



Department of Municipal Affairs and Environment  
Government of Newfoundland and Labrador  
Pollution Prevention Division (Environment)

## CERTIFICATE OF APPROVAL

Pursuant to the *Environmental Protection Act, SNL 2002, Sections 16, 78 and 83.*

Issued: March 7, 2019  
Expiration: February 28, 2024

Approval No.: WMS-2019-02-001  
File No.: 804.021.001

**Approval holder:** City of St. John's  
City Hall  
P. O. Box 908  
St. John's, NL, A1C 5M2  
Tel: (709) 576-8100  
Fax: (709) 576-8625

**Attention:** Jonathan Murphy, P.Eng.  
Waste Management Engineer  
Robin Hood Bay Waste Management  
Facility, Department of Public Works

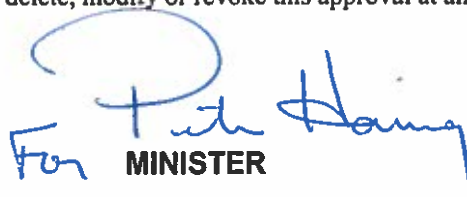
**Re:** Approval for the continued operation of the Robin Hood Bay Regional Waste Management Facility to serve the City of St. John's and the Eastern Newfoundland Region.

---

Approval is hereby given for the continued operation of a Regional Waste Management Facility located at Robin Hood Bay, 340 East White Hills Road, St. John's to serve the City of St. John's and the Eastern Region.

This approval does not release the holder from the obligation to obtain appropriate approvals from other concerned provincial, federal and municipal agencies. Approval from the Department of Municipal Affairs and Environment (the Department) shall be obtained prior to any significant change in the design, construction, installation, or operation of the facility, including any future expansion of the works. This certificate shall not be sold, assigned, transferred, leased, mortgaged, sublet or otherwise alienated by the holder without obtaining written prior approval from the Minister.

This approval is subject to the terms and conditions attached hereto, as may be revised from time to time by the Department. Failure to comply with any of the terms and conditions may render this certificate of approval null and void, may require the approval holder to cease all activities associated with this certificate of approval, may place the approval holder and its agent(s) in violation of the *Environmental Protection Act, SNL., 2002, c. E-14-2*, and will hold the approval holder responsible for taking such remedial measures as may be prescribed by the Department. The Department reserves the right to add, delete, modify or revoke this approval at any time.

  
For MINISTER

### **Administrative and General**

1. The Robin Hood Bay Regional Waste Management Facility is intended to serve the municipal solid waste recycling/disposal requirements of the Eastern Region of the Province. Where a waste material presents a management problem, consultation with the Department is required to make accommodations, and achieve a solution.
2. The Department reserves the right to make this Certificate of Approval publicly available.
3. Any inquiries concerning this approval shall be directed to the St. John's office of the Pollution Prevention Division, telephone: 709-729-2556; or facsimile: 709-729-6969.
4. All responsible personnel who are directly involved with operation and maintenance of the processing system shall be provided copies of this Approval and shall be fully aware of the terms and conditions pertaining.
5. If different from the terms and conditions set out in the Department's Environmental Standards, those directly stated in the Certificate of Approval shall apply.
6. A copy of this facility approval shall be kept on site at all times.
7. Separate approvals or an amendment to this approval is required for other waste management activities and/or facilities at this site.
8. The approval holder shall immediately notify the Department in writing of any change in the legal name, address, ownership, or facility operator associated with the site.
9. The approval holder is responsible to ensure that appropriate and adequate financial assurances and/or environmental impairment liability and/ or pollution abatement assurance and automotive insurance policies are in place for all operators contracted to support the operations within this waste management facility.
10. The approval holder shall ensure that the Material Recovery Facility, the Hazardous Household Waste Depot, and any/all other facilities are operated by the licensed company contracted for operations.
11. The approval holder shall ensure that all recyclable and residual waste materials accepted, disposed, or transferred to/from each part of the regional waste management facility, are accounted for, and database records are made available upon request to the Department.

### **Definitions**

- **Department** means the Department of Municipal Affairs and Environment and its successors:
- **Director** means the Director of the Pollution Prevention Division of the Department
- **Minister** means Minister of the Department
- **Regional Director** means Director of the Regional Service NL

### **Application renewal submissions**

12. 1) The 2018 report for Robin Hood Bay as submitted on February 4, 2019 including as follows:
- a. Summary table of tonnages for waste received and landfilled; and recyclable materials and materials shipped out for recycling;
  - b. Summary of all soil, asphalt, concrete and brick received at the facility separated, stockpiled and used as cover material;
  - c. Summary of all 'leaves for compost' received, separated and composted;
  - d. Summary of all waste received, organized by customer;
  - e. Summary of all odour complaints received during 2018;
  - f. Summary of landfill gas collected and destroyed at the flare; and
  - g. Summary of leachate pumped to sewer.
- 2) Additionally, a consultant's report on leachate, surface water and groundwater chemistry is to be submitted at a later date for 2018.
- 3) Capital works projects completed in 2018 included the addition of four landfill gas collection wells and approximately 10 hectares of geosynthetic clay liner. As-built drawings have been received.

### **Legislation Standards and Guidelines**

13. The activities associated with this operation may be subject to, but not be limited to, the following provincial Acts and Regulations as may be amended from time to time:
- *Environmental Protection Act RSNL, 2002 as amended*
  - *Air Pollution Control Regulations, 2004*
  - *Storage and Handling of Gasoline and Associated Products Regulations, 2003*
  - *Used Oil Control Regulations, 2002*
  - *Halocarbon Regulations, 2005*
  - *Pesticides Control Regulations, 2012*
  - *Water Resources Act, 2002 as amended*
  - *Environmental Control Water and Sewage Regulations, 2003.*
  - *Occupational Health and Safety Act RSNL, 1990*
  - *Dangerous Goods Transportation Act, 2006*
  - *Municipalities Act, 1999*
  - *Regional Service Board Act, 1990*
  - *Transportation and Works Act, 1995 (and Highway specifications as amended)*
14. The activities associated with this operation may be subject to, but not be limited to, the following federal Acts and Regulations as enforced by the respective Federal Regulatory Agencies:
- *Canadian Environmental Protection Act and Regulations*
  - *Transportation of Dangerous Goods Act and Regulations*
  - *Fisheries Act*
  - *National Fire Code*
  - *Health of Animals Act*
  - *Fertilizers Act*

15. The versions of the following guidance documents and policy directives as amended in effect at the time of issue apply to this system and its respective components:

GD-PPD-033.1 Asbestos Waste Disposal  
 GD-PPD – 047 Environmental Standards for Material Recovery Facilities  
 GD-PPD – 049 Environmental Standards for Municipal Solid Waste Landfill Sites  
 GD-PPD – 050 Environmental Standards for Construction and Demolition Debris Landfills  
 GD-PPD – 059 Environmental Standards for Household Hazardous Waste Depots  
 GD-PPD – 063 General Environmental Standards for Municipal Solid Waste Facilities/Systems  
 GD-PPD - 066 Sampling of Water and Wastewater-Industrial Effluent Applications  
 GD-PPD - 075.1 Treated Wood Waste Disposal  
 GD-PPD - 078 Management of Biomedical and Pharmaceutical Waste (BPW)  
 PD:PP2001- 01.2 Accredited and Certified Laboratory Policy

Copies of all environmental standards/guidance documents are posted to the Department of Municipal Affairs and Environment website.

[https://www.mae.gov.nl.ca/env\\_protection/waste/index.html#wmsgd](https://www.mae.gov.nl.ca/env_protection/waste/index.html#wmsgd)

16. Municipal by-laws, policies, permitting requirements and enforcement capability remain applicable at all times. Where there is a potential or suspected conflict with the contents of this Certificate of Approval, the Department shall be contacted.

#### **Quality Control/Quality Assurance**

17. The approval holder is required to ensure that quality control/assurance is maintained in all aspects of facility construction, maintenance and operations of a day to day basis. The annual report for the site shall include copies of testing and inspection procedures and reports, with a deficiency summary, itemized corrections and any other information requested by the Department.

#### **Landfill Site and Facility Construction**

18. Environmentally sound construction practices are required in all aspects of access road construction and on-site preparation, including ongoing facility construction, progressive decommissioning (as landfill cells are closed) and landscaping. This includes appropriate storage and recycling /disposal of litter, debris, any hazardous or special waste material, waste dangerous goods or other waste related to construction.
19. Erosion and sediment control measures are to be installed and maintained as required, such that watercourses or water resources adjacent to and downstream of the site are protected from siltation. The Act prohibits release of a material that may cause an adverse effect.
20. All areas exposed during construction and temporary diversion, or control structures such as berms, ditches, etc., shall be stabilized as soon as practical.
21. When dewatering of construction areas is required, the water shall not be discharged directly to a watercourse or water resource, nor to a conveyance (a ditch, culvert, manhole) that may lead to a watercourse or water resource without prior treatment to meet discharge limits as per Table 1 of this approval.
22. Grubbings and excavated material shall be stored or disposed of in a manner that will not result in sedimentation of adjacent and downstream watercourses or water resources.

23. Site access roads shall be maintained to minimize dust generation. The use of dust suppressants other than water or calcium chloride shall require approval of the Director. Operators are encouraged to use best management practices when applying calcium chloride or any other approved dust suppressant.
24. The 200 ha Robin Hood Bay Regional Waste Management Site comprises an engineered Municipal Solid Waste landfill (30 ha) that meets the Departmental equivalent to lined standard for environmental protection. Cell construction shall ensure a 25-year breakthrough for containment; the collection of landfill leachate and discharge into the City's sanitary sewer system is acceptable provided that the leachate quality meets discharge criteria as set out in Table 1 in this approval. In the event of an exceedance of discharge criteria, justification for the exceedance must be provided to the Department along with corrective action(s). The use of an enclosed flare to reduce greenhouse gas potential and vented methane is approved. The continued use of the starter berm, perimeter road ditching, and improved storm water drainage to minimize surface water contact with disposed waste is approved.
25. The Department reserves the right to require the installation of infrastructure for further treatment of landfill leachate where the criteria for wastewater quality at the point of discharge to the environment, as set out in the Environmental Control of Water and Sewage Regulations, 2003 (*ECWSR*) are exceeded, and/or groundwater or surface water quality may be adversely impacted.
26. All necessary engineering documentation / project plans, drawings and specifications shall be submitted to and approved in writing by the Department, prior to the construction, modification or expansion of additional containment cells; landfill gas management systems; leachate treatment systems; facilities for processing recyclables or managing organics; storage of waste including household hazardous waste; special waste disposal cells/locations, or any other construction activity at the facility.
27. A separate Approval or amendment to this Approval is required for the construction and operation of a Regional Composting Facility.
28. There shall be sufficient area for weigh scales for incoming materials and for queuing vehicles.
29. The approval holder shall provide supervision when any material is being disposed of at the facility, including the areas for construction and demolition debris (C&D), and special waste. Unsupervised landfill disposal is not permitted.
30. Incoming waste shall be routinely scrutinized to ensure that unacceptable waste is not received at the site.
31. Regular and uniform compaction of waste is recommended to maximize utilization of air space and minimize voids.
32. The approval holder shall ensure that all exposed waste disposed to containment cells is covered with a minimum of 150 mm of clean soil (or alternate daily cover that has been pre-approved in writing by the Department), as a minimum, at the end of each operating day.

33. Intermediate cover, which is placed when a cell is filled, shall consist of at least 450 mm depth of soil, or alternate cover as approved, and shall be enhanced to prevent infiltration and promote runoff.
34. Inert construction and demolition material as defined by the Departmental standard shall be stockpiled for recycling or used as cover material when appropriately sized.

### **Operation of a Materials Recovery Facility**

35. The continued operation of the Materials Recovery Facility (MRF) at Robin Hood Bay, as per contractual arrangements with the City of St. John's is approved, to serve the City of St. John's and the Eastern Waste Management Region.
36. Any expansion of the MRF shall be reviewed by the Department prior to construction and operation. The Department's Environmental Standard for Material Recovery Facilities, as may be amended from time to time, provides further information. Service NL may also be contacted for information and clarification.

### **Construction and Operation of a Hazardous Household Waste Facility**

37. The continued operation of a Hazardous Household Waste (HHW) Facility at Robin Hood Bay is approved. The operator of this facility shall be approved by the Department to handle and transport hazardous waste in the Province of NL, and thereby meet all departmental requirements for staff training and environmentally secure/safe operations and regulatory documentation. A facility-specific Environmental Health and Safety Contingency Plan is required.
38. The approval holder shall ensure that all hazardous household waste accepted for storage at the depot is secured in sealed chemically resistant containers, away from high traffic areas, electrical panels and potential vehicle impacts. The containment area shall be designed to prevent contact between incompatible chemicals.
39. All bulk shipments of hazardous waste/ hazardous recyclable materials from the site are subject to manifesting requirements under Federal Acts and Regulations; and as per the Certificate of Approval issued to licensed transporters in the Province of Newfoundland and Labrador.
40. For all waste management facilities the areas in which hazardous materials or chemicals may be used or stored shall have impermeable floors and dykes or curbs and shall not have a floor drain system, nor shall it discharge to the environment. Areas inside the dykes or curbs shall have an effective secondary containment capacity of at least **110% of the chemical storage tank capacity, in the case of a single storage container. If there is more than one storage container, the dyked area shall be able to retain no less than 110% of the capacity of the largest container or 100 % of the capacity of the largest container plus 10% of the aggregate capacity of all additional containers, whichever is greater.** These dyked areas shall be kept clear of material that may compromise the capacity of the dyke system. Once a year, the dykes shall be visually inspected for their liquid containing integrity, and repairs shall be made when required. Once every ten years, the dykes shall be inspected, by a means other than visual inspection, for their liquid containing integrity, and repairs shall be made when required. This requirement stands for facilities where quantities of hazardous materials may be kept on a regular or intermittent basis.

41. All holding tanks for used oil shall be approved by Service NL as per the *Used Oil Control Regulations*.
42. Any expansion of the HHW program shall be submitted to the Department for review.

### **Operations and Maintenance Manuals/Plans**

43. The approval holder shall develop and maintain an Operations and Maintenance Manual/Plans in accordance with the Department's General Environmental Standards for Municipal Solid Waste Management Facilities/Systems (GD-PPD – 063), specific to each facility associated with the Regional Site/System.
44. All site operations are to be conducted in accordance with an up-to-date Facility Operations Plan as approved by the Department. Updates shall be submitted to the Department annually as changes are made, or upon request for renewal. The goal is to always maintain a high level of operational efficiency with minimal adverse environmental impact. A non-exhaustive list of operations and maintenance manual inclusions is provided in the applicable Departmental Environmental Standards documents as posted on the Departmental website. The purpose of the Facility Operations Plan is for facility operators and employees to know, and ensure they are trained and clear on how daily operations proceed, that routine maintenance is conducted, and that contingency plans are appropriately enacted.
45. The approval holder shall maintain a public education plan respecting municipal solid waste management.
46. Approved site-specific and facility-specific environmental monitoring plans shall be maintained, subject to modification and improvement as required.

### **Surface Water Management**

47. The approval holder shall ensure site run-on is minimized by appropriate drainage ditching and sloping; and that run-off from the site does not detrimentally impact off-site receptors.
48. The approval holder shall ensure that surface water at the facility that has not been in contact with leachate or solid waste, bypasses the leachate collection/storage/treatment system and is directed to an engineered wetland or a storm sewer drainage system from the site.
49. Side slopes of disposal areas shall be properly stabilized and maintained to limit erosion; and any final cover applied shall be sloped to ensure positive drainage and prevent pooling of water on the surface.
50. No authority is granted by this Approval to enable the discharge of surface water beyond the property boundary and onto adjoining lands without the authorization of the affected landowner(s). It is the responsibility of the approval holder to ensure that the authorization of said landowner(s) is current and valid. Failure to retain said authorization may result in this Certificate of Approval being null and void.
51. The Department shall be advised where it is necessary to construct a sedimentation pond to treat run-off from the site.

52. The approval holder shall be required to mitigate significant adverse impacts to receiving watercourses which are impacted as a result of point source and non-point source discharges attributed to the facility.

### **Leachate System Management**

53. The approval holder shall ensure that all leachate generated at the site is directed to the leachate collection piping system and that it is properly maintained to ensure free flow.
54. The leachate collection system shall be capable of maintaining a maximum head of 300mm above the liner, or equivalent, excluding leachate sumps, during routine operation and be sloped to allow leachate to drain.
55. The leachate collection system shall
- a) be of a suitable capacity to handle storage, treatment, and discharge volumes anticipated for the site;
  - b) be hydraulically separate from the facility's storm water system;
  - c) function year round;
  - d) function effectively throughout the lifespan of the landfill;
  - e) be equipped to record instantaneous and total flows;
  - f) have storage capacity to accommodate a 100 year storm event for the drainage basin;
  - g) be chemically compatible with the waste and leachate characteristics;
  - h) provide access for inspection, monitoring flow and head; controlling flow and cleaning;
  - i) function effectively under dynamic and static loading events for all development phases;
  - j) use geosynthetic fabrics specified for leachate generation/ flow into post-closure phase; and
  - k) be designed to prevent the passage of fines into and any blockage of piping systems.
56. All leak detection systems shall be equipped with high level indicator alarms. Staff shall be trained on procedures once an alarm is sounded. These details shall be included in the Facility Operations Plan. Any leachate collected as a result of liner malfunction shall not be recirculated unless approved by the Department in a contingency plan.

### **Landfill Gas Management**

57. Landfill gas collection and equipment shall be in accordance with the latest versions of the Code for Digester Gas and Landfill Gas Installations CAN/CGA-B105-M93 and CAN/CSA-B149.3.
58. Best management practices and safe operating procedures for management of landfill gas shall include appropriate monitoring with properly calibrated equipment.

### **Environmental Monitoring**

59. The approval holder shall ensure that a qualified person (in this case the Environmental Landfill Management Technician) collects surface water and leachate samples at approved locations, and samples the groundwater monitoring wells. Samples shall be collected at quarterly intervals that will provide an accurate representation of surface water and groundwater quality at the site and provided in a report to the Department.



### Discharge Water Quality

60. Prior to discharge to the environment, any leachate or contaminated wastewater shall meet criteria set out in the *Environmental Control Water and Sewage Regulations, 2003*.
61. For any wastewater/ discharges to the environment or that do not lead to a sewage treatment facility, the limits established under Schedule A of the *Environmental Control Water and Sewage Regulations* apply.
62. For discharges to a sewer which leads to a sewage treatment facility, the limits established under Schedule B of the *Environmental Control Water and Sewage Regulations* apply.

### Effluent Monitoring and Discharge

63. Four times per year, Robin Hood Bay shall perform an Effluent Monitoring Program as per Table 1. All results shall be submitted to the Director as per the *Reporting* section.

Table 1 - Effluent Monitoring Program			
Location	EDMS Code	Criteria	Parameters
SW4	00247	Schedule A	<b>General Parameters:</b> temperature, dissolved oxygen (DO), nitrate + nitrite, nitrate, nitrite, pH, TSS, colour, sodium, potassium, calcium, sulphide, magnesium, ammonia, alkalinity, sulphate, chloride, fluoride, turbidity, reactive silica, orthophosphate, phosphorous, DOC, conductance, TDS (calculated), phenol, carbonate (CaCO <sub>3</sub> ), hardness (CaCO <sub>3</sub> ), bicarbonate (CaCO <sub>3</sub> ), cyanide, TPH, BTEX, TKN, BOD, COD, 1,4-dichlorobenzene, dichloromethane, vinyl chloride  <b>Metals Scan:</b> aluminium, antimony, arsenic, barium, beryllium, bismuth, boron, cadmium, chromium, cobalt, copper, iron, lead, manganese, molybdenum, mercury, nickel, selenium, silver, strontium, thallium, tin, titanium, uranium, vanadium, zinc
LW2	00249	Schedule B	

### Water Chemistry Analysis

64. Four times per calendar year, Robin Hood Bay shall perform Water Chemistry Analysis program as per Table 2. Analytical results shall be submitted as per the Reporting section.

**Table 2 - Water Chemistry Analysis Program**

Location	EDMS Code	Parameters
GW1*	00239	<b>General Parameters:</b> temperature, dissolved oxygen (DO), nitrate + nitrite, nitrate, nitrite, pH, TSS, colour, sodium, potassium, calcium, sulphide, magnesium, ammonia, alkalinity, sulphate, chloride, fluoride, turbidity, reactive silica, orthophosphate, phosphorous, DOC, conductance, TDS (calculated), phenol, carbonate (CaCO <sub>3</sub> ), hardness (CaCO <sub>3</sub> ), bicarbonate (CaCO <sub>3</sub> ), cyanide, TPH, BTEX, TKN, BOD, COD, 1,4-dichlorobenzene, dichloromethane, vinyl chloride
GW1A*	00240	
GW2*	00241	
GW3*	00242	
GW3A*	00243	
SW1	00244	
SW2	00245	
SW3	00246	
LW1	00248	
NLL1*	00250	
NLL2*	00251	<b>Metals Scan:</b> aluminium, antimony, arsenic, barium, beryllium, bismuth, boron, cadmium, chromium, cobalt, copper, iron, lead, manganese, molybdenum, mercury, nickel, selenium, silver, strontium, thallium, tin, titanium, uranium, vanadium, zinc
NLL3*	00252	
FD1*	00253	
*For groundwater wells, metals are measured as dissolved and TSS is not required.		

65. All groundwater monitoring wells shall be:

- labelled,
- protected from damage, and
- locked, except when being sampled.

66. If a representative groundwater sample cannot be collected because the groundwater monitoring well is damaged or is no longer capable of producing a representative groundwater sample:

- the groundwater monitoring well shall be cleaned, repaired or replaced,
- a representative groundwater sample shall be collected and analyzed as soon as possible, and
- the Department shall be notified in writing of the delay in monitoring.

### **Analysis and QA/QC**

67. Unless otherwise stated herein, all solids and liquids analysis performed pursuant to this Approval shall be done by either a contracted commercial laboratory or an in-house laboratory. Contracted commercial laboratories shall have a recognized form of accreditation. In-house laboratories have the option of either obtaining accreditation or submitting to an annual inspection by a representative of the Department, for which Robin Hood Bay shall be billed for each laboratory inspection in accordance with Schedule 1 of the *Accredited Laboratory Policy (PD:PP2001-01.02)*. Recommendations of the Director stemming from the annual inspections shall be addressed within 6 months; otherwise further analytical results shall not be accepted by the Director.

68. If Robin Hood Bay wishes to perform in-house laboratory testing and submit to an annual inspection by the Department then a recognized form of proficiency testing recognition shall be obtained for compliance parameters for which this recognition exists. If using a commercial laboratory, Robin Hood Bay shall contact that commercial laboratory to determine and to implement the sampling and

- transportation QA/QC requirements for those activities.
69. The exact location of each sampling point shall remain consistent over the life of the monitoring programs, unless otherwise approved by the Director. Using a GPS or similar device, the northing and easting of each sampling location shall be recorded and submitted by ***December 31, 2019*** to the Department.
70. The exact location of each sampling point shall remain consistent over the life of the monitoring programs, unless otherwise approved by the Director. A sketch or diagram clearly identifying each sampling location shall be submitted by ***December 31, 2019*** to the Department.
71. Robin Hood Bay shall bear all expenses incurred in carrying out the environmental monitoring and analysis required under conditions of this Approval.

### **Monitoring Alteration**

72. The Director has the authority to alter monitoring programs or require additional testing at any time when:
- pollutants might be released to the surrounding environment without being detected;
  - an adverse environmental effect may occur; or
  - it is no longer necessary to maintain the current frequency of sampling and/or the monitoring of parameters.
73. Robin Hood Bay may, at any time, request that monitoring programs or requirements of this Approval be altered by:
- requesting the change in writing to the Director; and
  - providing sufficient justification, as determined by the Director.

The requirements of this Approval shall remain in effect until altered, in writing, by the Director.

### **Sampling and Laboratory Analysis**

74. Unless otherwise approved by the Department, surface, groundwater and leachate sampling shall be conducted, according to methods described in ***Sampling of Water and Wastewater-Industrial Effluent Applications GD-PPD-066*** available on the Departmental website.

### **Reporting on Environmental Compliance Monitoring**

75. Monthly reports containing the environmental compliance monitoring and sampling information required in this Approval shall be received by the Director in digital format within 30 calendar days of the reporting month. All related laboratory reports shall be submitted with the monthly report in XML format and Adobe Portable Document Format (PDF). Digital report submissions shall be uploaded through the EDMS web portal. The Pollution Prevention Division shall provide details of the portal web address and submission requirements.
76. Each monthly report shall include a summary of all environmental monitoring components and shall include an explanation for the omission of any requisite data. The monthly summary reports shall be in Microsoft Word or Adobe PDF and shall be uploaded through the EDMS web portal with the data

submissions.

### **Environmental Monitoring Alteration**

77. Any new and relevant information respecting any adverse effect that actually results, or may potentially result, from any activity to which the Approval relates, and that comes to attention after the issuance of the Approval shall be submitted to the Department in a timely manner.
78. The requirements of this Approval shall remain in effect until altered, in writing, by the Department.

### **Non-Compliance**

79. The Department and/or Service NL shall be notified immediately of any incidents of non-compliance with this Approval.

### **Further Assessment**

80. The Minister may at any time, with reasonable notice, require the approval holder to conduct or have conducted environmental studies, site assessments, sampling, testing, or investigations where, based upon reasonable and probable grounds, the Minister is of the opinion that the waste management system may have had, or has the potential to have, an adverse effect on the environment.

### **Environmental Emergency Health and Safety Contingency (EHS)**

81. The approval holder shall maintain an up to date contingency plan for environmental and health and safety on file with Service NL and the Department consistent with the effective date of this Approval. An updated copy of the contingency plan shall be kept on site at all times.
82. For environmental emergencies and spill reports call: 1-800-563-9089 or (709) 772-2083.
83. All appropriate operations training, and health and safety procedures shall be continuously maintained at the site, in accordance with applicable legislation and Department's Environmental Standards for the waste management facility in question.
84. Incidents that could occur and would require specific response planning include: contingency for unacceptable waste; breach in leachate collection system; equipment failure; waste or hazardous materials incidents/ spills; fire; air quality or odour problems, vector infestation. In the event of problems with wildlife encounters (e.g. black bears), contact the District offices of the Department of Natural Resources: website <http://www.nr.gov.nl.ca/nr/forestry/enforcement/index.html#contact>

### **Environmental, Aesthetic, Nuisance, and Housekeeping**

85. Existing tree screens, outside the perimeter road, that may conceal the sites from public view are to be maintained.
86. Access roads shall be kept free of waste material and litter shall be controlled at all times.
87. Supervision shall be provided for all reception, placement, managing and, where applicable covering of waste at the facility.
88. There shall be signs placed strategically throughout the site indicating "No Scavenging".

89. Windblown debris shall be minimized and debris cleaned and removed regularly to avoid accumulations.
90. A program to manage and control vectors, rodents, birds and wildlife that may scavenge or develop populations associated with the waste management facility is required. A Wildlife Management Plan implemented in September 2014 will focus on reducing the number of seagulls at the facility.

### **Restrictions and Prohibitions**

91. Certified waste management systems are subject to the following restrictions and prohibitions:
  - 1) There shall be no incineration or open burning of any kind at waste management facilities/sites.
  - 2) All waste, from the region as identified in the approval shall be accepted at the facility. Acceptance of any other waste shall be specifically authorized by the Service NL.
  - 3) The disposal of petroleum contaminated soil (soil containing equal or greater than 1000ppm total petroleum hydrocarbons) at a waste disposal site is prohibited.
  - 4) There shall be NO bulk liquid of any kind received or accepted at the facility with the exception of used oil, where a registered and approved used oil storage tank system is in place under the *Used Oil Control Regulations*.
  - 5) Septic waste and sewage sludge from the Riverhead Wastewater Treatment Plant (owned and operated by the City of St. John's) may only be disposed to landfill until a suitable treatment/composting option is available.
  - 6) Special waste (please refer to definitions in Appendix D on the Departmental website) shall be accepted only upon written approval from the Service NL. The safe handling and disposal guidelines, and technical recommendations of regulatory agencies, shall be adhered in all cases.
  - 7) Non-anatomical biomedical waste and sharps that have been sterilized by autoclave only is permitted for disposal as special waste area ( RHB can provide additional comments). No other biomedical waste shall be accepted. Please refer to GD-PPD-078 Management of Biomedical and Pharmaceutical Waste (BPW).
  - 8) Non-hazardous industrial/commercial/institutional waste sources shall be accepted.
  - 9) Treated wood from individuals shall normally be accepted and disposed at the regular tipping face of the landfill. Commercial generators of treated wood are required to conduct testing as per the GD-PPD-75.1 on Treated Wood Waste Disposal. If there are no exceedances for the specified criteria in the guideline, the treated wood may be disposed at the regular tipping face, otherwise further consultation with the Department will be required.
  - 10) International waste (please refer to definitions in Appendix D), for the purposes of this approval, is to be considered as "special waste".

- 11) Specified risk material (please refer to definitions in separate Appendix D), for the purposes of this approval, is to be considered as "special waste", and may ONLY be disposed at the Regional Landfill. However, a permit is required from the Canadian Food Inspection Agency under the Health of Animals Act prior to moving this material from its point of origin.
- 12) Any asbestos containing material (ACM) containing friable asbestos, accepted for disposal at the facility, shall be handled by personnel who are trained and properly equipped with personal protective clothing and respirators. The ACM shall be wetted and fully contained in sealed, uncompromised double 6 mil polyethylene bags. The bags/secondary containment shall be labelled "Waste Asbestos UN2590". The material shall be landfilled at a dedicated location that is permanently marked to avoid any re-excavation, and covered immediately. All handling of ACM shall be supervised and a sufficient quantity of wetting agent shall be available in the event of a containment breach. "Friable asbestos" is waste material containing asbestos fibre or asbestos dust in a concentration greater than 1% by weight that is not tightly bound within as solid matrix such that it is easily crumbled by hand. A copy of the department's guidelines for Asbestos Waste Disposal (GD-PPD-033) may be accessed at the Departmental website. An Asbestos Disposal Record shall be maintained.
- 13) Automotive tires, as included in the Multi Material Stewardship Board Used Tire Recycling Program, shall not be accepted at the landfill.

The approval holder shall accept for disposal all non-program tires. Non program tires include all-terrain (ATV), or off the road (OTR) vehicle tires, tires used on rolling stock equipment used in the agricultural, forestry, industrial/construction and mining industries. These tires are not collected under the Used Tire Recycling Program by the MMSB. If not approved for specific recycling applications, processing and disposal to landfill is acceptable.

- 14) Unless specifically approved for temporary storage at another designated location, vehicles wrecks and scrap metal shall be directed to an approved metal salvage and recycling operation. White goods, ensuring compliance with the *Halocarbon Regulations*, such as freezers, refrigerators and stoves may be appropriately stockpiled in a separate area, pending at least semi-annual transport to a recycling operation. Metals shall be stored in a neat and tidy fashion and not exceed 90% storage capacity. Additional information is found on the Departmental website.
- 15) Equipment containing regulated substances, as defined in the *Halocarbon Regulations* Schedules A-E (refrigeration, air conditioning and fire extinguishing equipment), shall only be accepted at an approved scrap metal recycling facility, in accordance with the applicable terms and conditions.
- 16) Fuel storage tanks (commercial or residential) shall only be accepted at an approved scrap metal recycling facility, in accordance with the applicable terms and conditions. If deemed unacceptable for recycling, prior to landfilling, fuel tanks and drums shall have been purged of product, tank bottom sludge and vapour. The tank must also be cut in half or sufficient openings cut in the tank to prevent the accumulation of vapour and to accommodate visual inspection.
- 17) The storage of "Household Hazardous Waste" at a permanent Household Hazardous Waste

Facility must be approved by the Minister. (please refer to definitions in Appendix D on the Departmental website). Where there exists any doubt regarding the properties of a given waste, consultation with Service NL is required prior to disposal.

- 18) Low level radioactive material (NORMS <70 becquerels/g total specific activity) shall not be accepted at waste management facilities. An exception may be made for the collection and storage of small quantities of smoke detectors at household hazardous waste depots. Radioactive material (>70 becquerels/g) is separately regulated by the Canadian Nuclear Safety Commission, and shall not be accepted. If NORM or radioactive waste is suspected, and radiochemical analyses is not provided to prove otherwise, then the Department shall be contacted
- 19) Recyclables destined for the Materials Recovery Facility and Any recyclable or waste material that is banned from landfill disposal shall be appropriately redirected. Items banned from landfill disposal include, but not limited to; items referenced under the *Waste Management Regulations, 2003(amendment)*.
- 20) Any mixture or combination of the above restricted waste is also restricted or prohibited.
- 21) Notwithstanding all of the above, where options for waste treatment/disposal are limited, the Department shall be consulted regarding accommodation of the waste material.

### **Site Security and Signage**

92. Unauthorized access to the waste management site shall be controlled. Measures may include fencing (wire mesh with a maximum opening of 20 cm), and shall include a secure gate or barrier at the site entrance (minimum opening of 8.5 m) with appropriate, highly visible signage to inform the public of acceptable waste materials, hours of operation, telephone number for contact and containing a “No Scavenging” stipulation.
93. An operator shall be kept on duty when the site is open to the public. The gate must be locked shut when the operator is not in attendance.
94. Areas shall be allocated and signs posted designating separate areas for the transfer, temporary storage and recycling or disposal of construction debris, white goods, household hazardous waste, municipal solid waste, and other approved waste as applicable.
95. A firebreak may be required around the perimeter of the site; please check with the authority having jurisdiction.

### **Noise**

96. Noise levels at waste management facilities shall not exceed tolerable long term exposure limits for workers as recommended in guidelines under the Occupational Health and Safety Act.
97. Complaints about noise made by nearby area residents (off-site) shall be responded and details recorded.

98. If complaints are received regarding noise from facility operations, either on or off the site, monitoring of sound levels may be required by the Department, and mitigation measures may be required.

### **Air Emissions**

99. Any kind of incineration or open burning is strictly prohibited. The regional facility shall comply with the *Air Pollution Control Regulations, 2004* at all times.
100. Schedule A of these regulations, as attached, provides the standard for ambient air quality, particulate matter and airborne contaminants.
101. Dust generation shall be monitored on site.
102. Odour control measures shall be incorporated into facility design and the Odour Response Action Plan (application submission 2) shall be implemented. In brief, these measures include: the addition of intermediate cover to identified hotspots and landfill cells running East to West; the expansion of the landfill gas extraction system by drilling additional wells in hotspots and recently active areas, and additional flaring; reorientation of future landfill cells to run North to South along with the installation of wind socks to monitor local wind conditions; establishing odour baseline and on-site monitoring and training operators on odour identification and response; monitoring leachate for odour potential; and evaluating alternative treatment and disposal options for liquid waste and construction & demolition waste. Longer term measures will include capping of the western slope and installation of a permanent landfill gas combustion system.
103. Numerical or quantitative limits on odour may be established at the discretion of the Department if odour impacts beyond the property boundaries are deemed to be excessive.
104. Standard procedures to address odour complaints associated with the Facility shall be established as part of the Operations Manual and include:
- i) Immediately investigate the cause of the complaint and undertake immediate and appropriate action, if necessary, to correct the problem.
  - ii) Record all odour complaints and document the date, time, name, address and telephone number of the individual lodging the complaint. The record shall also state any suspected or known cause of the odour and the action taken to correct the problem.
  - iii) Record wind direction, wind speed, temperature, humidity and other atmospheric conditions at the time of the occurrence which resulted in a complaint.
  - iv) Records of odour complaints shall be made available to the Department upon request.
  - v) A plan to reduce or cease odour generation shall be submitted at the request of the Department.

### **Service NL**

105. Through a Memorandum-of-Understanding the Department's has authorized Service NL to act on its behalf in inspecting and/or auditing the operation of waste management facilities, for compliance under this approval and all applicable provincial Acts and Regulations. The Regional Service NL office may be used as the local point of contact in all cases. Service NL may contact the Department as necessary for review and consultation on monitoring results, inspections, reports, and changes or amendments to the Approval.



### **Landfill Activities Reporting**

106. Data management software is required to maintain accurate records of waste volumes received for recycling or final disposal; waste disposed/refused or redirected; and recyclables forwarded to other receivers from the Robin Hood Bay Regional Facility.
107. Operations and contingency plan updates for all site facilities shall be submitted by the end of each calendar year or as appropriate.
108. An annual monitoring of operations report shall be submitted to the Department by January 31<sup>st</sup> each year summarizing facility activities of the previous year. The information to be submitted is described in the Department's environmental standards and includes as follows and where applicable.

- i) quantity, type, source (origin) and carrier of waste received
- ii) quantity and type of materials recycled
- iii) quantity of residual material received at or transferred to the regional landfill
- iv) quantity of C & D waste diverted or reused for landfill cover
- v) quantity and type of waste dangerous goods removed and the final disposal site
- vi) volume of waste diverted to composting, if applicable
- vii) a summary of the quality monitoring results for leachate, surface water, and groundwater, with data tabulated in spreadsheet format and include a comparison to relevant guidelines
- viii) an assessment of the surface water data by a qualified consultant
- ix) an assessment of site hydrogeological monitoring results (water levels, groundwater flow direction, quality trends, contaminant plume movement, hydraulic gradients, etc), shall be made by a Professional Hydrogeologist
- x) updated drawings showing the monitoring well locations, latest contours and groundwater flow direction, if applicable
- xi) an assessment, where applicable, of the environmental effects monitoring program by a qualified consultant
- xii) a summary of any upsets or spills at the Facility
- xiii) a summary of any registered complaints and measures taken to resolve the complaints
- xiv) any changes in procedure or operations
- xv) any changes or updates with respect to staffing and training
- xvi) any other information deemed necessary by the Department

109. The annual report shall include:
- A discussion and evaluation of incidents, complaints, actions, results, residual impact and path forward.
  - Disposal Records for: special waste including the origin and description for; bulk liquids; biosolids, fish/animal processing waste, Asbestos Contaminated Waste; potentially hazardous waste and International Waste.
  - Environmental monitoring records including:

- Dates and results of all sampling conducted at the facility; and confirmation of calibration of field equipment used at the facility, before and after each sampling event, or as considered reasonable by the department, the approval holder and the equipment manufacturer.
- An evaluation and discussion of surface water and groundwater monitoring results as they may be affected by landfill leachate and/or surface water runoff from the site, and potential/ resultant impacts, and mitigation of impacts.
- An evaluation of environmental monitoring results, comparing results from the previous and current calendar years and historical records, and making recommendations for future monitoring, groundwater well installation or other work at the facility.
- All analyses, review and reports shall be completed by a professional engineer or geoscientist (qualified professional).

110. Any operational difficulties with potential environmental implications must be immediately reported to Service NL. The nature of the operational difficulty as well as the mitigation measures shall be included in the yearly report.

111. All incidents of:

- Contingency Plan implementation;
- non-conformance of any condition within this approval;
- spillage or leakage of a regulated substance;
- leachate or wastewater discharge suspected to have exceeded criteria limits
- verbal/written complaints of an environmental nature from the public, any response, mitigation or corrective action e.g. due to air quality, odour or noise.
- any incidence of vandalism or illegal dumping at or near the site.

shall be immediately reported, within one working day, to a person or message manager or facsimile machine to Service NL by phoning or faxing.

**Avalon Region – Service NL (St. John's)**  
**P.O. Box 8700**  
**A1B 4J6 Telephone (709) 729-2550**  
**Facsimile: (709) 729-7400**

112. A written incident report including a detailed description of the incident, summary of contributing factors and an action plan to prevent future incidents of a similar nature, shall be submitted to the respective Regional Director of Service NL. The action plan shall include a description of actions already taken and future actions to be implemented, and shall be submitted within thirty days of the date of the initial incident.

### **Certificate of Completion**

113. A signed and stamped letter from a Professional Engineers and Geoscientists of Newfoundland and Labrador (PEGNL) registered engineering company shall be submitted to the Department verifying that any new facility has been constructed as per the approved engineering as-built plans and specifications. The Department shall also be notified at least two weeks in advance of commissioning of each new facility to allow for inspections to be arranged.

### **Decommissioning**

- 114. Updates outlining the proposed financial arrangements to complete site decommissioning and continue environmental monitoring of the closed site for at least 30 years post-closure shall be submitted to the Department annually.
- 115. An approved alternative disposal location must be identified prior to closure and decommissioning.
- 116. A detailed decommissioning plan must be submitted to the Department 6 months prior to the planned date of final site closure. Decommissioning details must address site security, the removal of remaining material and on-site infrastructure, and financial arrangements for any future environmental monitoring requirements, and outline potential future uses for the site.

### **Expiration**

- 117. This approval expires on February 28, 2024.
- 118. Should the approval holder wish to continue to operate beyond this expiry date, a written request shall be submitted to Service NL for the renewal of this approval. Such request shall be made at least **3 months prior to expiration**.

c.c.

Director  
Pollution Prevention Division  
Department of Municipal Affairs and  
Environment

Robert Locke,  
Manager  
Service NL(St. John's)

Heather Jesso  
Environment Canada

Kim Kieley, P. Eng.  
Director Municipal Infrastructure  
Department of Municipal Affairs and  
Environment

EasternWaste Management  
255 Major's Path, Suite 3  
St. John's, NL A1A 0L5

\attachment

Appendix A Construction & Demolition Debris - notes on management and disposal

**Appendix A Construction & Demolition Debris - management and disposal**

- a) Details of any non-compliant material brought to the facility and removed at the inspection/ holding area shall be recorded including: date of delivery, material type and quantity, origin and owner, name of transporter, transport vehicle identification and contact information. A contingency plan shall be in place to ensure that non-compliant material is refused and appropriately redirected.
- b) Any sharp objects like nails, small pieces of metal, glass, plastics, litter and other windblown debris, shall be collected daily and controlled at the site to maintain a safe environment.
- c) Reuseable and recyclable material e.g. uncoated wood, wallboard, asphalt shingles and metal shall be stockpiled in separate locations to facilitate reuse. Acceptable recycling options for organic material include: mulching/ chipping of organic material for landscape purposes, or bulking agents for compost, or for fuel.
- d) An amendment to this approval and the Operations Manual/Plan is required to construct storage for reuseable items such as cupboards, countertops, and carpet.
- e) Metals shall be redirected to licensed metal salvage agents.
- f) Asphalt shingles and other similar homogenous waste streams may be temporarily stockpiled for recycling where approved recycling options. The C of A may be amended to further regulate these options or a separate approval may be required.
- g) Roofing materials may be chipped and used as a road amendment at the Regional Waste Management Site; and/or processed into asphalt grit and asphalt flake where the recycling option exists.
- h) Composite and coated wood may be transported to the Regional Landfill and chipped to use as MSW landfill cover on an as needed basis, as a bulking agent for compost in limited quantities; or recycled as a fuel source in limited quantities at licensed facilities that are capable of meeting air emissions standards. Commercial/industrial demolition waste of composite and coated wood products must meet criteria as a non-hazardous waste and must be tested in accordance with Departmental standards.
- i) Wall board may be used as a component of daily MSW landfill cover material, and may be used as a soil amendment to increase pH and promote the growth of vegetation for site remediation, or added in limited quantities to improve the compost recipe.
- j) A one metre vertical separation between the base of the landfill and any gypsum waste and or heterogenous C&D debris mixtures containing gypsum waste is required to minimize hydrogen sulphide and odour generation.
- k) The approval holder shall ensure C&D Debris containing leaded paint is analysed by a qualified commercial analytical laboratory in accordance with Standard Sampling and Testing Methods. Prior to disposal at the Facility, the approval holder shall ensure that the average of three (3) samples of lead painted substrate does not exceed 1000 mg/kg. Standard sampling procedures for lead painted substrate are available from the Department. If the average exceeds 1000 mg/kg, the leachate characteristics of the material must be evaluated using an appropriate method e.g. USEPA Method 1311 TCLP) to determine leachable lead. If the analysis indicates a leachate concentration of less than five (5) mg/L of lead, the material may be disposed of at the Facility. Any flaking paint that is easily removed is to be collected and tested separately for total lead / and/ or leachable lead, and shall be contained and disposed separately as hazardous waste.
- l) Other “contaminants of concern” may include mercury (Hg) vapours associated with fluorescent light fixtures, and PCBs contained in older lighting ballasts. Normally these items would be identified as hazardous materials and removed prior to a demolition, but if such items are identified in the waste stream, they must be removed to hazardous materials storage area for appropriate recycling and/or disposal.
- m) Asbestos Containing Material (ACM) may only be accepted to the Special Waste Disposal area of the Regional Waste Management Facility Landfill. A copy of the Department’s policy on Asbestos Waste Disposal (GD-PPD-033) is available at the Department’s website.