

Commercial Demonstration Project: Performance Overview

HY-TEK BIO Technology: Emissions, Performance, and Layout Characteristics

Performance					
Parameter	Inlet		Outlet		
	lb/hr	acfm	lb/hr	(lb/MMBtu)	(% Removal)
NO _x	0	-	0	-	-
SO _x	0	-	0	-	-
CO ₂	13,134	1,947 @ 90%	0	-	100
VOC	0	-	0	-	-

Parameter	Dimensions	Quantity
Bioreactor	10' Diameter x 20' Tall	88
Building (Insulated Shell)	120' x 160'	1
Water Consumption	GPM	70
Power Consumption (Heat/AC/Lights/Aux)	kW (408 3Ph/220 3Ph-1Ph/110 1Ph)	400*
Nutrient Consumption	GPM	6
Algae Production	System tons per Day	43
Oxygen Production	CFM (90-94%)	1,200

* **Power Consumption:** This includes building heat, ventilation, AC, Lights, dewatering, spray dryer and conversion to biofuel and averaged auxiliary use of power during the year. Assumes 100% spray drying (maximum power scenario).

Waste Water: There is no waste water from this system. All water is used in the photosynthesis process or filtered and returned to the bioreactors.

Waste Stream: There is a minor waste stream of metabolites from the filtration process. There is nothing in that waste stream that is considered toxic or hazardous. This waste stream is able to be disposed to regular drainage.