Draft 10-15-85
Comments to BDC by 10-21

CITY OF ELKHART, INDIANA
INDUSTRIAL WASTE QUESTIONNAIRE

SECTION A. GENERAL INFORMATION (Type or Print, Please)

1. Company Name Miles Laboratories, Inc.

2. Mailing Address 1127 Myrtle Street

3. Address of Premises

4. Name and Title of Signing Official

5. Contact Official

Name Paul A. Turpin

Title Director, Environmental/Energy Affairs

Address 1127 Myrtle Street Elkhart, IN 46515

Phone Number 219) 262-7234

The information contained in this questionnaire is familiar to me and to the best of my knowledge and belief, such information is true, complete, and accurate.

22 Dec 83 Paul A. Turpin

Date Signature of Official

SECTION B. PRODUCT OR SERVICE INFORMATION

1. Brief description of manufacturing or service activity on premises:

Production of citric acid, industrial enzymes and various consumer products.

2. Principal Raw Materials Used:

Corn meal, corn, glucose, soy meal, corn steep liquor lactose, sodium bicarbonate, aspirin, vitamins

3. Catalysts, Intermediates:

Dextrose

4. Principal Product or Service (use Standard Industrial Classification Manual if appropriate): 2834, 2869

5. Standard Industrial Classification Codes(s) (SIC) for all processes:

Same

SECTION C. PLANT OPERATIONAL CHARACTERISTICS

1. Type of Discharge: _____ Batch X Continuous

If Batch, average number of batches/24 hrs. _____

2. Is theres a scheduled shutdown? No

When? _____

3. Is production seasonal? No

If yes, explain indicating months(s) of peak production.

4. Average number of employees per shift: ___ 1st; ___ 2nd; X 3rd

Approximately 2700 employees

5. Shift start times: 6 a.m.-6 p.m. 1st; 6 p.m.-6.a.m. 2nd; X 3rd

6. Shifts normally worked each day of the week:

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
1st	X	X	X	X	X	X	x
2nd	X	X	X	X	X	X	X
3rd							

7. Describe any wastewater treatment equipment or processes in use:

Currently there is an equalization/neutralization system which collects the wastes to reduce peaks in organic and pH and then neutralizes with lime from the citric acid plant

SECTION D. WATER CONSUMPTION AND LOSS

1. Raw Water Sources:

Source	Quantity	
Well water (Av.)	4.0 M	gallons per day
City Water (Av)	.5 M	gallons per day
		gallons per day
		gallons per day

2. Describe any raw water treatment processes in use:

Boiler water treatment (hot lime - soda)

Demineralization

Note any water treatment processes

3. List Water Consumption in Plant:

Cooling Water	2,000,000	gallons per day
Boiler Feed	1,000,000	gallons per day
Process Water	1,200,000	gallons per day
Sanitary System	300,000	gallons per day
Contained in Product	Not calculated	gallons per day
Other ( )		gallons per day

4. List average volume of discharge or water loss to:

City Wastewater Sewer	2,000,000	gallons per day
Natural Outlet (Recharge)	2,500,000	gallons per day
Waste Hauler	---	gallons per day
Evaporation	Not calculated	gallons per day
Contained in Product	" "	gallons per day

5. Is Discharge to Sewer: _____ Intermittent ___X___ Steady

6. List average water usage for SIC Processes itemized in Section B-5 above:

SIC No.	Brief Process Description	Average Water Consumption(GPD)
2869	Citric Acid Production	2.0*
2869	Enzyme Products	1.0*
	* Process & Cooling	

will be compared to averages for industry

SECTION E. SEWER CONNECTION AND DISCHARGE INFORMATION

1. List plant sewer outlets, size and flow: (assign sequential reference number to each sewer starting with No. 1).

Reference No.	Sewer Size (inches)	Descriptive Location of Sewer Connection or Discharge Point	Avg. Flow (gpd)
1	24"	MH 123 (Citric Plant)	1,750,000
2	18"	MH 153 (Enzyme Plant)	250,000
3	(6) Outfalls		300,000

2. Attach a scaled drawing of the industrial complex showing location of sewer referenced in E-1 above and location of the SIC process described in Section D-5. Show location of possible sampling points for sewers and SIC process effluents. For reference and field orientation buildings, streets, alleys, and other pertinent physical structures should be included.

Reg requires separate sampling point for process wastewaters prior to introduction of sanitary, other streams

3. Is there a Spill Prevention Control and Countermeasure Plan in effect for this plant?

X Yes _____ No

If yes, describe: Diking around solvent & fuel oil tankage

SECTION F. PRIORITY POLLUTANT INFORMATION

1. List all chemicals used in the manufacturing of the product.

See Section B. Also, octanol, trilaurylamine, mineral spirits as extractants

2. Please indicate by placing an "X" in the appropriate box by each listed chemical whether it is Suspected to be Absent, Known to be Absent, Suspected to be Present, or Known to be Present in your manufacturing or service activity or generated as a byproduct. Some compounds are known by other names. Please refer to Appendix A for those compounds which have an asterisk(*).

ITEM NO.	CHEMICAL COMPOUND	SUSPECTED ABSENT	KNOWN ABSENT	SUSPECTED PRESENT	KNOWN PRESENT	ITEM NO.	CHEMICAL COMPOUND	SUSPECTED ABSENT	KNOWN ABSENT	SUSPECTED PRESENT	KNOWN PRESENT
1.	ammonia				X	47.	chlorobenzene				
2.	asbestos (fibrous)					48.	chloroethane*				
3.	cyanide (total)		X			49.	2-chloroethylvinyl ether				
						50.	chloroform*				
4.	antimony (total)					51.	chloromethane*				
5.	arsenic (total)					52.	2-chloronaphthalene				
6.	beryllium (total)					53.	2-chlorophenol*				
7.	cadmium (total)					54.	4-chlorophenylphenyl ether				
8.	chromium (total)					55.	chrysene*				
9.	copper (total)					56.	4,4'-DDD*				
10.	lead (total)					57.	4,4'-DDE*				
11.	mercury (total)					58.	4,4'-DDT*				
12.	nickel (total)					59.	dibenzo(a,h)anthracene*				
13.	selenium (total)					60.	dibromochloromethane*				
14.	silver (total)					61.	1,2-dichlorobenzene*				
15.	thallium (total)					62.	1,3-dichlorobenzene*				
16.	zinc (total)					63.	1,4-dichlorobenzene*				
						64.	3,3'-dichlorobenzidine				
17.	acenaphthene					65.	dichlorodifluoromethane*				
18.	acenaphthylene					66.	1,1-dichloroethane*				
19.	acrolein					67.	1,2-dichloroethane*				
20.	acrylonitrile					68.	1,1-dichloroethene*				
21.	aldrin					69.	trans-1,2-dichloroethene*				
22.	anthracene					70.	2,4-dichlorophenol				
23.	benzene					71.	1,2-dichloropropane*				
24.	benzidine					72.	(cis & trans)1,3-dichloropropene*				
25.	benzo(a)anthracene*										
26.	benzo(a)pyrene*					73.	dieldrin				
27.	benzo(b)fluoranthene					74.	diethyl phthalate*				
28.	benzo(g,h,i)perylene*					75.	2,4-dimethylphenol*				
29.	benzo(k)fluoranthene*					76.	dimethyl phthalate				
30.	a-BHC (alpha)					77.	di-n-butyl phthalate				
31.	b-BHC (beta)					78.	di-n-octyl phthalate*				
32.	d-BHC (delta)					79.	4,6-dinitro-2-methylphenol*				
33.	g-BHC* (gamma)					80.	2,4-dinitrophenol				
34.	bis(2-chloroethyl)ether*					81.	2,4-dinitrotoluene				
35.	bis(2-chloroethoxy)methane*					82.	2,6-dinitrotoluene				
36.	bis(2-chloroisopropyl)ether*					83.	1,2-diphenylhydrazine*				
37.	bis(chloromethyl)ether*					84.	endosulfan I*				
38.	bis(2-ethylhexyl)phthalate*					85.	endosulfan II*				
39.	bromodichloromethane*					86.	endosulfan sulfate				
40.	bromoform*					87.	endrin				
41.	bromomethane*					88.	endrin aldehyde				
42.	4-bromophenylphenyl ether					89.	ethylbenzene				
43.	butylbenzyl phthalate					90.	fluoranthene				
44.	carbon tetrachloride*					91.	fluorene*				
45.	chlordane					92.	heptachlor				
46.	4-chloro-3-methylphenol*					93.	heptachlor epoxide				

Includes cleaning and other chemicals that don't enter product

SECTION F. PRIORITY POLLUTANT INFORMATION (CON'T)

ITEM NO.	CHEMICAL COMPOUND	SUSPECTED ABSENT	KNOWN ABSENT	SUSPECTED PRESENT	KNOWN PRESENT	ITEM NO.	CHEMICAL COMPOUND	SUSPECTED ABSENT	KNOWN ABSENT	SUSPECTED PRESENT	KNOWN PRESENT
94.	hexachlorobenzene*					112.	PCB-1248*				
95.	hexachlorobutadiene					113.	PCB-1254*				
96.	hexachlorocyclopenta-					114.	PCB-1260*				
	diene*					115.	pentachlorophenol				
97.	hexachloroethane*					116.	phenanthrene				
98.	indeno(1,2,3-cd)pyrene*					117.	phenol (*)				
99.	isophorone*					118.	pyrene				
100.	methylene chloride*				X	119.	2,3,7,8-tetrachlorodi-				
101.	naphthalene						benzo-p-dioxin*				
102.	nitrobenzene					120.	1,1,2,2-tetrachloroethane*				
103.	2-nitrophenol*					121.	tetrachloroethene*				•
104.	4-nitrophenol*					122.	toluene* (*)				
105.	n-nitrosodimethylamine*					123.	toxaphene				
106.	n-nitrosodipropylamine*					124.	1,2,4-trichlorobenzene				
107.	n-nitrosodiphenylamine*					125.	1,1,1-trichloroethane*				
108.	PCB-1016*					126.	1,1,2-trichloroethane*				
109.	PCB-1221*					127.	trichloroethene*				
110.	PCB-1232*					128.	trichlorofluoromethane*				
111.	PCB-1242*					129.	2,4,6-trichlorophenol				
						130.	vinyl chloride*				

(*) in laboratory/research use, may be others in reagent bottle quantities

3. For chemical compounds in F-2 above which are indicated to be "Known Present," please list and provide the following data for each: (attach additional sheets if needed).

ITEM NO.	CHEMICAL COMPOUND	ANNUAL USAGE (LBS)	ESTIMATED LOSS TO SEWER LBS./YR.	ITEM NO.	CHEMICAL COMPOUND	ANNUAL USAGE (LBS)	ESTIMATED LOSS TO SEWER LBS./YR.
1	Ammonia	[redacted]	[redacted]				
		~1000000	~900000				
[illegible]	[illegible] CHLORIDE	1150 TPH	~~30 TPH~~				
			> 100 LBS.				

? organics

4. List any other toxicants known or anticipated to be present in the discharge.

NONE

5. Enter the parameter name and all required values for any parameters checked in F-2 above. Samples should be taken at the end of the process line or after treatment, but before mixing with any other waste streams. Enter the flow for each waste stream. Use additional sheets if necessary.

Waste Stream			Concentration (mg/l)		Number and Type
Process	Flow (gpd)	Pollutant	Ave.	Max.	of Samples
MH 123	1,750,000	NH_3N	~200		ESTIMATED
MH 123	1,750,000	METH. CL	~ >1		ESTIMATED

SECTION G. PRETREATMENT

1. Is this plant subject to an existing Federal Pretreament Standard?

Yes

If so, are Pretreatment Standards being met on a consistent basis?

Yes. Only a cyanide level is specified as a standard.

2. Are additional pretreatment facilities and/or operation and maintenance required to meet Pretreatment Standards? If additional pretreatment and/or operation and maintenance are required, list the schedule by which they will be provided:

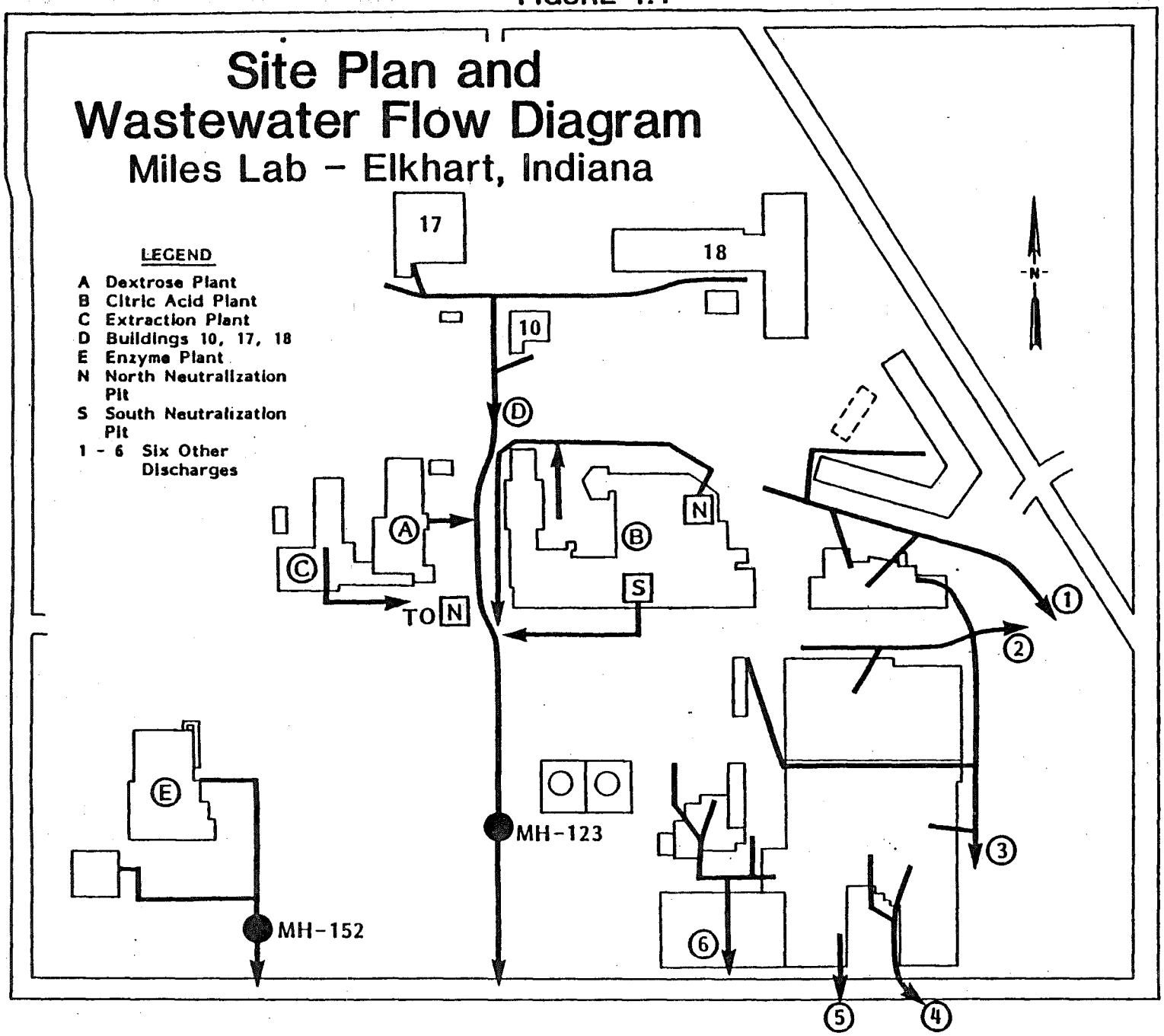
Per Agreement with city of Elkhart dated July 13, 1982.

3. Describe the methods employed to dispose of wastewater treatment residuals (sludges, etc.). what about other sludges

None. Landfill or land application disposal anticipated.

Include future plans where they differ from present situation.

FIGURE 1.1


Site Plan and
Wastewater Flow Diagram
Miles Lab – Elkhart, Indiana
LEGEND
A Dextrose Plant
B Citric Acid Plant
C Extraction Plant
D Buildings 10, 17, 18
E Enzyme Plant
N North Neutralization Pit
S South Neutralization Pit
1 - 6 Six Other Discharges
17
18
10
D
A
B
C
N
S
TO N
E
MH-123
MH-152
6
5
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