

July 10, 2021

****Submitted Electronically****
City File: WO9-SO

Ministry of Environment, Conservation and Parks
Client Services and Permissions Branch
135 St. Clair Ave West
1st Floor
Toronto, Ontario
M4V 1P5

Attention: Technical Review Team

Re: Environmental 360 Solutions Ltd, Environmental Compliance Approvals for Sewage and Waste: Ministry Reference Numbers 8416-BXHSLX and 3908-BXHSLG

Dear: Technical Review Team

On behalf of the City of Barrie, we respectfully submit the following response to the Ministry of Environment Conservation and Parks Environmental Registry Posting Numbers 019-3751 and 0319-3812. The notices were posted on May 28, 2021 and June 4, 2021 for 45-day review periods. City staff has undertaken a review of the proposal details and provide the following comments and concerns.

1. The proposed Tire Crumb facility supports a circular economy and provides employment opportunities for residents. The operation of this type of industry can pose a significant risk to the environment. Mitigation measures must be incorporated into all levels of approvals to adequately manage the risk to the environment from the proposed facility.
2. Containment is required to prevent contaminated water from firefighting operations and run-off oil from fires from contaminating ground and surface water.

Tires burn with high heat output that makes the extinguishment of tire rubber very difficult. Barrie Fire and Emergency Services estimates that an hour of firefighting at this location could produce 600,000 litres of water. Firefighting water from hose streams or the operation of the buildings sprinkler system will become contaminated by the contents of the facility and must be contained. Large tire fires produce significant quantities of run-off oil that is also required to be contained.

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The containment system must be designed by a licensed engineer and incorporate the following requirements:

- a. designed to hold the volume of two hours of fire suppression materials (water and/or foam)
 - b. provide secondary containment, leak detection measures, and document the operation and inspection protocols
 - c. be separate from the storm water control system.
3. All stormwater entering the Municipal Storm Sewer System must comply with the City's Sewer Use By-law 2021-002, as amended.
 4. All wastewater entering the Municipal Sanitary Sewer System must comply with the City's Sewer Use By-law 2021-002, as amended.
 5. The Owner be required to prepare an Operations Manual for the Stormwater Works that includes the following information:
 - a. operating procedures for routine operation of the Works;
 - b. inspection programs, including frequency of inspection, for the works and the methods or tests employed to detect when maintenance is necessary.
 - c. repair and maintenance programs, including the frequency of repair and maintenance for the Works;
 - d. procedures for the inspection and calibration of monitoring equipment; and
 - e. a spill prevention control and countermeasures plan, consisting of contingency plans and procedures for dealing with potential spills and any other abnormal situations.
 6. The City must be immediately notified of all spills into the Municipal Sewage Works or onto Municipal Property by calling Service Barrie at 705-726-4242.
 7. Tire shredding equipment is a regular source of ignition in tire recycling facilities. Venting must be installed over the equipment in the facility to prevent the build-up of combustible debris on the ceiling and the equipment must be protected by a sprinkler system.
 8. The fine grinding of tires is a process that produces combustible dust which poses an explosive hazard. Dust collection in accordance with the Ontario Fire Code, Section 5.10. will be required in the facility. Details on how the facility will comply with these requirements will be required at building permit stage and should be considered as part of the ECAs approvals process.
 9. Spatial separations between piles of tires for both indoor and outdoor storage is essential to mitigating the risk of a large tire fire. A single pile of tires stored indoors must not occupy an area greater than 500 m² with a maximum length of 30 m. Additional requirements for the storage of tires can be found in the Ontario Fire Code, Subsections 3.2.1. and 3.3.1. Details on how the facility will comply with these requirements will be required at building permit stage and is to be considered in the issuance of the site ECAs.
 10. Site security (e.g. fencing) is required to control any outdoor storage of tires and to prevent the public from using outdoor storage areas as a location to dump unwanted tires.

11. The ECA application and supporting operations manual notes that the preference is to send residual waste in the form of wires and fibres to the municipal landfill located at 272 Ferndale Drive North. This type of waste can be accepted under the ECA. It would be considered hard to handle and would be subject to the hard to handle disposal rate.
12. It is unclear from the information provided whether the intent is to separate the wires from the fibers prior to disposal. The wires can be considered scrap and should be separated prior to disposal for use as a resource in a circular economy, and not be landfilled.
13. The City understands that a coordinated effort between all approval agencies will be required to manage the risk of the proposed Tire Crumb Facility and recommends that a meeting be held to identify a path forward. The meeting should incorporate technical staff from the City, Barrie Fire and Emergency Services, Ministry of Environment, and Ministry of Labour.

Best Regards,



Katie Thompson, P.Ge
Risk Management Official
Environmental Risk Management

CC: S. Brunet, Manager of Business Performance and Environmental Sustainability, City of Barrie
S. Zoschke, Supervisor of Environmental Compliance (Acting), City of Barrie
L. Roberts, Senior Environmental Officer (Acting), City of Barrie
C. Clark, Deputy Chief, Barrie Fire and Emergency Services
K. Schramm, Fire Prevention Officer, Barrie Fire and Emergency Services
A. Gamerio, Planner, City of Barrie
L. Klein, Senior Development Services Technologist, City of Barrie
L. Quinn, Supervisor of Waste Disposal, City of Barrie
M. Dmytrenko, Provincial Officer, Barrie District Officer, MECP