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| FOR OHIO EPA USE | |
| FACILITY ID: | |
| EU ID: _____ | PTI #: _____ |

EMISSIONS ACTIVITY CATEGORY FORM GENERAL PROCESS OPERATION

This form is to be completed for each process operation when there is no specific emissions activity category (EAC) form applicable. If there is more than one end product for this process, copy and complete this form for each additional product (see instructions). Several State/Federal regulations which may apply to process operations are listed in the instructions. Note that there may be other regulations which apply to this emissions unit which are not included in this list.

The PTI application is based on Kinsei Sangyo Japan proprietary design and performance specifications. There are two batch Kinsei Sangyo gasifiers operating in tandem for each gasification line. This form includes information/data for a single batch Kinsei Sangyo gasifier.

1. Reason this form is being submitted (Check one)

New Permit Renewal or Modification of Air Permit Number(s) (e.g. P001)

2. Maximum Operating Schedule: 12 hours per day; 365 days per year

If the schedule is less than 24 hours/day or 365 days/year, what limits the schedule to less than maximum? See instructions for examples. ***There are two batch Kinsei Sangyo gasifiers operating in tandem for each gasification line. This form includes information/data for a single batch Kinsei Sangyo gasifier.***

3. End product of this process: *Syngas*

4. Hourly production rates (indicate appropriate units). Please see the instructions for clarification of ΔMaximum@ and ΔAverage@ for new versus existing operations:

| Hourly | Rate | Units (e.g., widgets) |
|--------------------|----------------|-----------------------|
| Average production | <i>610,000</i> | <i>cf/hr</i> |
| Maximum production | <i>610,000</i> | <i>cf/hr</i> |

5. Annual production rates (indicate appropriate units) Please see the instructions for clarification of ΔMaximum@ and ΔActual@ for new versus existing operations:

| Annual | Rate | Units (e.g., widgets) |
|--------------------|--------------|-----------------------|
| Actual production | <i>2,676</i> | <i>million cf/yr</i> |
| Maximum production | <i>2,676</i> | <i>million cf/yr</i> |

6. Type of operation (please check one):

- Continuous
 Batch (please complete items below)

Minimum cycle time (minutes): *720 (12 hours)*

Minimum time between cycles (minutes): *720 (12 hours)*

Maximum number of cycles per daily 24 hour period: *1 (one 12-hour cycle per batch gasifier/day)*

(Note: include cycle time and set up/clean up time.)

Cycle refers to the time the equipment is in operation.

7. Materials used in process at maximum hourly production rate (add rows/pages as needed):

| Material | Physical State at Standard Conditions | Principle Use | Amount** |
|----------------------|---------------------------------------|-------------------------------|---|
| <i>Processed MSW</i> | <i>Solid</i> | <i>Feedstock for Gasifier</i> | <i>70.4 tons/batch = 70.4 tons per day per gasifier</i> |

** Please indicate the amount **and** rate (e.g., lbs/hr, gallons/hr, lbs/cycle, etc.).

8. Please provide a narrative description of the process below (e.g., coating of metal parts using high VOC content coatings for the manufacture of widgets; emissions controlled by thermal oxidizer...):

Municipal solid waste (MSW) is preprocessed in a Material Recovery Facility (MRF) and blended to produce the desired characteristics (heat content, etc.) for introduction into one of the Kinsei Sangyo batch gasifiers that operate in tandem for each gasifier line. A small amount of natural gas is burned at the onset of the batch gasification process and heat for the remainder of the process is provided from the combustion of a portion of the syn gas produced. The majority of the syngas produced by the Kinsei Sangyo batch gasifiers is combusted in a furnace (refer to the Fuel Combustion EAC) to produce heat that is then converted to steam in the Heat Recovery Steam Generator (HRSG). There are no direct emissions from the operation of the batch gasifiers. The syngas produced by the Kinsei Sangyo batch gasifiers is burned in the furnace with the hot exhausts gases routed through the HRSG and then through the air pollution control system (sorbet injection, baghouse, SCR and wet-FGD) prior to discharging to the atmosphere from the stack.