

Department of Environment & Conservation

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:

November 1 2015

Approval No.:

WMS-15-10-013

Expiration:

November 1 2020

File No.:

842.037.6

Proponent:

Dewatering Technologies Ltd.

P.O. Box 16101, Sta Foxtrap Conception Bay South, NL

A1X 2E2

Attention

Mr. Derek Pardy, Director

Re:

Sewage Sludge Dewatering, in-vessel composting and wastewater treatment plant (Foxtrap)

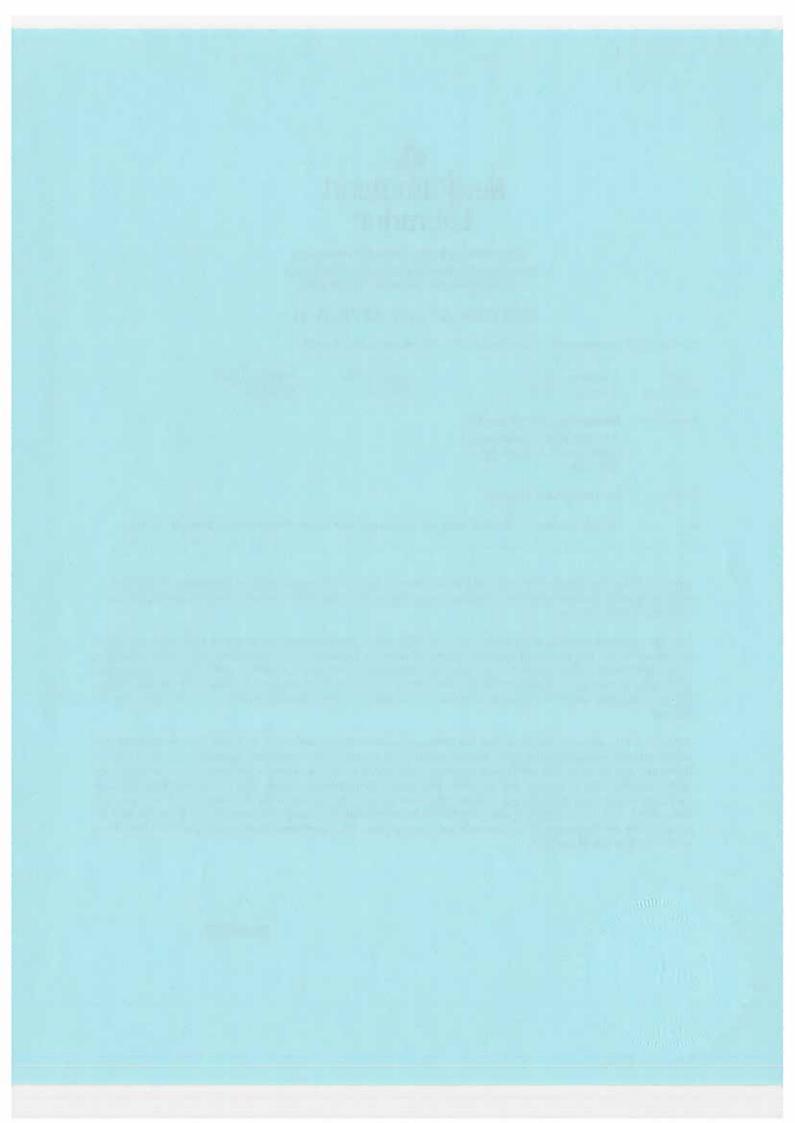
Approval is hereby given for operation of a waste management system consisting of: a) the sewage sludge/septic waste storage and dewatering facility at Foxtrap and b) composting of bio-solids via an in-vessel composter, and c) a waste water treatment plant

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 Environment and Conservation (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 as contained in Appendices 'A, B, C and D' attached hereto, as may be revised from time to time by the Department of Environment and Conservation. Appendices 'A, B, C, and D', forms part and parcel of this certificate of approval. Failure to comply with any of the terms and conditions may render this certificate of approval null and void, may require the proponent to cease all activities associated with this certificate of approval, may place the proponent and its agent(s) in violation of the *Environmental Protection Act*, SNL., 2002, c. E-14-2, and will make the proponent responsible for taking such remedial measures as may be prescribed by the Department of Environment and Conservation. The Department reserves the right to add, modify or revoke this approval at any time.



MINISTER



Appendix A - Administrative

General

- 1. This Certificate of Approval will be posted on the departments website at www.env.gov.nl.ca/env/env protection/waste/certificates.html
- 2. The administrative terms and conditions for this Appendix are found in Appendix A.
- 3. Pardy's Holdings Limited is the parent company of: Pardy's Waste Management and Industrial Services Limited; 10643 Newfoundland Inc.; and Disposal Services Limited.
- 4. Prior to any expansion or modification of the facility, a letter of application shall be forwarded to the Department requesting an amendment to this approval or a separate approval for the additional activity.

Foxtrap Operations

- 5. Approval is given for the continued operation of the sewage and septic waste treatment facility and SEPTEC sewage sludge centrifuge at Incinerator Road, Foxtrap, Newfoundland. 10643 Newfoundland Inc. is responsible for this activity. Specific terms and conditions for these activities are located in Appendix B.
- 6. Approval is given for the operation of an in-vessel composter for composting biosolids. Specific terms and conditions for this activity are located in Appendix C.
- 7. Approval is given for the operation of a waste water treatment plant at Incinerator Road (former Rothsay Rendering Facility). Terms and conditions for this activity are located in Appendix D.

Emergency & OHS Preparedness

- 8. The proponent shall file a contingency plan for environmental and OHS emergencies with the regional Service NL office and the Department and, provide any annual updates. An updated copy of the contingency plan shall be kept on site at all times.
- 9. The proponent shall ensure that this approval, or a copy, is kept on site at all times and that personnel directly involved in the operation of the remediation facility are made fully aware of the terms and conditions which pertain to this approval.

- 10. All responsible personnel who are directly involved with operation and maintenance of the processing system shall be provided copies of this approval.
- 11. For after hours emergencies and spill reports call: 1-800-563-9089 or (709) 772-2083.
- 12. All appropriate health and safety procedures shall be constantly maintained at the site in accordance with applicable legislation.
- 13. Pre-engineered treatment system(s) shall be operated and maintained in accordance with the manufacturers' operating and maintenance specifications and health and safety plan.
- 14. Contingency Plan updates shall be provided at least annually to the Department and Service NL agents.
- 15. The operator(s) shall have petroleum fire and spill response training.

Definitions

- 16. In this Certificate of Approval:
 - adverse effect means an effect that impairs or damages the environment and includes an adverse effect to the health of humans;
 - ALT (acute lethality test) means a test conducted as per Environment Canada's Environmental Protection Service reference method EPS/1/RM-13 Section 5 or 6
 - BTEX means benzene, toluene, ethylbenzene, and/or xylene
 - contaminant means, unless otherwise defined in the regulations, a substance that causes or may cause an adverse effect;
 - CCME means Canadian Council of Ministers of the Environment;
 - CEQG means CCME Canadian Environmental Quality Guidelines:
 - Department means Department of Environment and Conservation;
 - **Director** means the Director of the Pollution Prevention Division (PPD) of the Department;
 - discharge location means either a sanitary sewer, storm sewer, waterbody, groundwater re-injection, holding tank/pond, or settling pond;
 - East Coast Sewage Disposal Ban means that the Department does not approve the landfill disposal of sewage sludge and septic waste on the Avalon Peninsula, defined as all areas east of and including Shoal Hr. and which is bounded in the south by Swift Current;
 - GSC means Government Service Centre of Service NL
 - FAL means freshwater aquatic life;
 - Pardy's means either Pardy's Holdings Limited, Pardy's Waste Management and Industrial Services Limited; 10643 Newfoundland Inc.;

- and/or Disposal Services Limited;
- PCB means polychlorinated biphenyl;
- PPD means Pollution Prevention Division of the Department;
- pre-treatment laboratory results means wastewater sampling and analysis prior to, and without dilution, before processing.
- QA/QC means Quality Assurance/Quality Control;
- Rainbow Trout Test means a test conducted as per Environment Canada's Environmental Protection Service reference method EPS/1/RM-13 section 5 or 6
- regional Director means the Director of the nearest GSC;
- TPH means total petroleum hydrocarbon including BTEX;
- USGPM means US gallons per minute. It should be noted that 1 US gallon is approximately equal to 0.8326 imperial gallon or 3.785 litres;
- WWTP means wastewater treatment plant. Generally, a municipal WWTP treats sanitary sewer flows, but not stormwater flows.

Application Submissions

- 17. Pardy's application to the Department included:
 - environmental liability impairment insurance from Certain Underwriters at Lloyds's under Contract ESR2014001 (Policy Number 133223); and
 - surety bond from Intact Insurance Company (Bond No. 960012508).

Further Assessment

18. The Minister may at any time, with reasonable notice, require the proponent 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.

Service NL

19. Through a Memorandum-of-Understanding this Department has authorized Service NL to act on its behalf in inspecting and/or auditing this operation for compliance under this approval and all applicable provincial Acts and Regulations.

Legislation

- 20. The activities associated with this operation may involve, but not be limited to, the following provincial Acts and Regulations and any future amendments:
 - Dangerous Goods Transportation Act

- Fire Prevention Act
- Environmental Protection Act
- Air Pollution Control Regulations, 2004
- Storage and Handling of Gasoline and Associated Products Regulations, 2003
- Used Oil Control Regulations
- Water Resources Act
- Environmental Control Water and Sewage Regulations, 2003.
- 21. The activities associated with this operation may involve, but not be limited to, the following federal Acts and Regulations:
 - Canadian Environmental Protection Act and Regulations
 - Interprovincial Movement of Hazardous Waste and Hazardous Recyclable Material Regulations
 - Export and Import of Hazardous Waste and Hazardous Recyclable Material Regulations
 - Transportation of Dangerous Goods Act and Regulations
 - Fisheries Act
 - National Fire Code

Financial Assurance

- 22. Valid environmental liability impairment insurance in the amount of \$1,000,000 shall be maintained otherwise this approval shall be null and void.
- 23. A surety bond of \$20,000 shall be on file with the Department, otherwise this approval shall be null and void.
- 24. Annual updates of the financial assurance documents shall be filed with the Department.
- 25. Pardy's shall provide the Department with three months advance notice if they intend to cancel coverage and/or change the insurer or bonding agent.

Air Emissions

26. The proponent shall comply with the Air Pollution Control Regulations, 2004 at all times. Schedule E of the regulations prohibits the open burning of tires; plastics; treated lumber; asphalt and asphalt products; drywall; demolition waste; hazardous waste; biomedical waste; domestic waste; trash, garbage, or other waste from commercial, industrial or municipal operations; manure; rubber; tar paper; railway ties; paint and paint products; fuel and lubricant containers; used oil; animal cadavers; hazardous substances; materials disposed of as part of the removal or decontamination of equipment, buildings or other structures.

Spill Prevention

27. Areas in which chemicals are 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.

Holding Tanks for Septic Water

- 28. Only wastewater which exceeded the criteria set out in *Discharge Water Quality* section before treatment, and which has been processed by the facilities as specified in this approval, is permitted to be placed in the holding tanks/impoundment basin.
- 29. Treated wastewater shall be directed to a holding tank(s) or impervious impoundment basin and held until laboratory results are available.
- 30. As soon as treated wastewater laboratory results are received by the proponent they shall be submitted to Service NL.
- 31. Treated wastewater in the holding tank or impoundment basin which does not fall within the applicable discharge criteria prescribed in *Discharge Water Quality* section shall be retreated.

Discharge Water Quality

- 32. Prior to discharge to the environment, all contaminated wastewater shall be within acceptable limits as per the latest edition of the *Canadian Environmental Quality Guidelines (CEQG)*. For those parameters regulated in the *Environmental Control Water and Sewage Regulations*, 2003 the limits established in these regulations shall apply.
- 33. In addition, the wastewater shall be within acceptable limits as per the latest edition of the CEQG Freshwater Aquatic Life (FAL) for BTEX or CEQG for protection of marine life.

- 34. A maximum allowable limit for TPH is 15 ppm prior to discharge.
- 35. When discharging any water to fresh water bodies consideration shall be given to critical periods for resident, anadromous, and catadromous fish. Critical periods are those periods during which species of fish are known to migrate, spawn, incubate or hatch. Consult with the federal Department of Fisheries and Oceans at (709) 772-5488 in this regard.

Discharge to Sewage Treatment Plants & Sewer

- 36. For discharges to a sewer which does not lead to a sewage treatment facility, the limits established under Schedule A of the *Environmental Control Water and Sewage Regulations* apply.
- 37. 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.
- 38. For parameters not included in either Schedule A or B of these regulations refer to the applicable criteria as per the *Discharge Water Quality* section.
- 39. Approval from the sewer system owner and Water Resources Division of the Department will be required prior to discharging to any sewer system.
- 40. Discharge of untreated septic/septic supernatant into a municipal sewer system is not permitted.

Laboratory Analysis & QA/QC

41. Unless otherwise stated herein, all liquid and solids analysis performed pursuant to this Approval shall be done by a contracted commercial or in-house laboratory as per the Accredited and Certified Laboratory Policy (PD:PP2001-01.01).

Monitoring Alteration

- 42. The Director has the authority to alter the 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.
- 43. Pardy's may, at any time, request that the monitoring program 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.
- 44. The requirements of this Approval shall remain in effect until altered, in writing, by the Director.

Reporting

- 45. The annual report shall be submitted to the Department by January 31, each year summarizing Pardy's activities the previous year. Also, this report shall include the current insurance and bonding documents as specified in the *Emergency & OHS Preparedness* and *Financial Assurance* sections and any updates to the *Contingency Plan*.
- 46. All incidents of:
 - Contingency Plan implementation;
 - non-conformance of any condition within this approval;
 - spillage or leakage of a regulated substance;
 - whenever discharge criteria is, or is suspected to be, exceeded; or
 - verbal/written complaints of an environmental nature from the public received by Pardy related to the temporary site

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

Service NL (St. John's) P.O. Box 8700 A1B 4J6 Telephone (709) 729-3699 Facsimile: (709) 729-2071

47. 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.

Expiration

- 48. This approval expires on the date indicated on the first page of this Certificate.
- 49. Should the proponent wish to continue to operate beyond this expiry date, a

written request shall be submitted to the department for the renewal of this approval. Such request shall be made at least 6 weeks prior to expiration.

c.c.

D. Maddocks, Director
Pollution Prevention Division
Department of Environment
dmaddocks@gov.nl.ca

Glen Worthman,
Regional Manager
Environment Canada
glenn.worthman@ec.gc.ca

Robert Locke – Manager Service NL (St. John's) robertlocke@gov.nl.ca

Appendix B - Sewage Treatment (Foxtrap)

General

- 1. The general administration terms and conditions are found in Appendix A.
- 2. Approval is given for the continued operation of sewage and septic waste treatment facility; SEPTEC sewage sludge centrifuge; and associated composting operation at Incinerator Road, Foxtrap, Newfoundland. 10643 Newfoundland Inc. is responsible for this activity.

SEPTEC Performance

- 3. Neither the Department nor Service NL has conducted or required any performance testing to confirm claims of the proponent and /or the manufacturer. The issuance of this approval is not to be interpreted as certification of the SEPTEC unit.
- 4. The SEPTEC centrifuge treatment unit is approved to process human sewage waste (liquids, solids, and semi-solids) only. No other types of contaminated materials, liquids, solids, or semi-solids, are approved for processing.
- 5. A heating system for the storage tank system shall be maintained to prevent freezing of the contents of the tanks and lines and all other components of the SEPTEC system. Where heating systems are not available the system shall be purged of all contents at the end of each day between November 1 and April 1 of each year.
- 6. All connections, couplings, hoses, lines, tanks, sumps, machinery, pumps, and all other components of the SEPTEC treatment unit including all other associated equipment shall be liquid tight. In the event of a leak or spill the necessary repairs are to be made immediately.

Acceptable Sludge

- 7. Pardy's shall not store on site or process excrement of any type other than that which is human in origin.
- 8. All human sewage waste delivered to the site shall be processed by the SEPTEC unit.
- 9. Liquid effluent (decant water) generated by the SEPTEC unit shall be discharged at the approved rate and volume into the on-site subsurface sewage disposal system and not discharged into any municipal sewage system.
- 10. Any importation of sewage sludge from outside the Province requires approval in

- advance by the Department. This does not include airport, seaport, or bus terminal generated wastes.
- 11. All dewatered sludge stored or treated on site shall be placed on an impermeable surface (permeability <10⁻⁷cm/sec), or placed in sealed containers. Acceptable materials for the impermeable surface include synthetic liners, asphalt, or concrete. Naturally occurring or imported compacted soil is not considered acceptable for use as an impermeable surface regardless of permeability. The impermeable surface shall be designed to collect and direct liquids into the approved sewage containment or disposal system.
- 12. Dewatered sewage sludge shall be managed in accordance with the 10643 Newfoundland Inc. *De-watered Sludge Cake Utilization Plan* dated November 25, 1998, unless alternatives or revision are approved in writing by the Department.

Discharge Water Quality

1. Refer to Appendix A for terms and conditions regarding *Discharge Water Quality*.

Discharge to Sewage Treatment Plants and Sewer

2. Refer to Appendix A for terms and conditions regarding *Discharge Water Quality*.

Appendix C - Composting

- Approval is given for the composting of bio-solids via in-vessel composted 1. located at Incinerator Road, Foxtrap, Conception Bay South.
- 2. Prior to compost being moved from the site it must be tested to ensure that it meets Class B of the CCME Compost Quality Guidelines.
- 3. Prior to moving the bio-solid compost, a written proposal shall be submitted to the Department for approval.

Appendix D - Waste Water Treatment Plant Incinerator Road

- 1. Wastewater treatment shall be conducted on liquid effluent from the sewage sludge/ septic waste dewatering operation on Incinerator Road.
- 2. Monitoring shall be conducted as indicated in the table below:

In House (monitored daily)	Certified Laboratory (monitored weekly unless indicated otherwise)
Settling test	Total alkalinity (total as CaCO ₃)
COD	Carbonaceous BOD
Suspended solids	Total dissolved solids
Ammonia	Nitrite + nitrate
pН	Nitrate (N)
·	Nitrogen (ammonia nitrogen)
	pH
	Total phosphorus
	Total suspended solids
	Total oil and grease
	Faecal coliform
	Total coliform
	ALT (once in trial period, i.e. 3 months)
	Metal scan (once in trial period, i.e. 3 months)

- 3. The parameters that Pardy's analyze in-house shall be determined daily. The parameters that are analyzed by a certified laboratory shall be determined weekly, with the exception of the ALT (Rainbow Trout Test) and the metal scan, once in three months.
- 4. The analytical monitoring data shall be emailed to us every two (2) weeks; the files are to be sent in electronic format to statenv@gov.nl.ca. Reports from external laboratories are to be submitted in hardcopy or as digital pdf files.
- 5. The department reserves the right to modify the sampling regime outlined in section 2 above.
- 6. The department reserves the right to require additional wastewater treatment processes, should it be demonstrated that the existing treatment system cannot consistently produce and effluent that meets department standards.