

Emissions Summary
Arglass Yamamura, LLC
Valdosta, Georgia

Three (3) Cooling Towers from cooling water system; Concept two operating one standby

each: water circulation = 470m³/h => in operation 940 m³/h

15.67 m³/min

4139 gpm

Operating Amount		Operating Time Hours
Amount Processed	Units	
36,254,975	Gallons/yr	8760

Air Contaminant	PTE Tons/yr	Calculation Methodology	Emission Factors	Units
PM-10	0.14	Mass Balance	0.031	lb/hr
PM-2.5	0.14	Mass Balance	0.031	lb/hr
FPM	0.14	Mass Balance	0.031	lb/hr
VOC	0.005	Mass Balance	0.001	lb/hr

Calculation of lb/hr Emissions

	36254974.89		
Average Circulating Water Flow Rate	4,139	gpm	@88 degrees F = 31°C
	0.42	m ³ /min	
Average Annual Solid Concentration in water	3,000	ppmv	
Average Annual VOC Concentration in water	100.0	ppmv	
	0.0005%	Drift in Cooling Towers	
	FPM/PM10/PM2.5	0.031	lb/hr based on 3,000 ppmv of total solids in cooling water
	VOC	0.001	lb/hr based on 100 ppmv of VOCs in cooling water
<u>Methodology</u>			
4,139 gpm x 60 minutes/hour x 0.000005 (% drift) x 3.8 L/Gal x 2.2e-6 lb/mg x 3000 ppmv = 0.83 lb/hr of PM			
4,139 gpm x 60 minutes/hour x 0.000005 (% drift) x 3.8 L/Gal x 2.2e-6 lb/mg x 100 ppmv = 0.001 lb/hr of VOC			