance form needs to be updated and a copy submitted to the District Office.

81. The volume of contaminated soils stored at the *Site* shall not exceed the three months limitation of the annual daily/ interim cover material requirements as determined by the previous annual report. The Owner shall ensure at all times that the stockpiled contaminated soils shall produce no off-Site nuisance odours.

Inspection observations: During the inspection City staff advised that in December 2012 approximately 30000 tonnes of contaminated soil had been received at the site. City staff report that this amount would exceed the three month limitation by three to four months. The City currently does not have a procedure to ensure compliance with this condition. A procedure must be developed and submitted to the District Office to ensure compliance with this condition.

82. In the event of a reported incident of odour from the contaminated soil at the *Site* which causes a nuisance and poses a threat to the health and safety of person(s) and the environment, the Owner shall forthwith implement a contingency plan to immediately abate the nuisance odour and/or run-off that may originate from the stockpile.

Inspection observations: Please provide a copy of the contingency plan discussed in this condition. This contingency plan may be incorporated with other contingency or mitigation plans or be part of the Operations and Maintenance Manual required by Condition 37.

85. Prior to receipt at the *Site*, each source of contaminated soils which are to be used as daily or intermediate cover shall be tested to determine if the soils meet the criteria in this *Approval* and Regulation 347. A copy of the test results shall be kept in the daily records for the *Site*.

Inspection observations: Copies of the analysis for contaminated soil accepted at the Site are stored electronically at the Site. However, the current system does not comply with this condition because it is not tracked daily. These daily records need to be incorporated with the soil acceptance condition noted above. Please submit a plan to the District Office outlining how the City will ensure compliance with this Condition.

105. Within 180 days of issue of this *Approval*, the *Owner* shall develop and implement a program to inspect waste to ensure that the waste is of a type approved for acceptance under this *Approval*.

Inspection observations: Adequate inspection of the incoming waste appears to be occurring. However, there is no written procedure at this time. Please submit a copy of this procedure to the District Office.

117. As-built drawings of the leachate control system for the North Fill area shall be submitted to the District Manager within 60 days of issue of this *Approval* or within sixty (60) days of the completion of the leachate control system for the North Fill area.

Inspection observations: This document was due to be submitted to the Ministry on January 14, 2012. A review of the Ministry records indicates that it was not submitted by the City. Please submit a copy of the as-built drawing to the District Office.

121. The owner shall inspect the *Site* monthly for the following items but not limited to these items: Erosion rills; General settlement areas or depressions; Shear and tension cracks; Condition of surface water drainage works; Erosion and sedimentation in surface water drainage system; Presence of any ponded water; Adequacy of cover material; Evidence of vegetative stress, distressed poplars or side slope plantings; Condition of groundwater monitoring wells and gas wells; Presence of insects, vermin, rodents and scavenging animals; The amount of litter at the *Site*; Condition of fence surrounding the *Site*; and, General *Site* appearance.

Inspection observations: City staff currently have a monthly Site inspection form, but it does not contain all of the items contained in this Condition. The monthly inspection form needs to be updated to include all of the items in this Condition and a copy of the new form submitted to the District Office.

123. A training plan that is sufficient for people that operate any aspect of the *Site* to become a *Competent Person* shall be developed and implemented by the Operator. Only Competent People shall operate any aspect of the *Site* or carry out any activity required

under this *Approval*. Workers at the *Site* shall provide proof of training to the Ministry upon request.

Inspection observations: Please provide a list of competent people working at the site and their corresponding training records to the District Office.

125. d) An up to date list of *Competent People* shall be kept at the *Site* and be readily available for inspection by a *Provincial Officer*;

Inspection observations: Please provide a copy of this list to the District Office and confirm it is located at the *Site*.

e) The Owner shall notify in writing the District Manager of the name(s) of the *Competent Supervisor* or *Competent Supervisors* within 180 days of issue of this *Approval*; and

Inspection observations: This document was due to be submitted to the Ministry on May 13, 2012. A review of the Ministry records indicates that it was not submitted by the City. The definition of competent supervisor in the ECA includes the following: is/are an employee(s) of the City of Peterborough or in the alternative, is an agent of the City of Peterborough. It would be the Ministry recommendation that a competent supervisor is at the *Site* at all times when the *Site* is open or landfill operations are taking place.

127. A record of the inspections shall keep in a daily log book or a dedicated electronic file that includes:

- the name and signature of person that conducted the inspection;
- the date and time of the inspection;
- the list of any deficiencies discovered;
- the recommendations for remedial action; and
- the date, time and description of actions taken.

Inspection observations: City staff currently have a daily *Site* inspection form, but it does not contain all of the items contained in this condition. The daily inspection form needs to be updated to include all of the items in this Condition and a copy of the new form submitted to the District Office.

129. The Owner shall ensure all groundwater monitoring wells are properly capped, locked and protected from damage when not in use.

130. Any groundwater monitoring wells included in the monitoring program shall be assessed, repaired, replaced or decommissioned as required.

131. The Owner shall repair or replace any monitoring well which is destroyed or in any way made inoperable for sampling such that no more than one sampling event is missed.

132. All monitoring wells that are no longer required as part of the groundwater monitoring program shall be decommissioned in accordance with good standard practice that will prevent contamination through the abandoned well and in accordance with Ontario Regulation 903.

133. A report on the decommissioning referred to in Condition 132 of this *Approval* shall be provided in the annual monitoring report for the period during which the well was decommissioned.

Inspection observations related to Conditions 128, 129, 130, 131, 132, and 133: Please provide a report on Conditions 129, 130, 131, 132, and 133 indicating if the City is in compliance with these conditions. During the inspection damaged monitoring wells were observed.

Please confirm that the report required by Condition 133 is contained in the annual report. If the required report is not contained in the annual report then submit a copy to the District Manager.

140. If the District Manager determines that leachate collection is not successful and that the monitoring program indicates that contamination will potentially be migrating off-site, or, if leachate springs and/or outbreaks down gradient of manhole J1 occur, the Owner must install and operate the contingency program outlined in the appended documents as defined by Items 24, 29, 36, 37 and 38 of Schedule "A" of this *Approval* and as instructed by the District Manager. The District Manager may, at any time, instruct the Owner to implement the recommendations made in the monitoring report.

Inspection observations: During the inspection City staff could not provide the location of manhole J1. Please submit a drawing showing the location of manhole J1 to the District Office.

144. b) Within sixty (60) days of the flare equipment operating to control landfill gas, an acoustic audit to measure the noise emissions from the flare equipment shall be conducted by the Owner. The Owner shall report the results of the acoustic audit to the Director within 120 days of the flare equipment becoming operational; and

Inspection observations: A review of the Ministry records indicates that it was not submitted by the City. During the inspection City reported that the audit had been conducted. Please submit a copy of the acoustic audit to the District Office and the Director.

149. No later than ninety (90) days after the commissioning of the detailed design of the landfill gas collection and flaring system, the

Owner/Operator shall update the *Site's* Operations and Maintenance Manual required by Condition 37 of this *Approval* to reflect the development and operation of the landfill gas collection and flaring system expansion, with respect to details on inspection and maintenance schedules, documentation procedures, shut-down procedures, Ministry contact procedures, and flare operation and maintenance. A copy of the Manual shall be provided to the District Manager and a copy retained on-*Site* and made available to Ministry staff upon request.

Inspection observations: As it relates to the NFA this condition has not been complied with. A review of the Ministry records indicates that it was not submitted by the City. Please submit a copy of the revised Operations and Maintenance Manual to the District Office.

154. Within ninety (90) days of commissioning, the detailed design of the landfill gas collection and flaring system, the Owner/Operator shall submit to the Director for approval, a written report describing a plan and implementation schedule for landfill gas and odour management in conjunction with *Site* development and progressive rehabilitation. The plan shall include, as a minimum: a) A description of any anticipated progress of final cover placement until *Site* closure, based on progressive rehabilitation of the *Site*; and b) A program to evaluate the effectiveness of the landfill gas collection system which shall identify areas of the *Site* which require upgrading, alteration, or additional collection and control facilities. The program shall include an assessment to be conducted at least once a year, of the *Site's* conformance with an operating code of practice which includes the development of system design parameters, details on the management of the system to satisfy the design parameters and a description of rationale for landfill gas flow adjustments to optimize system operation.

Inspection observations: A review of the Ministry records indicates that it was not submitted by the City as it relates to the NFA and the 25 new gas collection wells recently installed in the SFA. Please submit a copy of the report to the Director and the District Office

155. During construction and continued use of the landfill gas collection system, the Owner/Operator shall implement as a minimum, odour control plan. The effectiveness of the odour control plan shall be monitored and evaluated regularly, and updated or amended as necessary, based on operational experience and odour complaints received.

Inspection observations: Please submit a copy of the odour control plan to the District Office.

156. As a component of the Annual Monitoring and Operation Report for the *Site*, the Owner/Operator shall include a written report covering each year's construction season. The report shall detail the construction activities, QA/QC program carried out for the construction, as-built drawings of the landfill gas collection and flaring system to date, including a description and reasons for any changes to the design of the landfill gas collection and flaring system.

Inspection observations: The annual report does not appear to contain as-built drawings showing the landfill gas collection and flaring system. Please submit a copy of the as-built drawings of the landfill gas collection system to the District Office.

158. Within 180 days of issue of this *Approval*, the Owner/Operator shall prepare and submit to the Director for approval, copied to the District Manager, a monitoring program for landfill gas to monitor the performance of the landfill gas collection and flaring system. As a minimum, the landfill gas monitoring program shall identify the monitoring frequency, parameters, locations, etc., and shall be implemented promptly as approved, and as per written recommendations of the District Manager through the review of the Annual Monitoring Reports, and any related EPA requirements.

Inspection observations: This document was due to be submitted to the Ministry on May 13, 2012. A review of the Ministry records indicates that it was not submitted by the City. Please submit a copy of the monitoring program to the Director and the District Manager.

159. Components of the active gas collection system shall be monitored on an as-needed basis, with a routine frequency of once per month for the full collection field. Any observed deficiencies/ problems shall be repaired as soon as practicable and a summary of remedial actions carried out, shall be reported in the Annual Monitoring and Operation Report, listed in Condition 186 of this *Approval*.

Inspection observations: This information could not be located in the annual report. Please submit this information to the District Office.

161. Buildings and structures existing or to be built on-*Site* shall be situated, constructed and monitored in a manner which minimizes the potential for explosive hazards due to combustible gas. Appropriate methane detection and alarm equipment, shall be installed and maintained for all enclosed, unvented buildings and/or structures on-*Site* which at times are occupied by people.

Note: For the purposes of Condition 161, vented building or structure is a building or structure built with its floor sealed and elevated above ground and having adequate air space underneath the floor of the building or structure.

Inspection observations: The only building that would be considered a vented building or structure as defined above is reported to be the scale house which is elevated above the ground surface.

The Site is defined as: "*Site*" and "*waste disposal site*" means the 27.5 hectare Waste Fill Area (9.5 hectares North Fill Area and 18 hectares South Fill Area) being more particularly described as PART OF LOTS 14 and 15, CONCESSION 14, OTONABEE, TOWNSHIP OF OTONABEE-SOUTH MONAGHAN), located within a total site area of 158 hectares which includes a 15 hectare groundwater easement zone, in which waste may be deposited pursuant to this *Approval* in accordance with the plans and

specifications described on Schedule "A"; and

The 158 hectares are more particularly described as PART LOT 13, 14 and 15, CONCESSION 14 and PART OF LOTS 14 and 15, CONCESSION 13, OTONABEE, TOWNSHIP OF OTONABEE-SOUTH MONAGHAN;

Please confirm that all building or structures existing on the Site comply with this condition. This may include houses that the City is renting.

162. Subsurface migration of combustible methane gas shall meet the following limits, as required by Ontario Reg. 232/98: (a) The concentration of methane gas must be less than 2.5 percent by volume at the limits of the property boundary;

Inspection observations: During the inspection City staff reported that they currently do not have methane detection wells on the north and west boundaries of the landfill footprint, but reported that they would be installed in 2013.

170. If at any time, the *Owner* receives complaints regarding the operation of the *Site*, the *Owner* shall respond to these complaints according to the following procedure: a) The *Owner* shall record and number each complaint, either electronically or in a log book, and shall include the following information: the nature of the complaint, the name, address and the telephone number of the complainant if the complainant will provide this information, the time and date of the complaint, specific details of operations that were occurring, any changes from normal operations, types of waste loads (including source) and other on-*Site* activities;

Inspection observations: The City currently has a complaint response form, but is not using it. The complaint form needs to be updated to ensure that it meets the requirements of this Condition. Please submit a copy of the updated complaints form to the District Office. Please ensure that the complaint form is used in the future.

b) The *Owner*, upon notification of the complaint, shall initiate appropriate steps to determine the validity of the complaint. If the complaint is determined to be valid, investigate all possible causes of the complaint, and proceed to take the necessary actions to eliminate the cause of the complaint. The *Owner* shall forward a formal reply to the complainant; and

Inspection observations: During the inspection City staff reported that they have not been forwarding a formal reply to the complainant. A formal response either by email or mail would meet the requirement of this Condition.

c) The *Owner* shall complete and retain on-*Site* a report written within one (1) week of the complaint date, listing the actions taken to resolve the complaint and any recommendations for remedial measures, and managerial or operational changes to reasonably avoid the recurrence of similar incidents.

Inspection observations: The City currently has a complaint response form, but is not using it. The complaint form needs to be updated to ensure that it meets the requirements of this Condition. Please submit a copy of the updated complaints form to the District Office. Please ensure that the complaint form is used in the future.

171. The *Owner* shall designate a person to receive any complaints and to respond with a written notice of action as soon as possible. The *Owner* shall post the *Site* complaints procedure at the *Site* entrance. All complaints and the *Owner's* actions taken to remedy the complaints shall be summarized in the Annual Report.

Inspection observations: Please advise the District Office for the designated person is to receive complaints. A complaints procedure is not posted at the Site entrance. The City shall post the complaints procedure at the Site entrance. A review of the 2011 Annual Report reveals that there does not appear to be a discussion about complaints received at the Site in 2011. Please submit the information related to 2011 to the District Office.

172. All complaints received by the *Owner* related to the environmental performance of the *Site*, including environmental performance related complaints that are determined by the *Owner* to be not valid, are to be reported within twenty-four (24) hours of receipt to the District Office. Complaints shall be reported to the *PLPLC* at the next *PLPLC* meeting.

Inspection observations: The Ministry has not been always contacted when the City receives public complaints. All public complaints related to environmental matters be reported to the District Office. Please confirm that at each meeting of the *PLPLC* that public complaints; are discussed with the *PLPLC*. Please submit a copy of the *PLPLC* minutes which document this discussion.

173. Daily *Site* inspection records in the form of a written log or a dedicated electronic file shall include but not be limited to the following:

i) the type, geographic source, date and time of arrival, hauler, and quantity (tonnes) of all waste received at the *Site*; ii) the area of the *Site* in which waste disposal operations are taking place; iii) calculation of the total quantity (tonnes) of waste received at the *Site* during each operating day and each operating week; iv) itemization of each load of contaminated soil delivered to the *Site* as is allowed by Condition 78 of this *Approval*; v) results of any test done to determine the acceptability of waste at the *Site*; vi) a reference for each load of solid non-hazardous industrial waste received, to the client and type of solid non-hazardous industrial waste; vii) a record of any litter collection activities and the application of any dust suppressants; viii) a record of the daily inspections; ix) a description of any out-of-service period of any control, treatment, disposal or monitoring facilities, the reasons for the loss of service, and action taken to restore and maintain service; x) type and amount of daily, intermediate and final cover used; xi) emergency situations and actions taken to resolve them; and xii) any other pertinent information required by the District Manager.

Inspection observations: Current daily inspections do not include all of the above items. Please update the Daily Site inspection

form and submit a copy to the District Office.

184. The Annual Report shall include the following:

i) an updated waste disposal site plan showing the areas of fill, buffer zones, present contours, monitoring locations and surface water control systems;

Inspection observations: The Ministry could not locate a plan showing area of waste filling in 2011 or a plan showing buffer zones/ area as defined by the ECA.

ii) a calculation of the remaining capacity of the *Site*, an estimate of the remaining *Site* life and a comparison of actual capacity used to approved *Site* capacity;

Inspection observations: With regard to Table B.1 does the Total Waste include contaminated soil? Same question for Table 2.1.

v) procedures at the waste disposal site;

Inspection observations: This information could be located in the annual report.

vi) a summary of any equipment changes at the site;

Inspection observations: There is a list of equipment in Section 3.4, there was no list of any equipment changes or a note to suggest that there had not been any equipment changes.

viii) a summary of any occurrences or incidents where this *Approval* was not complied with, the reason for non-compliance and the measures to be implemented to ensure that future non-compliance does not occur;

Inspection observations: This information could be located in the annual report.

ix) results in tabular format and an interpretive analysis of the results of all leachate, groundwater, surface water and landfill gas monitoring and flaring, including an assessment of the need to amend the monitoring programs;

Inspection observations: The following from the above condition could not be located: landfill gas monitoring and flaring, including an assessment of the need to amend the monitoring programs;

xv) total leachate volumes collected weekly, monthly and annually and the disposition of the collected leachate;

Inspection observations: Monthly volumes are presented in Table 4.1. However, a weekly breakdown of volumes could not be located.

xvii) areas of landfilling operation during the reporting period;

Inspection observations: This information could be located in the annual report.

xviii) areas of intended operation during the next reporting period;

Inspection observations: This information could be located in the annual report.

xix) areas of excavation during the reporting period;

Inspection observations: This information could be located in the annual report.

xx) the progress of final cover, vegetative cover, and any intermediate cover application;

Inspection observations: This information could be located in the annual report.

xxi) facilities installed during the reporting period;

Inspection observations: This information could be located in the annual report.

xxii) *Site* preparations and facilities planned for installation during the next reporting period;

Inspection observations: This information could be located in the annual report.

xxiv) calculations of the amount of contaminated soil used as alternative cover at the *Site*;

Inspection observations: This information could not be located in the 2011 annual report.

xxv) the amount of contaminated soil stored at the *Site* at the end of the previous year;

Inspection observations: This information could not be located in the 2011 annual report.

xxvi) summary of the weekly, maximum daily and total annual quantity (tonnes) of waste received at the *Site* ;

Inspection observations: the weekly, maximum daily tonnes of waste could not be located.

xxvii) summary of any complaints received and the responses made;

Inspection observations: This information could be located in the annual report.

xxviii) a discussion of any operational problems encountered at the *Site* and corrective action taken;

Inspection observations: This information could be located in the annual report.

xxix) a report on the status of all monitoring wells and a statement as to compliance with Ontario Regulation 903;

Inspection observations: This information could not be located in the 2011 annual report.

xxxii) summary of inspections undertaken at the *Site*;

Inspection observations: This information could be located in the annual report.

xxxiii) a summary of recycling efforts undertaken at the public drop-off area including the amount of recyclable received;

Inspection observations: This information could be located in the annual report.

xxxiv) a summary of the requirements outlined in Condition 80 of this *Approval* regarding the use of contaminated soil for daily/intermediate landfill cover;

Inspection observations: This information could not be located in the 2011 annual report.

2.12 Review of Recommendations in the 2011 Annual Report

In Section 11.0 on page 48 of the 2011 Annual Report for the Site there are a number of recommendations. A review of these recommendations during the inspection revealed that recommendations number 5 and 7 had not been completed as recommended.

It is the Ministry expectation that recommendations made by the City's consultant to the City will be implemented. Please submit an action plan to the District Manager which details when these recommendations will be implemented.

3.0 REVIEW OF PREVIOUS NON-COMPLIANCE ISSUES

1. By October 29, 2010, the Corporation of the City of Peterborough shall classify the sewage works located at the CCPWMF in accordance with Ontario Regulation 129/04. A copy of the required application form shall be submitted to the undersigned and the Ontario Water and Wastewater Certification Office. The required forms can be located at the following website:
<http://www.owwco.ca/classification.htm>.

Within seven (7) days of receiving the approved classification form from the Ontario Water and Wastewater Certificate Office, the Corporation of the City of Peterborough shall ensure that an operator qualified with the appropriate level of license, as required by Ontario Regulation 129/04, is responsible for the operation of the sewage works associated with the CCPWMF. Within seven (7) days of retaining a certified operator, the Corporation of the City of Peterborough shall report to the undersigned Provincial Officer who the licensed operator is and shall provide a copy of their valid license.

Inspection observations: The City applied to classify the sewage works in October 2010 and received a Wastewater Collection Facility Class II for the Site on November 11, 2010. During the inspection Mr. Simmons reported that he has obtained his Class 1 license and is working to obtain his Class 2 license. The ORO is currently Terry Babcock, who holds a Class 2 license and works for the City of Peterborough.

2. In accordance with Condition No. 6, 27, and 28 of Provisional Certificate of Approval No. A341508 the Corporation of the City of Peterborough shall ensure that the appropriate closure plan is submitted to the Ministry, within the appropriate timeframe, for the South Fill Area.

Inspection observations: On December 21, 2010, the South Fill Area Closure Plan was submitted to the District Office. It appears that the report was not submitted to the Ministry's Approvals Branch for review. Closure of the South Fill Area is currently ongoing without approval from the Ministry.

3. During the site inspection the cover applied to the South Fill Area was in excellent condition with only minor areas where waste was

observed visible through the cover material. The active face was in excellent shape as it was being kept small and confined. The Ministry expects that the site cover material and active face will be kept in similar condition in the future. The Corporation of the City of Peterborough shall apply additional cover material to those areas noted during the inspection which required additional cover material.

Inspection observations: The City of Peterborough completed this action item shortly after the inspection.

4. Should any area of either the North Fill Area or the South Fill Area be left dormant for more than three months then the Ministry requires that a minimum of 30 centimeters of cover material is placed on the area and that vegetation of a height greater than 20 centimeters be established. In this case with the South Fill Area being left dormant in the winter months it is expected that a vegetative cover will be established as soon as reasonably possible in the spring of 2011.

Inspection observations: This action item was acknowledged by the City of Peterborough. A vegetative cover was not established.

5. After ninety(90) days of operation of the North Fill Area the Corporation of the City of Peterborough shall submit a report to the undersigned Provincial Officer which states that the Corporation of the City of Peterborough is operating the North Fill Area in full compliance with the document entitled: "North Fill Area, Design and Operations Report", authored by Earth Tech and dated January 2004. Should the Corporation of the City of Peterborough not be operating the North Fill Area in accordance with the document entitled: "North Fill Area, Design and Operations Report", authored by Earth Tech and dated January 2004, the report to the undersigned Provincial Officer shall contain an application to amend the Design and Operations Report to reflect the actual operation of the site and should this be the case the application shall be submitted to the Ministry's Environmental Assessment and Approvals Branch in a completed format with the appropriate fee.

Inspection observations: This action item appears to have been addressed. See correspondence from the City of Peterborough dated January 25, 2011. Correspondence indicates that the North Fill Area was constructed properly.

6. After ninety(90) days of operation of the North Fill Area the Corporation of the City of Peterborough shall submit a report to the undersigned Provincial Officer. The report shall include as built drawings. The report shall document all construction, QA/QC activities and procedures, and confirming that the site conditions for the North Fill Area and details of the construction of the North Fill Area are in accordance with the approved design plans and specifications for the site, and including sufficient baseline data from existing and new monitoring installations to support environmental monitoring programs for the site.

Inspection observations: This action item appears to have been addressed. See correspondence from the City of Peterborough dated January 25, 2011. Correspondence indicates that the North Fill Area was constructed properly.

7. Excavation within and preparation of the foundation soils underlying the North Fill Area and construction of the base liner of the leachate containment system in a new cell of the North Fill Area shall be inspected by a suitably qualified geotechnical professional engineer to ensure that preparation and construction is completed in accordance with approved detailed design plans, technical specifications and QA/QC activities and procedures. The results of inspections shall be included in the report required by Action Item No. 6 of this inspection report. No landfilling of wastes should occur on any portion of the North Fill Area liner and leachate collection system until the Director and District Manager have received an inspection report from the engineer indicating that the portion of the base liner and the leachate containment system has been constructed as required by Provisional Certificate of Approval No. A341508.

Inspections with respect to the base liner system shall include assessment of the following:

- a. The adequacy of extracted clay material from the landfill excavation and/or clayey material for base liner construction and leachate/liner compatibility;
- b. The acceptability of foundation conditions to ensure adequate bearing capacity and slope stability, adequate provisions to prevent basal heave or blowout, absence of standing water, and absence of potential conduits for leachate and landfill gas migration; and
- c. Compliance with liner installation specifications and QA/QC procedures related to items such as grain size distribution and clay content of native and borrow materials, clod size limits, removal of stones, Atterberg limits, compaction moisture content, compaction effort, required Standard Proctor Density, lift thickness, scarification between lifts, permeability, and procedures to avoid desiccation of the clay liner.

Inspection observations: This action item has been addressed. See correspondence dated October 26, 2010, from the City of Peterborough.

8. Commencing immediately the Corporation of the City of Peterborough shall during routine monitoring of the leachate; sample and test for PCBs. PCBs samples shall be collected at a minimum of quarterly in 2010 and 2011. PCBs samples are not required to be collected in 2012 unless specified by the Ministry. The results of the analysis shall be included in the required annual reports.

Inspection observations: A review of the 2011 Annual Report reveals that the City did not collect samples for PCB analysis in the leachate collection system. PCBs shall be monitored quarterly at the Site in the Leachate Collection System. The results shall be reported on in the 2013 Annual Report. Please confirm to the District Office that this will be done.

9. All modifications to the leachate collection system and methane gas collection system, including venting to the methane gas collection system shall be included in the leachate collection system and the methane gas collection system drawings in the 2010 annual report. Future modifications to these systems shall be documented on an ongoing basis in future annual reports.

Inspection observations: There are now conditions in the ECA which are similar to this action item. Condition No. 117 required the submission of as built drawing of the leachate collection system to be submitted to the Ministry. This does not appear to have been done.

4.0 SUMMARY OF INSPECTION FINDINGS (HEALTH/ENVIRONMENTAL IMPACT)

Was there any indication of a known or anticipated human health impact during the inspection and /or review of relevant material, related to this Ministry's mandate?

No

Specifics:

No additional comments.

Was there any indication of a known or anticipated environmental impact during the inspection and /or review of relevant material ?

No

Specifics:

No additional comments.

Was there any indication of a known or suspected violation of a legal requirement during the inspection and/or review of relevant material which could cause a human health impact or environmental impairment ?

Yes

Specifics:

During the inspection it was identified that the Site had received waste in excess of the amount of waste that is permitted to be accepted annually at the Site. The South Fill Area is being closed without first obtaining approval from the Ministry.

Was there any indication of a potential for environmental impairment during the inspection and /or the review of relevant material ?

Yes

Specifics:

During the inspection non-compliance with Conditions 17, 27, 37, 42.1, 43, 48, 59, 76, 78, 79, 80, 81, 82, 85, 105, 117, 121, 123, 125, 127, 129, 130, 132, 133, 140, 144, 149, 154, 155, 156, 158, 159, 161, 162, 170, 171, 172, 173, and 184 of Amended Environmental Compliance Approval No. A341508. The inspection has revealed significant non-compliance and as such there is a potential for environmental impairment.

Was there any indication of minor administrative non-compliance?

Yes

Specifics:

No additional comments.

5.0 ACTION(S) REQUIRED

1. The Corporation of the City of Peterborough shall provide a copy of this inspection report to all members of the Peterborough Landfill Public Liaison Committee. A copy of the correspondence to the members shall be sent to the District Office.
2. By April 30, 2013, the Corporation of the City of Peterborough shall submit to the undersigned Provincial Officer an Action Plan. The Action Plan shall detail the action(s) to be taken by the Corporation of the City of Peterborough to rectify all non-compliance items identified in this inspection report. The Action Plan shall include a detailed list of dates that the Corporation of the City of Peterborough will be in compliance with the non-compliance items identified in this inspection report.

6.0 OTHER INSPECTION FINDINGS

There are no other inspection findings at this time.

7.0 INCIDENT REPORT

Applicable
6521-968JKQ ☐

8.0 ATTACHMENTS

PREPARED BY:

Environmental Officer:

Name:

Chris Johnston

District Office:

Peterborough District Office

Date:

2013/03/28

Signature



REVIEWED BY:

District Supervisor:

Name:

David Bradley

District Office:

Peterborough District Office

Date:

2013/03/28

Signature:



File Storage Number: SI

Note:

"This inspection report does not in any way suggest that there is or has been compliance with applicable legislation and regulations as they may apply to this facility. It is, and remains, the responsibility of the owner and/or the operating authority to ensure compliance with all applicable legislative and regulatory requirements"



City of Peterborough

Utility Services Department
 Phone - (705) 742-7777 Ext. 1894
 Fax - (705) 876-4621
 e-mail – wjackson@peterborough.ca
 Website - www.peterborough.ca
 500 George Street North, Peterborough Ontario, K9H 3R9

April 29, 2013

Mr. Chris Johnston
 Mr. Keith Jamieson
 Ministry of the Environment,
 Peterborough District Office,
 Eastern Region,
 300 Water Street, 2nd Floor, South Tower,
 Peterborough, Ontario,
 K9J 8M5.

**Re: Response to MOE's March 21, 2013 Inspection Report - Peterborough
 County/City Waste Management Facility (PCCWMF)**

INTRODUCTION AND BACKGROUND

In March 2013, the Ministry of the Environment ("MOE") completed several days of inspections at the Peterborough County/City Waste Management Facility ("Site") on Bensfort Road. The inspections culminated in a detailed MOE Report entitled "*Solid Non-Hazardous Waste Disposal Site Inspection Report Inspection Report*" (*Inspection Report*). The report refers to "*Environmental Compliance Approval (ECA) No. A341508*" and is dated March 21, 2013.

The MOE Inspection Report comprised 13 pages of MOE observations that included an Introduction followed by a series of Inspection Observations that documented landfill design specifics such as Approved Capacity, Groundwater/Surface Water Impact and Leachate and Methane Control Systems required by the ECA. The MOE did not take issue with overall landfill operation, and at the April 11, 2013 meeting subsequent to issuance of the Inspection Report, MOE stated that the Site was well operated and that very few complaints were received by MOE related to the Site.

The MOE Inspection Report documented the Site's "*Compliance with the Conditions of Environmental Compliance Approval (ECA) No. A341508*" where certain conditions of the ECA were cited and MOE provided specific "*Inspection Observations*" that documented matters where the Site was deemed to be non-compliant with the ECA. A copy of the MOE Inspection Report is appended (Attachment A).

ECA No. A341508 was issued to the County/City as part of the MOE plan (October 2011) to modernize the approvals process. MOE consolidated several governing Certificates of Approval (EPA, OWRA) into the new ECA. Many conditions and supporting documents contained in or referenced in earlier approval documents were transferred to and incorporated into the new November 2011 ECA.

MEETING BETWEEN CITY AND MOE

On April 11, 2013 a meeting was convened to discuss the MOE Inspection Report. The following were in attendance:

David Bradley	Peterborough District Office District Supervisor (MOE)
Chris Johnston	Current Peterborough District Office Environmental Officer (MOE)
Keith Jamieson	New Peterborough District Office Environmental Officer (MOE)
Wayne Jackson	Director of Utility Services (City of Peterborough)
Craig Simmons	Coordinator of Waste Operations (City of Peterborough)
Joe Ovcjak	Vice President of Waste Management (UEM)

At the meeting, MOE re-iterated that the Site is very well run and that complaints received related to the Site are minimal.

MOE also advised that many non-compliance observations were related to insufficient or missing information. For example the County/City summarized leachate quantities in annual reports on a monthly rather than weekly basis. The most significant MOE comment noted that the combined total tonnage of waste and contaminated soil received in 2012 marginally exceeded allowable tonnage. The City inadvertently understood that the quantity of waste alone could not exceed 85,000 tonnes. The total quantity of waste alone that was received at the Site in 2012 was considerably less than 85,000 tonnes.

At the meeting the City stated it was preparing an Action Plan that would identify tasks to be completed and the timeline for completion of each Action Item. As part of this Action Plan, the City also agreed to review the content of the 2012 Annual Report and, where possible, include the information required under Conditions 183 and 184 of the ECA in the 2012 Annual Report.

MOE agreed with the City that none of the issues raised by MOE were in any way detrimental to the environmental integrity of the Site, public health and safety, surrounding land, groundwater, surface water and air quality.

CITY REVIEW AND ACTION PLAN TO ADDRESS NON-COMPLIANCE ITEMS

The City reviewed the *MOE Inspection Report* in detail and generated an "**Action Plan**" spreadsheet to assist in identifying all matters to be addressed and to provide a timeline during which the information will be provided to MOE. To facilitate development of the Action Plan and schedule, all MOE Inspection Observations contained in the March 21, 2013 Inspection Report were characterized and sorted into the following categories:

1. Items previously provided to MOE in support of earlier Certificates of Approval, Schedules to Former Certificates of Approval or Annual Reports.
2. Items provided (or available) but not to the level of detail required by the ECA. Will be provided in 2012 and future reports.
3. Activities required by MOE Inspection report, ECA, recommended in annual reports or other documents but not yet completed.
4. Items that inadvertently exceeded allowable ECA conditions or did not fully comply with ECA.
5. Items to be included in Updated Landfill Operations and Maintenance Manual.
6. Review of Recommendations in the 2011 Annual Report.
7. Summary of Inspection Findings (Health/Environmental Impact).
8. MOE Actions Required of City.

The resultant Action Plan (Attachment B) is a table containing 6 columns. Columns 1 and 2 display the ECA Condition Number and Condition respectively. Column 3 states the MOE comment as contained in their Inspection Report. Column 4 described the City's Action Plan while Column 5 provides the proposed timeline during which the information will be provided or additional reports completed. Column 6 provides supplementary comments where appropriate.

Many of the items required will be contained in the Updated Landfill Operations and Maintenance Manual or the 2012 and future Annual Report.

Some existing and available information will be compiled and provided in digital and hard copy form for distribution to the MOE. The City will retain both a hard copy and digital copy of this information on file.

Other documents will be updates of existing documents or new documents as described below.

The following summarizes information that will be contained in documents being prepared by the City.

1. Updated Landfill Operations and Maintenance Manual

The Updated Landfill Operations and Maintenance Manual will include all the items listed in the ECA and will be supplemented with the items listed below:

- Best Management Practices for Nuisance Control
- Odour Control and Contingency Plan
- Waste Inspection Procedures
- Updated Contaminated Soil Acceptance Form
- Updated Complaint Action Protocol

- Updated daily, weekly, monthly and quarterly inspection forms
- Discussion of use of shingles for roads, daily cover
- Contaminated Soil Tracking form
- Training Program for City and Contractor staff
- List of Competent staff

2. Annual Report (2012 and all future reports)

Annual Reports will include all items listed in the ECA and will also include the following:

- Landfill gas system monitoring program.
- Results of monthly gas collection system monitoring
- Location of proposed gas monitors adjacent to the North Fill Area property boundary
- Drawings showing engineered systems and facilities
- Deficiencies with Gas collection system (if any)
- Drawings showing fill areas, buffer zones etc.
- Procedures at waste disposal site
- Summary of equipment changes
- Summary of occurrences or incidents
- Drawings or discussions regarding area of landfill operation, excavation, cover placement, facilities installed or proposed, summary of waste quantities, summary of complaints, statement regarding compliance with ECA conditions
- Summary of inspections
- Summary of recycling efforts
- Quantities of waste and contaminated soil (separately) reported weekly not monthly
- Monitoring well condition, security, repair, replacement, compliance, decommissioning in accordance with O.Reg 903
- Quantity of contaminated soil used as daily cover each year
- Quantity of contaminated soil stored for use as daily cover each year (max 8300 tonnes)
- Assessment of need to amend monitoring programs
- PCB sampling and analysis to be completed quarterly in 2013

3. Tables of existing information contained in Site Log books or other files

Existing information that will be compiled and provided to MOE either digitally or in hard copy will include the following:

- Daily inspection reports for each day in 2013
- Weekly inspection reports (including seeps)
- Monthly inspection records
- Records of waste refusals in 2012 and 2013 to date

- Record of landfill gas flows for 2012
- Records of complaints in 2012 and 2013 to date
- Record of all waste received including source, client, type and demonstrating reasonable care taken to ensure only approved waste accepted (City computer data logs)
- Records of Training – City staff and Tomlinson
- Contaminated Soil reports including Bratt Farm, soils received 6 months prior to the date Bratt Farms soil received and all contaminated soil received after that date

4. South Fill Area Closure Report

- South Fill Area Closure Report will be updated to include landscaping plan before submission to MOE for approval.

5. North Fill Area Closure Report (to include entire site)

- North Fill Area Closure Report will be completed 2 years prior to closure of the NFA.

6. Landfill Gas Collection System Operations and Maintenance Manual

- The Site has a Landfill Gas Odour Control System Operation and Maintenance Manual, dated June 2000, for the South Fill Area.
- A written report describing the planned implementation of the gas and odour management system for the North Fill Area will be prepared and submitted to the MOE and will include all items listed in ECA Condition 154. Many items will be updated with the future implementation of the North Fill Area Gas Control System
- A separate Gas Odour Control System Operation and Maintenance Manual will be prepared for the North Fill Area after it has been designed and constructed.

7. Noise Study Report

- The July 2011 Noise Report will be submitted to the MOE District Office.
- The County/City will review the Noise Guidelines for Landfill Sites and Publication NPC205.
- Additional Noise studies will be complete if Site is not in compliance with ECA (TBD).

8. Record Drawings for Cell 2 construction

- Record drawings for Cell 2 (2 contracts) will be emailed to MOE

9. Certificate of Requirement

- The City is preparing the Certificate of Requirement for MOE Director signature and subsequent submission to the Land Registry Office

10. Amendment application to ECA

- The City will prepare an application and supporting document to amend ECA condition 161 related to gas detection and alarm systems in buildings on property adjacent to the landfill – owned by the City but not part of the landfill designated property.

We trust this meets your needs. Should you have any questions or require further information please feel free to contact me.

Yours truly,



W. H. Jackson
Director, Utility Services

Attachments:

Attachment A: MOE Inspection Report dated March 21, 2013

Attachment B: Action Plan in Response to MOE Inspection Report

cc. Mr. Chris Bradley, County of Peterborough
Ms. Laurie Westaway (County of Peterborough)
Mr. Wayne Jackson, City of Peterborough
Mr. Craig Simmons, City of Peterborough (Electronic Copy)
Joe Ovcjak, P.Eng., DCE, Vice President, Waste Management Engineering

ATTACHMENT A

**MOE INSPECTION REPORT DATED
MARCH 21, 2013**



Solid Non-Hazardous Waste Disposal Site Inspection Report

Client:	The Corporation of the City of Peterborough Mailing Address: 500 George St N, Peterborough, Ontario, Canada, K9H 3R9 Physical Address: 500 George St N, Peterborough, City, County of Peterborough, Ontario, Canada, K9H 3R9 Telephone: (705)742-7777, Extension: 1763, FAX: (705)878-4621, email: bnelson@peterborough.ca Client #: 2061-4GSQTM, Client Type: Municipal Government, NAICS: 91391		
Inspection Site Address:	County and City of Peterborough Waste Management Facility Address: 1260 Bensfort Road Lot 13 14 15 Concession 13 14 former Otonabee Township, Otonabee-South Monaghan, Township, County of Peterborough District Office: Peterborough GeoReference: Map Datum; NAD83, Zone: 17, Accuracy Estimate: 1-10 metres eg. Good Quality GPS, Method: GPS, UTM Easting: 716804, UTM Northing: 4900786, UTM Location Description: Weigh scale. , LIO GeoReference: Zone: , UTM/Easting: , UTM Northing: , Latitude: , Longitude:		
Contact Name:	Craig Simmons	Title:	Co-ordinator of Waste Management
Contact Telephone:	(705)742-7777 ext2152	Contact Fax:	
Last Inspection Date:	2010/09/14		
Inspection Start Date:	2013/03/12	Inspection Finish Date:	2013/03/21
Region:	Eastern		

1.0 INTRODUCTION

The County and City of Peterborough Waste Management Facility (CCPWMF or the Site) was inspected to assess compliance with the Site's Environmental Compliance Approval (ECA) and all applicable environmental legislation including Ontario Regulation 347. Prior to the inspection a file review was conducted including but not necessarily limited to: relevant legislation, Certificates of Approval, Annual Reports and previous Ministry inspections/incident reporting. The Site is located 6.4 km south of the City of Peterborough at 1260 Bensfort Road, in the former Township of Otonabee.

On Tuesday, March 12, 2013, I conducted an inspection of the Site with Mr. Craig Simmons, Co-ordinator of Waste Management, City of Peterborough. During this inspection aspects of the North and South Fill Areas were inspected.

On Wednesday, March 13, 2013, I conducted an inspection of the Site with Mr. Simmons. During this inspection we met to discuss the requirements of the Site's ECA.

On Thursday, March 14, 2013, I conducted an inspection of the Site with Mr. Simmons. During this inspection we met to discuss the requirements of the Site's ECA.

On Thursday, March 21, 2013, I conducted an inspection of the Site with Mr. Simmons. During this inspection we met to discuss the requirements of the Site's ECA.

2.0 INSPECTION OBSERVATIONS

Certificate of Approval Number(s):

The Site operates under Amended Environmental Compliance Approval No. A341508 (the ECA). The ECA was

originally issued in September 1979. The current ECA was issued on November 15, 2011 and it revoked and replaced all previous ECAs. The ECA approves a 27.5 hectare Waste Fill Area (9.5 hectares North Fill Area and 18 hectares South Fill Area) within a total site area of 158 hectares, which includes a 15 hectare groundwater easement zone (the Site).

Landfilling operations commenced at the Site in 1981 in the South Fill Area (SFA). In July 2002 the Site became the joint property of the County and City. Approval for the North Fill Area (NFA) was issued in July 2005. The SFA is completely separate from the NFA, that is to say that they are two separate landfills separated by approximately one kilometer.

2.1 FINANCIAL ASSURANCE:

Specifics:

There is no requirement for financial assurance for this site at the present time.

2.2 APPROVED AREA OF THE SITE:

Specifics:

The approved total area of the Site, including the SFA and the NFA, is 158 hectares.

The approved landfilling area/ footprint of the SFA is 18 hectares. The footprint of the SFA is clearly identifiable and it does not appear that waste is being landfilled outside of the approved area. The SFA stopped accepting waste in 2012.

The approved landfilling area/ footprint of the NFA is 9.5 hectares. The footprint of the NFA is clearly identifiable. Cell No. 2 began accepting waste on 2010/10/27. The footprint of the NFA is clearly identifiable and it does not appear that waste is being landfilled outside of the approved area.

2.3 APPROVED CAPACITY:

Specifics:

Condition No. 74 of the ECA states:

The Owner shall only accept and deposit waste at the SFA as long as there is available capacity as defined by the final contours for the SFA approved by this Approval. This Approval permits disposal of waste at the Site to fill an air space of 2,918,000 cubic metres (including waste, daily and interim cover material) for the SFA.

Condition No. 75 of the ECA states:

The Owner shall only accept and deposit waste at the NFA as long as there is available capacity as defined by the final contours for the NFA approved by this Approval. This Approval permits disposal of waste at the Site to fill an air space of 1,527,000 cubic metres (including waste, daily and interim cover material) for the NFA.

2.4 ACCESS CONTROL:

Specifics:

Access to the Site is controlled by fencing around the perimeter of the Site. Access points have gates with locks to restrict access during non-operational periods. The Site has an attendant on-duty at all times at the weigh scale, tipping face and recycling depot during hours of operation.

2.5 COVER MATERIAL:

Specifics:

Condition No. 94 of the ECA details the requirements for daily, interim and final cover. During the inspection there did not appear to be any violation of these conditions. There are conditions in the ECA that specifically address the use of contaminated soil as cover material and they are discussed below in this report. Condition No. 78 (ii) permits the use of wood chips and compost covers as alternative daily or interim cover.

2.6 WASTE BURNING:

Specifics:

There was no evidence of waste burning at the time of the inspection.

2.7 GROUNDWATER/SURFACEWATER IMPACT:

Specifics:

During the inspection there was no evidence of groundwater or surface water impacts at the Site. The Ministry's Technical Support Section continue to review and provide comments concerning groundwater and surface water monitoring matters related to the Site. These reviews have not identified any impacts to the natural environment requiring corrective actions.

In 2012 the Ministry and City worked together to monitor PCBs on a quarterly basis in the Site's leachate collection system and at the

Peterborough Water Pollution Control Plant. All samples except for one sample from the Site were non-detect for PCBs. One sample indicated a trace amount of PCBs in the leachate collection system. The Ministry is requiring the City to undertake quarterly monitoring for PCBs in the leachate collection system on a quarterly basis in 2013.

2.8 LEACHATE CONTROL SYSTEM:

Specifics:

A leachate control system is required at the Site and has been installed. The operation of the leachate control system was reviewed with Mr. Simmons and appears to be functioning properly. Leachate is collected from the SFA and NFA and discharged in a sewer force main which conveys the leachate to the City of Peterborough Water Pollution Control Plant. City staff have been advised that they shall ensure that operators qualified with the appropriate level of license are responsible for the operation of the sewage works associated with the Site.

2.9 METHANE GAS CONTROL SYSTEM:

Specifics:

A methane gas control system is required at the Site and has been installed. The operation of the methane gas control system was reviewed with Mr. Simmons during the inspection and appears to be functioning properly. The methane is currently burned off using one flare located near the public drop off area. Since the time of the last inspection 24 additional methane gas collection wells have been installed in the SFA. It is being planned that the methane generated from these additional wells and eventually from the NFA will be conveyed to a facility operated by Peterborough Utilities Inc. which will generate electricity. It is anticipated that this facility will be commissioned in April 2013.

2.10 OTHER WASTES:

Specifics:

There was no evidence during the inspection that wastes other than solid non-hazardous were being deposited at the Site. The Site does not appear to have accepted fully treated characteristic waste. The Site has weigh scales and a drop-off area for the residents from within the City and County to drop off waste from small vehicles that is later taken to the active landfill cell. Waste accumulated at the public drop-off area is compacted by a backhoe inside the storage bins. Vehicles then take the full bins to the tipping face. Large vehicles and municipal waste vehicles go directly to the tipping face after weighing in.

Currently, cardboard, metals, drywall, shingles, clean wood, tires, construction and demolition (c & d) waste are separated and shipped off-site for recycling as part of the Site's waste diversion program. The c & d recyclable materials are removed from the Site by M & M Disposal and then once processed the residual waste is returned to the Site to be landfilled. In 2007 the City began issuing fines for unseparated loads of waste. It is currently required that residents separate all organic yard waste (leaves, branches, grass clippings) and this yard waste is taken to the Harper Road composting facility. The City is planning to implement a household organic waste separation program. This program will divert all organic household waste to a different facility. All large appliances such as ovens, refrigerators, washers and dryers are separated and recycled for metal. All refrigerators are stored up-right and a contractor comes in weekly to remove the Freon and apply tags. The Site may accept biosolids from the Peterborough Water Pollution Control Plant. Solid waste from the water treatment process at the Peterborough Water Treatment Plant is disposed at the Site.

2.11 Compliance with the Conditions of Environmental Compliance Approval No. A341508.

17. (a) The Owner shall: (i) Within ninety (90) days of the date of this *Approval*, submit to the Director, for Director's signature, two copies of a completed Certificate of Requirement containing a registerable description of the Property; (ii) Within ten (10) calendar days of receiving the Certificate of Requirement signed by the Director, register the Certificate of Requirement in the appropriate Land Registry Office on title to the Property and submit to the Director the duplicate registered copy immediately following registration; and (b) Pursuant to Section 197 of the Environmental Protection Act, neither the Owner nor any person having an interest in the Property shall deal with the Property in any way without first giving a copy of this *Approval* to each person acquiring an interest in the Property as a result of the dealing.

Inspection observations: A review of the Ministry's records indicates that this condition has not been complied with. Please submit the required Certificate of Requirement to the Director and the District Manager.

27. A copy of the Terms of Reference (for the Peterborough Landfill Public Liaison Committee (PLPLC)) shall be provided to the District Manager within thirty (30) days of issue of this *Approval*. Any changes to the Terms of Reference shall be provided to the District Manager for information purposes.

Inspection observations: This document was due to be submitted to the Ministry on December 15, 2011. A review of the Ministry records indicates that it was not submitted by the City. Please submit a copy of the Terms of Reference to the District Manager.

37. Within 180 days of issuance of this *Approval*, the Owner shall submit to the District Manager a landfill operator's Operations and Maintenance Manual that is consistent with this *Approval* and that identifies the duties to be conducted by staff in key operational areas on a day to day basis. The operator's manual shall include:

- a) Health and safety; b) Best Management Plans for dust, litter and odour; c) Operation and maintenance of the Site; d) Waste acceptance; e) Waste disposal area and development; f) Nuisance management; g) Leachate management; h) Landfill gas management; i) Surface water/Storm water management; j) Inspections and monitoring; k) Complaints; l) a detailed job

description of the duties of a *Competent Supervisor*; and m) Reporting and record keeping; n) The Operations and Maintenance Manual shall be: o) retained at the *Site*; p) kept up to date through periodic revisions; and q) be available for inspection by *Ministry* staff.

Inspection observations: This document was due to be submitted to the Ministry on May 13, 2012. A review of the Ministry records indicates that it was not submitted by the City. During the inspection it was reported that this report was a work in progress.

42.1 At least 2 years prior to closure, the Owner shall submit to the Director for approval, with copies to the District Manager, and the *PLPLC*, a detailed *Site* closure plan pertaining to the termination of landfilling operations at the South Fill Area (SFA), post-closure inspection, maintenance and monitoring, and end use. The plan shall include the following:
a) plan showing *Site* appearance after closure; b) a description of the proposed end use of the *Site*; c) a description of the procedures for closure of the *Site*, including: i) advance notification of the public of the landfill closure; ii) completion, inspection and maintenance of the final cover and landscaping; iii) *Site* security; iv) removal of unnecessary landfill-related structures, buildings and facilities; and v) final construction of any control, treatment, disposal and monitoring facilities for leachate, groundwater, surface water and landfill gas; d) a schedule indicating the time-period for implementing sub-conditions i) to v) above. e) descriptions of the procedures for post-closure care of the *Site*, including: i.) operation, inspection and maintenance of the control, treatment, disposal and monitoring facilities for leachate, groundwater, surface water and landfill gas; ii) record keeping and reporting; and iii) complaint contact and response procedures; f) an assessment of the adequacy of and need to implement the contingency plans for leachate and methane gas; and g) an updated estimate of the contaminating life span of the SFA, based on the results of the monitoring programs to date.

Inspection observations: It appears that the SFA Closure Plan was submitted in December 2010 to the District Office, but it does not appear that it was submitted to Approvals Branch for review, as required. The SFA Closure Plan was required to be approved by the Ministry before closure activities began. This report needs to be submitted to Approvals Branch for formal review and approval.

Closure of the SFA is ongoing and it has been reported that closure of the SFA should be completed by October 2013. Please confirm, to the District office that the ongoing closure of the SFA is being completed in accordance with the originally submitted plan.

43. The SFA and/or the NFA and when applicable, the *Site* as a whole shall be closed in accordance with the closure plan(s) as approved by the *Director*.

Inspection observations: See observations under Condition 42.1. The SFA Closure Plan has not been approved by the Director.

48. Within one hundred and eighty (180) days of issuance of this *Approval*, the Owner shall provide a completed landscape plan for the *Site* to the District Manager with copies to the *PLPLC*.

Inspection observations: This document was due to be submitted to the Ministry on May 13, 2012. A review of the Ministry records indicates that it was not submitted by the City. Please submit a copy of the plan to the District Manager with confirmation that the plan has been submitted to the *PLPLC*.

59. Within 180 days of issue of this *Approval*, the Owner shall develop and submit to the District Manager a Best Management Practices for the control of dust, odour and litter from the *Site*.

Inspection observations: This document was due to be submitted to the Ministry on May 13, 2012. A review of the Ministry records indicates that it was not submitted by the City. Please submit the required Best Management Practices to the District Manager.

76. a) The Owner may receive at the *Site* up to a maximum of 85,000 tonnes per year of waste including contaminated soil for disposal at the *Site*; and b) in the event of an emergency, the Owner may request to the District Manager that the amount allowed to be received in one particular year be increased by 20,000 tonnes and the District Manager has the authority to grant written approval to such a request.

Inspection observations: During the inspection City staff reported that they had exceeded the limit in this condition by 1671 tonnes. This exceedance was as a result of a large amount of contaminated soil being accepted at the *Site* in December 2012. The City has a system which tracks incoming wastes, but does not have a procedure to ensure that the incoming waste is checked regularly to ensure that this condition is not exceeded. A procedure needs to be developed to ensure that this information is reviewed on a regular basis to ensure that this violation does not occur in the future.

78. The following materials, in the corresponding thickness, may be used as an alternative to soil as a daily and intermediate cover: i) non-hazardous contaminated soil that meets the Land Disposal Requirements of Regulation 347 and the *handbook*; and ii) Wood chips and compost covers consisting of processed chipped wood.

Inspection observations: It is reported in the 2011 annual report that shingles were used as alternate cover material. During the inspection it was reported that shingles are no longer used as daily cover material, but may be stock piled for to build roads within the landfill. Shingles accepted at the landfill would be considered a waste material and therefore must be covered daily.

79. The Owner shall keep a record of the delivery of all contaminated soil to the *Site*. The record shall include the following information as a minimum: i) The name and Approval number of the hauler; ii) The name and address of the generator of the waste; iii) The date and time of delivery; and iv) The quantity of waste delivered.

Inspection observations: A review of the current soil acceptance form used by the City reveals that it does not include Approval number of the hauler, the date and time of delivery and the actual amount of waste delivered. It does include contact information, but this may not always be the generator of the waste. The soil acceptance form needs to be updated and a copy submitted to the District Office.

80. The use of non-hazardous contaminated soil for daily/intermediate cover referenced in Condition 78 of this *Approval*, shall be subject to the Owner: a) making sure that the Generator has provided a signed statement with the following information at a minimum to the Owner regarding the contaminated soil including: i) the date; ii) the name of the Generator; iii) Generator Registration number, if the Generator has one; iv) the source of the non-hazardous contaminated soil; v) whether the non-hazardous contaminated soil was ever categorized as a listed or characteristic hazardous waste; vi) any records required by Section 79 and 84 of Regulation 347; vii) if the waste were a characteristic waste but has been treated, a copy of the Land Disposal Restrictions Form required by Regulation 347 or a notification stating that the waste was a characteristic waste and that the waste can be land disposed as per Sections 79 and 84 of Regulation 347; and viii) analytical test results of the contaminated soil; and b) taking all reasonable precautions to insure that the requirements of the *Land Disposal Restrictions* and the *Land Disposal Treatment Requirements* outlined in Regulation 347 are being followed at the *Site*.

Inspection observations: The City is currently not in compliance with this condition. The City does not require generators to submit a signed statement as described above. The soil acceptance form needs to be updated and a copy submitted to the District Office.

81. The volume of contaminated soils stored at the *Site* shall not exceed the three months limitation of the annual daily/interim cover material requirements as determined by the previous annual report. The Owner shall ensure at all times that the stockpiled contaminated soils shall produce no off-site nuisance odours.

Inspection observations: During the inspection City staff advised that in December 2012 approximately 30000 tonnes of contaminated soil had been received at the site. City staff report that this amount would exceed the three month limitation by three to four months. The City currently does not have a procedure to ensure compliance with this condition. A procedure must be developed and submitted to the District Office to ensure compliance with this condition.

82. In the event of a reported incident of odour from the contaminated soil at the *Site* which causes a nuisance and poses a threat to the health and safety of person(s) and the environment, the Owner shall forthwith implement a contingency plan to immediately abate the nuisance odour and/or run-off that may originate from the stockpile.

Inspection observations: Please provide a copy of the contingency plan discussed in this condition. This contingency plan may be incorporated with other contingency or mitigation plans or be part of the Operations and Maintenance Manual required by Condition 37.

85. Prior to receipt at the *Site*, each source of contaminated soils which are to be used as daily or intermediate cover shall be tested to determine if the soils meet the criteria in this *Approval* and Regulation 347. A copy of the test results shall be kept in the daily records for the *Site*.

Inspection observations: Copies of the analysis for contaminated soil accepted at the Site are stored electronically at the Site. However, the current system does not comply with this condition because it is not tracked daily. These daily records need to be incorporated with the soil acceptance condition noted above. Please submit a plan to the District Office outlining how the City will ensure compliance with this Condition.

105. Within 180 days of issue of this *Approval*, the Owner shall develop and implement a program to inspect waste to ensure that the waste is of a type approved for acceptance under this *Approval*.

Inspection observations: Adequate inspection of the incoming waste appears to be occurring. However, there is no written procedure at this time. Please submit a copy of this procedure to the District Office.

117. As-built drawings of the leachate control system for the North Fill area shall be submitted to the District Manager within 60 days of issue of this *Approval* or within sixty (60) days of the completion of the leachate control system for the North Fill area.

Inspection observations: This document was due to be submitted to the Ministry on January 14, 2012. A review of the Ministry records indicates that it was not submitted by the City. Please submit a copy of the as-built drawing to the District Office.

121. The owner shall inspect the *Site* monthly for the following items but not limited to these items: Erosion rills; General settlement areas or depressions; Shear and tension cracks; Condition of surface water drainage works; Erosion and sedimentation in surface water drainage system; Presence of any ponded water; Adequacy of cover material; Evidence of vegetative stress, distressed poplars or side slope plantings; Condition of groundwater monitoring wells and gas wells; Presence of insects, vermin, rodents and scavenging animals; The amount of litter at the *Site*; Condition of fence surrounding the *Site*; and, General *Site* appearance.

Inspection observations: City staff currently have a monthly Site inspection form, but it does not contain all of the items contained in this Condition. The monthly inspection form needs to be updated to include all of the items in this Condition and a copy of the new form submitted to the District Office.

123. A training plan that is sufficient for people that operate any aspect of the *Site* to become a *Competent Person* shall be developed and implemented by the Operator. Only Competent People shall operate any aspect of the *Site* or carry out any activity required

under this *Approval*. Workers at the *Site* shall provide proof of training to the Ministry upon request.

Inspection observations: Please provide a list of competent people working at the site and their corresponding training records to the District Office.

125. d) An up to date list of *Competent People* shall be kept at the *Site* and be readily available for inspection by a *Provincial Officer*;

Inspection observations: Please provide a copy of this list to the District Office and confirm it is located at the *Site*.

e) The Owner shall notify in writing the District Manager of the name(s) of the *Competent Supervisor* or *Competent Supervisors* within 180 days of issue of this *Approval*; and

Inspection observations: This document was due to be submitted to the Ministry on May 13, 2012. A review of the Ministry records indicates that it was not submitted by the City. The definition of competent supervisor in the ECA includes the following: *is/are an employee(s) of the City of Peterborough or in the alternative, is an agent of the City of Peterborough. It would be the Ministry recommendation that a competent supervisor is at the Site at all times when the Site is open or landfill operations are taking place.*

127. A record of the inspections shall keep in a daily log book or a dedicated electronic file that includes:

- the name and signature of person that conducted the inspection;
- the date and time of the inspection;
- the list of any deficiencies discovered;
- the recommendations for remedial action; and
- the date, time and description of actions taken.

Inspection observations: City staff currently have a daily Site inspection form, but it does not contain all of the items contained in this condition. The daily inspection form needs to be updated to include all of the items in this Condition and a copy of the new form submitted to the District Office.

129. The Owner shall ensure all groundwater monitoring wells are properly capped, locked and protected from damage when not in use.

130. Any groundwater monitoring wells included in the monitoring program shall be assessed, repaired, replaced or decommissioned as required.

131. The Owner shall repair or replace any monitoring well which is destroyed or in any way made inoperable for sampling such that no more than one sampling event is missed.

132. All monitoring wells that are no longer required as part of the groundwater monitoring program shall be decommissioned in accordance with good standard practice that will prevent contamination through the abandoned well and in accordance with Ontario Regulation 903.

133. A report on the decommissioning referred to in Condition 132 of this *Approval* shall be provided in the annual monitoring report for the period during which the well was decommissioned.

Inspection observations related to Conditions 128, 129, 130, 131, 132, and 133: Please provide a report on Conditions 129, 130, 131, 132, and 133 indicating if the City is in compliance with these conditions. During the inspection damaged monitoring wells were observed.

Please confirm that the report required by Condition 133 is contained in the annual report. If the required report is not contained in the annual report then submit a copy to the District Manager.

140. If the District Manager determines that leachate collection is not successful and that the monitoring program indicates that contamination will potentially be migrating off-site, or, if leachate springs and/or outbreaks down gradient of manhole J1 occur, the Owner must install and operate the contingency program outlined in the appended documents as defined by Items 24, 29, 36, 37 and 38 of Schedule "A" of this *Approval* and as instructed by the District Manager. The District Manager may, at any time, instruct the Owner to implement the recommendations made in the monitoring report.

Inspection observations: During the inspection City staff could not provide the location of manhole J1. Please submit a drawing showing the location of manhole J1 to the District Office.

144. b) Within sixty (60) days of the flare equipment operating to control landfill gas, an acoustic audit to measure the noise emissions from the flare equipment shall be conducted by the Owner. The Owner shall report the results of the acoustic audit to the Director within 120 days of the flare equipment becoming operational; and

Inspection observations: A review of the Ministry records indicates that it was not submitted by the City. During the inspection City reported that the audit had been conducted. Please submit a copy of the acoustic audit to the District Office and the Director.

149. No later than ninety (90) days after the commissioning of the detailed design of the landfill gas collection and flaring system, the

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Owner/Operator shall update the *Site's* Operations and Maintenance Manual required by Condition 37 of this *Approval* to reflect the development and operation of the landfill gas collection and flaring system expansion, with respect to details on inspection and maintenance schedules, documentation procedures, shut-down procedures, Ministry contact procedures, and flare operation and maintenance. A copy of the Manual shall be provided to the District Manager and a copy retained on-*Site* and made available to Ministry staff upon request.

Inspection observations: As it relates to the NFA this condition has not been complied with. A review of the Ministry records indicates that it was not submitted by the City. Please submit a copy of the revised Operations and Maintenance Manual to the District Office.

154. Within ninety (90) days of commissioning, the detailed design of the landfill gas collection and flaring system, the Owner/Operator shall submit to the Director for approval, a written report describing a plan and implementation schedule for landfill gas and odour management in conjunction with *Site* development and progressive rehabilitation. The plan shall include, as a minimum: a) A description of any anticipated progress of final cover placement until *Site* closure, based on progressive rehabilitation of the *Site*; and b) A program to evaluate the effectiveness of the landfill gas collection system which shall identify areas of the *Site* which require upgrading, alteration, or additional collection and control facilities. The program shall include an assessment to be conducted at least once a year, of the *Site's* conformance with an operating code of practice which includes the development of system design parameters, details on the management of the system to satisfy the design parameters and a description of rationale for landfill gas flow adjustments to optimize system operation.

Inspection observations: A review of the Ministry records indicates that it was not submitted by the City as it relates to the NFA and the 25 new gas collection wells recently installed in the SFA. Please submit a copy of the report to the Director and the District Office.

155. During construction and continued use of the landfill gas collection system, the Owner/Operator shall implement as a minimum, odour control plan. The effectiveness of the odour control plan shall be monitored and evaluated regularly, and updated or amended as necessary, based on operational experience and odour complaints received.

Inspection observations: Please submit a copy of the odour control plan to the District Office.

156. As a component of the Annual Monitoring and Operation Report for the *Site*, the Owner/Operator shall include a written report covering each year's construction season. The report shall detail the construction activities, QA/QC program carried out for the construction, as-built drawings of the landfill gas collection and flaring system to date, including a description and reasons for any changes to the design of the landfill gas collection and flaring system.

Inspection observations: The annual report does not appear to contain as-built drawings showing the landfill gas collection and flaring system. Please submit a copy of the as-built drawings of the landfill gas collection system to the District Office.

158. Within 180 days of issue of this *Approval*, the Owner/Operator shall prepare and submit to the Director for approval, copied to the District Manager, a monitoring program for landfill gas to monitor the performance of the landfill gas collection and flaring system. As a minimum, the landfill gas monitoring program shall identify the monitoring frequency, parameters, locations, etc., and shall be implemented promptly as approved, and as per written recommendations of the District Manager through the review of the Annual Monitoring Reports, and any related EPA requirements.

Inspection observations: This document was due to be submitted to the Ministry on May 13, 2012. A review of the Ministry records indicates that it was not submitted by the City. Please submit a copy of the monitoring program to the Director and the District Manager.

159. Components of the active gas collection system shall be monitored on an as-needed basis, with a routine frequency of once per month for the full collection field. Any observed deficiencies/problems shall be repaired as soon as practicable and a summary of remedial actions carried out, shall be reported in the Annual Monitoring and Operation Report, listed in Condition 186 of this *Approval*.

Inspection observations: This information could not be located in the annual report. Please submit this information to the District Office.

161. Buildings and structures existing or to be built on-*Site* shall be situated, constructed and monitored in a manner which minimizes the potential for explosive hazards due to combustible gas. Appropriate methane detection and alarm equipment, shall be installed and maintained for all enclosed, unvented buildings and/or structures on-*Site* which at times are occupied by people.

Note: For the purposes of Condition 161, vented building or structure is a building or structure built with its floor sealed and elevated above ground and having adequate air space underneath the floor of the building or structure.

Inspection observations: The only building that would be considered a vented building or structure as defined above is reported to be the scale house which is elevated above the ground surface.

The *Site* is defined as: "*Site*" and "*waste disposal site*" means the 27.5 hectare Waste Fill Area (9.5 hectares North Fill Area and 18 hectares South Fill Area) being more particularly described as PART OF LOTS 14 and 15, CONCESSION 14, OTONABEE, TOWNSHIP OF OTONABEE-SOUTH MONAGHAN), located within a total site area of 158 hectares which includes a 15 hectare groundwater easement zone, in which waste may be deposited pursuant to this *Approval* in accordance with the plans and

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specifications described on Schedule "A"; and

The 158 hectares are more particularly described as PART LOT 13, 14 and 15, CONCESSION 14 and PART OF LOTS 14 and 15, CONCESSION 13, OTONABEE, TOWNSHIP OF OTONABEE-SOUTH MONAGHAN;

Please confirm that all building or structures existing on the Site comply with this condition. This may include houses that the City is renting.

162. Subsurface migration of combustible methane gas shall meet the following limits, as required by Ontario Reg. 232/98: (a) The concentration of methane gas must be less than 2.5 percent by volume at the limits of the property boundary;

Inspection observations: During the inspection City staff reported that they currently do not have methane detection wells on the north and west boundaries of the landfill footprint, but reported that they would be installed in 2013.

170. If at any time, the *Owner* receives complaints regarding the operation of the *Site*, the *Owner* shall respond to these complaints according to the following procedure: a) The *Owner* shall record and number each complaint, either electronically or in a log book, and shall include the following information: the nature of the complaint, the name, address and the telephone number of the complainant if the complainant will provide this information, the time and date of the complaint, specific details of operations that were occurring, any changes from normal operations, types of waste loads (including source) and other on-*Site* activities;

Inspection observations: The City currently has a complaint response form, but is not using it. The complaint form needs to be updated to ensure that it meets the requirements of this Condition. Please submit a copy of the updated complaints form to the District Office. Please ensure that the complaint form is used in the future.

b) The *Owner*, upon notification of the complaint, shall initiate appropriate steps to determine the validity of the complaint. If the complaint is determined to be valid, investigate all possible causes of the complaint, and proceed to take the necessary actions to eliminate the cause of the complaint. The *Owner* shall forward a formal reply to the complainant; and

Inspection observations: During the inspection City staff reported that they have not been forwarding a formal reply to the complainant. A formal response either by email or mail would meet the requirement of this Condition.

c) The *Owner* shall complete and retain on-*Site* a report written within one (1) week of the complaint date, listing the actions taken to resolve the complaint and any recommendations for remedial measures, and managerial or operational changes to reasonably avoid the recurrence of similar incidents.

Inspection observations: The City currently has a complaint response form, but is not using it. The complaint form needs to be updated to ensure that it meets the requirements of this Condition. Please submit a copy of the updated complaints form to the District Office. Please ensure that the complaint form is used in the future.

171. The *Owner* shall designate a person to receive any complaints and to respond with a written notice of action as soon as possible. The *Owner* shall post the *Site* complaints procedure at the *Site* entrance. All complaints and the *Owner's* actions taken to remedy the complaints shall be summarized in the Annual Report.

Inspection observations: Please advise the District Office for the designated person is to receive complaints. A complaints procedure is not posted at the Site entrance. The City shall post the complaints procedure at the Site entrance. A review of the 2011 Annual Report reveals that there does not appear to be a discussion about complaints received at the Site in 2011. Please submit the information related to 2011 to the District Office.

172. All complaints received by the *Owner* related to the environmental performance of the *Site*, including environmental performance related complaints that are determined by the *Owner* to be not valid, are to be reported within twenty-four (24) hours of receipt to the District Office. Complaints shall be reported to the *PLPLC* at the next *PLPLC* meeting.

Inspection observations: The Ministry has not been always contacted when the City receives public complaints. All public complaints related to environmental matters be reported to the District Office. Please confirm that at each meeting of the *PLPLC* that public complaints; are discussed with the *PLPLC*. Please submit a copy of the *PLPLC* minutes which document this discussion.

173. Daily *Site* inspection records in the form of a written log or a dedicated electronic file shall include but not be limited to the following:
i) the type, geographic source, date and time of arrival, hauler, and quantity (tonnes) of all waste received at the *Site*; ii) the area of the *Site* in which waste disposal operations are taking place; iii) calculation of the total quantity (tonnes) of waste received at the *Site* during each operating day and each operating week; iv) itemization of each load of contaminated soil delivered to the *Site* as is allowed by Condition 7B of this *Approval*; v) results of any test done to determine the acceptability of waste at the *Site*; vi) a reference for each load of solid non-hazardous industrial waste received, to the client and type of solid non-hazardous industrial waste; vii) a record of any litter collection activities and the application of any dust suppressants; viii) a record of the daily inspections; ix) a description of any out-of-service period of any control, treatment, disposal or monitoring facilities, the reasons for the loss of service, and action taken to restore and maintain service; x) type and amount of daily, intermediate and final cover used; xi) emergency situations and actions taken to resolve them; and xii) any other pertinent information required by the District Manager.

Inspection observations: Current daily inspections do not include all of the above items. Please update the Daily Site Inspection

form and submit a copy to the District Office.

184. The Annual Report shall include the following:

i) an updated waste disposal site plan showing the areas of fill, buffer zones, present contours, monitoring locations and surface water control systems;

Inspection observations: The Ministry could not locate a plan showing area of waste filling in 2011 or a plan showing buffer zones/ area as defined by the ECA.

ii) a calculation of the remaining capacity of the *Site*, an estimate of the remaining *Site* life and a comparison of actual capacity used to approved *Site* capacity;

Inspection observations: With regard to Table B.1 does the Total Waste include contaminated soil? Same question for Table 2.1.

v) procedures at the waste disposal site;

Inspection observations: This information could be located in the annual report.

vi) a summary of any equipment changes at the site;

Inspection observations: There is a list of equipment in Section 3.4, there was no list of any equipment changes or a note to suggest that there had not been any equipment changes.

vii) a summary of any occurrences or incidents where this *Approval* was not complied with, the reason for non-compliance and the measures to be implemented to ensure that future non-compliance does not occur;

Inspection observations: This information could be located in the annual report.

ix) results in tabular format and an interpretive analysis of the results of all leachate, groundwater, surface water and landfill gas monitoring and flaring, including an assessment of the need to amend the monitoring programs;

Inspection observations: The following from the above condition could not be located: landfill gas monitoring and flaring, including an assessment of the need to amend the monitoring programs;

xv) total leachate volumes collected weekly, monthly and annually and the disposition of the collected leachate;

Inspection observations: Monthly volumes are presented in Table 4.1. However, a weekly breakdown of volumes could not be located.

xvii) areas of landfilling operation during the reporting period;

Inspection observations: This information could be located in the annual report.

xviii) areas of intended operation during the next reporting period;

Inspection observations: This information could be located in the annual report.

xix) areas of excavation during the reporting period;

Inspection observations: This information could be located in the annual report.

xx) the progress of final cover, vegetative cover, and any intermediate cover application;

Inspection observations: This information could be located in the annual report.

xxi) facilities installed during the reporting period;

Inspection observations: This information could be located in the annual report.

xxii) *Site* preparations and facilities planned for installation during the next reporting period;

Inspection observations: This information could be located in the annual report.

xxiv) calculations of the amount of contaminated soil used as alternative cover at the *Site*;

Inspection observations: This information could not be located in the 2011 annual report.

xxv) the amount of contaminated soil stored at the *Site* at the end of the previous year;

Inspection observations: This information could not be located in the 2011 annual report.

xxvi) summary of the weekly, maximum daily and total annual quantity (tonnes) of waste received at the Site ;

Inspection observations: the weekly, maximum daily tonnes of waste could not be located.

xxvii) summary of any complaints received and the responses made;

Inspection observations: This information could be located in the annual report.

xxviii) a discussion of any operational problems encountered at the Site and corrective action taken;

Inspection observations: This information could be located in the annual report.

xxix) a report on the status of all monitoring wells and a statement as to compliance with Ontario Regulation 903;

Inspection observations: This information could not be located in the 2011 annual report.

xxx) summary of inspections undertaken at the Site;

Inspection observations: This information could be located in the annual report.

xxxi) a summary of recycling efforts undertaken at the public drop-off area including the amount of recyclable received;

Inspection observations: This information could be located in the annual report.

xxxii) a summary of the requirements outlined in Condition 80 of this Approval regarding the use of contaminated soil for daily/intermediate landfill cover;

Inspection observations: This information could not be located in the 2011 annual report.

2.12 Review of Recommendations in the 2011 Annual Report

In Section 11.0 on page 48 of the 2011 Annual Report for the Site there are a number of recommendations. A review of these recommendations during the inspection revealed that recommendations number 5 and 7 had not been completed as recommended.

It is the Ministry expectation that recommendations made by the City's consultant to the City will be implemented. Please submit an action plan to the District Manager which details when these recommendations will be implemented.

3.0 REVIEW OF PREVIOUS NON-COMPLIANCE ISSUES

1. By October 29, 2010, the Corporation of the City of Peterborough shall classify the sewage works located at the CCPWMF in accordance with Ontario Regulation 129/04. A copy of the required application form shall be submitted to the undersigned and the Ontario Water and Wastewater Certification Office. The required forms can be located at the following website: <http://www.owwco.ca/classification.htm>.

Within seven (7) days of receiving the approved classification form from the Ontario Water and Wastewater Certificate Office, the Corporation of the City of Peterborough shall ensure that an operator qualified with the appropriate level of license, as required by Ontario Regulation 129/04, is responsible for the operation of the sewage works associated with the CCPWMF. Within seven (7) days of retaining a certified operator, the Corporation of the City of Peterborough shall report to the undersigned Provincial Officer who the licensed operator is and shall provide a copy of their valid license.

Inspection observations: The City applied to classify the sewage works in October 2010 and received a Wastewater Collection Facility Class II for the Site on November 11, 2010. During the inspection Mr. Simmons reported that he has obtained his Class 1 license and is working to obtain his Class 2 license. The ORO is currently Terry Babcock, who holds a Class 2 license and works for the City of Peterborough.

2. In accordance with Condition No. 6, 27, and 28 of Provisional Certificate of Approval No. A341508 the Corporation of the City of Peterborough shall ensure that the appropriate closure plan is submitted to the Ministry, within the appropriate timeframe, for the South Fill Area.

Inspection observations: On December 21, 2010, the South Fill Area Closure Plan was submitted to the District Office. It appears that the report was not submitted to the Ministry's Approvals Branch for review. Closure of the South Fill Area is currently ongoing without approval from the Ministry.

3. During the site inspection the cover applied to the South Fill Area was in excellent condition with only minor areas where waste was

observed visible through the cover material. The active face was in excellent shape as it was being kept small and confined. The Ministry expects that the site cover material and active face will be kept in similar condition in the future. The Corporation of the City of Peterborough shall apply additional cover material to those areas noted during the inspection which required additional cover material.

Inspection observations: The City of Peterborough completed this action item shortly after the inspection.

4. Should any area of either the North Fill Area or the South Fill Area be left dormant for more than three months then the Ministry requires that a minimum of 30 centimeters of cover material is placed on the area and that vegetation of a height greater than 20 centimeters be established. In this case with the South Fill Area being left dormant in the winter months it is expected that a vegetative cover will be established as soon as reasonably possible in the spring of 2011.

Inspection observations: This action item was acknowledged by the City of Peterborough. A vegetative cover was not established.

5. After ninety(90) days of operation of the North Fill Area the Corporation of the City of Peterborough shall submit a report to the undersigned Provincial Officer which states that the Corporation of the City of Peterborough is operating the North Fill Area in full compliance with the document entitled: "North Fill Area, Design and Operations Report", authored by Earth Tech and dated January 2004. Should the Corporation of the City of Peterborough not be operating the North Fill Area in accordance with the document entitled: "North Fill Area, Design and Operations Report", authored by Earth Tech and dated January 2004, the report to the undersigned Provincial Officer shall contain an application to amend the Design and Operations Report to reflect the actual operation of the site and should this be the case the application shall be submitted to the Ministry's Environmental Assessment and Approvals Branch in a completed format with the appropriate fee.

Inspection observations: This action item appears to have been addressed. See correspondence from the City of Peterborough dated January 25, 2011. Correspondence indicates that the North Fill Area was constructed properly.

6. After ninety(90) days of operation of the North Fill Area the Corporation of the City of Peterborough shall submit a report to the undersigned Provincial Officer. The report shall include as-built drawings. The report shall document all construction, QA/QC activities and procedures, and confirm that the site conditions for the North Fill Area and details of the construction of the North Fill Area are in accordance with the approved design plans and specifications for the site, and including sufficient baseline data from existing and new monitoring installations to support environmental monitoring programs for the site.

Inspection observations: This action item appears to have been addressed. See correspondence from the City of Peterborough dated January 25, 2011. Correspondence indicates that the North Fill Area was constructed properly.

7. Excavation within and preparation of the foundation soils underlying the North Fill Area and construction of the base liner of the leachate containment system in a new cell of the North Fill Area shall be inspected by a suitably qualified geotechnical professional engineer to ensure that preparation and construction is completed in accordance with approved detailed design plans, technical specifications and QA/QC activities and procedures. The results of inspections shall be included in the report required by Action Item No. 6 of this inspection report. No landfilling of wastes should occur on any portion of the North Fill Area liner and leachate collection system until the Director and District Manager have received an inspection report from the engineer indicating that the portion of the base liner and the leachate containment system has been constructed as required by Provisional Certificate of Approval No. A341508.

Inspections with respect to the base liner system shall include assessment of the following:

- a. The adequacy of extracted clay material from the landfill excavation and/or clayey material for base liner construction and leachate/liner compatibility;
- b. The acceptability of foundation conditions to ensure adequate bearing capacity and slope stability, adequate provisions to prevent basal heave or blowout, absence of standing water, and absence of potential conduits for leachate and landfill gas migration; and
- c. Compliance with liner installation specifications and QA/QC procedures related to items such as grain size distribution and clay content of native and borrow materials, clod size limits, removal of stones, Atterberg limits, compaction moisture content, compaction effort, required Standard Proctor Density, lift thickness, scarification between lifts, permeability, and procedures to avoid desiccation of the clay liner.

Inspection observations: This action item has been addressed. See correspondence dated October 26, 2010, from the City of Peterborough.

8. Commencing immediately the Corporation of the City of Peterborough shall during routine monitoring of the leachate; sample and test for PCBs. PCBs samples shall be collected at a minimum of quarterly in 2010 and 2011. PCBs samples are not required to be collected in 2012 unless specified by the Ministry. The results of the analysis shall be included in the required annual reports.

Inspection observations: A review of the 2011 Annual Report reveals that the City did not collect samples for PCB analysis in the leachate collection system. PCBs shall be monitored quarterly at the Site in the Leachate Collection System. The results shall be reported on in the 2013 Annual Report. Please confirm to the District Office that this will be done.

9. All modifications to the leachate collection system and methane gas collection system, including venting to the methane gas collection system shall be included in the leachate collection system and the methane gas collection system drawings in the 2010 annual report. Future modifications to these systems shall be documented on an ongoing basis in future annual reports.

Inspection observations: There are now conditions in the ECA which are similar to this action item. Condition No. 117 required the submission of as built drawing of the leachate collection system to be submitted to the Ministry. This does not appear to have been done.

4.0 SUMMARY OF INSPECTION FINDINGS (HEALTH/ENVIRONMENTAL IMPACT)

Was there any indication of a known or anticipated human health impact during the inspection and /or review of relevant material, related to this Ministry's mandate?

No

Specifics:

No additional comments.

Was there any indication of a known or anticipated environmental impact during the inspection and /or review of relevant material ?

No

Specifics:

No additional comments.

Was there any indication of a known or suspected violation of a legal requirement during the inspection and/or review of relevant material which could cause a human health impact or environmental impairment ?

Yes

Specifics:

During the inspection it was identified that the Site had received waste in excess of the amount of waste that is permitted to be accepted annually at the Site. The South Fill Area is being closed without first obtaining approval from the Ministry.

Was there any indication of a potential for environmental impairment during the inspection and/or the review of relevant material ?

Yes

Specifics:

During the inspection non-compliance with Conditions 17, 27, 37, 42.1, 43, 48, 59, 76, 78, 79, 80, 81, 82, 85, 105, 117, 121, 123, 125, 127, 129, 130, 132, 133, 140, 144, 149, 154, 155, 156, 158, 159, 161, 162, 170, 171, 172, 173, and 184 of Amended Environmental Compliance Approval No. A341508. The inspection has revealed significant non-compliance and as such there is a potential for environmental impairment.

Was there any indication of minor administrative non-compliance?

Yes

Specifics:

No additional comments.

5.0 ACTION(S) REQUIRED

1. The Corporation of the City of Peterborough shall provide a copy of this inspection report to all members of the Peterborough Landfill Public Liaison Committee. A copy of the correspondence to the members shall be sent to the District Office.
2. By April 30, 2013, the Corporation of the City of Peterborough shall submit to the undersigned Provincial Officer an Action Plan. The Action Plan shall detail the action(s) to be taken by the Corporation of the City of Peterborough to rectify all non-compliance items identified in this inspection report. The Action Plan shall include a detailed list of dates that the Corporation of the City of Peterborough will be in compliance with the non-compliance items identified in this inspection report.

6.0 OTHER INSPECTION FINDINGS

There are no other inspection findings at this time.

7.0 INCIDENT REPORT

Applicable
6521-968JKQ

8.0 ATTACHMENTS

PREPARED BY:
Environmental Officer:
Name:
District Office:
Date:
Signature

Chrls Johnston
Peterborough District Office
2013/03/28



REVIEWED BY:
District Supervisor:
Name:
District Office:
Date:

David Bradley
Peterborough District Office
2013/03/28

Signature:



File Storage Number: SI

Note:

"This Inspection report does not in any way suggest that there is or has been compliance with applicable legislation and regulations as they may apply to this facility. It is, and remains, the responsibility of the owner and/or the operating authority to ensure compliance with all applicable legislative and regulatory requirements"

ATTACHMENT B

**ACTION PLAN IN RESPONSE TO
MOE INSPECTION REPORT**

Category 1 - Items previously provided to MOE in support of earlier Cs of A, Schedules to former Cs of A, or Annual Reports					
ECA Cond #	Condition	MOE Comment	City Action Plan	Schedule to Complete Action	Comment
17 (a)	(a) The Owner shall: (i) Within ninety (90) days of the date of this <i>Approval</i> , submit to the Director, for Director's signature, two copies of a completed Certificate of Requirement containing a registerable description of the Property; (ii) Within ten (10) calendar days of receiving the Certificate of Requirement signed by the Director, register the Certificate of Requirement in the appropriate Land Registry Office on title to the Property and submit to the Director the duplicate registered copy immediately following registration; and (b) Pursuant to Section 197 of the Environmental Protection Act, neither the Owner nor any person having an interest in the Property shall deal with the Property in any way without first giving a copy of this <i>Approval</i> to each person acquiring an interest in the Property as a	A review of the Ministry's records indicates that this condition has not been complied with. Please submit the required Certificate of Requirement to the Director and District Manager.	A Certificate of Registration for the original site was filed. The City is preparing a Certificate of Requirement, containing a registerable description of the current property, for submission to the Director for signature, and will register the signed Certificate in the Land Registry Office. The City will submit the duplicate registered copy of the Certificate to the Director and MOE District Manager.	15-May-13	
27	A copy of the Terms of Reference shall be provided to the District Manager within thirty (30) days of issue of this <i>Approval</i> . Any changes to the Terms of Reference shall be provided to the District Manager for information purposes	This document was due to be submitted to the Ministry on December 15, 2011. A review of the Ministry records indicates that it was not submitted by the City. Please submit a copy of the Terms of Reference to the District Manager.	This refers to the terms of reference for the liaison committee. It was revised on March 8, 2011. Liaison Committee Terms of Reference to be provided to MOE District Manager	15-May-13	Updated terms of Reference (if any) to be provided by May 15, 2013
42.1	At least 2 years prior to closure, the Owner shall submit to the Director for approval, with copies to the District Manager, and the <i>PLPLC</i> , a detailed <i>Site</i> closure plan pertaining to the termination of landfilling operations at the South Fill Area (SFA), post-closure inspection, maintenance and monitoring, and end use. The plan shall include the following: a) plan showing Site appearance after closure; b) a description of the proposed end use of the Site; c) a description of the procedures for closure of the Site, including: i) advance notification of the public of the landfill closure; ii) completion, inspection and maintenance of the final cover and landscaping; iii) Site security; iv) removal of unnecessary landfill-related structures, buildings and facilities; and v) final construction of any control, treatment, disposal and monitoring facilities for leachate, groundwater, surface water and landfill gas; d) a schedule indicating the time-period for implementing sub-conditions i) to v) above; e) descriptions of the procedures for post-closure care of the Site, including: i) operation, inspection and maintenance of the control, treatment, disposal and monitoring facilities for leachate, groundwater, surface water and landfill gas; ii) record keeping and reporting; and iii) complaint contact and response procedures; f) an assessment of the adequacy of and need to implement the contingency plans for leachate and methane gas; and g) an updated estimate of the contaminating life span of the SFA, based on the results of the monitoring programs to date.	It appears that the South Fill Area Closure Plan was submitted in December 2010 to the District Office, but it is not clear if it was submitted to Approvals Branch for review, as required. The SFA Closure Plan was required to be approved by the Ministry before closure activities began. This Report needs to be submitted to Approvals Branch for formal review and approval. Closure of the SFA is on-going and it has been reported that closure of the SFA should be completed by October 2013. Please confirm to the District Office e that the on-going closure of the SFA is being completed in accordance with the originally submitted plan.	The SFA Closure Plan was previously sent to the MOE District Office. The City is currently updating the SFA Closure Plan to include a detailed Landscaping Plan. The City will forward the revised SFA Closure Plan to the Approvals Branch for formal review and approval and to the Peterborough District Office. The City is closing the SFA in accordance with the SFA Closure Plan.	31-May-13	UEM to submit revised SFA Closure Plan to Approvals Branch and District Office
48	Within one hundred and eighty (180) days of issuance of this <i>Approval</i> , the Owner shall provide a completed landscape plan for the <i>Site</i> to the District Manager with copies to the <i>PLPLC</i> .	This document was due to be submitted to the Ministry on May 13, 2012. A review of the Ministry records indicates that it was not submitted by the City. Please submit a copy of the plan to the District Manager with confirmation that the plan has been submitted to the <i>PLPLC</i> .	The SFA Closure Plan was previously sent to the MOE District Office. The City is currently updating the SFA Closure Plan to include a detailed Landscaping Plan. The City will forward the revised SFA Closure Plan to the Approvals Branch and Peterborough District Office. A copy of the revised SFA Closure Plan will be sent to the <i>PLPLC</i> .	31-May-13	UEM to submit revised SFA Closure Plan to Approvals Branch and District Office
117	As-built drawings of the leachate control system for the North Fill area shall be submitted to the District Manager within 60 days of issue of this <i>Approval</i> or within sixty (60) days of the completion of the leachate control system for the North Fill area.	This document was due to be submitted to the Ministry on January 14, 2012. A review of the Ministry records indicates that it was not submitted by the City. Please submit a copy of the as-built drawing to the District Office.	It is our understanding that these records were previously submitted to MOE. A set of record drawings will be provided to the MOE District Manager if required.	Digital Drawings to be sent by May 15, 2013. If required a hard copy (full-size drawings) can be sent to the District Office	MOE to advise if they need the information sent again and whether they need full size or 11 x 17 or digitals
125 d	An up to date list of <i>Competent People</i> shall be kept at the <i>Site</i> and be readily available for inspection by a <i>Provincial Officer</i> ;	Please provide a copy of this list and confirm it is located at the <i>Site</i> .	Craig Simmons is the designated Competent Person responsible for site operations on behalf of the City. He is supported by Terry Babcock, Brian Bridgewater and Don Briant who work at the WWTP. A list of competent staff will be included in the Landfill Operations and Maintenance Manual a copy of which will be located on site.	List of Competent staff to be included in O&M Manual	
125 e	The Owner shall notify in writing the District Manager of the name(s) of the <i>Competent Supervisor</i> or <i>Competent Supervisors</i> within 180 days of issue of this <i>Approval</i> , and	This document was due to be submitted to the Ministry on May 13, 2012. A review of the Ministry records indicates that it was not submitted by the City. The definition of competent supervisor in the ECA includes the following: is/are an employee(s) of the City of Peterborough or in the alternative, is an agent of the City of Peterborough; It would be the Ministry recommendation that a competent supervisor is at the <i>Site</i> at all times when the <i>Site</i> is open or landfill operations are taking place.	Craig Simmons is the designated Competent Person responsible for site operations on behalf of the City. He is supported by Terry Babcock, Brian Bridgewater and Don Briant who work at the WWTP. A list of competent staff will be included in the Landfill Operations and Maintenance Manual a copy of which will be located on site.	List of Competent staff to be included in O&M Manual	List of Competent staff will be in the Landfill Operation and Maintenance Manual currently being developed..

Category 1 - Items previously provided to MOE in support of earlier Cs of A, Schedules to former Cs of A, or Annual Reports			City Action Plan	Schedule to Complete Action	Comment
ECA Cond #	Condition	MOE Comment			
140	If the District Manager determines that leachate collection is not successful and that the monitoring program indicates that contamination will potentially be migrating off-site, or, if leachate springs and/or outbreaks down gradient of manhole J1 occur, the Owner must install and operate the contingency program outlined in the appended documents as defined by Items 24, 29, 36, 37 and 38 of Schedule "A" of this Approval and as instructed by the District Manager. The District Manager may, at any time, instruct the Owner to implement the recommendations made in the	During the inspection City staff could not provide the location of manhole J1. Please submit a drawing showing the location of manhole J1 to the District Office.	J1 is located between manholes T1 and T2 as shown on drawing C1 in appendix C of the 2011 annual report	Complete. To be included in every Annual Report	Annual Reports will continue to show and update engineered facilities drawing
156	As a component of the Annual Monitoring and Operation Report for the Site, the Owner/Operator shall include a written report covering each year's construction season. The report shall detail the construction activities, QA/QC program carried out for the construction, as-built drawings of the landfill gas collection and flaring system to date, including a description and reasons for any changes to the design of the landfill gas collection and flaring system	The annual report does not appear to contain as-built drawings showing the landfill gas collection and flaring system. Please submit a copy of the as-built drawings of the landfill gas collection system to the District Office.	Drawing 7.1 in the Annual Report shows the plan layout based on the layout of the system at the end of each year. Changes made to the site layout are reported in the Annual Reports. As built drawings for the original GCS are contained in the original GCS O&M Manual. New wells that were installed are detailed in subsequent annual reports.	Complete. To be included in every Annual Report	Annual Reports will continue to show and update engineered facilities drawing
159	Components of the active gas collection system shall be monitored on an as-needed basis, with a routine frequency of once per month for the full collection field. Any observed deficiencies/ problems shall be repaired as soon as practicable and a summary of remedial actions carried out, shall be reported in the Annual Monitoring and Operation Report, listed in Condition 186 of this Approval.	This information could not be located in the annual report. Please submit this information to the District Office.	Deficiencies with the GCS are reported and summarized in the Annual Reports. The City is compiling monthly monitoring records. These will be included in the 2012 annual report and all subsequent annual reports	15-May-13	
184 (i)	184 The Annual Report shall include the following: an updated waste disposal site plan showing the areas of fill, buffer zones, present contours, monitoring locations and surface water control systems;	The Ministry could not locate a plan showing area of waste filling in 2011 or a plan showing buffer zones/ area as defined by the ECA.	Figure C1 in the Annual Report shows fill areas and buffer zones. We will add a note to the 2012 plan that states "Fill area in 2012" and "Buffer area" as	15-May-13	Figures will be contained in all Annual Reports.
184 v	procedures at the waste disposal site;	This information could be located in the annual report.		No further action required.	Will continue to be included in annual reports
184 vi	a summary of any equipment changes at the site;	There is a list of equipment in Section 3.4, there was no list of any equipment changes or a note to suggest that there had not been any equipment changes.	There were no equipment changes recorded in 2011. But there will be for 2012 (Tomlinson took over the disposal contract)	15-May-13	New equipment list will be listed in 2012 annual report. Will continue to be listed in annual reports
184 viii	a summary of any occurrences or incidents where this Approval was not complied with, the reason for non-compliance and the measures to be implemented to ensure that future non-compliance does not occur;	This information could be located in the annual report.		No further action required.	Will continue to be included in annual reports
184 xvii	areas of landfilling operation during the reporting period;	This information could be located in the annual report.		No further action required.	Will continue to be included in annual reports
184 xviii	areas of intended operation during the next reporting period;	This information could be located in the annual report.		No further action required.	Will continue to be included in annual reports
184 xix	the progress of final cover, vegetative cover, and any intermediate cover application;	This information could be located in the annual report.		No further action required.	Will continue to be included in annual reports
184 xxi	facilities installed during the reporting period;	This information could be located in the annual report.		No further action required.	Will continue to be included in annual reports
184 xxii	Site preparations and facilities planned for installation during the next reporting period;	This information could be located in the annual report.		No further action required.	Will continue to be included in annual reports
184 xxvi	summary of the weekly, maximum daily and total annual quantity (tonnes) of waste received at the Site;	the weekly, maximum daily tonnes of waste could not be located	The City is compiling the information on a weekly basis and will include it in the 2012 and all future Annual	15-May-13	Will continue to be included in annual reports
184 xxvii	summary of any complaints received and the responses made;	This information could be located in the annual report.		No further action required.	Will continue to be included in annual reports
184 xxxii	summary of inspections undertaken at the Site;	This information could be located in the annual report.		No further action required.	Will continue to be included in annual reports
184 xxxiii	a summary of recycling efforts undertaken at the public drop-off area including the amount of recyclable	This information could be located in the annual report.		No further action required.	Will continue to be included in annual reports

Category 2 - Items provided (or available) but not to detail required by ECA (e.g. monthly waste quantities rather than weekly). Will be provided in 2012 and future reports					
ECA Cond #	Condition	MOE Comment	City Action Plan	Schedule to Complete Action	Comment
n/a	per MOE Inspection report pg. 3	City shall ensure that operators qualified with the appropriate level of license are responsible for the operation of the sewage works at the Site	Underway. Staff continue to be trained as required	On-going	Craig Simmons completed level two. Further in class training required for WWTP employees Terry Babcock, Brian Bridgewater, Don Briant provide additional support as needed.
43	The SFA and/or the NFA and when applicable, the <i>Site</i> as a whole shall be closed in accordance with the closure plan(s) as approved by the <i>Director</i> .	See observations under Condition 42.1. The South Fill Area Closure Plan has not have been approved by the Director .	City will forward the SFA Closure Plan to Approvals Branch for Approval. NFA Closure Plan will be prepared 2 years prior to Site Closure.	15-May-13	SFA Closure Plan is being updated to include Landscaping Plan prior to submission to Approvals Branch
85	Prior to receipt at the <i>Site</i> , each source of contaminated soils which are to be used as daily or intermediate cover shall be tested to determine if the soils meet the criteria in this <i>Approval</i> and Regulation 347. A copy of the test results shall be kept in the daily records for the <i>Site</i> .	Copies of the analysis for contaminated soil accepted at the Site are stored electronically at the Site. However, the current system does not comply with this condition because it is not tracked daily. These daily records need to be incorporated with the soil acceptance condition noted above. Please submit a plan to the District Office outlining how the City will ensure compliance With this Condition.	The City is compiling the requested information. A soils Acceptance Procedure has been revised and will be included in the Landfill Operations and Maintenance Manual. Copy will be provided to the District Office.	15-May-13	
121	The owner shall inspect the <i>Site</i> monthly for the following items but not limited to these items: •Erosion rills; •General settlement areas or depressions; •Shear and tension cracks; •Condition of surface water drainage works; •Erosion and sedimentation in surface water drainage system; •Presence of any ponded water; •Adequacy of cover material; •Evidence of vegetative stress, distressed poplars or side slope plantings; •Condition of groundwater monitoring wells and gas wells; •Presence of insects, vermin, rodents and scavenging animals; •The amount of litter at the Site; •Condition of fence surrounding the Site; and, •General Site appearance.	City staff currently have a monthly Site inspection form, but it does not contain all of the items contained in this Condition. The monthly inspection form needs to be updated to include all of the items in this Condition and a copy of the new form submitted to the District Office.	The Monthly Site Inspection Form has been revised to include all items required by this condition. A copy will be included in the Landfill Operations and Maintenance Manual and provided to the District Office	15-May-13	Revised Monthly Inspection Form includes all items listed. The Operations Manual will include a copy of the Monthly Inspection Form. A Copy will be provided to the District Office.
127	A record of the inspections shall keep in a daily log book or a dedicated electronic file that includes: •the name and signature of person that conducted the inspection; •the date and time of the inspection; •the list of any deficiencies discovered; •the recommendations for remedial action; and •the date, time and description of actions taken.	City staff currently have a daily Site inspection form, but it does not contain all of the items contained in this condition. The daily inspection form needs to be updated to include all of the items in this Condition and a copy of the new form submitted to the District Office.	The Daily Site Inspection Form has been revised to include all items required by this condition. A copy will be included in the Landfill Operations and Maintenance Manual and be provided to the District Office	15-May-13	Revised Daily Inspection Form includes all items listed. The Operations Manual will include a copy of the Monthly Inspection Form. A Copy will be provided to the District Office.
129 and 130	129: The Owner shall ensure all groundwater monitoring wells are properly capped, locked and protected from damage when not in use. 130: Any groundwater monitoring wells included in the monitoring program shall be assessed, repaired, replaced or decommissioned as required.	Please provide a report on Conditions 129, 130, 131, 132, and 133 indicating if the City is in compliance with these conditions. During the inspection damaged monitoring wells were observed.	This is discussed in Annual Reports	15-May-13	This will be included in all Annual Reports

Category 2 - Items provided (or available) but not to detail required by ECA (e.g. monthly waste quantities rather than weekly). Will be provided in 2012 and future reports					
ECA Cond #	Condition	MOE Comment	City Action Plan	Schedule to Complete Action	Comment
131	The Owner shall repair or replace any monitoring well which is destroyed or in any way made inoperable for sampling such that no more than one sampling event is missed.	Please provide a report on Conditions 129, 130, 131, 132, and 133 indicating if the City is in compliance with these conditions. During the inspection damaged monitoring wells were observed.	This is discussed in Annual Reports	15-May-13	This will be included in all Annual Reports
132	All monitoring wells that are no longer required as part of the groundwater monitoring program shall be decommissioned in accordance with good standard practice that will prevent contamination through the abandoned well and in accordance with Ontario Regulation 903.	Please provide a report on Conditions 129, 130, 131, 132, and 133 indicating if the City is in compliance with these conditions. During the inspection damaged monitoring wells were observed.	This is discussed in Annual Reports	15-May-13	This will be included in all Annual Reports
133	A report on the decommissioning referred to in Condition 132 of this <i>Approval</i> shall be provided in the annual monitoring report for the period during which the well was decommissioned.	Please confirm that the report required by Condition 133 is contained in the annual report. If the required report is not contained in the annual report then submit a copy to the District Manager.	This is discussed in Annual Reports	15-May-13	This will be included in all Annual Reports
144 b	Within sixty (60) days of the flare equipment operating to control landfill gas, an acoustic audit to measure the noise emissions from the flare equipment shall be conducted by the Owner. The Owner shall report the results of the acoustic audit to the Director within 120 days of the flare equipment becoming operational	A review of the Ministry records indicates that it was not submitted by the City. During the inspection City reported that the audit had been conducted. Please submit a copy of the acoustic audit to the District Office and the Director.	A Noise Study was completed for the Gas Generation Project in July 2011. A copy will be provided to the MOE	15-May-13	
170	If at any time, the <i>Owner</i> receives complaints regarding the operation of the <i>Site</i> , the <i>Owner</i> shall respond to these complaints according to the following procedure:				
170 a	The <i>Owner</i> shall record and number each complaint, either electronically or in a log book, and shall include the following information: the nature of the complaint, the name, address and the telephone number of the complainant if the complainant will provide this information, the time and date of the complaint, specific details of operations that were occurring, any changes from normal operations, types of waste loads (including source) and other on- <i>Site</i> activities.	The City currently has a complaint response form, but is not using it. The complaint form needs to be updated to ensure that it meets the requirements of this Condition. Please submit a copy of the updated complaints form to the District Office. Please ensure that the complaint form is used in the future.	The City has revised the complaint response form to meet the requirements of this condition. A copy will be included in the Landfill Operations and Maintenance Manual. A copy will be provided to the District Office.	31-May-13	Revised Complaint Response Form includes all items listed. The Operations Manual will include a copy of the Form. A Copy will be provided to the District Office.
184 ii	a calculation of the remaining capacity of the <i>Site</i> , an estimate of the remaining <i>Site</i> life and a comparison of actual capacity used to approved <i>Site</i> capacity;	With regard to Table B.1 does the Total Waste include contaminated soil? Same question for Table 2.1 .	Table B.1 and Table 2.1 waste quantities do not include contaminated soil. Future annual reports (starting with the 2012 Annual Report) will identify waste and contaminated soil separately.	15-May-13	2012 Annual report tables B.1 and 2.1 will show waste and contaminated soil separately.
184 xv	total leachate volumes collected weekly, monthly and annually and the disposition of the collected leachate;	Monthly volumes are presented in Table 4.1. However, a weekly breakdown of volumes could not be located .	Tables in the 2012 and all future Annual Reports will show weekly leachate quantities.	15-May-13	
184 xxiv	calculations of the amount of contaminated soil used as alternative cover at the <i>Site</i> ;	This information could not be located in the 2011 annual report .	The City will provide details for 2012 in the Annual Report, and in all subsequent annual reports	15-May-13	

Category 2 - Items provided (or available) but not to detail required by ECA (e.g. monthly waste quantities rather than weekly). Will be provided in 2012 and future reports					
ECA Cond #	Condition	MOE Comment	City Action Plan	Schedule to Complete Action	Comment
184 xxv	the amount of contaminated soil stored at the <i>Site</i> at the end of the previous year;	This information could not be located in the 2011 annual report .	The City will provide this information in the 2012 Annual Report and in all subsequent reports thereafter.	15-May-13	

Category 3 - Activities required by MOE Inspection report, ECA, recommended in annual reports, or other documents but not completed yet.					
ECA Cond #	Condition	MOE Comment	City Action Plan	Schedule to Complete Action	Comment
n/a	per MOE Inspection Report pg. 2-3	The Ministry is requiring the City to undertake quarterly monitoring for PCBs in the LCS on a quarterly basis in 2013.	Underway in 2013	Dec 31, 2013 unless otherwise directed	
37	Within 180 days of issuance of this <i>Approval</i> , the Owner shall submit to the District Manager a landfill operator's Operations and Maintenance Manual that is consistent with this <i>Approval</i> and that identifies the duties to be conducted by staff in key operational areas on a day to day basis. The operator's manual shall include: a) Health and safety; b) Best Management Plans for dust, litter and odour; c) Operation and maintenance of the Site; d) Waste acceptance; e) Waste disposal area and development; f) Nuisance management; g) Leachate management; h) Landfill gas management; i) Surface water/Storm water management; j) Inspections and monitoring; k) Complaints; l) a detailed job description of the duties of a Competent Supervisor; and m) Reporting and record keeping. n) The Operations and Maintenance Manual shall be: o) retained at the Site; p) kept up to date through periodic revisions; and q) be available for inspection by Ministry staff.	This document was due to be submitted to the Ministry on May 13, 2012. A review of the Ministry records indicates that it was not submitted by the City. During the inspection it was reported that this report was a work in progress.	The existing Landfill Operations and Maintenance Manual for the site is being updated and will include the items listed in the ECA.	31-May-13	
158	Within 180 days of issue of this <i>Approval</i> , the Owner/Operator shall prepare and submit to the Director for approval, copied to the District Manager, a monitoring program for landfill gas to monitor the performance of the landfill gas collection and flaring system. As a minimum, the landfill gas monitoring program shall identify the monitoring frequency, parameters, locations, etc., and shall be implemented promptly as approved, and as per written recommendations of the District Manager through the review of the Annual Monitoring Reports, and any related EPA requirements.	This document was due to be submitted to the Ministry on May 13, 2012. A review of the Ministry records indicates that it was not submitted by the City. Please submit a copy of the monitoring program to the Director and the District Manager.	Landfill gas monitoring is undertaken monthly. Methane concentration and pressure are measured at each gas well. Wells are balanced during each event. Results are summarized and kept on file. A gas monitoring program will be detailed and included as an Appendix in the 2012 Annual Report.	15-May-13	Annual Report for 2012 will include an appendix for Landfill Gas collection system monitoring program and results and analysis. The Gas Monitoring Program will be submitted to the Director and District Manager.
162	Subsurface migration of combustible methane gas shall meet the following limits, as required by Ontario Reg. 232/98: (a) The concentration of methane gas must be less than 2.5 percent by volume at the limits of the property boundary.	During the inspection City staff reported that they currently do not have methane detection wells on the north and west boundaries of the landfill footprint, but reported that they would be installed in 2013.	The City will install gas probes on the north and west property boundaries in 2013	31-Jul-13	Well locations of the proposed gas wells are described in 2012 Annual Report.

Category 4 - Items that inadvertently exceeded allowable ECA conditions (e.g. more than approved tonnage of waste and soil in 2012) or did not fully comply with ECA					
ECA Cond #	Condition	MOE Comment	City Action Plan	Schedule to Complete Action	Comment
76	a) The Owner may receive at the Site up to a maximum of 85,000 tonnes per year of waste including contaminated soil for disposal at the Site; and b) In the event of an emergency, the Owner may request to the District Manager that the amount allowed to be received in one particular year be increased by 20,000 tonnes and the District Manager has the authority to grant written approval to such a request.	During the inspection City staff reported that they had exceeded the limit in this condition by 1671 tonnes. This exceedence was as a result of a large amount of contaminated soil being accepted at the Site in December 2012. The City has a system which tracks incoming wastes, but does not have a procedure to ensure that the incoming waste is checked regularly to ensure that this condition is not exceeded. A procedure needs to be developed to ensure that this information is reviewed on a regular basis to ensure that this violation does not occur in the future.	The City inadvertently received more waste and contaminated soil than permitted. Some contaminated soil was stockpiled for daily cover. The City is developing a Tracking procedure that will closely monitor and track and quantities to ensure the maximum of 85,000 t is not exceeded. The Procedure will be included in the Landfill Operations and Maintenance Manual.	15-May-13	A Contaminated Soil and Clean Fill Tracking form is being prepared and will be included in the Landfill Operations and Maintenance Manual. Total quantities of waste will be included in the form.
78	The following materials, in the corresponding thickness, may be used as an alternative to soil as a daily and intermediate cover: i) non-hazardous contaminated soil that meets the Land Disposal Requirements of Regulation 347 and the handbook; and ii) Wood chips and compost covers consisting of processed chipped wood.	It is reported in the 2011 annual report that shingles were used as alternate cover material. During the inspection it was reported that shingles are no longer used as daily cover material, but may be stockpiled for to build roads within the landfill. Shingles accepted at the landfill would be considered a waste material and therefore must be covered daily	The City will place shingles on the active landfill and either use them as alternate daily cover or to build roads in the active fill area. Shingles will not be stored on other parts of the landfill. Covering of alternate daily cover material with daily cover material is considered unnecessary unless they cause a nuisance in which case they will be covered with soil.	On-going	
81	The volume of contaminated soils stored at the Site shall not exceed the three months limitation of the annual daily/ interim cover material requirements as determined by the previous annual report. The Owner shall ensure at all times that the stockpiled contaminated soils shall produce no off-Site nuisance odours.	During the inspection City staff advised that in December 2012 approximately 30000 tonnes of contaminated soil had been received at the site. City staff report that this amount would exceed the three month limitation by three to four months. The City currently does not have a procedure to ensure compliance with this condition. A procedure must be developed and submitted to the District Office to ensure compliance with this condition.	The landfill consumes about 110,800 m3 annually. At a 4:1 waste to cover ratio, 22,160 m3 of cover soil are needed annually. Therefore 5,540 m3 (approx. 8,300 t) can be stored on site for 3 months needs. The City's Soils Acceptance Procedure has been revised and will be included in the Landfill Operations and Maintenance Manual. A Copy will be provided to the District Office.	On-going - City will not store more than 8300 tonnes or 5,540 m3 of contaminated soil on site at any time unless the annual quantity of waste increases.	With excavation of Cell 3 in 2014 the City may stop receiving contaminated soil. In any event, quantities of contaminated soil stockpiled will be recorded to ensure no more than 5,540 m3 or 8300 t are stockpiled.
154	Within ninety (90) days of commissioning, the detailed design of the landfill gas collection and flaring system, the Owner/Operator shall submit to the Director for approval, a written report describing a plan and implementation schedule for landfill gas and odour management in conjunction with Site development and progressive rehabilitation. The plan shall include, as a minimum: a) A description of any anticipated progress of final cover placement until Site closure, based on progressive rehabilitation of the Site; and b) A program to evaluate the effectiveness of the landfill gas collection system which shall identify areas of the Site which require upgrading, alteration, or additional collection and control facilities. The program shall include an assessment to be conducted at least once a year, of the Site's conformance with an operating code of practice which includes the development of system design parameters, details on the management of the system to satisfy the design parameters and a description of rationale for landfill gas flow adjustments to optimize system operation.	A review of the Ministry records indicates that it was not submitted by the City as it relates to the North Fill Area and 25 new gas collection wells recently installed in the South Fill Area. Please submit a copy of the report to the Director and the District Office	The NFA Gas Collection System (GCS) has only been designed in concept. The 25 new wells installed in the SFA are governed by the current O&M manual for the GCS. The City is preparing a written report describing a plan and implementation schedule for the remainder of the GCS in the NFA. The report will include items listed in condition 154 of the ECA. A copy will be provided to the Director and District Office.	30-Jun-13	This report will be based on the projected filling rate for the NFA and the likely dates when NFA cells will be equipped with the GCS and associated works.

Contaminated soil tracking form is to include quantities received, used and stockpiled - to keep a running total of each.

Category 4 - Items that inadvertently exceeded allowable ECA conditions (e.g. more than approved tonnage of waste and soil in 2012) or did not fully comply with ECA						
ECA Cond #	Condition	MOE Comment	City Action Plan	Schedule to Complete Action	Comment	
161	Buildings and structures existing or to be built on-Site shall be situated, constructed and monitored in a manner which minimizes the potential for explosive hazards due to combustible gas. Appropriate methane detection and alarm equipment, shall be installed and maintained for all enclosed, unvented buildings and/or structures on-Site which at times are occupied by people .	The only building that would be considered a vented building or structure as defined above is reported to be the scale house which is elevated above the ground surface. The scale house also contains a methane alarm.	The City will apply to amend this condition to include only buildings potentially affected by migrating gas as identified by perimeter gas probes. The Environment Canada Guidance Document for Landfill Gas Management provides guidance on evaluating hazard associated with gas migration. If gas concentrations > 2.5% are measured at property line gas probes, further investigation will be completed. If gas continues to migrate methane detection and alarm equipment will be installed and maintained.	May 31, 2013 application to amend ECA will be made providing analysis that supports the proposed amendment.		
161	Note: For the purposes of Condition 161, vented building or structure is a building or structure built with its floor sealed and elevated above ground and having adequate air space underneath the floor of the building or structure.	Please confirm that all building or structures existing on the Site comply with this condition. This may include houses that the City is renting .	See above - the City will apply to amend this condition.	May 31, 2013 application to amend ECA will be made providing analysis that supports the proposed amendment.		
161	The Site is defined as: "Site" and "waste disposal site" means the 27.5 hectare Waste Fill Area (9.5 hectares North Fill Area and 18 hectares South Fill Area) being more particularly described as PART OF LOTS 14 and 15, CONCESSION 14, OTONABEE, TOWNSHIP OF OTONABEE-SOUTH MONAGHAN), located within a total site area of 158 hectares which includes a 15 hectare groundwater easement zone, in which waste may be deposited pursuant to this Approval in accordance with the plans and specifications described on Schedule "A"; and	Please confirm that all building or structures existing on the Site comply with this condition. This may include houses that the City is renting .	See above - the City will apply to amend this condition.	May 31, 2013 application to amend ECA will be made providing analysis that supports the proposed amendment.		
161	Buildings and structures existing or to be built on-Site shall be situated, constructed and monitored in a manner which minimizes the potential for explosive hazards due to combustible gas. Appropriate methane detection and alarm equipment, shall be installed and maintained for all enclosed, unvented buildings and/or structures on-Site which at times are occupied by people. The 158 hectares are more particularly described as PART LOT 13, 14 and 15, CONCESSION 14 and PART OF LOTS 14 and 15, CONCESSION 13, OTONABEE, TOWNSHIP OF OTONABEE-SOUTH MONAGHAN;	The only building that would be considered a vented building or structure as defined above is reported to be the scale house which is elevated above the ground surface.	See above - the City will apply to amend this condition.	May 31, 2013 application to amend ECA will be made providing analysis that supports the proposed amendment.		
184 ix	results in tabular format and an interpretive analysis of the results of all leachate, groundwater, surface water and landfill gas monitoring and flaring, including an assessment of the need to amend the monitoring programs;	The following from the above condition could not be located: landfill gas monitoring and flaring , including an assessment of the need to amend the monitoring programs;	There were no tables in the 2011 annual report for individual landfill gas monitoring or flare monitoring. The 2012 Annual Report will contain an appendix that provides a tabular summary of monitoring results and an interpretation of those results for 2012. This will continue for future annual reports	15-May-13	2012 Annual Report to include an appendix for GCS monitoring.	Need monthly well results from Craig.
184 xxix	a report on the status of all monitoring wells and a statement as to compliance with Ontario Regulation 903;	This information could not be located in the 2011 annual report .	The City will provide the information in the 2012 Annual Report and every annual report thereafter.	15-May-13	All Annual Reports will describe the status of monitoring wells and a statement with respect to compliance	

Category 4 - Items that inadvertently exceeded allowable ECA conditions (e.g. more than approved tonnage of waste and soil in 2012) or did not fully comply with ECA					
ECA Cond #	Condition	MOE Comment	City Action Plan	Schedule to Complete Action	Comment
184xxxiv	a summary of the requirements outlined in Condition 80 of this <i>Approval</i> regarding the use of contaminated soil for daily/intermediate landfill cover;	This information could not be located in the 2011 annual report .	The City will provide the information in the 2012 Annual Report and every annual report thereafter.	15-May-13	

Category 5 - Items to be included in Updated Landfill Operations and Maintenance Manual					
ECA Cond #	Condition	MOE Comment	City Action Plan	Schedule to Complete Action	Comment
59	Within 180 days of issue of this <i>Approval</i> , the Owner shall develop and submit to the District Manager a Best Management Practices for the control of dust, odour and litter from the <i>Site</i> .	This document was due to be submitted to the Ministry on May 13, 2012. A review of the Ministry records indicates that it was not submitted by the City. Please submit the required Best Management Practices to the District Manager.	Best management practices are contained in annual reports, SFA closure plan etc. The Landfill Operations and Maintenance Manual will contain Best Management Practices. A copy of the Operations Manual will be provided to the District Manager.	31-May-13	The updated Landfill Operations and Maintenance Manual will include the revised soil acceptance form
79	The Owner shall keep a record of the delivery of all contaminated soil to the <i>Site</i> . The record shall include the following information as a minimum: i) The name and Approval number of the hauler; ii) The name and address of the generator of the waste; iii) The date and time of delivery; and iv) The quantity of waste delivered.	A review of the current soil acceptance form used by the City reveals that it does not include Approval number of the hauler, the date and time of delivery and the actual amount of waste delivered. It does include contact information, but this may not always be the generator of the waste. The Soil Acceptance Form needs to be updated and a copy submitted to the District Office	The City has revised its standard form to ensure the required information will be recorded. A copy of the revised form will be included in the Landfill Operation and Maintenance Manual.	31-May-13	The updated Landfill Operations and Maintenance Manual will include the revised soil acceptance form
80	The use of non-hazardous contaminated soil for daily/intermediate cover referenced in Condition 78 of this <i>Approval</i> , shall be subject to the Owner: a) making sure that the Generator has provided a signed statement with the following information at a minimum to the Owner regarding the contaminated soil including: i) the date; ii) the name of the Generator; iii) Generator Registration number, if the Generator has one; iv) the source of the non-hazardous contaminated soil; v) whether the non-hazardous contaminated soil was ever categorized as a listed or characteristic hazardous waste; vi) any records required by Section 79 and 84 of Regulation 347; vii) if the waste were a characteristic waste but has been treated, a copy of the Land Disposal Restrictions Form required by Regulation 347 or a notification stating that the waste was a characteristic waste and that the waste can be land disposed as per Sections 79 and 84 of Regulation 347; and viii) analytical test results of the contaminated soil; and b) taking all reasonable precautions to insure that the requirements of the <i>Land Disposal Restrictions</i> and the <i>Land Disposal Treatment Requirements</i> outlined in Regulation 347 are being followed at the <i>Site</i> .	The City is currently not in compliance with this condition. The City does not require generators to submit a signed statement as described above. The soil acceptance form needs to be updated and a copy submitted to the District Office.	The City has updated its procedures to include signed statement from generators. A copy of the form will be included in the Updated Landfill Operations and Maintenance Manual	31-May-13	The updated Landfill Operations and Maintenance Manual will include the revised soil acceptance form
82	In the event of a reported incident of odour from the contaminated soil at the <i>Site</i> which causes a nuisance and poses a threat to the health and safety of person(s) and the environment, the Owner shall forthwith implement a contingency plan to immediately abate the nuisance odour and/or run-off that may originate from the stockpile.	Please provide a copy of the contingency plan discussed in this condition. This contingency plan may be incorporated with other contingency of mitigation plans.	If contaminated soil generates odour, causes a nuisance or poses a threat to public health and safety or the environment, it is not accepted. In the event material poses a problem after received it is contained immediately, covered with soil or landfilled. The Odour contingency plan will be included in the Updated Landfill Operations Manual	31-May-13	The updated Landfill Operations and Maintenance Manual will include the Odour Control and Contingencies Plan
105	105. Within 180 days of issue of this <i>Approval</i> , the Owner shall develop and implement a program to inspect waste to ensure that the waste is of a type approved for acceptance under this <i>Approval</i> .	Adequate inspection of the incoming waste appears to be occurring. However, there is no written procedure at this time. Please submit a copy of this procedure to the District Office.	This procedure is discussed in the Annual Reports. Waste is inspected at the tipping face by operators and at the scalehouse by attendants in accordance with the current contract with the landfill operator. The updated Landfill Operations Manual will include further and more specific details.	31-May-13	The updated Landfill Operations and Maintenance Manual will include more specific details of waste inspection procedures if required.

Category 5 - Items to be included in Updated Landfill Operations and Maintenance Manual					
ECA Cond #	Condition	MOE Comment	City Action Plan	Schedule to Complete Action	Comment
123	A training plan that is sufficient for people that operate any aspect of the <i>Site</i> to become a <i>Competent Person</i> shall be developed and implemented by the Operator. Only Competent People shall operate any aspect of the <i>Site</i> or carry out any activity required under this <i>Approval</i> . Workers at the <i>Site</i> shall provide proof of training to the Ministry upon request.	Please provide a list of competent people working at the site and there corresponding training records to the District Office.	Training is the responsibility of both the City and the Contractor operating the Site. The Operator provided details of their training plan to the City. The operator Training Plan will be included in the Updated Landfill O&M Manual. Training records will be discussed in the Updated Landfill Operations and Maintenance Manual.	Training records will be provided by May 31, 2013. The Updated Landfill Operations and Maintenance Manual will be provided by May 31, 2013	Training records for Tomlinson and City staff will be submitted to MOE.
149	No later than ninety (90) days after the commissioning of the detailed design of the landfill gas collection and flaring system, the Owner/Operator shall update the <i>Site's</i> Operations and Maintenance Manual required by Condition 37 of this <i>Approval</i> to reflect the development and operation of the landfill gas collection and flaring system expansion, with respect to details on inspection and maintenance schedules, documentation procedures, shut-down procedures, Ministry contact procedures, and flare operation and maintenance. A copy of the Manual shall be provided to the District Manager and a copy retained on- <i>Site</i> and made available to Ministry staff upon request.	As it relates to the North Fill Area this condition has not been complied with. A review of the Ministry records indicates that it was not submitted by the City. Please submit a copy of the revised Operations and Maintenance Manual to the District Office.	The North Fill Area Gas collection and flaring system has not been designed in detail. Conceptual plans are currently in place. The Landfill Gas Collection System Operation and Maintenance Manual will be updated to include the required information when the NFA gas collection system has been designed and constructed. A copy will be provided to the District Manager at that time.	To Be determined	The existing Gas collection system Operations and Maintenance Manual provides the required information for the South Fill Area.
155	During construction and continued use of the landfill gas collection system, the Owner/Operator shall implement as a minimum, odour control plan. The effectiveness of the odour control plan shall be monitored and evaluated regularly, and updated or amended as necessary, based on operational experience and odour complaints received.	Please submit a copy of the odour control plan.	The odour control plan was included in the 2004 Earth Tech Report. An updated Odour Control Plan that includes the components listed in Condition 155 will be included in the Update Landfill O&M Manual	31-May-13	The updated Landfill Operations and Maintenance Manual will include the odour control plan
170 b	The Owner, upon notification of the complaint, shall initiate appropriate steps to determine the validity of the complaint. If the complaint is determined to be valid, investigate all possible causes of the complaint, and proceed to take the necessary actions to eliminate the cause of the complaint. The Owner shall forward a formal reply to the complainant; and	During the inspection City staff reported that they have not been forwarding a formal reply to the complainant. A formal response either by email or mail would meet the requirement of this Condition.	The City has revised its Complaint Action Protocol to address this conditions. The Complaint Protocol will be included in the Updated Landfill O&M Manual	31-May-13	The updated Landfill Operations and Maintenance Manual will include the revised Complaint Action Protocol
170 c	The Owner shall complete and retain on- <i>Site</i> a report written within one (1) week of the complaint date, listing the actions taken to resolve the complaint and any recommendations for remedial measures, and managerial or operational changes to reasonably avoid the recurrence of similar incidents.	The City currently has a complaint response form, but is not using it. The complaint form needs to be updated to ensure that it meets the requirements of this Condition. Please submit a copy of the updated complaints form to the District Office. Please ensure that the complaint form is used in the future.	The City has revised its Complaint Action Protocol to address this conditions. The Complaint Protocol will be included in the Updated Landfill O&M Manual and will be used in the future.	31-May-13	The updated Landfill Operations and Maintenance Manual will include the revised Complaint Action Protocol

need to confirm.

Category 5 - Items to be included in Updated Landfill Operations and Maintenance Manual					
ECA Cond #	Condition	MOE Comment	City Action Plan	Schedule to Complete Action	Comment
171	The Owner shall designate a person to receive any complaints and to respond with a written notice of action as soon as possible. The Owner shall post the <i>Site</i> complaints procedure at the <i>Site</i> entrance. All complaints and the Owner's actions taken to remedy the complaints shall be summarized in the Annual Report.	Please advise the District Office for the designated person who is to receive complaints. A Complaints procedure is not posted at the Site entrance. The City shall post the complaints procedure at the site entrance. A review of the 2011 Annual Report reveals that there does not appear to be a discussion about complaints received at the Site in 2011. Please submit the information related to 2011 to the District Office.	The City will contact the District Office to determine who at the MOE is to receive complaints. The City will post the complaints procedure (telephone number and contact person) at the site entrance. The City will review its records concerning complaints received in 2011 and provide details to the District Office	31-May-13	City will contact District Office to determine who at MOE is to receive complaints; post telephone number and contact person for complaints at site entrance; and review complaints records received in 2011 and provide details to District Office
172	All complaints received by the Owner related to the environmental performance of the <i>Site</i> , including environmental performance related complaints that are determined by the <i>Owner</i> to be not valid, are to be reported within twenty-four (24) hours of receipt to the District Office. Complaints shall be reported to the <i>PLPLC</i> at the next <i>PLPLC</i> meeting.	The Ministry has not been always contacted when the City receives public complaints. All public complaints related to environmental matters to be reported to the District Office. Please confirm that at each meeting of the <i>PLPLC</i> that the public complaints are discussed with the <i>PLPLC</i> . Please submit a copy of the <i>PLCLC</i> minutes which documents this discussion.	The City has revised its Complaint Action Protocol to address this condition. All environmental matter complaints will be reported to the District Office. Minutes of <i>PLCLC</i> minutes will be submitted to the District Office.	31-May-13	
173	Daily <i>Site</i> inspection records in the form of a written log or a dedicated electronic file shall include but not be limited to the following: i) the type, geographic source, date and time of arrival, hauler, and quantity (tonnes) of all waste received at the Site; ii) the area of the Site in which waste disposal operations are taking place; iii) calculation of the total quantity (tonnes) of waste received at the Site during each operating day and each operating week; iv) itemization of each load of contaminated soil delivered to the Site as is allowed by Condition 78 of this Approval; v) results of any test done to determine the acceptability of waste at the Site; vi) a reference for each load of solid non-hazardous industrial waste received, to the client and type of solid non-hazardous industrial waste; vii) a record of any litter collection activities and the application of any dust suppressants; viii) a record of the daily inspections; ix) a description of any out-of-service period of any control, treatment, disposal or monitoring facilities, the reasons for the loss of service, and action taken to restore and maintain service; x) type and amount of daily, intermediate and final cover used; xi) emergency situations and actions taken to resolve them; xii) and any other pertinent information required by the District Manager.	Current daily inspections do not include all of the above items . Please update the Daily Site inspection form and submit a copy to the District Office.	The City has revised the Site Inspection Checklist to include all the items listed in Condition 173 and then some. The Form will be included in the Updated Landfill O&M Manual.	31-May-13	The updated Landfill Operations and Maintenance Manual will include the revised daily site inspection checklist.

CATEGORY 6 - REVIEW OF RECOMMENDATIONS IN THE 2011 ANNUAL REPORT					
	RECOMMENDATION IN 2011 ANNUAL REPORT	MOE Comment	City Action Plan	Schedule to Complete Action	Comment
1	By October 29, 2010, the Corporation of the City of Peterborough shall classify the sewage works located at the CCPWMF in accordance with Ontario Regulation 129/04. A copy of the required application form shall be submitted to the undersigned and the Ontario Water and Wastewater Certification Office. The required forms can be located at the following website: http://www.owwco.ca/classification.htm . Within seven (7) days of receiving the approved classification form from the Ontario Water and Wastewater Certificate Office, the Corporation of the City of Peterborough shall ensure that an operator qualified with the appropriate level of license, as required by Ontario Regulation 129/04, is responsible for the operation of the sewage works associated with the CCPWMF. Within seven (7) days of retaining a certified operator, the Corporation of the City of Peterborough shall report to the undersigned Provincial Officer who the licensed operator is and shall provide a copy of their valid license.	The City applied to classify the sewage-works in October 2010 and received a Wastewater Collection Facility Class II for the Site on November 11, 2010. During the inspection Mr. Simmons reported that he has obtained his Class 1 license and is working to obtain his Class 2 license. The ORO is currently Terry Babcock, who holds a Class 2 license and works for the City of Peterborough.	No further action required		
2	In accordance with Condition No. 6, 27, and 28 of Provisional Certificate of Approval No. A341508 the Corporation of the City of Peterborough shall ensure that the appropriate closure plan is submitted to the Ministry, within the appropriate timeframe, for the South Fill Area.	On December 21, 2010, the South Fill Area Closure Plan was submitted to the District Office. It appears that the report was not submitted to the Ministry's Approvals Branch for review. Closure of the South Fill Area is currently ongoing without approval from the Ministry.	The City is currently updating the SFA Closure Plan to include a Landscaping plan. The revised Closure Plan will be submitted to the Director for approval and the District Office.	31-May-13	
3	During the site inspection the cover applied to the South Fill Area was in excellent condition with only minor areas where waste was observed visible through the cover material. The active face was in excellent shape as it was being kept small and confined. The Ministry expects that the site cover material and active face will be kept in similar condition in the future. The Corporation of the City of Peterborough shall apply additional cover material to those areas noted during the inspection which required additional cover material.	The City of Peterborough completed this action item shortly after the inspection.	No further action required		
4	Should any area of either the North Fill Area or the South Fill Area be left dormant for more than three months then the Ministry requires that a minimum of 30 centimeters of cover material is placed on the area and that vegetation of a height greater than 20 centimeters be established. In this case with the South Fill Area being left dormant in the winter months it is expected that a vegetative cover will be established as soon as reasonably possible in the spring of 2011.	This action item was acknowledged by the City of Peterborough. A vegetative cover was not established.	The City will establish the vegetative cover on all areas left dormant for more than 3 months.	as required	
5	After ninety(90) days of operation of the North Fill Area the Corporation of the City of Peterborough shall submit a report to the undersigned Provincial Officer which states that the Corporation of the City of Peterborough is operating the North Fill Area in full compliance with the document entitled: "North Fill Area, Design and Operations Report", authored by Earth Tech and dated January 2004. Should the Corporation of the City of Peterborough not be operating the North Fill Area in accordance with the document entitled: "North Fill Area, Design and Operations Report", authored by Earth Tech and dated January 2004, the report to the undersigned Provincial Officer shall contain an application to amend the Design and Operations Report to reflect the actual operation of the site and should this be the case the application shall be submitted to the Ministry's Environmental Assessment and Approvals Branch in a completed format with the appropriate fee.	This action item appears to have been addressed. See correspondence from the City of Peterborough dated January 25, 2011. Correspondence indicates that the North Fill Area was constructed properly.	No further action required		
6	After ninety(90) days of operation of the North Fill Area the Corporation of the City of Peterborough shall submit a report to the undersigned Provincial Officer. The report shall include as built drawings. The report shall document all construction, QA/QC activities and procedures, and confirming that the site conditions for the North Fill Area and details of the construction of the North Fill Area are in accordance with the approved design plans and specifications for the site, and including sufficient baseline data from existing and new monitoring installations to support environmental monitoring programs for the site.	This action item appears to have been addressed. See correspondence from the City of Peterborough dated January 25, 2011. Correspondence indicates that the North Fill Area was constructed properly.	No further action required		
7	Excavation within and preparation of the foundation soils underlying the North Fill Area and construction of the base liner of the leachate containment system in a new cell of the North Fill Area shall be inspected by a suitably qualified geotechnical professional engineer to ensure that preparation and construction is completed in accordance with approved detailed design plans, technical specifications and QA/QC activities and procedures. The results of inspections shall be included in the report required by Action Item No. 6 of this inspection report. No landfilling of wastes should occur on any portion of the North Fill Area liner and leachate collection system until the Director and District Manager have received an inspection report from the engineer indicating that the portion of the base liner and the leachate containment system has been constructed as required by Provisional Certificate of Approval No. A341508.	This action item has been addressed. See correspondence dated October 26, 2010, from the City of Peterborough.	No further action required		
7a	A)The adequacy of extracted clay material from the landfill excavation and/or clayey material for base liner construction and leachate/liner compatibility.	This action item has been addressed. See correspondence dated October 26, 2010, from the City of Peterborough.	No further action required		

CATEGORY 6 - REVIEW OF RECOMMENDATIONS IN THE 2011 ANNUAL REPORT					
	RECOMMENDATION IN 2011 ANNUAL REPORT	MOE Comment	City Action Plan	Schedule to Complete Action	Comment
7b	b) The acceptability of foundation conditions to ensure adequate bearing capacity and slope stability, adequate provisions to prevent basal heave or blowout, absence of standing water, and absence of potential conduits for leachate and landfill gas migration; and	This action item has been addressed. See correspondence dated October 26, 2010, from the City of Peterborough.	No further action required		
7c	c) Compliance with liner installation specifications and QA/QC procedures related to items such as grain size distribution and clay content of native and borrow materials, clod size limits, removal of stones, Atterberg limits, compaction moisture content, compaction effort, required Standard Proctor Density, lift thickness, scarification between lifts, permeability, and procedures to avoid desiccation of the clay liner.	This action item has been addressed. See correspondence dated October 26, 2010, from the City of Peterborough.	No further action required		
8	Commencing immediately the Corporation of the City of Peterborough shall during routine monitoring of the leachate, sample and test for PCBs. PCBs samples shall be collected at a minimum of quarterly in 2010 and 2011. PCBs samples are not required to be collected in 2012 unless specified by the Ministry. The results of the analysis shall be included in the required annual reports.	A review of the 2011 Annual Report reveals that the City did not collect samples for PCB analysis in the leachate collection system. PCBs shall be monitored quarterly at the Site in the Leachate Collection System. The results shall be reported on in the 2013 Annual Report. Please confirm to the District Office that this will be done.	The City will collect samples for PCB analysis in the leachate collection system. PCBs shall be monitored quarterly in the Leachate Collection System. The results will be reported on in the 2013 Annual Report.	quarterly in 2013 and reported in 2013 annual report	
9	All modifications to the leachate collection system and methane gas collection system, including venting to the methane gas collection system shall be included in the leachate collection system and the methane gas collection system drawings in the 2010 annual report. Future modifications to these systems shall be documented on an ongoing basis in future annual reports.	There are now conditions in the ECA which are similar to this action item. Condition No. 117 required the submission of as built drawing of the leachate collection system to be submitted to the Ministry. This does not appear to have been done.	The City will provide record drawings for the 2 contracts that were completed prior to operation of cell 2.	31-May-13	

CATEGORY 7 - SUMMARY OF INSPECTION FINDINGS (HEALTH/ENVIRONMENTAL IMPACT)			
QUESTION	ANSWER	SPECIFICS	CITY ACTION PLAN
Was there any indication of a known or anticipated human health impact during the inspection and /or review of relevant material, related to this Ministry's mandate?	NO	No additional comments.	
Was there any indication of a known or anticipated environmental impact during the inspection and /or review of relevant material ?	NO	No additional comments.	
Was there any indication of a known or suspected violation of a legal requirement during the inspection and/or review of relevant material which could cause a human health impact or environmental impairment ?	YES	During the inspection it was identified that the Site had received waste in excess of the amount of waste that is permitted to be accepted annually at the Site. The South Fill Area is being closed without first obtaining approval from the Ministry.	These items are addressed elsewhere.
Was there any indication of a potential for environmental impairment during the inspection and/or the review of relevant material ?	YES	During the inspection non-compliance with Conditions 17, 27, 37, 42.1, 43, 48, 59, 76, 78, 79, 80, 81, 82, 85, 105, 117, 121,123,125,127,129,130,132,133,140,144,149, 154,155,156,158, 159,161,162, 170,171, 172,173, and 184 of Amended Environmental Compliance Approval No. A341508. The inspection has revealed significant non-compliance and as such there is a potential for environmental impairment.	These items are addressed elsewhere.
Was there any indication of minor administrative non-compliance?	YES	No additional comments.	These items are addressed elsewhere.

CATEGORY 8 - ACTIONS REQUIRED	CITY ACTION PLAN
<p>The Corporation of the City of Peterborough shall provide a copy of this inspection report to all members of the Peterborough Landfill Public Liaison Committee. A copy of the correspondence to the members shall be sent to the District Office.</p>	<p>This Inspection Report will be provided to the PLPLC along with the City responses to the Report prior to the annual meeting in July 2013</p>
<p>By April 30, 2013, the Corporation of the City of Peterborough shall submit to the undersigned Provincial Officer an Action Plan. The Action Plan shall detail the action (s) to be taken by the Corporation of the City of Peterborough to rectify all non-compliance items identified in this inspection report. The Action Plan shall include a detailed list of dates that the Corporation of the City of Peterborough will be in compliance with the non-compliance items identified in this inspection report.</p>	<p>The Action Plan will be provided no later than April 30, 2013</p>