

**Appendix F**

**GSE Amended Consent Decree Summary Tables for Control Equipment Monitoring  
Requirements and Emission Limits**

### 3.0 ENGINEERING DESIGN CRITERIA FOR POLLUTION CONTROL EQUIPMENT

Process Description	Control Device	Control Device Description	Operating Parameters
DDGS Drying	CE 002	Dryer Cyclones (existing)	2" w.c. < Pressure drop < 10" w.c.
	CE 010	Thermal Oxidizer	Exhaust Flow Rate ≤33,000 scfm Residence Time > 0.7 seconds in combustion chamber Design Fuel Input Rate ~ 78 MMBtu/hr
Ethanol Loading Rack	CE 010	Thermal Oxidizer	Exhaust Flow Rate ≤33,000 scfm Residence Time > 0.7 seconds in combustion chamber Design Fuel Input Rate ~ 78 MMBtu/hr
	-- or -- CE (tbd)	----- or ----- New Separate Thermal Oxidizer	----- or ----- Exhaust flow rate = tbd (~100 cfm) Residence Time = tbd (> 0.7 seconds) Design Fuel Input Rate = tbd (oxidizer may be either gas or electric)
Ethanol Fermentation	CE 008	Packed Column Scrubber (existing)	1" w.c. < Pressure drop < 10" w.c. water flow rate ≥ 20 gpm
	CE (tbd)	Post-scrubber	0" w.c. < Pressure drop < 10" w.c. water flow rate to be determined
Cooling Cyclone	CE 006	Cyclone (existing)	2" w.c. < Pressure drop < 10" w.c.
	CE (tbd)	Baghouse	0" w.c. < Pressure drop < 8" w.c.
	CE (tbd)	Additional control equipment possible following analysis per Paragraph 22 of the Consent Decree	
Boiler #1	NA		Design Fuel Input Rate = 38.85 MMBtu/hr (Natural Gas) 210 gal/hr (#6 Fuel Oil)  NOx 100 lbs/1,000 ft <sup>3</sup> (AP42-1.4) NOx 55 lbs/1000 gal (AP42-1.3)
Boiler #2	NA		Design Fuel Input Rate = 38.85 MMBtu/hr (Natural Gas) 210 gal/hr (#6 Fuel Oil)  NOx 100 lbs/1,000 ft <sup>3</sup> (AP42-1.4) NOx 55 lbs/1000 gal (AP42-1.3)

Note: Operating parameters may be adjusted following emissions compliance tests.

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Ethanol Fermentation (continued)			HAPs		12-month rolling sum, total facility emission cap of 9.0 TPY for any single HAP and 24.0 TPY for total HAPs.
Cooling Cyclone	CE 006 CE (tbd)	Cyclone (existing) Baghouse	PM/PM10		12-month rolling sum, source-wide PM/PM10 cap of 95 TPY
			VOC	lb/hr limits to be established pursuant to Paragraph 22 of the Consent Decree.	12-month rolling sum, source-wide VOC cap of 95 TPY.
			HAPs		12-month rolling sum, total facility emission cap of 9.0 TPY for any single HAP and 24.0 TPY for total HAPs.
Wet Cake Alternate Operating Scenario			VOC	lb/hr limits to be established pursuant to Paragraph 15(k) of the Consent Decree.	12-month rolling sum, source-wide VOC cap of 95 TPY.
			HAPs		12-month rolling sum, total facility emission cap of 9.0 TPY for any single HAP and 24.0 TPY for total HAPs.
Ethanol Loading Rack	CE (tbd)	Thermal Oxidizer	VOC	Truck Loadout: 95% reduction of VOCs or no greater than 10 ppm.	12-month rolling sum, source-wide VOC cap of 95 TPY.
			HAPs		12-month rolling sum, total facility emission cap of 9.0 TPY for any single HAP and 24.0 TPY for total HAPs.
Boiler #1	EU001		NOx		12-month rolling sum, source-wide NOx cap of 95 TPY and 12-month rolling sum for Group NOx limit.
Boiler #2	EU002		NOx		12-month rolling sum, source-wide NOx cap of 95 TPY and 12-month rolling sum for Group NOx limit.

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