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Application for General Order of Approval GO 001: Dairy Manure Anaerobic Digester Systems with Engine-Generators

I: INSTRUCTIONS

- Read the Dairy Anaerobic Digester General Order. You can find it online at <http://www.nwcleanairwa.gov>, or call (360) 428-1617 for a copy.
- Fill out this application completely, sign and date it.
- Enclose manufacturer's specification sheets for all engine-generators and flares to be installed. Include digester design information including all digester gas treatment systems to be installed.
- Enclose a check for \$875 made out to the Northwest Clean Air Agency for the application fee.
- Mail the complete application package to:

**Northwest Clean Air Agency
1600 South Second Street
Mount Vernon, WA 98273-5202**

I. COMPANY INFORMATION

Company name: _____

Facility address: _____

City: _____ State: _____ Zip: _____

Company mailing address: _____

City: _____ State: _____ Zip: _____

Company contact person, title: _____

4. Company phone: _____ Company Fax: _____

6. Contact person's phone: _____ Email: _____

III. SYSTEM INFORMATION

A. DIGESTER SIZE INFORMATION

1. Digester design: Complete mix Plug flow Mixed plug flow
 Other: _____

2. Digester operating temperature: Mesophilic Thermophilic Psychrophilic

3. Digester volume: _____ 4. Design hydraulic detention time: _____ days

5. Design solids content digester feed: _____ 6. Number of cows contributing manure to system: _____

7. Will additional digester feedstocks be used? Yes No *If yes, list types, sources and quantities below:*

8. Will facility limit usage of non-dairy manure feedstock to comply with Solid Waste Permit exemption in RCW 70.95.330?

Yes No

9.a. Describe method to be used to control hydrogen sulfide in the digester gas:

9.b. What is the design hydrogen sulfide concentration before and after (or with and without the control in operation) the control method?

Hydrogen sulfide concentration before control: _____ After control: _____

10. Design digester gas production rate _____ scf/day Methane content _____ %
_____ scf/year Heat content _____ Btu/scf

11. Provide manufacturer's specification information on any engine-generators listed below. Attach additional sheets if there are more than 2 engines.

Include a copy of the engine manufacturer's engine datasheet for each to be installed.

12.a.

Engine manufacturer: _____
Model: _____
Year of manufacture: _____
Engine size: _____ hp
Max electrical output: _____ kWe
Height of exhaust stack: _____ feet
Diameter of exhaust stack: _____ feet
Maximum hourly fuel consumption: _____ cu.ft/hr

12.b.

Engine manufacturer: _____
Model: _____
Year of manufacture: _____
Engine size: _____ hp
Max electrical output: _____ kWe
Height of exhaust stack: _____ feet
Diameter of exhaust stack: _____ feet
Maximum hourly fuel consumption: _____ cu.ft/hr

13. Warranted emission rates from engine data sheet.

13.a. Engine A

NOx: _____ g/bhp-hr or _____ ppm
CO: _____ g/bhp-hr or _____ ppm
VOC _____ g/bhp-hr or _____ ppm

13.b. Engine B

NOx: _____ g/bhp-hr or _____ ppm
CO: _____ g/bhp-hr or _____ ppm
VOC: _____ g/bhp-hr or _____ ppm

14. Flare

14.a. Flare 1

Manufacturer: _____
Model: _____
Type: _____
Rating: _____ BTU/hr
Height: _____ feet

14.b. Flare 2

Manufacturer: _____
Model: _____
Type: _____
Rating: _____ BTU/hr
Height: _____ feet

B. BUILDING AND PROPERTY LINE INFORMATION

Provide copy of site plan from construction plans. Show distances of all engine stack flares from nearby buildings and from adjacent buildings.

IV. SIGNATURE BLOCK

I certify, based on information and belief formed after reasonable inquiry, the statements and information in this application are true, accurate and complete.

Applicant name (print/type): _____

Title: _____

Applicant signature _____

Date _____