



CARADOC LANDFILL CLOSED
22416 MILL RD, STRATHROY-CARADOC, ON, N0L 1W0
INSPECTION REPORT

Entity: THE CORPORATION OF THE
TOWNSHIP OF STRATHROY-
CARADOC
Inspection Start Date: May 29, 2023
Inspection End Date: July 07, 2023
Inspected By: Pawel Kucharski
Badge #: 1489



(signature)

NON-COMPLIANCE

The following item(s) have been identified as non-compliance, based on a "No" response captured for a legislative question(s). For additional information on each question see the Inspection Details section of the report.

Ministry Program: WASTE | **Regulated Activity:** Landfills

Item	Question	Compliance Response/Corrective Action(s)
NC-1	<p>Question ID: NCL 45</p> <p>At the time of inspection, there are no indications of inadequate waste management (no visible leachate seeping, no waste deposited illegally outside the landfill boundary, etc)?</p>	No

RECOMMENDATIONS

This should not be construed as a confirmation of full conformance with all potential applicable BMPs. These inspection findings are limited to the components and/or activities that were assessed, and the legislative framework(s) that were applied. It remains the responsibility of the owner to ensure compliance with all applicable legislative and regulatory requirements.

If you have any questions related to this inspection, please contact the signed Provincial Officer.

INSPECTION DETAILS

This section includes all questions that were assessed during the inspection.

Ministry Program: WASTE | Regulated Activity: Landfills

Question ID	NCL 1	Question Type	Legislative
Legislative Requirement(s): EPA 27 (1);			
Question: Does the Closed landfill site have an Environmental Compliance Approval (ECA)?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Yes Environmental Compliance Approval A041101 - Site closure and establishment of operation of a sewage treatment plant.			

Question ID	NCL 4	Question Type	Information
Legislative Requirement(s): Not Applicable			
Question: Does the landfill have a Contaminant Attenuation Zone (CAZ)?			
Compliance Response(s)/Corrective Action(s)/Observation(s): No At the time of the inspection a request was submitted to the Ministry's technical support group, to review groundwater monitoring data, and provide and comments or concerns related to the information available. Should any comments or concerns arise after the review of this information, the Ministry will be providing the details to the Municipality for consideration.			

Question ID	NCL 2	Question Type	Information
Legislative Requirement(s): Not Applicable			
Question: Is this landfill on Crown land?			
Compliance Response(s)/Corrective Action(s)/Observation(s): No			

Question ID	NCL 3	Question Type	Legislative
-------------	-------	---------------	-------------

Legislative Requirement(s): EPA 27 (1); EPA O. Reg. 232/98 3;
Question: Does the holder of the landfill ECA own the entire site?
Compliance Response(s)/Corrective Action(s)/Observation(s): Yes

Question ID	NCL 17	Question Type	Legislative
Legislative Requirement(s): EPA 27 (1);			
Question: Is the landfill implementing the groundwater monitoring program as required by the ECA?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Yes Annual Reporting confirms that groundwater sampling is being conducted in accordance with the Closure Plan. Condition 4.4 required the Municipality to install additional groundwater monitoring well nest in the vicinity of the southwest boundary of the waste fill area. This well nest was completed after ECA number A041101, notice 3 was issued.			

Question ID	NCL 19	Question Type	Information
Legislative Requirement(s): Not Applicable			
Question: Are there water quality concerns with the results of the samples that have been tested?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Yes During the review of information related to the inspection, the Ministry has requested and technical assessment of groundwater sampling results for the closed landfill. At the time of this report this assessment had not been completed. Concerns, if any, that may be identified during the review will be forwarded to the Municipality.			

Question ID	NCL 20	Question Type	Information
Legislative Requirement(s): Not Applicable			
Question: Is there ongoing abatement to address any concerns of the ministry with the ground water monitoring?			

Compliance Response(s)/Corrective Action(s)/Observation(s):

No

Question ID	NCL 21	Question Type	Information
Legislative Requirement(s):			
Not Applicable			
Question:			
Is the site required to manage leachate by the ECA?			
Compliance Response(s)/Corrective Action(s)/Observation(s):			
No			

Question ID	NCL 23	Question Type	Legislative
Legislative Requirement(s):			
EPA 27 (1); EPA O. Reg. 232/98 26;			
Question:			
Are samples taken to monitor leachate quality?			
Compliance Response(s)/Corrective Action(s)/Observation(s):			
Yes			
There are no wells that have been advanced into the mound. BMRoss indicates in the 2022 Annual Report that "MW2 is located downgradient and on the south face of the mound area; as such, it should be the best available location for characterizing the leachate chemistry."			

Question ID	NCL 24	Question Type	Information
Legislative Requirement(s):			
Not Applicable			
Question:			
Are there concerns with the leachate quality?			
Compliance Response(s)/Corrective Action(s)/Observation(s):			
No			

Question ID	NCL 26	Question Type	Information
Legislative Requirement(s):			
Not Applicable			
Question:			
Is the site required to manage landfill gas by the ECA?			

Compliance Response(s)/Corrective Action(s)/Observation(s):

No

Question ID	NCL 28	Question Type	Legislative
Legislative Requirement(s): EPA 27 (1);			
Question: Is landfill gas managed and monitored at this site?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Yes Landfill gas (methane concentration and pressure) shall be monitored from the landfill gas monitoring probes at the Site, at least twice (May 1 through November 30), and more frequently during frozen ground conditions (i.e., December 1 through April 30). At the time of the inspection these requirements were being met. Given the construction of the sewage treatment plant on site, a methane monitoring device was required to be installed, routinely monitored and maintained for all enclosed buildings or structures on site which at times are occupied by people.			

Question ID	NCL 29	Question Type	Information
Legislative Requirement(s): Not Applicable			
Question: Are there landfill gas concerns at this site?			
Compliance Response(s)/Corrective Action(s)/Observation(s): No Landfill gas concerns are limited to the waste mound and area in close proximity to the mound. Given the soil conditions, landfill gas levels have been found to rapidly decrease moving away from the mound.			

Question ID	NCL 31	Question Type	Information
Legislative Requirement(s): Not Applicable			
Question: Is the site required to have a surface water monitoring program by the ECA?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Yes			

Question ID	NCL 32	Question Type	Legislative
Legislative Requirement(s): EPA 27 (1);			
Question: Is the site implementing the surface water monitoring program as required by the ECA?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Yes			

Question ID	NCL 33	Question Type	Legislative
Legislative Requirement(s): EPA 27 (1); EPA O. Reg. 232/98 24;			
Question: Is the water quality being monitored/sampled for surface water features on-site and for any off-site surface water features that receive a direct discharge from the site?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Yes			

Question ID	NCL 34	Question Type	Information
Legislative Requirement(s): Not Applicable			
Question: Are there water quality concerns with the results of the samples that have been tested?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Yes At this time, the Ministry does not share BMRoss's confidence, noted in the 2022 Annual Report, that chloride levels the surface water sampling is truly representative of chloride conditions. The Ministry suggests additional sampling between point ESR (stream east side rear) and SEG (stream east of gate) to better define landfill influence.			

Question ID	NCL 35	Question Type	Information
Legislative Requirement(s): Not Applicable			
Question: Is there ongoing abatement to address any concerns the ministry has with the surface water monitoring?			

Compliance Response(s)/Corrective Action(s)/Observation(s):

No

Question ID	NCL 36	Question Type	Information
Legislative Requirement(s): EPA 27 (1);			
Question: Has the annual post-closure care report been submitted to MECP or available on site as required by the ECA?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Yes			

Question ID	NCL 37	Question Type	Legislative
Legislative Requirement(s): EPA 27 (1);			
Question: Is scavenging being prevented?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Yes			

Question ID	NCL 38	Question Type	Legislative
Legislative Requirement(s): EPA 27 (1);			
Question: Has a closure plan been submitted to the MECP?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Yes			

Question ID	NCL 39	Question Type	Legislative
Legislative Requirement(s): EPA 27 (1);			
Question: Has the closure plan been approved by MECP?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Yes			

Question ID	NCL 40	Question Type	Legislative
Legislative Requirement(s): EPA 27 (1);			
Question: Does the landfill have a procedure in place to address complaints?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Yes			

Question ID	NCL 42	Question Type	Information
Legislative Requirement(s): EPA 27 (1);			
Question: Is there an ECA condition requiring financial assurance?			
Compliance Response(s)/Corrective Action(s)/Observation(s): No			

Question ID	NCL 45	Question Type	Legislative
Legislative Requirement(s): EPA 27 (1);			
Question: At the time of inspection, there are no indications of inadequate waste management (no visible leachate seeping, no waste deposited illegally outside the landfill boundary, etc)?			
Compliance Response(s)/Corrective Action(s)/Observation(s): No Limited precipitation had occurred in the days leading up to the landfill site inspection. During the inspection there was a saturated area noted on the west side of the landfill limit, that did not appear consistent with the remainder of the area. Also, nearby was a large drainage tile that appeared to start at the top of the embankment, abutting the landfill limit, leading to the stream at the bottom. The Ministry is requesting that the municipality further investigate these two areas of concern.			

Question ID	949100	Question Type	Legislative
Legislative Requirement(s): Not Applicable			
Question: Were the inspection questions sufficient to address other identified non-compliance items?			

Compliance Response(s)/Corrective Action(s)/Observation(s):

Question ID	NCL 13	Question Type	Legislative
Legislative Requirement(s): EPA 27 (1);			
Question: Is site access restricted by use of a gate, fence, or physical barrier?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Yes At the time of the inspection access to the site was limited by a located gate and fence at the roadway. This site has an operational municipal sewage system and waste transfer station. Municipal staff regularly attending the site.			

Question ID	NCL 16	Question Type	Information
Legislative Requirement(s): Not Applicable			
Question: Is the site required to have a ground water monitoring program in the ECA?			
Compliance Response(s)/Corrective Action(s)/Observation(s): Yes Environmental Compliance Approval A041101, condition 4.0 outlines post closure monitoring programs. Monitoring for landfill gas, groundwater/leachate and surface water, is as described in the Closure Plan.			