

## GOVERNMENT OF

# NEWFOUNDLAND AND LABRADOR Department of Municipal Affairs and Environment CERTIFICATE OF APPROVAL

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

Issued:

March 10, 2020

Approval No.:

WMS-15-10-010

**Expiration:** 

December 31, 2025

File No.:

842.037.6

Proponent:

Pardy's Holdings Limited (Waste Management and

Industrial Services Ltd. And Dewatering Technologies)

30 Kyle Avenue (main office)

Mt. Pearl, NL A1N 4R5

Attention:

Mr. Derek Pardy (Principal)

Steve Moores (Operations Manager)

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Wastewater Treatment at Mt. Pearl Facility

Approval is hereby given for the continued operation of a Wastewater Treatment System located at 30 Kyle Avenue, Mt. Pearl, NL, and for the primary treatment of non-hazardous spent drilling muds.

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 as contained in Appendices 'A to C' attached hereto, as may be revised from time to time by the Department. Appendices 'A to C' form 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. The Department reserves the right to add, delete, modify or revoke this approval at any time.

MINISTER

#### General

- 1. This approval is issued to Pardy's for the continued operation of a wastewater treatment system for the processing of petroleum hydrocarbon contaminated water based out of the Pardy's facility located in Mt. Pearl, NL.
- 2. This approval is also issued for the primary treatment of non-hazardous spent drilling muds solids using the Tricanter centrifuge technology for phase separation; non-hazardous drilling mud solids may then be directed to a soil treatment facility approved to treat drilling mud solids; waste oil may be recycled; and wastewater shall be directed into the existing wastewater treatment system for further treatment according to conditions of this approval.
- 3. Terms and conditions specific to used oil are contained in Appendix A.
- 4. Terms and conditions specific to drilling muds solids are contained in Appendix B.
- 5. Terms and conditions specific to sludge and/or solid hazardous waste are contained in Appendix C.
- 6. 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.

#### **Definitions**

- 7. 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;
  - CCME means Canadian Council of Ministers of the Environment;
  - CESQG means CCME Canadian Environmental Soil Quality Guidelines;
  - contaminant means, unless otherwise defined in the regulations, a substance that causes or may cause an adverse effect;
  - Department means Department of Municipal Affairs and Environment;
  - **Director** means the Director of the Pollution Prevention Division of the Department;
  - Drilling cuttings means the small pieces of formation rock and subsurface materials that break away because of the action of drill bit teeth as a well or direction borehole is being drilled.
  - Drilling Fluid/Mud means a suspension, usually in water but sometimes
    in oil (diesel), used in rotary drilling, consisting of various substances in a
    finely divided state (commonly bentonitic clays and chemical additives. It
    is used to lubricate and cool the bit, carry the cuttings up from the bottom,
    and prevent blowouts and cave-ins.
  - **oily water** means water contaminated with only TPH in excess of 15 ppm (or 100 ppm if discharging to sanitary sewer systems with a WWTP).
  - QA/QC means Quality Assurance/Quality Control;
  - Regional Director means the Director of the nearest Service NL regional office;

- Sludge means a muddy or slushy mass, deposit, or sediment:
- Slump test means a test to determine whether a waste is a solid. If the
  waste sample slumps more than 50% it is classified as a liquid waste and
  is unacceptable for receipt
- Solid means firm and stable in shape; not liquid or fluid
- Spent Drilling Mud (SDM) includes solid and liquid portions consisting of water, drill cuttings, flocculated bentonite, weighting materials and other additives drilling muds and drilling cuttings generated while drilling a well. No longer recoverable for drilling use.
- TCLP means the U.S. Environmental Protection Agency Toxicity
  Characteristic Leaching Procedure (TCLP), Test Method 1311 (as
  amended), used to determine the leachate toxicity hazard. The TCLP is a
  standard designed to determine the mobility of both organic and inorganic
  analytes present in wastes.
- TPH means total petroleum hydrocarbons as measured by the Atlantic PIRI method;
- TSS means total suspended solids;
- used glycol means glycol that, through use, storage or handling, can no longer be used for its original purpose
- used lubricating oil means lubricating oil that as a result of its use, storage or handling, is altered so that it is no longer suitable for its intended purpose, but is suitable for refining or other permitted uses;
- used oil means oil that, through use, storage or handling, can no longer be used for its original purpose:
- Waste Dangerous Goods/Hazardous Waste (WDG/HW): Corrosive, reactive, flammable, ignitable, carcinogenic, teratogenic, mutagenic, infectious, oxidizing, radioactive, explosive, poisonous/toxic (acute and chronic), bioaccumulative, persistent, TCLP defined leachable, or any waste which does not meet any of the above criteria but has other properties of concern which are significant enough to consider the material to be hazardous.
- waste oil means an oil that as a result of contamination by any means including waste drilling muds, or by its use, is altered so that it is no longer suitable for its intended purpose. (It should be noted that oil collected by the Pardy's wastewater treatment system will most likely be considered as waste oil and, therefore, considered used oil);
- wastewater means water that has been used (as in a manufacturing process)
- WWTP means wastewater treatment plant.

**Application Submissions** 

- 8. The following submissions have been received by the Department to support this request for a Certificate of Approval:
  - a letter dated November 6, 2018 requesting a Certificate of Approval for the continued separation of spent drilling muds/fluids at the Pardy's Facility located on Kyle Avenue in Mt. Pearl;
  - a copy of the final report for the 2018 pilot project to separate spent drilling muds received November 22, 2018;
  - a copy of Pardy's Holdings Limited organizational chart, Dec. 2019;
  - a copy of Pardy's Waste Management and Industrial Services Spill Response Contingency Plan, updated 2017;
  - a copy of updated 2019 environmental impairment liability insurance coverage;
  - environmental assessment registration document No. 2061 registered November 22, 2019.

**Emergency Preparedness** 

- 9. Pardy's shall maintain an environmental emergency and contingency plan and submit a current copy and annual updates for review and approval by the Department by January 31 of the following year.
- 10. Pardy's 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 wastewater treatment system are made fully aware of the terms and conditions which pertain to this approval.
- 11. All responsible personnel who are directly involved with operation and maintenance of the processing system shall be provided copies of this approval.
- 12. For after-hours emergencies and spill reporting call: 1-800-563-9089 or (709) 772-2083.
- 13. All appropriate health and safety procedures shall be constantly maintained at the site in accordance with applicable legislation.
- 14. 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 this waste management system may have had, or has the potential to have, an adverse effect on the environment.

#### Service NL

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

### Legislation

- 16. The activities associated with this operation may involve, but not be limited to, the following provincial Acts and Regulations, policies, guidelines and their successors:
  - Dangerous Goods Transportation Act;
  - Fire Prevention Act, 1999;
  - Environmental Protection Act, 2002;
  - Air Pollution Control Regulations, 2004;
  - Halocarbon Regulations, 2005;
  - Storage and Handling of Gasoline and Associated Products Regulations, 2003;
  - Used Oil and Used Glycol Control Regulations, 2018;
  - Water Resources Act, 2002;
  - Environmental Control Water and Sewage Regulations, 2003;
  - GD-PPD-066 Sampling of Water and Wastewater Industrial Effluent Applications;
  - Accredited Laboratory Policy PD:PP2001-01.2 updated Feb, 2011;
  - Effluent Discharge Schedule Determination Policy for Industries PD:PP2013-01.
- 17. The activities associated with this operation may involve, but not be limited to, the following federal Acts and Regulations and their successors:
  - Canadian Environmental Protection Act, 1999 and Regulations
  - Interprovincial Movement of Hazardous Waste and Hazardous Recyclable Materials Regulations
  - Export and Import of Hazardous Waste and Hazardous Recyclable Materials Regulations
  - CCME Canadian Environmental Soil Quality Guidelines
  - Fisheries Act
  - National Fire Code

#### Financial Assurance

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

**Spill Prevention** 

22. 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.

Oily Water & Used Oil Holding Tanks

23. Oily water and waste oil holding tanks shall be approved by Service NL as per the *Used Oil and Used Glycol Control Regulations*.

**Effluent Monitoring Program** 

- 24. Effluent discharged to a municipal sewer system with sewage treatment is subject to Schedule B of the *Environmental Control Water and Sewage Regulations*.
- 25. Monitoring requirements and criteria for discharge to a municipal sewer system are shown in **Table 1**.
- 26. Prior to the commencement of discharge, treated wastewater shall be held in an approved storage tank (s). Confirmatory compliance sampling shall be conducted weekly on of treated effluent prior to discharge to the City of Mount Pearl or City of St. John's sanitary sewer systems. Tank(s) must be isolated from the time of the sample collection until final discharge. Required sampling parameters and discharge criteria are shown in Table 1.
- 27. Discharge to a municipal sewer system requires permission from the municipality.

Location	EDMS Code	Frequency	Parameters	Criteria <sup>1</sup>
Treated	00723	Weekly when		
wastewater		operational	BOD	300
	I	]	TSS	350
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		TPH	100
			Boron	5.0
			Cadmium	0.05
			Chromium	1.0
	The state of the s		Copper	0.3
			Cyanide	2.0
			Iron	15

	Lead	0.2
	Mercury	0.005
	Nickel	0.5
	Phenol	0.5
	Phosphates (total as P <sub>2</sub> O <sub>5</sub> )	10.0
A STATE OF THE STA	Zinc	0.5

# Laboratory Analysis & QA/QC

- 28. 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 Laboratory Policy PD:PP2001-01.2* (available at http://www.env.gov.nl.ca/env/env\_protection/index.html).
- 29. In-house laboratories have the option of either obtaining accreditation or submitting to an annual inspection by a representative of the Department, for which Pardy's 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.
- 30. If Pardy's performs 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, Pardy's shall contact that commercial laboratory to determine and to implement the sampling and transportation QA/QC requirements for those activities.
- 31. Pardy's shall bear all expenses incurred in carrying out the environmental monitoring and analysis required under conditions of this Approval.

# **Monitoring Alteration**

- 32. 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.
- 33. The proponent may, at any time, request that 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.
- 34. The requirements of this Approval shall remain in effect until altered, in writing, by the Director.

Reporting

- 35. 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.
- 36. 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. If there is no wastewater treatment performed in the month, Pardy's shall indicate that there were no activities and provide this information to the Department.
- 37. Reporting requirements for used oil and transactions are addressed in Appendix A.
- 38. Reporting requirements for spent drilling muds solids as a waste stream is addressed in Appendix B.
- 39. 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
  - public complaints concerning possible non-compliance

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

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

40. A written 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. 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

This approval expires as indicated on December 31, 2025. 41. Should the proponent wish to continue to operate beyond this expiry date, a written request shall be submitted to Department for the renewal of this approval. Such request shall be made 2 months prior to expiration.

C.C.

Robert Locke, Director Pollution Prevention Division Program Support Services Department of Municipal Affairs and Environment rlocke@gov.nl.ca

Heather Jesso 6 Bruce Street Mount Pearl, Newfoundland and Labrador A1N 4T3 heather.jesso@canada.ca

Rick Curran, Director Service NL (St. John's) rjcurran@gov.nl.ca

# Appendix A- Used Oil

- 1) Within the province, used oil may be delivered to approved registered used oil storage tank.
- 2) Where possible, the operator of a used oil collection vehicle shall visually inspect the used oil for visible contamination before the contents are transferred to the collection tank/truck to avoid contaminating the used oil that has been collected.
- 3) Used oils shall not be knowingly mixed (blended) with other used oil or hydrocarbon except as permitted in the Used Oil and Glycol Control Regulations NLR 100/18.
- 4) All used oils intended for transfer to an approved used oil combustion facility within the province shall be analyzed by an accredited laboratory to ensure the used oil contaminant concentrations are within the limits as outlined in the approval issued to the used oil combustion facility. A copy of the used oil combustion facility approval shall be obtained prior to transfer of used oil.
- Records of the volume of used oil transferred for combustion or treatment and for shipment out of province, the date of the transaction, and the person/company that received the used oil shall be maintained and the records held for a period of not less than three years from the date of the transaction, and made available for review by officials of Service NL.
- An annual summary of the records of used oil collected and transferred shall be provided to Service NL in electronic or hard copy form by January 31 of the following year.

## Appendix B – Spent Drilling Muds

- 1) Initial analyses of the material to be treated shall be provided in a monthly waste throughput report copied to the Department for each waste source treated. All sampling and analyses shall be conducted as per the Laboratory Analysis & QA/QC sections of this approval.
- 2) Post-drilling mud wastewater from the centrifuge separation process shall be sent to the water collection tank for further treatment prior to discharge. Wastewater must be treated to meet parameters listed in Table 1 prior to discharge.
- 3) Post-drilling separated oils shall be removed to oil storage tanks and tested to meet specifications for recycling.
- 4) Secondary containment shall be maintained for all storage tanks on site.
- 5) Post-drilling mud solids from the process shall be transferred by sealed-end dump trucks to a soil bio-remediation treatment facility approved to accept drill muds.
- 6) The owner of the spent drilling fluids/mud, shall be ultimately responsible for the removal of drilling fluids/mud material that cannot be treated to acceptable criteria, and if this is the case, for subsequent transportation for further treatment and/or disposal to an approved treatment/final disposal facility.
- An annual report shall be submitted to the Department by January 31 of the following year summarizing all drilling mud transactions, laboratory results, and destination of waste streams for the previous year. This report shall be in addition to the regular annual report submitted in compliance with the aforementioned existing Approvals.

# Appendix C - Sludge and/or Solid Hazardous Waste

- Until confirmed to be non-hazardous, all potentially hazardous waste shall be placed in corrosion resistant and leak proof containers and placed in storage on an impermeable surface. These containers shall be covered to prevent the infiltration of precipitation. Containers shall be inspected on a weekly basis and those leaking or showing signs of deterioration shall be replaced or repaired immediately.
- 2) Hazardous wastes are those which are corrosive, reactive, flammable, ignitable, carcinogenic, teratogenic, mutagenic, infectious, oxidizing, radioactive, explosive, poisonous/toxic (acute and chronic), bio-accumulative, persistent, TCLP defined leachable, or any waste which does not meet any of the above criteria but has other properties of concern which are significant enough to consider the material to be hazardous.
- 3) Landfills in this province are not permitted to accept hazardous waste materials. Arrangements would be required with a licensed hazardous waste transporter to transport any hazardous waste to a licensed recycling or final disposal facility outside the Province.