



Report Date: March 26, 2019

File: 100207

Report Number: 116958

REGISTERED MAIL

CANADIAN NATURAL RESOURCES LIMITED

2500
855 - 2ND STREET SW CALGARY
AB T2P 4J8

Dear CANADIAN NATURAL RESOURCES LIMITED

Re: Warning Letter, Permit, 100207

On March 25, 2019, Ministry of Environment, Environmental Protection Division staff conducted an inspection under *Environmental Management Act (EMA)*, 100207. The inspection determined that CANADIAN NATURAL RESOURCES LIMITED is out of compliance with its Permit 100207, and the section(s) listed below. This Warning Letter lists the compliance verification information contained below.

Failure to comply with the requirements set out in your Permit is an offence under the *Environmental Management Act (EMA)*. Section 120(7) of *EMA* states as follows:

120(7) A person who, holding a permit or approval issued under this Act to introduce waste into the environment, fails to comply with the requirements of the permit or approval commits an offence and is liable to a penalty not exceeding \$300 000 or imprisonment for not more than 6 months, or both.

It should also be noted that, as an alternative to prosecution of the offence referenced above, the Ministry may initiate action to impose an administrative penalty against CANADIAN NATURAL RESOURCES LIMITED. *The Administrative Penalties Regulation (EMA)* (B.C. Reg. 133/2014) (APR) was brought into force in 2014. The APR describes the prescribed provisions of the *EMA* as well as that of specified regulations under which administrative penalties can be assigned. Section 12(5) of the APR states as follows:

12(5) A person who fails to comply with a requirement of a permit or approval issued or given under the Act is liable to an administrative penalty not exceeding \$40 000, unless the requirement the person failed to comply with is also a prescribed provision of the EMA or the regulations that is subject to a different maximum administrative penalty.

I request that CANADIAN NATURAL RESOURCES LIMITED immediately implement the necessary changes or modifications to correct the non-compliance(s) listed above with the *Environmental Management Act*. Further, I request that CANADIAN NATURAL RESOURCES LIMITED notify this office in writing, by email or letter within 30 days of this letter, advising what corrective measures have been taken, and what else is being done, to prevent similar non-compliances in the future.

Please submit your response to the Ministry's Compliance Mailbox at EnvironmentalCompliance@gov.bc.ca.

As a result of this Warning, this authorization will be prioritized for follow-up inspection. The corrective measures will be reviewed by an Officer as part of the next inspection.

Finally, if you fail to take the necessary actions to restore compliance, you may be subject to escalating enforcement action. This Warning Letter and the alleged violations and circumstances to which it refers, will form part of the compliance history of CANADIAN NATURAL RESOURCES LIMITED and will be taken into account in the event of future violations.

**Ministry of Environment
and Climate Change
Strategy**

Compliance
Environmental
Protection Division

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3rd Fl
1011-4th Ave
Prince George BC V2L 3H9

Telephone: 250 565 6135
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Inspection Details:

Requirement Description:	<p>1. AUTHORIZED DISCHARGES, 1.1 Authorized Source, 1.1.1</p> <p>1.1.1: This subsection applies to the discharge of refuse to a SECURE LANDFILL. The site reference number for this discharge is E275063. 1.1.1 The maximum total quantity of waste authorised to be discharged is 1.6 million cubic meters over the life of the landfill.</p>
Details/Findings:	<p>On March 25, 2019, Ministry of Environment and Climate Change Strategy (Ministry) Officer Kelly Mills conducted data review inspection of Canadian Natural Resources Ltd. (CNRL) Peejay Secure Landfill located north of Ft. St John, British Columbia (facility), against the requirements of Environmental Management Act Permit 100207 (Permit). The Permit was first issued March 30, 2009, and was most recently amended March 15, 2017. In August of 2017, the previous permit holder, Petrowest GP Ltd. (Petrowest) went into receivership, and on March 27, 2018, the Ministry authorized a Permit transfer from Petrowest to CNRL. The Permit authorizes the discharge of refuse to the ground.</p> <p>The time period covered by this inspection was January 1, 2017, to December 31, 2017 (inspection period). The following documents were reviewed as part of this inspection:</p> <ul style="list-style-type: none"> - Annual Report - 2017, Peejay Secure Landfill, dated March 29, 2018 (2017 Annual Report); - 2017 Annual Groundwater Monitoring and Sampling Report, dated March 31, 2018 (2017 GW Report); - Environmental Regulatory Compliance Audit Report Peejay Secure Landfill, dated March 31, 2017 (2017 Audit Report); and - Peejay Secure Landfill, Operations Plan, 2015 (2015 OP). <p>As reported in the Executive Summary of the 2017 Annual Report, "A total of 3,778 tonnes of industrial waste soil was received in 2017." Section 8 of the 2017 Annual Report confirms that the facility started receiving waste on January 17, 2013, and states, "In total, 265,589 tonnes of waste has been received since 2013, which is approximately 8.3% of the total landfill capacity."</p>
Compliance:	In
Requirement Description:	<p>1. AUTHORIZED DISCHARGES, 1.1 Authorized Source, 1.1.2</p> <p>1.1.2: This subsection applies to the discharge of refuse to a SECURE LANDFILL. The site reference number for this discharge is E275063. 1.1.2 The characteristics of the discharge are those of refuse, primarily hydrocarbon and salt contaminated soil from flare pit reclamations, spills, pipeline breaks, lease reclamations and other upstream oil and gas operations, including hazardous waste, except those wastes as set out in Section 6.</p>
Details/Findings:	Section 3.3.2 of the 2017 Annual Report confirms that the facility received only waste soil, and that no hazardous waste was accepted.

Compliance:	In
Requirement Description:	2. POSTING OF SECURITY, 2.1 2.1: The Permittee must submit a cost estimate for maintenance, monitoring, waste disposal (e.g. leachate) and closure of the landfill for the active life of the site and a minimum twenty-five year post-closure period. The cost estimate must be prepared or reviewed by a suitably qualified, independent third party. An updated cost estimate must be submitted each year with the annual report under section 9.3 proposing the security for the following year.
Details/Findings:	The 2017 Annual Report does not include a security proposal or cost estimate for maintenance, monitoring, waste disposal (e.g. leachate) and closure of the landfill for the active life of the site and a minimum twenty-five year post-closure period.
Compliance:	Out
Actions to be taken:	Ensure that Annual Reports include an updated cost estimate and security proposal in accordance with this requirement.
Requirement Description:	2. POSTING OF SECURITY, 2.2 2.2: The annual cost estimate, submitted in 2.1 above, requires the approval of the Director. The Permittee must provide and maintain security in the amount agreed upon by the Director. The security may be applied at the discretion of the Director under the provisions of the Environmental Management Act to dispose of the waste, correct inadequacies relating to construction or operation, monitor the site, or carry out post-closure maintenance.
Details/Findings:	It is noted that CNRL has provided an Irrevocable Standby Letter of Credit (number 10006369) with Royal Bank of Canada for the amount of \$2,469,365.00 effective March 22, 2018. The credit is extended annually on March 21, unless notification of cancellation is provided with 30 days notice. However, as this letter was issued on March 22, 2018, compliance for the 2017 inspection period could not be determined.
Compliance:	Not Determined

Requirement Description:	4. GENERAL REQUIREMENTS, 4.2 Auditing 4.2: The facility must be audited by a qualified independent 3rd party a minimum of once every two years. The results of the audit must be submitted to the director within 30 days of completing the audit.
Details/Findings:	As stated on Page 1 of the 2017 Audit Report, "The audit was completed as per Section 4.2 Auditing of Ministry of Environment Permit 100207 by Neil Allen, a qualified independent 3rd party professional Auditor (EP[EMSLA], EP[CEA]), in accordance with CSA Standard Z773-03 "Environmental Compliance Auditing" and ISO 1911:2011 "Guidelines for Auditing Management Systems." The report confirms that the audit was completed on February 23, 2017, and submitted to the Ministry on March 31, 2017. Therefore the permit holder is out of compliance for failing to submit the report within 30 days of completing the audit.
Compliance:	Out
Actions to be taken:	Ensure that results of the audit are submitted to the director within 30 days of completing the audit.
Requirement Description:	4. GENERAL REQUIREMENTS, 4.10 Naturally Occurring Radioactive Material (NORM) 4.10: All loads entering the facility must be screened at the gate for Naturally Occurring Radioactive Materials (NORM) by a screening procedure developed by a Qualified Professional. Any waste material that exceeds the limits specified in Tables 5.1, 5.2 or 5.3 of the Canadian Guidelines for the Management of Naturally Occurring Radioactive Materials is prohibited for disposal.
Details/Findings:	As reported in Section 3.3 of the 2017 Annual Report, "All loads entering the Site were screened for naturally occurring radioactive materials (NORMs). Any waste soil that exceeded the limits of the Canadian Guidelines for the Management of NORMs was prohibited for disposal."
Compliance:	In

Requirement Description:	<p>5. OPERATIONAL REQUIREMENTS, 5.1 Operational Plan</p> <p>5.1: Prior to construction, an Operational Plan must be submitted to and approved by the Director. The Operational Plan must address at a minimum, all of the following: a) waste acceptance policies and procedures; b) policies and procedures for complying with the Hazardous Waste Regulation for the facility; c) a leachate monitoring and management program; d) a surface water monitoring and management program; e) a ground water monitoring and management program; f) a detailed description of maximum design elevations, slope and boundary for final landfill contours; g) a nuisance control program; h) an emergency response plan; and, i) any other information requested by the Director. The facility must be operated in accordance with the approved Operational Plan, and any requirements which the Director may attach to the Operational Plan as a condition of approval.</p>
Details/Findings:	<p>Section 9.5 of the 2015 OP states that all stormwater will be analyzed for parameters specified in Section 27(6) of the Hazardous Waste Regulation (HWR), and that stormwater that fails to meet this criteria will not be discharged to the environment or used for dust suppression. The Executive Summary of the 2017 Annual Report states that two samples were collected from the stormwater ponds prior to discharge, and that results exceeded thresholds for pH, total manganese, total nickel, total beryllium, and total cobalt.</p> <p>Section 9.6 of the 2015 OP states that air quality will be monitored during work hours using personnel 4-gas monitors and handheld BTEX monitors, and that results will be summarised and reported in the Annual Report. The Annual Report does not mention or provide details of any air quality monitoring undertaken in 2017.</p>
Compliance:	Out
Actions to be taken:	Ensure that the facility is operated in accordance with the approved Operational Plan.
Requirement Description:	<p>7. MONITORING</p> <p>7: Monitoring must be performed as outlined in the Operational Plan. Any changes to the monitoring program must be submitted as part of the updated Operational Plan for the approval of the Director. The need for subsequent increased or decreased monitoring will be assessed on the basis of the monitoring data submitted, any other data gathered in connection with the discharges and/or as otherwise specified by the Director.</p>

Details/Findings:	<p>The 2015 OP outlines monitoring protocols for groundwater, leachate, leak detection, stormwater/surface water, and nuisance control.</p> <p>Groundwater Section 3.1 of the 2017 GW Report states, "all groundwater monitoring wells were monitored on March 23 (Q1), September 22 (Q2), and December 17 (Q3)," and Table 3-1 confirms that no samples were collected in Q2 of 2017. Section 9.1.3 of the 2015 OP requires that groundwater monitoring takes place quarterly, therefore the Permit holder is out of compliance with this requirement.</p> <p>Leachate The Executive Summary of the 2017 Annual Report states that waste was stored in both a temporary receiving cell and a permanent landfill cell #1. As reported in Section 4.3 of the 2017 Annual Report, "In 2017, leachate within the temporary receiving cell was monitored by PWE personnel for quantity and no leachate was transferred to the leachate pond." Section 9.2 of the 2015 OP requires that leachate monitoring is conducted at both temporary and permanent cells, therefore the Permit holder is out of compliance with this requirement.</p> <p>Leak Detection Section 9.3 of the 2015 OP requires that the lead detection/groundwater control system be inspected on a weekly basis using a pressure transponder, and that any detected fluids are collected and analysed for the presence of leachate. The 2017 Annual Report does not provide details of any leak detection monitoring undertaken in 2017, therefore, compliance with this requirement could not be determined.</p> <p>Stormwater/Surface Water Section 9.5 of the OP states that all stormwater will be analyzed for parameters specified in Section 27(6) of the HWR. The Executive Summary of the 2017 Annual Report states that two samples were collected from the stormwater ponds prior to discharge and analyzed in accordance with the 2015 OP.</p> <p>Nuisance Control Section 9.6 of the 2015 OP states that air quality will be monitored during work hours using personal 4-gas monitors and handheld BTEX monitors, and that results will be summarised and reported in the Annual Report. The Annual Report does not mention or provide details of any air quality/nuisance control monitoring undertaken in 2017, therefore, compliance with this requirement could not be determined.</p>
Compliance:	Out
Actions to be taken:	Ensure that monitoring is undertaken with the approved Operational Plan.

Requirement Description:	<p>8. ANALYSIS</p> <p>8: Sampling is to be carried out in accordance with the procedures described in the most recent edition of the "British Columbia Field Sampling Manual for Continuous Monitoring Plus the Collection of Air, Air-Emission, Water, Wastewater, Soil, Sediment, and Biological Samples", or by suitable alternative procedures as authorized by the Director. A copy of the above manual may be purchased from the Queen's Printer Publications Centre, P. O. Box 9452, Stn. Prov. Gov't. Victoria, British Columbia, V8W 9V7 (1-800-663-6105 or (250) 387-6409). A copy of the manual may be viewed online at: www.env.gov.bc.ca/epd/wamr/labsys/field_man_03.html Analyses are to be carried out in accordance with procedures described in the most recent edition of the "British Columbia Laboratory Methods Manual for the Analysis of Water, Wastewater, Sediment, Biological Materials and Discrete Ambient Air Samples", or by suitable alternative procedures as authorized by the Director. A copy of the above manual may be purchased from the Queen's Printer Publication Centre, P. O. Box 9452, Stn. Prov. Govt. Victoria, British Columbia, V8W 9V7 (1-800-663-6105 or (250) 387-6409). A copy of the manual may be viewed online at: www.env.gov.bc.ca/epd/wamr/labsys/lab_meth_manual.html</p>
Details/Findings:	<p>The 2017 Annual Report and 2017 GW Report confirm that samples were analysed by Exova in Fort St. John, British Columbia, and AGAT laboratories in Calgary, Alberta. Both laboratories are approved by the British Columbia Directory of Qualified Laboratories (http://www.nrs.gov.bc.ca/qualified-labs/).</p>
Compliance:	<p>In</p>
Requirement Description:	<p>9. REPORTING, 9.3 Annual Report</p> <p>9.3: The Permittee must submit an Annual Report in a format acceptable to the Director for approval on or before March 31 each year. The report must contain at least the following information; a) The category and tonnage of waste received, recycled and discharged for the preceding calendar year. b) A review of the decision matrix for determining which wastes will be treated versus directly disposed and recommended revisions to the matrix. c) A current topographic map of the site. d) The remaining capacity and estimated site life. e) An updated cost estimate of the financial security required by Section 2.1. f) A review of operations for the previous calendar year and detailed plans for the next 12 months for incorporation into an updated Operational Plan. g) Any revisions to plans and specifications. h) Up to date contingency plans. i) The results of all monitoring programs as specified in this Permit. Data interpretation and trend analysis, as well as an evaluation of the impacts of the discharges on the receiving environment in the previous year must be carried out by a qualified independent professional. and, j) The methods and amounts of leachate collection, treatment and disposal, if applicable.</p>
Details/Findings:	<p>The 2017 Annual Report was submitted on time on March 29, 2018, and was signed by Andrew Menezes and Terry Duffy. Mr Duffy is a registered member of the Association of Professional Engineers and Geoscientists of the Province of British Columbia. The report does not contain a current topographic map of the site, any revisions to plans and specifications, details of leak detection and air quality monitoring, an updated cost estimate of financial security required by Section 2.1, or up to date contingency plans.</p>

Compliance:	Out
Actions to be taken:	Ensure that Annual Reports meet all requirements of this section.

The Ministry of Environment Compliance and Enforcement Policy and Procedure (C&E Policy) prescribes common requirements and procedures for all Ministry staff to ensure consistent and risk-based assessment and response to non-compliance. Using the Non-Compliance Decision Matrix, the compliance determination for this inspection has been assessed as a **Level 2, Category B**.

More information about Environmental Compliance, the Non-Compliance Decision Matrix, and reporting and data submission requirements can be found at the links below:

General compliance information:

www.gov.bc.ca/environmentalcompliance

Non-Compliance Decision Matrix information:

<https://www2.gov.bc.ca/gov/content/environment/natural-resource-stewardship/natural-resource-law-enforcement/environmental-compliance/how-compliance-is-assessed>

Reporting and data submission requirements (to be sent to EnvAuthorizationsReporting@gov.bc.ca):

<https://www2.gov.bc.ca/gov/content/environment/waste-management/waste-discharge-authorization/data-and-report-submissions/routine-environmental-reporting-submission-mailbox>

Compliance History

2018-02-13 IR78166 - Advisory: Review of 2015 and 2016 Annual Reports. Failure to adhere to Operational Plan, Annual Report deficiencies

2015-09-15 IR22065 - Notice: On-site inspection

Please be advised that this inspection report may be published on the provincial government website within 7 days.

If you have any questions about this warning, please contact the undersigned.

Yours truly,

Kelly Mills
Environmental Protection Officer

cc:

Attachments:

Deliver via:			
Email:	<input checked="" type="checkbox"/>	Fax:	<input type="checkbox"/>
Registered Mail:	<input checked="" type="checkbox"/>	Mail:	<input type="checkbox"/>
Hand Delivery:	<input type="checkbox"/>		

**Ministry of Environment
and Climate Change
Strategy**

Compliance
Environmental
Protection Division

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DISCLAIMER:

Please note that sections of the permit, regulation or code of practice referenced in this inspection record are for guidance and are not the official version. Please refer to the original permit, regulation or code of practice.

To see the most up to date version of the regulations and codes of practices please visit
<http://www.bclaws.ca>

If you require a copy of the original permit, please contact the inspector noted on this inspection record.

It is also important to note that this inspection record does not necessarily reflect each requirement or condition of the authorization therefore compliance is noted only for the requirements or conditions listed in the inspection record.