1600 South Second Street
Mount Vernon, WA 98273-5202
ph 360-428-1617
fax 360-428-1620
info@nwcleanairwa.gov
www.nwcleanairwa.gov

# 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 $978 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 (orwith 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