March 20, 2020

Subject: Memorandum of Understanding (MOU) Among Alberta Environment and Parks (AEP), Alberta Agriculture and Forestry (AAF), and the Natural Resources Conservation Board (NRCB), Regarding On-Farm Storage and Land Application of Digestate

For this MOU:

- "Digestate" means any liquid or solid material formed from the production of biogas in a digester at a plant or facility that is regulated under the *Environmental Protection and Enhancement Act* (EPEA); and
- "Feedstock" means any substance that is used for the production of biogas in a digester at a plant or facility that is regulated under EPEA.

This MOU concerns the terms and conditions regarding the assumption of regulatory responsibility, between the NRCB and AEP, for the following:

(1) The storage of digestate at "confined feeding operations" (CFOs) as defined in section 1(b.6) of the *Agricultural Operation Practices Act* (AOPA), and in "manure storage facilities" (MSFs), as defined in section 1(c.3) of AOPA; and

(2) The application of digestate to arable land, by any person. (For this MOU, the term "arable land" has the same meaning as that used in section 24(1) of the *Standards and Administration Regulation, Alta. Reg. 267/2001*, under AOPA.)

These will be referred to below as the "two activities."

There are questions as to how AOPA and EPEA apply to the two activities and as to how the NRCB and AEP can coordinate their roles under these statutes to ensure that environmental risks from the two activities are adequately managed, while avoiding duplication of effort and unnecessary regulatory burdens. This MOU is intended to provide a coordinated and efficient regulatory approach to address these issues. This MOU is not, however, meant to preclude consideration of changes to AOPA and/or EPEA, or to regulations under one or both of those statutes, that would clarify the NRCB and AEP roles.

The NRCB, AAF, and AEP agree as follows:

1. The NRCB assumes regulatory responsibility under AOPA for the two activities, whenever both of the following circumstances apply:

    a. "Manure," as defined in section 1(c.2) of AOPA, comprises at least 50% by weight of the feedstock; and

    b. The remainder of the feedstock consists entirely of one or more of the feedstocks listed in Appendix B.

2. The NRCB will, in its sole discretion, determine and adopt any necessary permit conditions, nutrient management plan requirements, and/or manure handling plan requirements for CFOs, persons, or other entities engaging in either of the two activities. If the NRCB, however, issues any such permit for a plant or facility that is regulated under EPEA, the AOPA permit will be solely for the purposes of enabling the NRCB to regulate one or both of the two activities. (Nothing in this MOU is intended to limit the NRCB board members' discretion in considering any such permit or nutrient management plan, or an order to enforce any such permit or plan, in a quasi-judicial review of any of those instruments.)

3. AEP will not assume regulatory responsibility for the two activities where the NRCB assumes regulatory responsibility under Clause 1. AEP will have regulatory responsibility under EPEA for the two activities where the NRCB does not assume regulatory responsibility under Clause 1.

4. To the extent permitted by law, the NRCB and AEP will endeavor to share with each other all relevant information so that each party can fulfill their respective regulatory responsibilities.

5. The NRCB and AEP agree that the applicability of this MOU to each plant or facility will be acknowledged using the form in Appendix A.

6. This MOU will take effect upon the latest signature date listed below.

7. This MOU will be amended from time to time, as required and as agreed by AEP, AAF, and the NRCB.

8. The MOU titled "*Memorandum of Understanding (MOU) Among Alberta Environment and Parks (EP), Alberta Agriculture and Forestry (AF), and the Natural Resources Conservation Board (NRCB), Regarding On-Farm Storage and Land Application of Digestate*", dated February 4, 2015, is hereby cancelled, effective upon the latest signature date listed below.

_____ Date: March 20/2020
Randall Barrett
A/ADM, Regulatory Assurance Division
Alberta Environment and Parks

_____ Date:
John Brown
Chief Executive Officer
Natural Resources Conservation Board

_____ Date: April 1/2020
~~John Conrad~~ Jamie White
a/ADM, Primary Agriculture Division
Alberta Agriculture and Forestry

Appendix B – Feedstock

Feedstock	Description	Sources
A. LIVESTOCK MANURES		
Livestock manure as defined in AOPA	AOPA Section 1(c.2) "manure" means livestock excretia, associated feed losses, bedding, litter, soil and wash water, but does not include manure to which the Fertilizers Act (Canada) applies	Confined feeding operations, livestock operations
B. ORGANIC FOOD RESOURCES		
B.1 Fats, Oils and Greases (FOG)		
Dissolved Air Flotation Slurry (DAF)/ Centrifuged Dissolved Air Flotation Slurry (CDAF)	Fats & proteins skimmed from wash water	Slaughterhouses, meat packing operations
Grease Trap Fat & Food Interceptor Solids	Fats, oils & greases captured in grease traps & food interceptors	Restaurants, food processors, cafeterias, grocery stores
Used Vegetable Oil	Vegetable oil used for deep frying	
Mixed Processed Meat & Fish Wastes	Cooked & uncooked meat & fish residues	Food processors, meat packers, canneries
B.2 Food Processing Residues		
Oil Seed Processing Residues	Residues from extraction oils from seed incl. canola cake canola oil, bleaching clay	Oil seed processors
Feed Mill Residues	Dust & wet grain residues	Feed mills, farm operations
Cereal, Grain & Spice Processing Residues	Grain dust, husks, hulls	Grain processors, elevators, flour mills, cereal processors

Fruit & Vegetable Residues	Pomace, peelings, rinds, juices	Vegetable processors, juice processors, canneries, wineries
Corn Processing Residues	Effluent from corn wet milling, stillage, distillers grain, silage, squeeze	Distillers, breweries, ethanol plants, food processors, starch producers
Beet Processing Residues	Beets, beet tops, trash, tailings, molasses	Sugar producers
Potato Processing Residues	Potato sludge, peelings, chips	Potato processing plants
Dairy Processing Residues	Whey, milk, ice cream, proteins, wash water & other residues	Cheese factories, dairy processors
Paunch content	Partially digested material taken from an animal at the time of slaughter	Meat plants
Aerobic Sludge	Aerobic sludge from non-municipal wastewater treatment	Food processors
Pet Food Residues	Pet food	Pet food processors
Process Water	Liquid residues, wash water	Food processors
B.3 Kitchen & Market Residues		
Bakery & Bread Residues	Dough, flour, yeast & crumbs	Bakeries, pizza parlours, restaurants, cafeterias
Confectionary Residues	Candies & cookies	Food processors
Mixed Food/Kitchen Residues	Cooked & treated vegetables, fruits & grains, frozen food	Food processors, restaurants, grocery stores, cafeterias, hospitals, universities

C. OTHER		
Glycerin/Glycerol	Alcohol by-product	Industrial biodiesel production
Fusel Oil	Fusel alcohol	Distilleries
Horticultural Residues	Residues from plants & flowers	Greenhouses, garden centers, flower shops
Green (Garden) Residues	Grass	Municipalities, house-holds
Energy Crops	Silage (corn, grain, grass)	Farm operations
Damaged / Rejected Crops	Crops which have been damaged and/or are unable to be marketed.	Farm operations
Crop Residues	Residues from the crop harvesting	Farm operations
Pulp & Paper Residues	Sludge	Paper mills
On-site Domestic Wastewater	Domestic wastewater from biogas facility washroom(s)	Biogas facility washroom(s)
D. ANIMAL BY-PRODUCTS[1]		
Animal Carcasses & Animal Parts	Deadstock (cattle, hog, poultry, horse, bison), roadkill (deer, elk, moose)	Livestock operations, slaughterhouses, meat plants
Animal Entrails	Stomach & intestines from slaughtered animals	Slaughterhouses, meat plants
Animal Blood	Blood from slaughtered animals	Slaughterhouses, meat plants

[1]Facitlities or plants with thermal hydrolysis capabilities only. Animal by-products that are legally classified as Specified Risk Material (SRM) shall be pre-treated with thermal hydrolysis at 180 degree C, 12 bar for 40 minutes or as required by the Canadian Food Inspection Agency (CFIA)

March 20, 2020

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The NRCB, AAF, and AEP agree as follows:

1. The NRCB assumes regulatory responsibility under AOPA for the two activities, whenever both of the following circumstances apply:

    a. "Manure," as defined in section 1(c.2) of AOPA, comprises at least 50% by weight of the feedstock; and

    b. The remainder of the feedstock consists entirely of one or more of the feedstocks listed in Appendix B.

2. The NRCB will, in its sole discretion, determine and adopt any necessary permit conditions, nutrient management plan requirements, and/or manure handling plan requirements for CFOs, persons, or other entities engaging in either of the two activities. If the NRCB, however, issues any such permit for a plant or facility that is regulated under EPEA, the AOPA permit will be solely for the purposes of enabling the NRCB to regulate one or both of the two activities. (Nothing in this MOU is intended to limit the NRCB board members' discretion in considering any such permit or nutrient management plan, or an order to enforce any such permit or plan, in a quasi-judicial review of any of those instruments.)

3. AEP will not assume regulatory responsibility for the two activities where the NRCB assumes regulatory responsibility under Clause 1. AEP will have regulatory responsibility under EPEA for the two activities where the NRCB does not assume regulatory responsibility under Clause 1.

4. To the extent permitted by law, the NRCB and AEP will endeavor to share with each other all relevant information so that each party can fulfill their respective regulatory responsibilities.

5. The NRCB and AEP agree that the applicability of this MOU to each plant or facility will be acknowledged using the form in Appendix A.

6. This MOU will take effect upon the latest signature date listed below.

7. This MOU will be amended from time to time, as required and as agreed by AEP, AAF, and the NRCB.

8. The MOU titled "*Memorandum of Understanding (MOU) Among Alberta Environment and Parks (EP), Alberta Agriculture and Forestry (AF), and the Natural Resources Conservation Board (NRCB), Regarding On-Farm Storage and Land Application of Digestate*", dated February 4, 2015, is hereby cancelled, effective upon the latest signature date listed below.

Date: March 25/2020

Randall Barrett
A/ADM, Regulatory Assurance Division
Alberta Environment and Parks

Date:

John Brown
Chief Executive Officer
Natural Resources Conservation Board

Date: April 1, 2020

~~John Conrad~~ Jamie Write
ADM, Primary Agriculture Division
Alberta Agriculture and Forestry

Appendix A – Designation of Grow the Energy Circle Ltd. under the Memorandum of Understanding

1. For this Designation:
   a. "GrowTEC" means the facility owned and operated by Grow the Energy Circle Ltd., located on the Southwest Quarter of Section 30, Township 9, Range 18, West of the 4th Meridian.

   b. "Memorandum of Understanding" and "MOU" means the *Memorandum of Understanding (MOU) Among Alberta Environment and Parks (AEP), Alberta Agriculture and Forestry (AAF), and the Natural Resources Conservation Board (NRCB), Regarding On-Farm Storage and Land Application of Digestate*, dated February 26, 2020, as amended.

2. The NRCB and AEP agree that the feedstock for and digestate from GrowTEC shall be regulated under the MOU. This Designation is pursuant to clause 5 of the MOU. (Accordingly, this Designation is intended to serve as the "form" attached as Appendix A to the MOU.)

3. For this Designation, and pursuant to clause 1.b of the MOU, the NRCB and AEP agree that GrowTEC shall only use one or more of the feedstock listed in Appendix B of the MOU.

4. This Designation takes effect upon the latest signature date listed below.

Date: March 20/2020

Randall Barrett
A/ADM, Regulatory Assurance Division
Alberta Environment and Parks

Date: _____

John Brown
Chief Executive Officer
Natural Resources Conservation Board

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