

**PERFORMANCE EVALUATION
COMPOSTING**

Facility Name:	NPDES Permit:
Contact Name:	Telephone:
Inspector Name:	Date:

I. DESIGN INFORMATION

1. Composting method (check one): In-Vessel Windrow Aerated Static Pile
2. Type of sludge composted:
 Primary Sludge Septage Secondary Sludge Combined Sludge
 If combined sludge, what is the ratio by volume? _____
3. Composting capacity: ____ dry tons solids/day at ____ % total solids
4. Pile or in-vessel dimensions: _____
5. Bulking agent used: _____
6. Sludge to bulking agent mix ratio: _____
7. Composting period: Active phase _____ days Curing phase _____ days
8. Is finished compost screened: Yes No
 If yes, what type of screen is used: _____
9. Expected finished compost characteristics
 Production rate: _____ yd³/dry ton sludge moisture content: _____ %
 Volatile solids content: _____ %
10. Number of air blowers: _____
11. Total blower capacity: _____ scfm
12. Method of mixing windrow or in-vessel contents: _____

13. Ancillary equipment (loaders, dump trucks, etc.):

Type	Quantity

I. DESIGN INFORMATION (Continued)

14. Type of odor control system: _____

II. PROCESS INFORMATION

1. Describe operational strategy: _____

2. Dewatered sludge cake characteristics:

Total solids content: _____ %

Volatile solids content: _____ %

Moisture content: _____ %

Monitoring Frequency

3. Sludge processing rate: _____ dry tons solids/day

4. Sludge to bulking agent mix ratio: _____

5. Is the pile uniformly mixed: Yes No**

6. Actual composting period Active phase _____ days Curing phase _____ days

7. Describe the monitoring locations for temperature: _____

8. Average active phase temperature: _____ °C

9. Is the temperature uniform throughout the compost mixture: Yes No

10. Is the mixture maintained at a minimum of 40°C for five days and at a temperature exceeding 55°C for four hours to meet the PSRP requirements of 40 CFR Part 257? Yes No**

11. For Static Aerated Pile and In-vessel operations is the mixture maintained at a minimum of 55°C for three days to meet the PFRP requirements of 40 CFR Part 257? Yes No**

12. For Windrow operations is the mixture maintained at a minimum of 55°C for fifteen days and the pile turned at least five times to meet the PFRP requirements of 40 CFR Part 257? Yes No**

13. Describe the monitoring locations for oxygen: _____

II. PROCESS INFORMATION (Continued)

14. Average active phase oxygen level: _____ %
15. Is the oxygen content uniformly distributed throughout the compost mixture: Yes No
16. How often are the windrow piles turned and what is the determining factor for turning the piles?

17. Static Aerated Pile or In-vessel Methods
- a. Are the blower run times adjusted during the active phase? Yes No
- b. If the blower run times are adjusted, what is the controlling factor? _____
- c. Aeration type: _____ Forced-pressure _____ Vacuum-induced
- d. Is the odor control system in use? Yes No NA
- e. Has the system experienced freezing of blower or air lines during cold weather periods? Yes No
18. Are there odor problems: Yes No
If yes, provide source(s): _____
19. Is there an insect or rodent problem at the site? Yes No
20. Is runoff from the site collected? Yes No
If yes, How is it treated? _____
21. Finished compost characteristics
- Production rate: _____ yd³/dry ton sludge
- Moisture content: _____ %
- Volatile solids content: _____ %
22. How is finished product stored on site? _____

23. How much finished product is currently on-site? _____ yd³
24. Describe how the finished product is distributed: _____

II. PROCESS INFORMATION (Continued)

25. What is the monitoring frequency of:
- a. Feed sludge quality and quantity: _____
 - b. Finished product quality: _____
 - c. Temperature and oxygen levels in compost mixture: _____
 - d. Blower run times: _____
26. Is there a written standard operating procedure (SOP)? Yes No
If yes, attach a copy to this report.
27. Are adequate operating records maintained? Yes No**

III. MAINTENANCE INFORMATION

- 1. Is there an adequate preventative maintenance program? Yes No**
- 2. Is there adequate equipment redundancy? Yes No**
- 3. Is the spare parts inventory adequate? Yes No**
- 4. Is housekeeping adequate? Yes No**
- 5. What is the frequency of calibration of the temperature and oxygen probes? _____
- 6. Static air piles: How often are the air distribution lines cleaned to ensure uniform air flow? _____
- 7. Components out of service
_____ Out of service _____ days in _____(year)
_____ Out of service _____ days in _____(year)
_____ Out of service _____ days in _____(year)
- 8. What is the current mechanical condition of the unit? Good Poor**

** Please elaborate in V. OTHER OBSERVATIONS

IV. SAFETY CONSIDERATIONS

- Hazards noted (describe):
- 1. Moving equipment: _____

 - 2. Electrical: _____

VI. PROCESS SCHEMATIC

(Sketch or replace with plant schematic)

**COMPARISON OF ACTUAL COMPOSTING
CONDITIONS TO DESIGN AND TYPICAL CONDITIONS**

PARAMETER	ACTUAL	DESIGN	TYPICAL
Moisture Content of Influent Sludge (%)			50-60
Temperature of Compost Pile (°F)			120-150
Oxygen Level within Compost Pile (%)			5-15
<p>NOTE: As per 40 CFR 257:</p> <p>PSRP requires that the sludge must be maintained at 104°F for five days, must exceed 131°F for at least four hours.</p> <p>PFRP requires that for Within Vessel and Forced Air Static piles, the temperature must be at least 131°F for 3 days. Windrow piles must maintain a temperature of 131°F or more for at least 15 days and during this period the windrow must be turned a minimum of 5 times.</p>			