



Miller Environmental Corporation

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Committed to Leadership in Our Industry

January 21, 2025

Environmental Approvals Branch
MB Environment and Climate Change
Box 35, 14 Fultz Boulevard
Winnipeg MB R3Y 0L6

Attn: Agnes Wittmann – Director, Environmental Approvals Branch

Dear Ms. Wittmann:

RE: Solvent Recycling System - Licence DGHTA No. 58 HW S2 RRRR

Please accept this as additional supporting information to Miller Environmental Corporation's (Miller) Notice of Alteration application letter to install a solvent recycling system submitted on October 1, 2024. The request to provide additional supporting information was communicated in the quarterly meetings with the Environmental Approvals Branch (EAB) on December 2, 2024.

Existing Process Building 1 (PB1) Environmental and Safety Features for the Implementation of the Solvent Recycling System.

PB1 is Miller's organic processing building and is equipped with features for environmental and safety controls. The building includes storage tanks and processing area.

Bulk storage of organic waste is in an exterior bermed and permitted tank farm adjacent to the processing building and connected directly to the processing tanks by means of a pipe header system. This building has sloped flooring leading to blind sumps.

Other features of PB1 include:

- Spill containment capabilities
- Fugitive emission control
- Emergency eyewashes and deluge showers
- Class 1, division 2 fire rated
- A grounding system during handling of potentially flammable materials
- Gaseous emissions collected and treated by the secondary emission control system
- LEL sensors and alarm system
- Tank level monitors and alarm system
- Fire suppression system (heat sensors and/or pull station activation)
- Fire extinguishers

- Explosion proof electrical fittings on overhead door operators, light switches and sump pumps
- Class 1 division 2 light fixtures
- Class 1, division 2 rated electric forced air heating
- 5,000 cfm exhaust system with explosion proof motors
- Secondary ventilation systems (scrubber) for organic fugitive emission control in the work area
- 24 hour VOC reading monitoring system with low and high alarms in the building (submitted in Miller's annual report as a requirement of Licence DGHTA No. 58 HW S2 RRRR)
- High expansion foam system as per NFPA 11A Standard for Medium and High Expansion Foam Systems
- 24 hour monitoring with thermal cameras linked to internal and external alarm services

In addition to the engineered controls, site personnel conduct daily, weekly and monthly procedural checks on sumps, stored drums, safety equipment, ventilation systems and the fire suppression system to ensure all controls are always in place and updated when necessary.

Solvent Recovery Process Description

The AlwaysClean solvent recycling system is designed to efficiently process contaminated solvents for reuse while minimizing environmental impact. The process begins with the contaminated solvents, these solvents are pumped into the staging totes that are equipped with sensors and mixers to maintain uniformity and prevent overfilling. The solvents are then automatically transferred to the AlwaysClean solvent system, where they undergo a heating process to vaporize and pass through a condenser, separating contaminants during the recycling phase. The purified solvent is collected in clean storage totes, which are kept separate from the waste solvent storage to avoid cross-contamination. Once purified, the solvent is transferred to assigned containers for reuse. Any residual waste from the recycling process, known as still bottoms, is collected in Still Bottom Drums. The organic scrubber is capturing potential vapors at all the times to eliminate any potential of environmental impact.

The AlwaysClean Solvent Recycler Safety and Operational Features

The unit is designed and certified for use in hazardous environments, ensuring safety and compliance in such locations as PB1. It features automatic controls that regulate key operations, such as time, temperature, fill, and drain, through system software. A vapor management system is incorporated to limit VOC emissions during processing and draining, enhancing environmental safety. In addition, the unit is equipped with a manual stop button for immediate shutdown at any point during operation, a secondary safety thermostat is included to prevent overheating, while a distillate thermostat monitors the temperature of the distilled solvent, shutting the unit off if the distillate temperature exceeds 50°C. An emergency stop (E-Stop) button is also present, enabling a complete shutdown of the unit in case of an emergency.

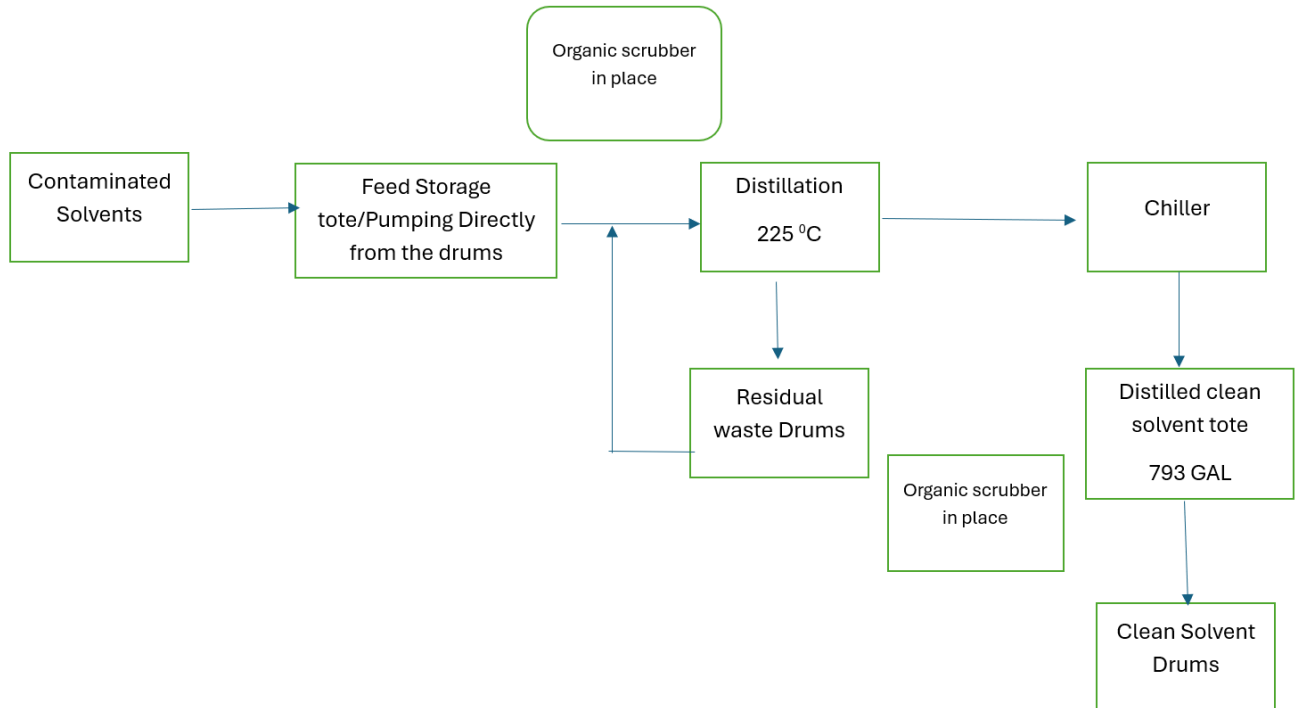


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Solvent Recycling Process Flow Diagram



If you have any questions, please feel free to contact me at 204-925-9604 or by email at daveh@millerenvironmental.mb.ca.

Sincerely yours,

Miller Environmental Corporation

Dave Howes
Director of Regulatory Affairs

CC: Tyler Kneeshaw – MB Environment and Climate Change
Paul Bauer – President, Miller Environmental Corporation
Yolo Ortiz – Director of Operations & Engineering, Miller Environmental Corporation