Husky Oil Operations Limited

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MB Conservation and Water Stewardship
123 Main St
Winnipeg MB, R3C 1A5

Attention Tracey Braun, Director of Environmental Approvals

Dear Ms. Braun;

The following excerpt is taken from licence No. 2698 R (Minnedosa Ethanol Plant Operating Licence):

> 27. The Licencee shall conduct the following air emission testing, after reaching normal operation and annually thereafter, unless otherwise approved by the Director, to demonstrate compliance with air emission limits using standardized methodologies:
> a) boiler: NO_x, CO;
> b) ethanol absorption column: VOC; and
> c) DDGS dryer: VOC, NO_x, CO.

Over the past 5 years the Minnedosa Ethanol Plant has met all compliance requirements and we feel that the DDGS dryer, Boiler and Ethanol Absorber should be tested on a 2-year cycle.

We believe that the request, if granted, will not have an environmental or human health effect. We are still going to operate all pollution control equipment as it is intended to run and, if requested, can provide evidence to show that critical operating parameters did not change. Over the past 5 years we have consistently met all air emission limits. I will quickly discuss each limit below.

Steam Boiler	
Requirement:	21. The Licencee shall not emit from any boiler at the Development: a) nitrogen oxides (NO_x) in excess of 40 grams per gigajoule of energy input (g/GJ_i), on a higher heating value basis; and b) carbon monoxide (CO) in excess of 125 grams per gigajoule of energy input (g/GJ_i); on a higher heating value basis.

The steam boiler results are predictably well within the licence limits. The only way to change the NOx level on the type of burner we employ is by adjusting how deep the secondary flame burner tips are inserted into the furnace which is an operation that we do not perform so NOx readings should not change during the life of the facility.
Carbon Monoxide in stack gases represents a significant loss in efficiency for the boiler and every effort is always made to reduce CO emissions.

Test Results for previous 5 years:

	2011	2012	2013	2014	2015
NOx (g/GJ)	33	22.4	25.6	16.6	15.6
CO (g/GJ)	19	11.9	17.2	0	0

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DDGS Dryer	
Requirement:	22. The Licencee shall not emit VOCs from the DDGS dryer at a rate greater than 0.32 g/s. NOTE: there is no limit for Nitrogen Oxides (NOx) or Carbon Dioxide (CO) for the DDGS dryer stack

The DDGS dryer furnace acts as thermal oxidizer for dryer stack emissions. The critical operating parameter for the dryer furnace is the operating temperature. The higher the oxidizer temperature, the more VOC destruction. MEP does have a high reading (corrected to g/sec) from 2011 testing but since revision of the licence operating limits (oxidizer max operating temperature limits were formerly 850°C, now upper limit is 880°C in revised 2012 licence) MEP has met all limits.

Test Results for previous 5 years:

	2011	2012	2013	2014	2015
VOC (g/s)	0.44	0.28	0.29	0.18	0.15
NOx (ppm)	28	0	30	0	0
CO (ppm)	720	811	1010	990	839

Ethanol Absorber	
Requirement:	23. The Licencee shall not emit VOCs from the ethanol absorber column in excess of 52 tonnes/year.

The ethanol absorber has met and exceeded all limits placed on it over the past 5 years. In 2014 we neared the limit following a change in the structured packing. In operating year 2015 the operation was optimized to again deliver results that were well within normal operating ranges.

Test Results for previous 5 years:

	2011	2012	2013	2014	2015
VOC (T)	15.7	9.6	22.1	51.2	33.9

We request that based on previous years of stable and compliant stack testing results that the Minnedosa Ethanol Plant operating licence requirement No. 27 be amended to allow for stack testing every 2 years instead of annual. All other requirements of the licence will not be affected by this requested change.

We appreciate your consideration of our request and look forward to working with you.

Hani Riad	Gerry Oliver
Plant Manager	HSE Advisor