June 6, 1974

TO: Robert F Mitchell, Chief Chemist
Goodyear - Niagara Falls Plant

FROM: Corporate Industrial Hygiene

Following are results of the vinyl chloride analyses, by a Hewlett-Packard Gas Chromatograph, Model 5710A, on samples you submitted on May 28, 1974.

INDUSTRIAL HYGIENE LOG NUMBER	SAMPLE IDENTIFICATION OR LOCATION	SAMPLE PARAMETERS RATE, L/MIN.	SAMPLE PARAMETERS TIME, MIN.	ATMOSPHERIC VINYL CHLORIDE CONCENTRATION PPM
1-19-19	Kuimelis - R-1 Control Room			24.05
1-19-20	Raab - #3 PAS Operator	0.07	230	13.36
1-19-21	Glenn - R-1 Reactor Cleaner			7.78
1-19-22	Sloto - R-1 Pump Room	0.1	256	5.42
1-19-23	Hayes - R-1 Transfer Man	0.192	224	7.24
1-19-24	Paszkowski - R-1 Reactor Cleaner	0.16	253	17.43
1-19-25	Marsciano - R-2 Transfer Man			3.59
1-19-26	Frank - Bldg. F, Warehouse			0.68
1-19-27	Pantuso - Bldg. F, R-1 Bagger			2.58
1-19-28	Dawson - R-1 Reactor Cleaner			15.33
1-19-29	S H Kernaghan's Office	0.9	198	< 0.044

Comments: The above employees were monitored with large charcoal tubes for approximately 4 hours to obtain a more representative value of personnel exposure to vinyl chloride.

Data missing from SAMPLE PARAMETERS indicates a SIPIN pump was used. Operation of the SIPIN pump does not require that these parameters be recorded. However, the sampling times for these employees were also approximately 4 hours.

Paul W Bankovich
Corporate Industrial Hygiene

cc: J M Gilmore
D H Francis
C A Johnson, M.D.

613008

Rum

May 31, 1974

TO: Robert F Mitchell, Chief Chemist
Goodyear - Niagara Falls, Plant

FROM: Corporate Industrial Hygiene

Following are results of the vinyl chloride analyses, by a Hewlett-Packard Gas Chromatograph, Model 5710A, on samples you submitted on ~~May 23, 1974.~~

INDUSTRIAL HYGIENE LOG NUMBER	SAMPLE IDENTIFICATION OR LOCATION	SAMPLE PARAMETERS RATE, L/MIN.	SAMPLE PARAMETERS TIME, MIN.	ATMOSPHERIC VINYL CHLORIDE CONCENTRATION PPM
1-21-1	#1	0.1	10	24.6
1-21-2	2	0.1	10	4
1-21-3	3	0.1	10	6.4
1-21-4	4	0.1	10	3.5
1-21-5	5	0.1	10	<1
1-21-6	6	0.1	10	2.4
1-21-7	7	0.1	10	11.3
1-21-8	8	0.1	10	<1
1-21-9	9	0.1	10	<1
1-21-10	10	0.1	10	<1
1-21-11	11	0.1	10	N.D.
1-21-12	12	0.1	10	N.D.
1-21-13	13	0.1	10	3.6
1-21-14	14	0.1	10	2
1-21-15	15	0.1	10	20.5
1-21-16	16	0.1	10	5.9
1-21-17	17	0.1	10	<1
1-21-18	18	0.1	10	10.2

Comments:

Paul W Bankovich
Corporate Industrial Hygiene

cc:
J M Gilmore
D H Francis

613009

RWM

May 22, 1974

TO: Robert F Mitchell, Chief Chemist
Goodyear - Niagara Falls Plant

FROM: Corporate Industrial Hygiene

Following are results of the vinyl chloride analyses by a Hewlett-Packard Gas Chromatograph, Model 5710A, on samples you submitted on May 15, 1974.

INDUSTRIAL HYGIENE LOG NUMBER	SAMPLE IDENTIFICATION OR LOCATION	SAMPLES PARAMETERS RATE, L/MIN.	TIME, MIN.	ATMOSPHERIC VINYL CHLORIDE CONCENTRATION PPM
1-17-27	1	0.1	10	<1
1-17-28	2	0.1	10	3
1-17-29	3	0.1	10	13.2
1-17-30	4	0.1	10	1.2
1-17-31	5	0.1	10	5.1
1-17-32	6	0.1	10	9.3
1-17-33	7	0.1	10	20.2
1-17-34	8	0.1	10	8.5
1-17-35	9	0.1	10	44.2
1-17-36	10	0.1	10	2.3
1-18-1	11	0.1	10	1.9
1-18-2	12	0.1	10	1.7
1-18-3	13	0.1	10	12.1
1-18-4	14	0.1	10	1.2
1-18-5	15	0.1	10	N.D.
1-18-6	16	0.1	10	N.D.
1-18-7	17	0.1	10	<1
1-18-8	18	0.1	10	<1

Comments:

Paul W Bankovich
Corporate Industrial Hygienist

cc: J M Gilmore
D H Francis

613010

Rush

May 17, 1974

TO: Robert F Mitchell, Chief Chemist
Goodyear - Niagara Falls Plant

FROM: Corporate Industrial Hygiene

Following are results of the vinyl chloride analyses, by a Hewlett-Packard Gas Chromatograph, Model 5710A, on samples you submitted on May 9, 1974.

INDUSTRIAL HYGIENE LOG NUMBER	SAMPLE IDENTIFICATION OR LOCATION	SAMPLE PARAMETERS RATE, L/MIN	SAMPLE PARAMETERS TIME, MIN.	ATMOSPHERIC VINYL CHLORIDE CONCENTRATION PPM
1-17-1	1	0.1	10	6
1-17-2	2	0.1	10	12.2
1-17-3	3	0.1	10	<1
1-17-4	4	0.1	10	2.1
1-17-5	5	0.1	10	2.8
1-17-6	6	0.1	10	2.5
1-17-7	7	0.1	10	9.5
1-17-8	8	0.1	10	4.9
1-17-9	9	0.1	10	6.1
1-17-10	10	0.1	10	26.5

Comments:

Paul W Bankovich
Corporate Industrial Hygiene

cc: J M Gilmore D H Francis

613011

May 8, 1974

TO:
Robert F Mitchell, Chief Chemist
Goodyear - Niagara Falls Plant

FROM: Corporate Industrial Hygiene

Following are results of the vinyl chloride analyses, by a Hewlett-Packard Gas Chromatograph, Model 5710A, on samples you submitted on ~~May 7, 1974.~~

INDUSTRIAL HYCIENE LOG NUMBER	SAMPLE IDENTIFICATION OR LOCATION	SAMPLE PARAMETERS RATE, L/MIN	SAMPLE PARAMETERS TIME, MIN.	ATMOSPHERIC VINYL CHLORIDE CONCENTRATION PPM
1-14-8	Sample #1	0.1	10	1.1
1-14-9	" #2	0.1	10	9.8
1-14-10	" #3	0.1	10	< 1.0
1-14-11	" #4	0.1	10	2.0
1-14-12	" #5	0.1	10	< 1.0
1-14-13	" #6	0.1	10	< 1.0
1-14-14	" #7	0.1	10	< 1.0
1-14-15	" #8	0.1	10	2.0
1-14-16	" #9	0.1	10	<1.0
1-14-17	" #10	0.1	10	55.0

Comments:

Corporate Industrial Hygiene

cc: J M Gilmore D F Francis

613012

May 1, 1974

Robert F Mitchell, Chief Chemist
TO: Goodyear - Niagara Falls Plant

FROM: Corporate Industrial Hygiene

Following are results of the vinyl chloride analyses, by ~~April 25, 1974~~ Hewlett-Packard Gas Chromatograph, Model 5710A, on samples you submitted on _____

INDUSTRIAL HYGIENE LOG NUMBER	SAMPLE IDENTIFICATION OR LOCATION	SAMPLE PARAMETERS RATE, L/MIN	SAMPLE PARAMETERS TIME, MIN.	ATMOSPHERIC VINYL CHLORIDE CONCENTRATION PPM
1-13-1	Sample #1			3.5
1-13-2	" #2			<1.0
1-13-3	" #3			1.8
1-13-4	" #4			<1.0
1-13-5	" #5			3.5
1-13-6	" #6			<1.0
1-13-7	" #7			11.0
1-13-8	" #8			3.0
1-13-9	" #9			8.3
1-13-10	" #10			3.5
1-13-11	" #11			3.8

Comment:

Corporate Industrial Hygiene

J M Gilmore
cc: D H Francis

613013

May 1, 1974

TO: Robert F Mitchell, Chief Chemist
Goodyear - Niagara Falls Plant

FROM: Corporate Industrial Hygiene

Following are results of the vinyl chloride analyses, by a Hewlett-Packard Gas Chromatograph, Model 5710A, on samples you submitted on April 22, 1974.

INDUSTRIAL HYGIENE LOG NUMBER	SAMPLE IDENTIFICATION OR LOCATION	SAMPLE PARAMETERS RATE, L/MIN	SAMPLE PARAMETERS TIME, MIN.	ATMOSPHERIC VINYL CHLORIDE CONCENTRATION PPM
1-10-1	Sample #1 Glass Tube			10
1-10-2	" #2 " "			10
1-10-3	" #3 " "			6
1-10-4	" #4 " "			22
1-10-5	" #5 " "			4
1-10-6	" #6 " "			34
1-10-7	" #7 " "			1
1-10-8	" #8 " "			1
1-10-9	" #9 " "			75
1-10-10	" #10 " "			15
1-10-11	" #11 " "			5

Comment: Analyses were done by Ray Dove, Goodyear Research.

Corporate Industrial Hygiene

cc: J M Gilmore
D H Francis

613014

TABLE I

Distribution of Vinyl Chloride Concentration in Area Sampl s

	Plaquemine[a] 5/1 to 6/26	July	Niagara Falls[b]
90% of samples showed VCM levels greater than	0.5	0.5	<1
80 " " " " " "	1.1	1.1	<1
70 " " " " " "	1.7	3.1	1.8
60 " " " " " "	2.9	4.3	2
50 " " " " " "	4.0	5.0	3
40 " " " " " "	6.4	10.4	5
30 " " " " " "	9.7	12.8	6
20 " " " " " "	14.9	20.0	10
10 " " " " " "	26.2	31.7	15
5 " " " " " "	39.7	41.5	37
Percent of samples at 25 ppm or less	88.2	~85	92.9
" " " " 5 ppm or less	57.3	50	64.3

a. Grab Samples
b. 10-Minute Samples, excluding excursions

TABLE II

Distribution of Personnel Monitoring Data by Job Function and/or Area - Niagara Falls Through July, 1974

Work Area or Function	Ten-Minute Samples Vinyl Chloride Ave ppm	Ten-Minute Samples Vinyl Chloride Max ppm	8-HR TWA Vinyl Chloride Ave ppm	8-HR TWA Vinyl Chloride Min ppm	Respirator* Requirement 1910.93q (g) (4)
Reactor Cleaning	33.1	160	15.7	8	ii
Batch Transfer	10.8	147	6.4	3	ii
Reactor Area	4.9	22	11.0	3	iv
Pump Room	7.3	106	8.2	4	ii
Control Room	4.5	12	12.2	0.5	iv
E-Bldg Supervisor	-	-	17.1	2.3	ii
Bagger	4.3	13	5.4	0.7	iv
P & S Dryer	12.4	60	11.6	4.8	iii
Break Room	1.5	4.0	-	-	v
Locker Room	1.5	3.0	-	-	v
Lunch Room *	1.4	1.8	-	-	v
Main Office *	1.2	1.7	<0.04	-	v
Warehouse	1.3	2.0	2.0	0.5	v
Welex	1.2	2.5	-	-	v
Laboratory *	0.6	0.9	0.5	0.5	None
Maintenance Shop	1.3	9.1	1.6	1.6	v

* All Areas Must be Considered Regulated Areas

Presentation Nov. 2 (Tuesday)

- Motor exhaust triggers at Ploquemine
Pair Tests of atm. samples and at Plants.
Area Sampling (mercaptan-no specimen)
OVA - Readings (Total Hydrocarbon level)
Enforced warning + personal monitor samples 10 min + TWA

Time Period - 1974	E-1	E-2
4/8 - 4/17	14.7 ppm	12.6 ppm
4/27 - 5/7	11.7	11.4
5/17 - 5/25	9.3	9.2
6/5 - 6/13	7.0	7.9
6/14 - 6/27	7.6	7.7
4/8 - 6/27	10.5	9.7
Number of Readings	1678	1229
10/19 - 10/29	6.7	5.2

613018

Reduction in Vinyl Chloride Concentrations at Niagara Falls, Building E-2

