

(Click on Gray Box & input value; Units Box will expand for US or SI designation)

GENERAL INFORMATION

Project Identification Name:

Facility Name:

Location:

Address:

Facility Supervisor:

Phone:

Fax:

Email:

Consulting Engineering Firm:

Location:

Address:

Engineer Contact:

Phone:

Fax:

Email:

DIFFUSED AERATION REQUIREMENT

Oxygen Transfer & Adequate Mixing Mixing Only Supplemental Oxygen Only

TYPE OF AERATION SYSTEM REQUESTED

Fine Bubble Coarse Bubble Combination Fine & Coarse Evaluate All 3 Options

GENERAL COMMENTS

Re-Aeration Systems [Total for All Tanks]

Flowrate	MDG
Influent Dissolved Oxygen Conc.	mg/l
Required Effluent Dissolved Oxygen Conc.	mg/l
Actual Oxygen Required AOR	lbs/day
Oxygen Uptake Rate	mg/l/hr
Chloride Conc. (solubility limit)	mg/l

AERATION SYSTEM PIPING MATERIALS

Drop Pipe	Sch. 10 – 304L SS	<input type="checkbox"/>
Submerged Manifold Piping	Sch. 40 PVC	
Drop Pipe	Sch. 10 – 304L SS	<input type="checkbox"/>
Submerged Manifold Piping	Sch. 80 PVC	
Drop Pipe	Sch. 10 – 304L SS	<input type="checkbox"/>
Submerged Manifold Piping	Sch. 10 – 304L SS	
Drop Pipe	Sch. 10 – 304L SS	<input type="checkbox"/>
Submerged Manifold Piping	Sch. 5 – 304L SS	
Drop Pipe	Sch. 10 – 316L SS	<input type="checkbox"/>
Submerged Manifold Piping	Sch. 10 – 316L SS	
Drop Pipe	Sch. 10 – 316L SS	<input type="checkbox"/>
Submerged Manifold Piping	Sch. 5 – 316L SS	
Drop Pipe	Sch. 10 – 304L SS	<input type="checkbox"/>
Submerged Manifold Piping	Sch. 40 HDPE	

DIFFUSER RETROFIT INFORMATION

Brand Name of Existing Diffusers / Description:

Fine Bubble Coarse Bubble

Total Number of Diffusers per Tank:

Threaded Connection Diameter: _____ in

Normal Operating Airflow per Tank: _____ cfm

Maximum Operating Airflow per Tank: _____ cfm

TANK / BASIN GEOMETRY

Total Number of Tanks: Parallel Operation Series Operation
 Tank Bottom Material: Concrete Steel Plastic/Fiberglass Clay
 Bottom Elevation [MSL] Ft

Rectangular Tank or Channel (Straight Sidewall)

Length Ft Width Ft Side Wall Height Ft
 Additional V-Bottom Depth (at centerline of V) Ft
 Bottom Slope (if sloped to end of tank) [%]
 Operating Water Depth Ft

Circular (Flat Bottom)

Diameter Ft Side Wall Height Ft Bottom Slope to Center [%]
 Operating Water Depth Ft

Circular (Conical Bottom)

Diameter Ft Side Wall Height Ft Cone Depth at Center Ft
 Operating Water Depth (top of cone to water level) Ft

Horizontal Circular

Diameter Ft Horizontal Length Ft Flat Ends Domed Ends Open Top
 Manway Access Diameter Ft Manway Location (from end of tank) Ft
 Operating Water Depth (measured at centerline to water level) Ft

Rectangular Lagoon

Top Length Ft Top Width Ft
 Water Surface Length Ft Water Surface Width Ft
 Bottom Length Ft Bottom Width Ft Sidewall Slope [%]
 Operating Water Depth Ft

Special Construction (Insert all relative information)

WASTEWATER CHARACTERIZATION

Plant Loadings (For Aeration Tank Design) [Total for All Tanks]

	<u>Average Design Influent</u>	<u>Peak Design Influent</u>	<u>Required Effluent</u>
FLOW	MGD		
BOD5	mg/l		
COD	mg/l		
NH3	mg/l		
Operating MLSS Concentration		mg/l	
Wastewater Operating Temperature		Degrees F	
Average Food to Biomass Ratio			
Peak Food to Biomass Ratio			
Actual Oxygen Required AOR		lbs/day	
Air Flowrate Available		cfm	

Waste Sludge Loadings (For Aerobic Digester Design) [Total for All Tanks]

Waste Sludge Flowrate	MGD
Solids Concentration in Influent	mg/l
Percent Volatiles in Influent	%
Percent Volatiles to be Reduced	%
Sludge Concentration within Tank	mg/l
Actual Oxygen Required AOR	lbs/day
Air Flowrate Available	cfm

Wastewater Holding (For Sludge Holding, Septage Holding & Equalization) [Total for All Tanks]

Solids Concentration within Tank	mg/l
Actual Oxygen Required AOR	lbs/day
Air Flowrate Available	cfm
Desired Unit Mix Rate to be applied	cfm / 1000 cuft liquid

Additional Design Parameters [Total for All Tanks]

<i>Description</i>	<i>Value</i>	<i>Units</i>
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