SCHEDULE "P"

(Bylaw 3016)

CODE OF PRACTICE FOR FERMENTATION OPERATIONS BYLAW NO. 2922

1.0 APPLICATION

1.1 This code of practice prescribes conditions governing the discharge of waste from fermentation operations directly or indirectly into a sewer connected to a sewage facility. *(Bylaw 3105)*

1.2 The term "treatment works" in this code of practice means the works referred to in Sections 2.3, 2.4(b) or Section 2.6.

2.0 DISCHARGE REGULATIONS

2.1 An operator of a fermentation operation must not discharge waste, which at the point of discharge into a sewer, contains one or more of the following: prohibited waste, special waste, restricted waste, stormwater or uncontaminated water in quantities greater than two cubic meters per day.

2.2 An operator of a fermentation operation who generates wastewater on or after January 1, 2003 must test any wastewater containing acid or caustic cleaners or sanitizers for pH and adjust the pH of this wastewater to between 5.5 and 11.0 prior to discharge of such wastewater to a sewer.

2.3 An operator of a fermentation operation who generates wastewater on or after January 1, 2003 from one or more of the following: a mash tun, mash tun washing, a brewing kettle, brewing kettle washing, back-flushing of mash tun strainers, filters or trub filters, must remove solids from the discharge to sewer by:

(a) use of a strainer or a filter with a sieve size not greater than 1,000 microns (µm); or

(b) settling the solids in a separate vessel and discharging the decant water.

2.4 An operator of a fermentation operation that produces waste containing yeast on or after July 1, 2003 must either:

(a) collect and transport the waste from the fermentation sector operation for off-site waste management; or

(b) filter the waste using a filter with a sieve size not greater than 10 microns (µm) prior to discharge into a sewer.

2.5 Section 2.4 of this code of practice does not apply to an operator of a fermentation operation who produces waste containing yeast resulting from back-flushing of a pre-filter following the fermentation process provided that the waste produced from such back-flushing does not contain restricted waste. *(Bylaw 3105)*

2.6 An operator of a fermentation operation who discharges waste to a sewer connected to a sewage facility may use an alternate treatment works, or a combination of treatment works, other than described in this code of practice if the alternate treatment works produces effluent that complies with Section 2.1 where valid analytical test data has been submitted to, and accepted by, the manager.

2.7 An operator of a fermentation operation who commences operation on or after January 1, 2003 must ensure that:

(a) one or more sampling tees are installed downstream of the point of discharge of all non-domestic waste and at a location upstream of the point of discharge of any other waste; and

(b) the sampling tee described in Section 2.7(a) must be the same diameter as the discharge line and must be installed so that it opens in a direction at right angles to, and vertically above, the wastewater flow in the sewer pipe.

2.8 An operator of a fermentation operation operating before January 1, 2003, and which continues to operate after January 1, 2003, must install a sampling tee located downstream of the point of discharge to the sewer of all non-domestic waste and at a location upstream of any discharge of other waste when any of the following occur:

(a) the operator of a fermentation operation makes an improvement with a value of $2,000 or more that will increase the discharge flow or amount of any contaminant in the waste; or

(b) the operator of a fermentation operation discharges non-domestic waste that contains restricted waste into a sewer.

2.9 A sampling tee installed under Sections 2.7 or 2.8 of this code of practice must be readily 3and easily accessible at all times for inspection and sampling purposes.

3.0 RECORD KEEPING AND RETENTION

3.1 An operator of a fermentation operation must keep records, available for inspection on request, at the fermentation operation, containing the following information:

(a) method of solids removal from mash tun wastewater and wash water;

(b) method of treatment of kettle wastewater and kettle wash water;

(c) method(s) of solids removal from wastewater generated by back-flushing mash tun strainers or filters, and back-flushing trub filters;

(d) method of treatment to remove yeast residue;

(e) location of sampling tee, referred to in Section 2.9;

(f) method of pH adjustment and measurement for wastewater containing acid and caustic cleaners or sanitizers; and

(g) dates and results of pH testing required under Section 2.2.

3.2 The records must be retained on site for a period of two years and must be available on request by an officer.