

Technical Questionnaire for Waste-to-Energy Systems

Feedstock Preparation & Feed Systems

Date:.....

designer initials: (*Vecoplan use*)..... project: (*Vecoplan use*).....

customer: location:

address..... phone no.....

..... e-mail address.....

name of responsible person / *customer proj. mgr.*.....

1. Projected components of the system?:

- shredding and grinding technology
- conveyor technology
- separation technology
- storage & unloading technology
- metering technology
- complete boiler feed system

2. Description of feedstock material?:

2.1. Type of feedstock:

- biomass
 - industrial wood scraps
 - pallets
 - bark
 - green waste
- post consumer plastic
- rubber tires
- MSW - RDF (refuse derived fuel)

2.2. Unprocessed feedstock specification (as received or generated):

size: from in. up to in.

oversize material: to in.% max.

humidity of material:% mc.

gross average density:lbs/yd³

2.3. Composition of feedstock (wood, bark, plastic, glass, ferrous, non-ferrous, organic, fabric, electronic, hazardous, polycoat, demolition, appliances, special):

..... %.....
..... %.....
..... %.....
..... %.....
..... %.....
..... %.....
..... %.....
..... %.....

Other.....

**2.4. Separation / diversion of materials for recycling:
materials to be diverted.....**

.....

.....

recycled onsite..... or offsite.....

equipment required.....

.....

equipment positioning within the system.....

.....

manual sort line(s) planned?:

yes.....or no.....

3. Logistics?:

3.1. How is the material delivered?

- automatic infeed**
- by front-end loader (outdoor storage)**
- grapple / crane from bunker**
- by truck**
- others:**

3.2. Flow requirements:

input quantity = tons per year.

The material will be brought in / processed days per week.
with a daily operation time of hours.

output quantity: to the combustion system or final down stream
processing equipment =.....tons per hour.

- continuous**
- intermittent**

number of the infeed intervals =..... per hour.

period of the infeed interval =..... minutes.

- 3.3. Volume of storage =yds³.
 preferred storage / unloading technology:

4. Process technology?:

4.1. Reception of the materials according to specification of:

- reception station**
 - discharge system
 - loading conveyor
 - multiple screws
- outdoor storage**
- existing conveyor systems**
- others:**

4.2. Discharge from the reception station:

discharge capacity: yds³ / hr.....
 lbs. / hr.....

will the material be discharged / blended from different sources?

yes.....or no.....

4.3. Shredding / grinding requirements:

batch.....or
 continuous.....

resulting material consistency specification, if shredded:

chip or particle size: in. minus

special considerations:

.....

type and dimensions of possible contaminants or foreign parts
 (tramp metal, dirt, rocks, hazardous materials):

.....

4.4. Separation

- ferrous separation**
- non-ferrous separation**
- density separation** (air classification of: stones, glass, paper, plastic, etc.).....
- size classification** (screening types: oscillating, trommel, vibration)

- 4.5. Preferred conveying technology**
- to be chosen by Vecoplan
 - drag chain (paddle) conveyors
 - belt conveyor
 - vibration conveyors
 - screw conveyors
 - pneumatic conveyance

- 4.6. Intermediate storage required?**
- yes, storage volume yds³
 discharge capacity yds³/hr.
 No.....

type:

- block bunker with manual unloading
- pit with walking floor
- cylindrical silo with sweep arm

- 4.7. Termination of Vecoplan-supplied system – transition to / integration with:**
- boiler infeed
 - double flap
 - drop shaft in front of hydraulic infeed
 - dosing / metering bin
 - Other downstream equipment.....
 - Required control interlocks.....
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- 4.8. Safety / code requirements:**
- extinguishing devices
 - dust exhaust
 - other emissions
 - ground water
 - enclosures
 - electrical / switches
 - structural / seismic
 - other environmental
 - alarms

- 4.9. Electrical controls**
- to be designed by Vecoplan
 - customer specifications
 - visualization
 - conductive systems
 - interlocks within system:

5. Planning?:

5.1. Do preliminary designs, layouts, conceptual sketches, etc., exist? (if so, please forward them to us)

Yes..... no.....

5.2. Does a performance specification (bid specs) exist, if so, please forward to us.

Yes..... no.....

5.3. Interface with other suppliers?

.....
.....
.....

5.4. Budget status, project timetable, miscellaneous customer desires?

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.....
.....

6. Project status?:

Preliminary design phase, submit:

- budget proposal / offer
- flow diagram
- descriptive materials & dimension sheets
- draft drawing

OR

Final design phase, submit:

- detailed proposal / offer
- detailed drawings
- arrange meeting

7. Miscellaneous data?:

System voltage.....V/.....ph/.....Hz.

Existing facility: yes.....or no.....

Climatic conditions:.....

Installation: yes.....or no.....