FORM B: CALCULATION OF INDUSTRIAL WASTEWATER DISCHARGE FLOW RATE

COMPANY NAME: _____

Calculation of flow rate is based on: (Check one)

- ☐ Adjusted metered water supply (Company must complete the calculations below)
- ☐ Direct measurement through a Districts' approval effluent flow measurement system *
- ☐ Estimate for a facility not yet in operation **

ADJUSTED METERED WATER SUPPLY CALCULATIONS (Round all figures to two decimals)

		MILLION GALLONS PER YEAR	
I	Incoming Water		
1.	Metered Water Supply from Purveyor (Water Company). Use most recent 12 consecutive months and attach copies of water bills.		MGY
2.	Water Supply from Company Well. Attach meter or water master data for most recent 12 consecutive months.		MGY
3.	Water Received in Raw Materials, or by other means. Explain in attachments.		MGY
4.	Rainwater/Groundwater Discharged to the Sewerage System. Explain in attachments.		MGY
5.	Total Incoming Water. (add lines 1 to 4)		MGY
II	Water Losses		
6	Wastewater Discharged to Stormwater Drainage System. Explain in attachments. (NPDES Permit No. _____)		MGY
7	Water Lost Through Evaporation and Irrigation. (add lines a + b + c + d at the bottom of this form)		MGY
8	Water Lost in Products. Explain in attachments.		MGY
9	Sanitary Flow Deduction. (from line "e" on the back of this form)		MGY
10	Total Water Loses. (add lines 6 to 9)		MGY
III	Industrial Wastewater Discharged		
11	Calculated Industrial Wastewater Discharged to the public sewer. (subtract line 10 from line 5)		MGY
12	Any Proposed increase (+) or decrease (-) in industrial waste-water discharge to the public sewer? (explain in attachments)	Enter or Circle one (+) (-)	MGY
13	Total proposed yearly industrial wastewater discharge. (add lines 11 and 12)		MGY
14	Average industrial wastewater flow. (use line 13 to calculate below)		

MILLION GALLONS PER YEAR	x	1,000,000	÷	Number of Discharge Days per Year	=	Gallons per Day
	x	1,000,000	÷		=	

This is the average daily flow rate that must be used on the application for industrial wastewater discharge. (It may be rounded to two significant figures).

Note: The applicant must also complete the calculations on the back of this page.

* If your company currently has an **approved effluent wastewater flow measurement system**, please submit effluent totalizer readings for the last twelve months. Your company does not have to complete the rest of this form.

** The company must submit detailed information that substantiates how the flow rate was estimated.

WATER LOSSES

a. COOLING TOWER LOSSES

Tonnage	x	Hours of Operation Per Year	x	Load[1]	x	1.38[2]	÷	1,000,000	=	Mil. Gal. Per Year	
	x		x		x		÷	1,000,000	=		
	x		x		x		÷	1,000,000	=		
									=		a

[1] Load = 0.5 to 0.80
[2] 1.38 = Gallons evaporated per hour per ton

b. BOILER LOSSES

Horse-power	x	Hours of Operation Per Year	x	Load[3]	x	% Evaporation[4]	x	3.82[5]	÷	1,000,000	=	Mil. Gal. Per Year	
	x		x		x		x		÷	1,000,000	=		
	x		x		x		x		÷	1,000,000	=		
											=		b

[3] Load = 0.5 to 0.80
[4] % Evaporation = (100 - % condensate returned)/100
[5] 3.82 = Gallons evaporated per hour per horsepower

c. OTHER EVAPORATE LOSSES
(Explain in attachments)

Million Gallons Per Year	
	c

d. IRRIGATION LOSSES

Square Feet of Land Irrigated	x	18.7[6]	÷	1,000,000	=	Mil. Gal. Per Year	
	x		÷	1,000,000	=		d

[6] 18.7 = Gallons irrigated per square foot per year

e. SANITARY FLOW DEDUCTION

No. Employees	x	Working Days Per Year	x	Gallons Per Employee Per Day	÷	1,000,000	=	Mil. Gal. Per Year	
	x		x	15	÷	1,000,000	=		e

INCOMING WATER METERS

Please list all the accounts (or other identification) for all the meters that measure the water supplied to this facility.

Meter #	Location	Account #

Abbreviations and Conversion Factors
MGY = million gallons per year
1 cubic foot = 7.48 gallons
1 acre foot = 325,900 gallons
1 acre = 43,560 square feet
1 CCF = 748 gallons