COUNTY SANITATION DISTRICTS
OF LOS ANGELES COUNTY

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WALTER E. GARRISON
Chief Engineer and General Manager

COPY

August 6, 1981

File: 31-150.10.26

Department of Health Services
107 South Broadway
Room 7012
Los Angeles, CA

Management Section
AUG 1 0 1981
California Department of Health Services
LOS ANGELES

Attention: Mr. Miller Chambers

Gentlemen:

DDT in Districts' Sewer Sediments

Enclosed for your information per our telephone conversation of July 28, 1981 regarding subject DDT, is a copy of the Monitoring Section's Monthly Report for July, 1977 which provides detailed information regarding this matter. Also enclosed is a copy of the first page of the Summary of Findings of the 1979-80 Southern California Coastal Water Research Program's Biennial Report, the first paragraph of which discusses DDT levels in the ocean sediments off Palos Verdes.

Please contact me if you require additional information.

Yours very truly,

Walter E. Garrison

Roger Beeken

By Roger Beeken
Departmental Engineer

RB:kss
Enclosures

Copy received from Nestor for the Montrose file
Eve Stack 8/17/81

MONITORING SECTION

MONTHLY REPORT FOR JULY 1977

Norman Ackerman

DDT IN SEWER SEDIMENTS DOWNSTREAM OF MONTROSE CHEMICAL CO.

SUMMARY

A sampling survey showed the presence of an estimated 74,000 lb. of DDT in sediments in a 2300 ft. reach of Joint Outfall "D". This mass of DDT is essentially unchanged in quantity or composition from a previous survey in 1973. It is recommended that no attempt be made to remove these sediments. To do so would produce a substantial increase in discharge of DDT to the ocean even with secondary treatment at JWPCP. If it becomes necessary to clean this sewer, it should be done only after full secondary treatment is achieved at JWPCP and with the concurrence of the Regional Water Quality Control Board.

I. INTRODUCTION

Montrose Chemical Co. is a manufacturer of DDT located in Sanitation District 5. This firm formerly discharged process wastewater, containing DDT, to the District 5 Interceptor and to Joint Outfall "D". It stopped discharging a significant portion of these wastes in April 1970 and ceased the discharge of all process wastes by June 1, 1971. Subsequent sampling surveys showed that sewer sediments downstream of Montrose Chemical Co. were rich in DDT and it was suggested that these sediments were a major source of DDT influent to JWPCP. During 1970-72, the District 5 Interceptor and J.O."D" were cleaned in an attempt to eliminate this source of DDT. In a study made in 1973[1] it was concluded that the cleaning process resuspended much of the sediment (and DDT) and that most of this resuspended material passed through JWPCP to the ocean. As a result of this finding, it was recommended that further cleaning of these sewers be postponed until the improved solids processing facilities go into operation; it was expected that the new facilities would remove most of the resuspended DDT.

Because of the startup in late 1976 of improved solids processing facilities, it was decided to conduct another sewer survey and determine whether sufficient DDT remains in the sediments to justify another cleaning. This survey was conducted November 23, 1976. Figure I shows the sewers and manholes that were inspected. The depth of sediment was estimated at each manhole, samples of sediment were taken for analysis and an estimate of the quantity of DDT remaining in the sewer was made.

II. JWPCP WASTEWATERS

Discharge Limits

There are no discharge limitations for DDT at JWPCP. There are, however, limitations for total identifiable chlorinated hydrocarbons (TICP), shown in Table 1[1]. The initial compliance date for these limits, July 1, 1978, will probably be extended to July 1, 1983 because of the absence of secondary treatment.

Effluent Quality

A record of the actual discharges of DDT and TICH is shown in Table 2. The TICH is composed principally of DDT and polychlorinated biphenyls (PCBs) plus a small amount of chlorinated hydrocarbon pesticides other than DDT. The data show steady declines except for 1974 when there was an unexplained large increase in PCB levels. The TICH mass emission rate of 11.9 lbs/day for 1976 is approximately twice the limitation of 6.42 lbs/day shown in Table 1. Also, about half the TICH in 1976 was DDT.

Raw Sewage Quality

Table 3 presents data on DDT in JWPCP raw sewage. It shows a steady decline since 1971 with a leveling off in 1975 and 1976 to a mass flow of about 2000 lbs per year. Because of the ban on the use of DDT, the most likely sources of DDT are residues in sewer sediments and on farm land. Dust from the latter might, for example, enter the sewerage system via car washes.

The raw sewage was sampled as two streams; effluents from Grit Chambers 1 & 2 and from Grit Chambers 3 & 4. The area tributary to Grit Chambers 3 & 4 includes Montrose Chemical Co., Joint Outfall "D" and the District 5 Interceptor. Except for 1974 this stream had substantially higher DDT concentrations than the effluent from Grit Chambers 1 and 2. This suggests that there is more DDT in sewer sediments tributary to Grit Chambers 3 & 4 than to Grit Chambers 1 & 2.

Removal Efficiencies

Table 4 shows the record of DDT and TICH removals at JWPCP. DDT and TICH removals in primary sedimentation were fairly close, averaging 58% and 63%, respectively. There were, however, substantial differences between the two in total plant removal. In addition, the total plant removal of DDT was highly variable, and a six year average indicated a negative removal of about 9%. Several possible explanations may account for this unlikely negative removal: (1) Substantially all of the DDT which had been removed by primary sedimentation was subsequently returned in the digested sludge centrate to the final effluent. (2) A portion of the DDT removed by primary sedimentation was retained in digesters for up to three years before being returned during digester cleaning operations to the final effluent. This could have had a significant effect because the older wastes were richer in DDT than the more recent wastes. (3) The analysis for chlorinated hydrocarbons is very difficult in the "dirty" JWPCP effluents.

The unusual total plant removals noted above will have no significance when advanced primary treatment and secondary treatment are used at JWPCP because little TICH will be returned in the centrate then. Projected removal efficiencies of TICH have been estimated to be 53% with advanced primary treatment and 90% with secondary treatment [11,12]. It is assumed that projected DDT removals will be approximately the same as the TICH removals.

III. PROCEDURE FOR SAMPLING SEWER SEDIMENTS

Figure 1 shows that J.O."D" and the District 5 Interceptor are two essentially parallel sewers with one lying generally east of the other. Each (the east or west sewer) is made up of alternating sections of the District 5 Interceptor and Joint Outfall "D". Several junction chambers, cross connections and bulkheads permit or block flows between the two sewers.

The District 5 Interceptor and Joint Outfall "D" were surveyed between Montrose Chemical Co. and the region where sealed manhole covers are used, a distance of about three miles. Twenty-four manholes, shown in Figure 1, were selected with a nominal spacing of about 1/4 mile. Spacings varied because of a desire to resample locations which had been sampled earlier, because of inaccessibility of manholes and to avoid areas of turbulence at corners and junction chambers. The manhole numbering system shown in Figure 1 is from Reference 2 and is different from the system used in previous surveys.

One survey crew sampled J.O."D" and the other sampled the District 5 Interceptor. Sediment samples were taken with a cup attached to a pole. This device was also used to estimate the depth of sediment by feeling the change in resistance as the pole was lowered into the manhole. The samples were sent to the San Jose Creek Water Quality Laboratory for analysis.

IV. RESULTS

The estimated depth of sediment in each of the 24 manholes that were inspected is shown in Figure 1. Samples were obtained from seven manholes; the results of the laboratory analyses are shown in Table 1. The samples, in general, were sticky and tarry. This was also observed in earlier surveys.

Mass of DDT in Sewer Sediments

The mass diagram shown in Figure 2 was prepared from the results presented above. For each manhole from which a sample was taken, the sediment cross section area was calculated from the circular segment defined by the sediment depth and the sewer radius. The sediment mass density (mass per linear foot of sewer) for that station then is the product of the sediment cross-section and the sediment density. Based upon earlier work [1,3] the sediment was assumed to have a specific gravity of 1.5 and a density of 93.6 lb/ft^3. The mass density of DDT at that station is the product of the mass fraction of DDT and the sediment mass density. The mass densities were plotted in Figure 2 as a function of distance from Montrose Chemical Co. and were assumed to vary linearly between manholes.

Integration of the curves in Figure 2 yields a sediment mass of 407,000 lb and a DDT mass of 87,000 lb. 74,000 lb of the DDT is in a 2300 ft reach of J.O."D" downstream of the Montrose discharge.

Data from less extensive surveys conducted in 1972[3] and 1973[1], were used to construct similar mass diagrams. The results of the three surveys of the same portion of J.O."D", Section 2A are shown in Figure 3. One must be cautious in evaluating these results which were developed from only a few data points with substantial uncertainty. Only two of the eight manholes indicated in Figure 3 were sampled in all three surveys. Also, the sediment depth is rather inexact because it was measured by feel, at the bottom of a manhole, with a 20 foot long pole. Taking these qualifications into consideration, there appears to be no substantial change since the 1973 survey.

Redner[13] also suggested that a short siphon on J.O."D" unit 1E, near the intersection of Sepulveda Blvd. and Figueroa St. may contain some sediment. This siphon was not sampled in this survey.

Composition and Transformation of DDT

Technical grade DDT consists of approximately 80% pp' - DDT and 20% op' DDT[4]. Mitchell[5] presented the pathways for metabolism of DDT shown in Figure 4 and stated that many others have been reported. Dahm[4] also reported that metabolic isomerization can occur; that is, the pp' isomers can be transformed by organisms to the op' isomers and vice-versa. Although 15 compounds are shown in Figure 4, only 3 of these; DDT, DDD and DDE (each of which may exist as the pp' and op' isomers) are generally found in sewage. DDD is formed from DDT by substituting a hydrogen atom for a chlorine atom. DDE is formed from DDT by removal of a hydrogen and a chlorine atom. Thus both DDD and DDE may by considered to be partially dechlorinated or degraded DDT.

Hill and McCarty[6] showed that DDT isomers persist under aerobic conditions. They also demonstrated that DDT degrades very rapidly to DDD in thick, biologically active, anaerobic, sewage sludge. In the normal sewer environment, then, rapid metabolism of DDT to DDD in the wastewater should not be expected. It might be expected, however, in anaerobic sediments.

The composition of total DDT in the sediments from the survey of November 23, 1976 are shown in Table 5. Total DDT as used here refers to the sum of the six isomers and metabolites of DDT that are listed in Table 5. In six of the seven samples, the two DDT isomers make up about 60% of the mass of total DDT; the degradation products, DDD and DDE, comprise the other 40%. The sample from manhole D-13, which is the furthest downstream of those sampled, consists of only about 4% DDT isomers; the other 96% of the total DDT having been dechlorinated to DDD and DDE. One inference which may be made is that the sediment at manhole D-13 contained a sufficient population of anaerobes to degrade the DDT isomers; little or no metabolism occurred in the sediments at the other manholes. Another inference is that this sediment may reflect material from upstream in the sewer that was deposited at D-13 during sewer cleaning operations.

Table 6 summarizes data on degradation of DDT in samples, associated with the Joint Outfall System, taken at various times and locations. It shows the percent of degradation products (DDD + DDE) as a function of location in the sewerage system (horizontally on the chart) and in chronological sequence (vertically). The DDT in J.O."D" sediments (with the exception of manhole D-13) remained essentially constant in composition from August 1971 to November 1976; it contained 39-46% degradation products. During this same period, the DDT in JWPCP raw sewage was substantially degraded; it consisted of 87-91% degradation products. It is considered improbable for this increase in degradation to occur metabolically during the less than three hours needed for sewage to travel from the sediment bed in J.O."D" to JWPCP. An intermediate bed of sediment containing a population of anaerobes sufficient to metabolize DDT isomers, as was postulated for manhole D-13, would be required.

V. CONCLUSIONS

There is a large mass of sediment, rich in DDT, located in a 2300 ft. reach of Joint Outfall "D", Section 2A, just south of Montrose Chemical Company between manholes D26 and D31. The sediment contains 16-44% DDT, has a tarry consistency and is less than nine inches deep. A simple calculation indicates that about 74,000 lb of DDT is present in this reach; however this should be considered only a ballpark figure because of the crudeness in estimating sediment depth and the few manholes which were sampled.

The sediments in the reach are not considered to have been significant sources of total DDT flowing into JWPCP, at least since April 1973, because of the stability of the mass and composition of DDT in the sediment. The total DDT in this reach is essentially unchanged in quantity since the last survey in April 1973. It is also essentially unchanged in quality since August 1971, consisting of 39-46% degradation products (DDD + DDE). In addition, DDT in JWPCP raw sewage is substantially more degraded, containing 87-91% degradation products; it is considered unlikely that sediments resuspended from this reach would undergo such a substantial change in composition during the few hours of flow to JWPCP.

It has been estimated that 25% of sediment can be removed during a sewer cleaning operation, with the balance of 75% being resuspended and flowing to JWPCP[1]. It has also been estimated that advanced primary treatment at JWPCP can remove 53% of influent TICH and that secondary treatment can remove 90% of influent TICH[11,12]. Given these assumptions, one can calculate the amount of DDT that would be resuspended and pass through JWPCP to the ocean if the section of J.O."D" containing 74,000 lb of DDT is cleaned. With advanced primary treatment, 26,000 lb would flow to the ocean, and with secondary treatment 5,500 lb would flow to the ocean.

The 30-day average limit of 6.42 lb of TICH specified in the JWPCP Waste Discharge Permit[11] is equal to a rate of 2343 lb/year. Sewer cleaning would result in this limit being exceeded: 26,000 lb of DDT is 11 times the limit and 5,500 lb of DDT is 2.3 times the limit. These sewer cleaning discharges are also substantially greater than recent discharges of about 2000 lb/year of DDT.

VI. RECOMMENDATIONS

It is recommended that the 2300 ft. reach of J.O."D" below Montrose Chemical Co., which contains DDT-rich sediments, not be cleaned. If the sewer must be cleaned, it should be done only after full secondary treatment is achieved and with the concurrence of the Regional Water Quality Control Board.

Cleaning would produce a substantial increase in DDT discharged to the ocean. Cleaning after July 1, 1978, when the TICH discharge limit goes into effect, would probably result in a violation of the discharge permit. Cleaning appears to be unnecessary for sewer maintenance because the 9 inches or less of sediment have little effect on the hydraulics of the 57 inch diameter sewer. Cleaning also would be very difficult because of the tarry consistency of the sediment.

REFERENCES

1. Luthy, Richard F., and Wilson, Paul F., "Chlorinated Hydrocarbon Study Progress Report," Monitoring Section, County Sanitation Districts of Los Angeles County (LACSD) July 1973.

2. "Map Guide for District 5", LACSD

3. Anderson, Blake B., "Trace Constituents Monitoring", Technical Services Department Monthly Report, December 1972, LACSD.

4. Dahm, Paul A., "Chemistry and Metabolism of Insecticides," Chapter II of "Agricultrual Practices and Water Quality," Willrich Ted L. and George E. Smith, Editors. Iowa State University Press, Ames, Iowa, 1970.

5. Mitchell, Ralph, "Introduction to Environmental Biology" Prentice Hall, Englewood Cliffs, N.J. 1974.

6. Hill, David W. and P.L. McCarty, "The Anaerobic Degradation of Selected Hydrocarbon Pesticides, presented at the Water Pollution Control Federation meeting in Kansas City, Kansas 9/27/66.

7. Carry, Charles W. and Redner, John A. "Pesticides and Heavy Metals, Progress Report, December 1970", LACSD.

8. MacGregor, John S., "DDT and Its Metabolites in the Sediments Off Southern California", Fishery Bulletin, Vol.74 No. 1, 1976.

9. McDermott, Deirdre J., Heeson, Theadore C. and Young, David R., "DDT in Bottom Sediments Around Five Southern California Outfall Systems", Southern California Coastal Water Research Project, December 1974.

10. Redner, John and Payne, Kip, "Chlorinated Hydrocarbon Progress Report December 1971," LACSD.

11. "Waste Discharge Requirements for County Sanitation Districts of Los Angeles County (Joint Water Pollution Control Plant), NPDES Permit No. CA0053813, Board Order No. 77-99" State of California, Resources Agency, Regional Water Quality Control Board, Los Angeles Region, Adopted June 27, 1977.

12. Dryden, F.D. "Joint Water Pollution Control Plant Anticipated Pollutant Removals, "Letter from LACSD to R.M. Hertel, California Regional Water Quality Control Board, File No.: 98-9111.50.1.5, May 12, 1975.

13. Redner, John, Personal Communication, July 22, 1977.

TABLE I

TICH DISCHARGE REQUIREMENTS FOR JWPCP

Units	Discharge Limitations		
	30-Day Average	Not to be Exceeded More Than 10% of Time	Daily Maximum
ppb	2	4	6
kg/day	2.91	-	5.83
lbs/day	6.42	-	12.8

TABLE 2

ANNUAL MEAN DISCHARGE OF DDT AND TICH FROM JWPCP

Calendar Year	Concentration (ppb)		Mass Emission Rate (lbs/day)	
	DDT	TICH	DDT	TICH
1971	44.0	54.8	137	170
1972	13.4	21.5	40.5	64.8
1973	7.52	10.7	22.3	31.8
1974	3.05	15.9	8.76	44.6
1975	2.20	5.26	6.25	14.9
1976	1.82	4.06	5.35	11.9

TABLE 3

DDT IN JWPCP RAW SEWAGE

Calendar Year	Mean Concentration (parts per billion)				
	Grit Chambers 1 & 2	Grit Chambers 3 & 4	Flow Weighted Average	Mean Mass Flow Rate (lb/day)	Mean Mass Flow Rate (lb/year)
1971	10.96	55.10	34.10	106.4	38,800
1972	3.69	26.76	14.93	44.7	16,300
1973	3.73	10.26	7.63	22.8	8,300
1974	4.05	3.98	3.98	11.4	4,160
1975	0.86	2.18	1.74	4.92	1,790
1976	(0.82)[a]	(1.59)[a]	(1.26)[a] 2.05	6.07	2,150

NOTE: [a] these data are for the four month period, January-April, 1976.

TABLE 4

DDT AND TICH REMOVALS AT JWPCP

Calendar Year	Mean Removals (Percent)			
	Primary Sedimentation		Total Plant	
	DDT	TICH	DDT	TICH
1971	-	-	-30	0
1972	53	59	10	14
1973	60	65	2	17
1974	67	82	24	46
1975	49	57	-27	18
1976	62	53	12	15
Mean	58	63	- 9	18

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TABLE 5

DDT IN SEWER SEDIMENTS DOWNSTREAM OF MONTROSE CHEMICAL CO.

NOVEMBER 23, 1976

Manhole	D-32	D-30	D-29	210	D-26	D-18	D-13
Distance Downstream of Montrose Chemical Co.(ft)	-702 (upstream)	614	1276	2151	2323	7837	10,559
Depth of Sediment (ft)	0.2-0.5 (spotty)	0.6	0.7	0.3	0-0.1	0.1-0.3	0.1-0.3
Total DDT as a percent of sediment	0.436	44.0	30.0	16.0	19.7	3.72	4.97
Composition of Total DDT (Mass Fraction)							
pp'-DDT	.498	.577	.511	.511	.499	.489	.038
pp'-DDE	.257	.217	.242	.252	.260	.247	.437
pp'-DDD	.083	.051	.095	.093	.093	.137	.364
op'-DDT	.085	.091	.086	.066	.072	.040	.006
op'-DDE	.037	.032	.030	.031	.032	.030	.052
op'-DDD	.041	.031	.034	.046	.043	.056	.103
pp'+op'-DDT	.583	.668	.597	.577	.571	.529	.044
pp'+op'-DDE	.294	.249	.272	.283	.292	.277	.489
pp'+op'-DDD	.124	.082	.129	.139	.136	.193	.467

TABLE 6

DEGRADATION OF DDT IN THE JOINT OUTFALL SYSTEM

SAMPLING DATE OR PERIOD	NO. OF SAMPLES	REFERENCE[1]	PERCENT DEGRADATION PRODUCTS IN TOTAL DDT (DDD + DDE) x 100/(DDT + DDD + DDE)						
			MONTROSE EFFLUENT	WASTEWATER BELOW MONTROSE DISCHARGE	SEWER SEDIMENTS		GRIT FROM GC 3 & 4	JWPCP GRIT CHAMBER EFFLUENT	OCEAN SEDIMENTS OFF WHITE POINT
					IN 2300 FT REACH OF JO"D"	MAN-HOLE D-13			
July 1970	1	7		27					
Aug-Nov 1970	7	7	26						
Jan-Dec 1971	12							88	
Jan 11, 1971 - Mar 26, 1972	28						83		
July 15, 1971	2	1			23				
Aug 6, 1971	2	1			45				
July-Aug 1971	103	8							92
Jan-Dec 1972	12							90	
June 1972	19	8,9							97
Oct 24, 1972	2	3			46				
Sept 29, 1972 - Mar 30, 1973	23						88		
Jan-Dec 1973	12							87	
Jan 12, 1973	2	1			40				
Apr 27, 1973	3	1			46				
Jan-Dec 1974	12							89	
Jan-Dec 1975	12							91	
Jan-Dec 1976	12							88	
Nov 23, 1976	3				39	96			

NOTE: [1] Data for which no references are given were generated for this report from Monitoring Section records.

SURVEY FOR DDT IN SEWER SEDIMENTS
DOWNSTREAM OF MONTROSE CHEMICAL CO.
NOVEMBER 23,1976

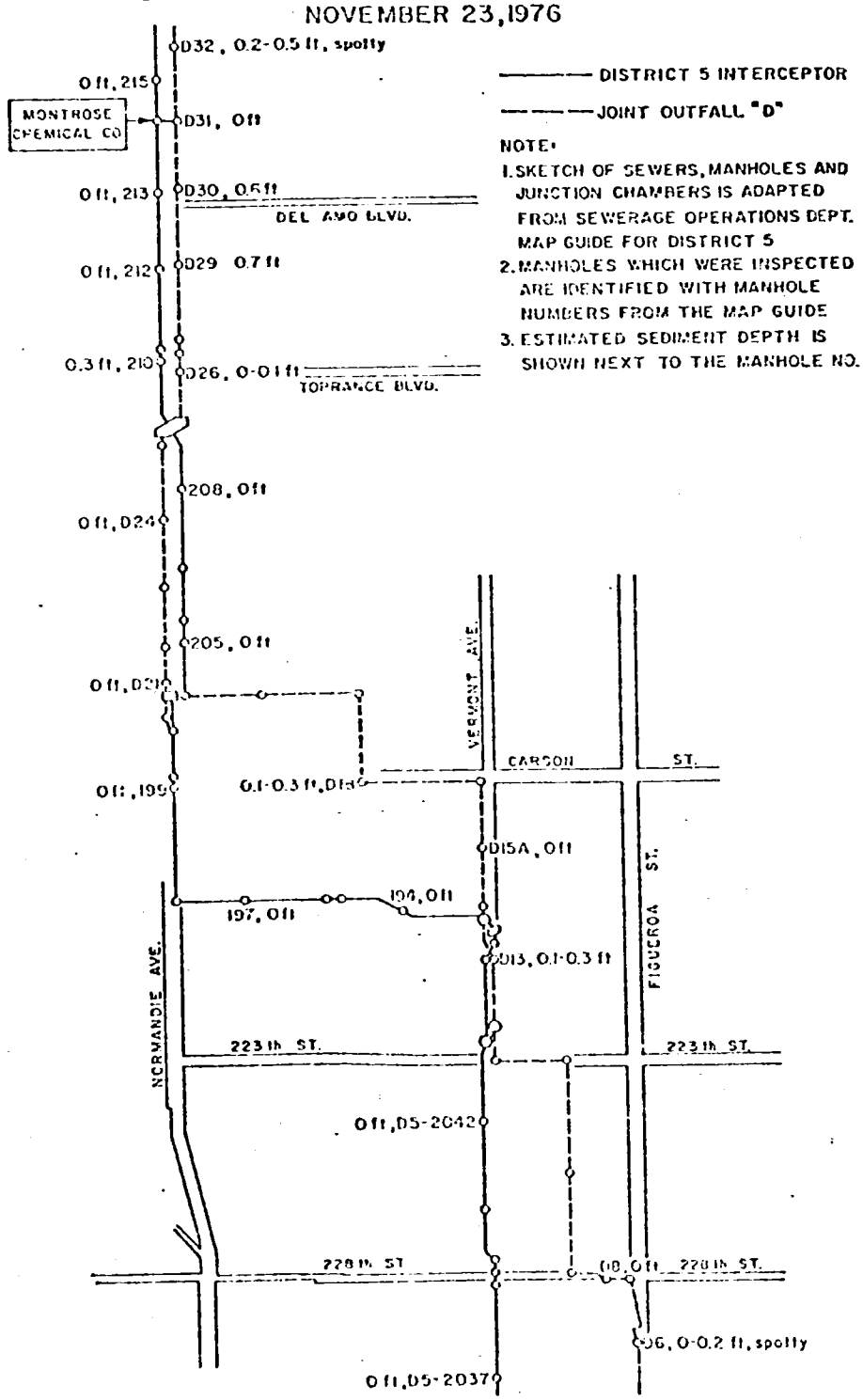

FIGURE 1

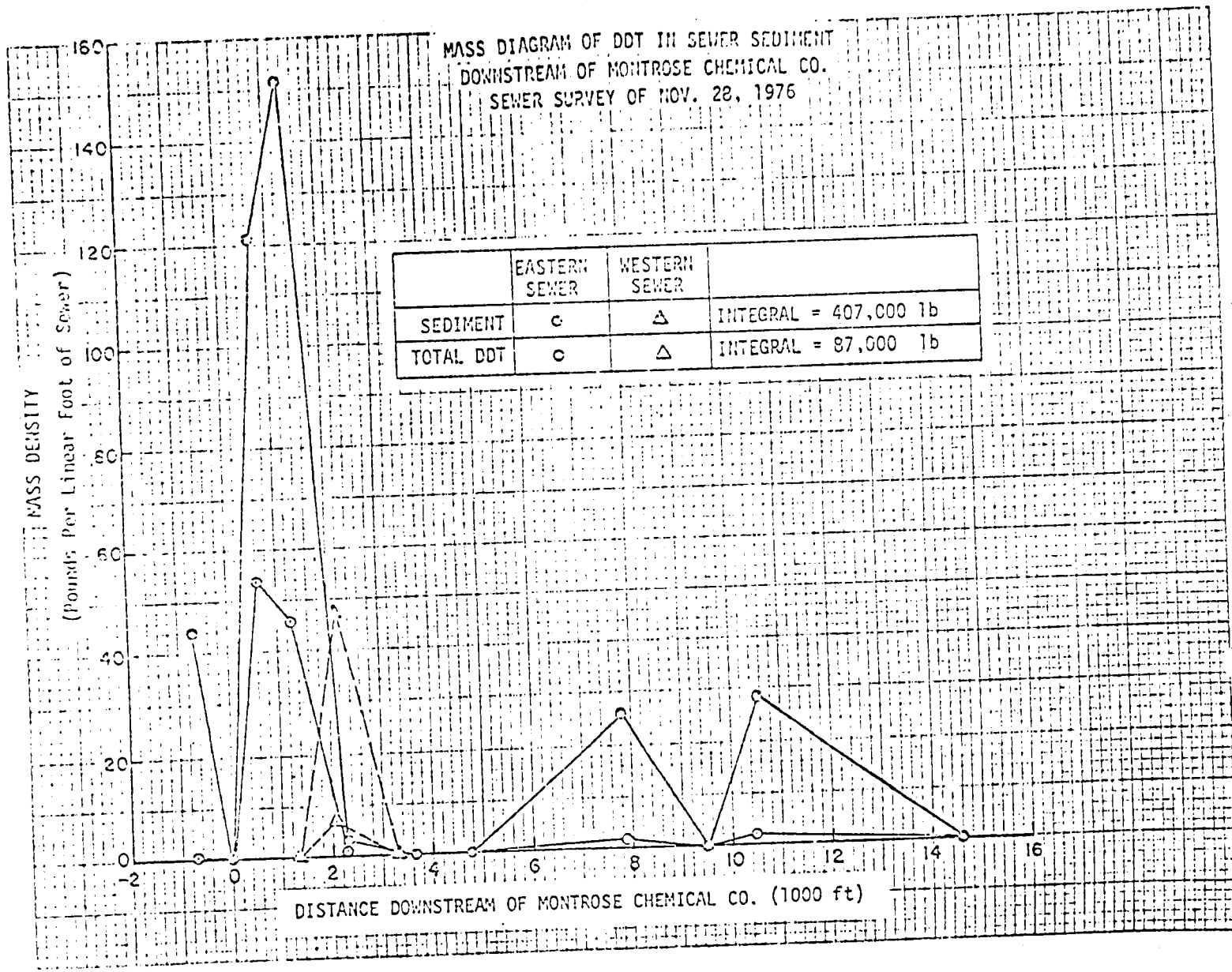
MASS DIAGRAM OF DDT IN SEWER SEDIMENT
DOWNSTREAM OF MONTROSE CHEMICAL CO.
SEWER SURVEY OF NOV. 28, 1976
EASTERN SEWER
WESTERN SEWER
SEDIMENT
TOTAL DDT
INTEGRAL = 407,000 lb
INTEGRAL = 87,000 lb
MASS DENSITY
(Pounds Per Linear Foot of Sewer)
160
140
120
100
80
60
40
20
0
-2
0
2
4
6
8
10
12
14
16
DISTANCE DOWNSTREAM OF MONTROSE CHEMICAL CO. (1000 ft)

FIGURE 2

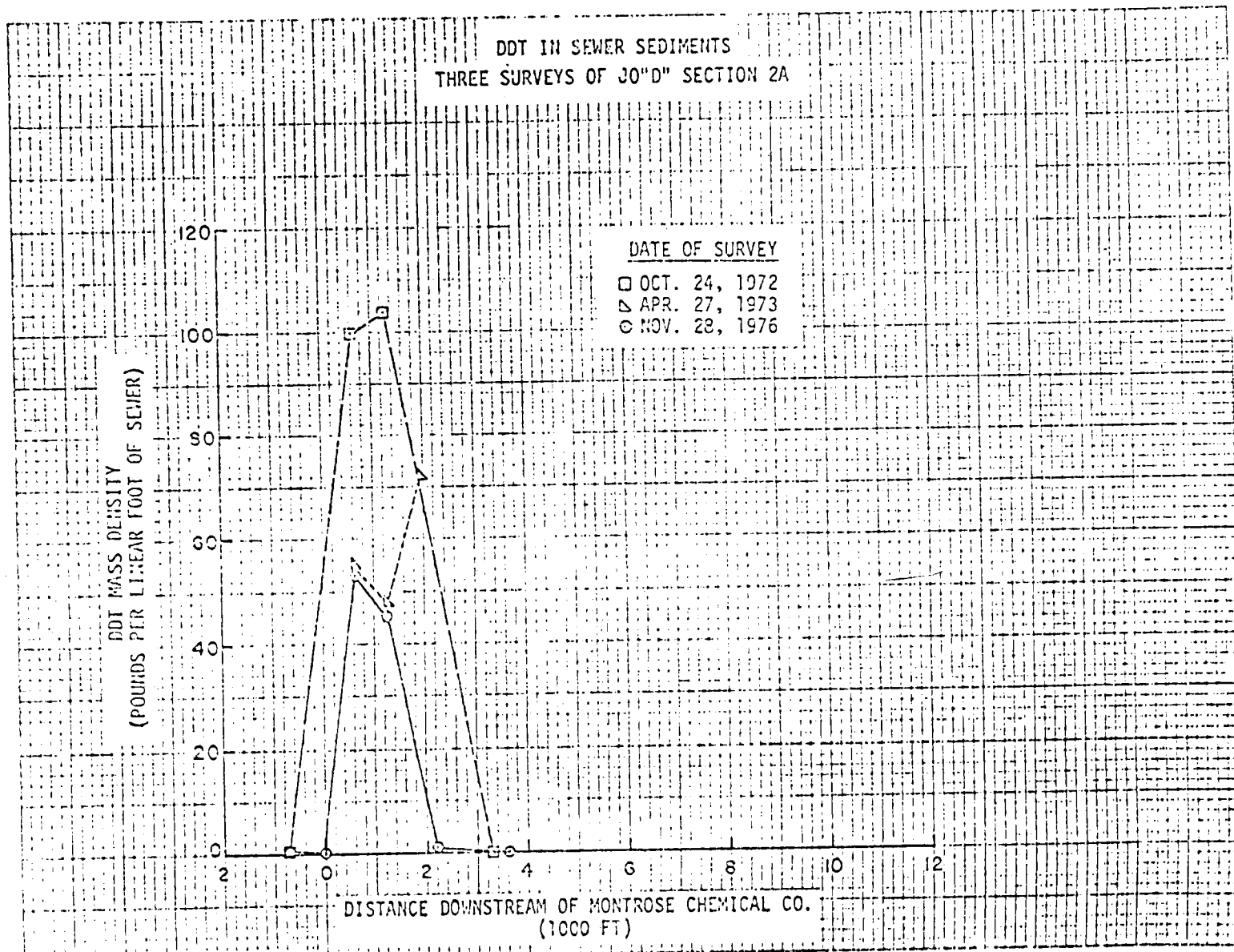

FIGURE 3

BOE-C6-0177016

The metabolism of DDT by microorganisms. The metabolites DDE, TDE, TDEE, and DDA are all quite recalcitrant and accumulate in higher organisms. (After F. Matsumura and G. M. Bousch in *Soil Biochemistry*, by A. D. McLaren and J. Skujins, Vol. 2, Marcel Dekker, Inc., N. Y., 1972.)

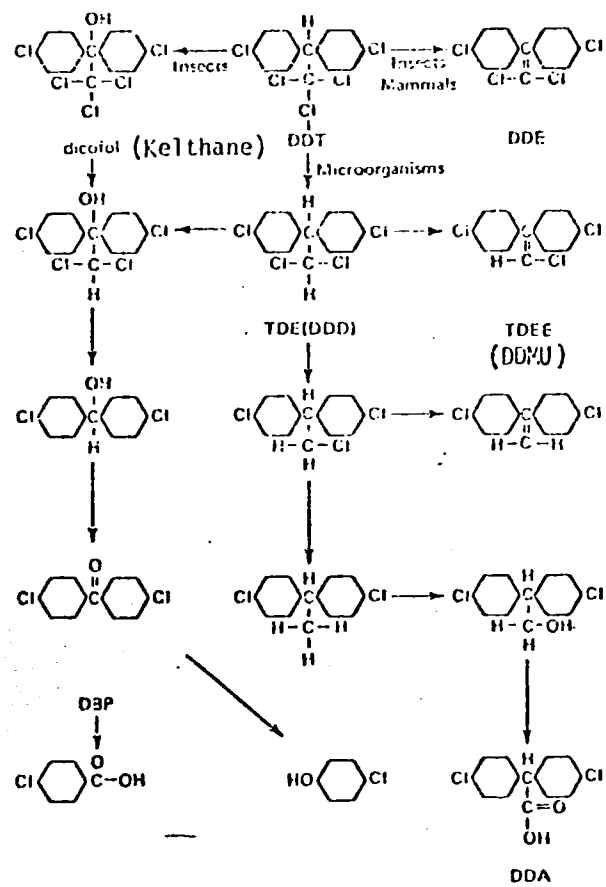

FIGURE 4

COASTAL WATER RESEARCH PROJECT

Biennial Report for the years 1979 - 1980

edited by
Willard Bascom

Southern California Coastal
Water Research Project
646 W. Pacific Coast Highway
Long Beach, California 90806
213/435-7071

BOE-C6-0177018

SUMMARY OF FINDINGS

The opening section of this report dealing with changes in the sea off Palos Verdes points up the fact that in recent years the ecology of this region, once badly damaged by DDT and other pollutants, now has improved in several ways. First, we noticed that the DDT levels in the upper two centimeters of sediments had decreased substantially. Last year our trawls picked up certain species of fish not seen off Palos Verdes for more than 10 years. When we examined their stomachs we found large numbers of tiny shrimp-like microcrustaceans that had also been greatly reduced in this area. Apparently, the DDT had nearly wiped out this valuable fish food; once the DDT level in the upper sediments dropped, the microcrustaceans, and their predators, returned. These microcrustaceans had not been much affected at a depth of 300 m, but at 150 m they had increased 16 fold in the 5 years since 1974; at 60 m they increased 6 fold. The echinoderm population in the region did not increase in the same period.

Microcrustaceans and Echinoderms, Page 13

The bottomfish population in the Palos Verdes area has changed in subtle ways. In the last few years the numbers of yellowchin sculpin and California tonguefish have increased. Generally speaking, however, the abundance of bottomfish declined everywhere along the southern California mainland shelf during the 1970's, probably because of higher water temperature and greater transparency. The number of species off Palos Verdes continues to be about the same.

Bottomfish Population, Page 21

The intertidal algae of the Palos Verdes peninsula have been surveyed at various times since 1908. Our study compares species lists made by several investigators over a period of 70 years with the algae present in 1980 and concludes that there are about the same number of species present now as when the first measurements were made. At some stations this is 70 species, up from a lowpoint in 1970 of 15 species. The temporary reduction in diversity has been attributed to several causes, including the effects of sewage effluents, human trampling and aerial fallout of pollutants, but no clear cause-and-effect relations are evident.

Intertidal Algae, Page 35

BOE-C6-0177019

SEPH - FOR YOUR FILES

STATE OF CALIFORNIA—HEALTH AND WELFARE

EDMUND G. BROWN JR., Governor

DEPARTMENT OF HEALTH SERVICES
714 744 P STREET
SACRAMENTO, CA 95814
(916) 323-6042

September 25, 1981

Mr. Rolf Mall
State Department of Fish and Game
350 Golden Shore
Long Beach, CA. 90802

Dear Mr. Mall:

Staff of the Hazardous Materials Management Section's Abandoned Site Project have become aware of a situation which may cause marine pollution and endangerment of wildlife. The problem is a deposit of sediment, which is 40% DDT, in a Los Angeles County Sanitation District sewer line.

You will find enclosed with this letter a Sanitation District report which verifies the existence of the sediment problem. Our concern, and the reason we're writing to you, is that increased use of the sewer line could result in a flushing of the DDT through the treatment plant and into the ocean. We feel it is appropriate the Department of Fish and Game be made aware of the situation and be included in any discussions about remedying the problem.

You may contact Beth Jines at (916) 323-6042 or (ATSS) 473-6042 to discuss this investigation. Thank you for your attention.

Sincerely,

Mark N. White

Mark N. White, P.E., Manager
Abandoned Site Project
Hazardous Materials Management Section

Enclosure
cc: Earl Margitan
Los Angeles
Hazardous Materials Management Section
107 South Broadway
Los Angeles, CA. 90012

TSC 14-1(81)95

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

LA

DATE: 2 . 1 ... 1981

SUBJECT: RCRA Interim Status Standards Investigation of Montrose Chemical Corporation, Torrance, California

FROM: Steve Simanonok, Environmental Protection Specialist
Kenneth Yelsey, Environmental Scientist

TO: Bob Mandel, Chief, Hazardous Materials Section

I. Background

On December 22, 1980, Kenneth Yelsey and Steve Simanonok of the Surveillance and Analysis Division conducted an inspection of Montrose Chemical Corporation at 2020 S. Normandie Avenue in Torrance, California. This inspection was requested by the Water Branch of Enforcement Division to determine the facility's compliance with RCRA Interim Status Standards.

II. Investigation

The inspectors presented their credentials and were received by John Kallok, Plant Manager and Bernard Bratter, Production Superintendent. The inspectors began with an office interview and followed with an inspection of the property. Montrose Chemical Corporation is jointly owned by Stauffer Chemical Company and Chris Craft Corporation. Additionally, Montrose Chemical leases the property from Stauffer Chemical.

Montrose Chemical indicated on their notification form that their hazardous waste activity included both generation and treatment/storage/disposal. Montrose produces technical grade DDT, having discontinued their monochlorobenzene and chloral production. The wastes generated by this process include spent corrosive and alkaline solutions. Some off-specification DDT is disposed of at the BKK landfill. Mr. Kallok stated that sludges are produced from almost all processes, but removal only occurs approximately once every 10 years. Mr. Bratter and Mr. Kallok stated that the sulfuric acid is stored in 1-100,000 and 2-50,000 gallon tanks, while the alkaline waste is stored in another 50,000 gallon tank. They also stated that a series of underground collection tanks, each with a 20,000 gallon capacity, are emptied every day by pumping into the 50,000 gallon storage tanks. The liquid wastes are hauled away by tanks trucks. Montrose has disconnected their sewer line to eliminate all possiblity of discharge. All runoff is gathered in an open concrete pit and is recycled.

EPA FORM 1320-6 (REV. 3-76)

GENERATOR STANDARDS

Montrose Chemical Corporation utilizes the California Hazardous Waste Manifest. The inspectors reviewed completed manifests and found them to contain all the required information. No manifest exceptions were noted. Sample manifests are included in Appendix A.

All current wastes at the Montrose facility are contained in bulk storage tanks as previously discussed. Since no drums were present for inspection, the inspectors reviewed the Montrose Safety Manual Sections on packaging, labeling, marking, and placarding. The inspectors found these sections to be adequate. The index to this Safety Manual is contained in Appendix C.

INTERIM STANDARDS FOR TSD FACILITIES

General Facility Standards

Montrose Chemical performs waste analyses on-site in their "Control Lab". The methods of analysis are contained on page 3 of Appendix A. Site security is maintained by a chain link fence. The facility operates 24 hours/day with controlled access to the property. The general inspection plan is contained on page 5 of Appendix A.

Preparedness and Prevention/Contingency Plan and Emergency Procedures

Various plans have been developed by Montrose Chemical to respond to emergency situations. These plans are listed on page 6 of Appendix A. The inspectors reviewed these plans and found that they thoroughly addressed all of the requirements. The index to the Disaster Plan is Appendix B. The index to the Safety Manual is Appendix C.

Manifest System, Recordkeeping, and Reporting

The facility provided the inspectors with copies of their August 5, 1980 and November 11, 1980 notifications to EPA. These are included as Appendices D and E, respectively.

Since Montrose does not receive hazardous waste from off-site, all manifest requirements have been discussed under the Generator Standards Section of this inspection report.

III. Suspected Violations

None.

BOE-C6-0177023

Appendices:

A. RCRA Plans and Procedures
B. Disaster Plan (index)
C. Safety Manual (index)
D. August 5, 1980 Notification to EPA
E. November 11, 1980 Consolidated Permits Application
F. EPA Inspector Checklist
G. Photographs

STATE OF CALIFORNIA—HEALTH AND WELFARE AGENCY

EDMUND G. BROWN JR., Governor

DEPARTMENT OF HEALTH SERVICES
714 744 P STREET
SACRAMENTO, CA 95814
(916) 323-6042

July 10, 1981

Federal Archives and Record Center
2400 Avila Road
Laguna Nigel, CA 92677

Attention Archives Clerk:

The Department of Health Services, Hazardous Materials Management Section, wishes to procure a readable copy of the opinion issued in civil case number 70-2389 - AL, "Environmental Defense Fund vs Montrose Chemicals", U.S. District Court, Central District of California. We understand there is no charge to State agencies in such an order, however, should there be any reporduction fee please bill us with the shipment.

Sincerely,

Sue Stack

Sue Stack
Hazardous Materials Management Section

Record FARC
JUL 15 1981
Ordered

STATE OF CALIFORNIA—HEALTH AND WELFARE

EDMUND G. BROWN JR., Governor

DEPARTMENT OF HEALTH SERVICES
714/744 P STREET
SACRAMENTO, CA 95814
(916) 323-6042

Sue

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Sincerely,

Sue Stack

Sue Stack
Hazardous Materials Management Section

BOE-C6-0177026

Site: Montrose Chemical Company
20201 South Normandie Avenue
Torrance, Calif. 90502

Company Contact: None

Staff Members Responsible: Beth Tirey, Sue Stack

Problem: During the years 1946 (+-) through 1970, Montrose Chemical made use of an earthen-walled seepage pond on site to dry their waste water, which is contaminated with DDT.

Sanitation District inspectors report a "slug" of DDT sludge in truck sewer downstream from the plant. It may be slowly washing into the sewer waters.

Montrose is owned by Stauffer Chemical. It is one of two known locations of active DDT manufacturing in the United States.

History: We don't know the exact date when this chemical plant began to manufacture DDT, but it was probably towards the end of the 1940's or early in the 1950's. The waste water from DDT manufacture was routed through redwood "pipes" to an on site evaporation pond (75 x 50 x 15 ft.), and eventually into the County Sanitation District's sewer.

In 1970, as a result of a successful civil suit, the plant's waste water handling system was upgraded. The seepage pond was lined with concrete and pond overflow, which had been routed into the sewer, was routed through a filtration system.

The company's present handling of waste water results in very little, if any, DDT or DDE entering the sewer.

ASP Action To Date: We checked and found no current regulatory action at RWQCB, HMMS Regional Operation, Flood Control District, Secretary of State, and Department of the County Engineer. The only current regulation of this firm seems to be through the County Sanitation Districts and RCRA/EPA (Eric has a file card, but no interim document on file).

Other Comments: One of our concerns is with the soil around and under the concrete-lined pond; was all DDT-contaminated soil removed? Miller Chambers thinks traces of DDT or DDE might still be present in this soil. If so, the soil poses a hazard to the community and the work force because of its potential for becoming airborne, and also poses a hazard to wildlife because it can enter the food chain.

Our second concern is over the constant "trickling" of DDT sludge into raw sewage as the sewage flushes past the DDT "slug" in the line. Mr. Beeker of the County Sanitation District reports that the slug consists of 74,000 pounds of DDT spread within 2,300 feet of 57-inch diameter trunk line.

Its interesting to us that although the Montrose plant lies within the City of Los Angeles, their sewage and this DDT slug are in the county's lines.

Recommendations: Soil on site should be sampled by Regional Operations staff, and soil samples analyzed for DDT contamination. If contamination is found, Montrose should be issued a cleanup/compliance deadline.

The sewer contamination problem should be referred to EPA since 1) the contamination lies in the Sanitation District's line, off the Montrose property, and 2) the Sanitation District is probably financed by a clean water grant and hence, would likely respond to EPA'a "clout".

BOE-C6-0177028

[illegible] SANITATION DISTRICTS OF LOS ANGELES COUNTY
Industrial Wastes from Various Companies in the Pomona Area
Grab Samples
May 26, 1971
Chlorinated Hydrocarbon Analysis

APE-WO: 330

Requested by: J. Kremer
Copy: J. Redner
K. Payne

SAMPLE DESCRIPTION / CONSTITUENT in µg/liter	Northwest Paper Company	Garden State Paper Company	Hollytex Carpet Mills	Walter Carpet Mill
[illegible] - DDE	[illegible]	ND	[illegible]	[illegible]
[illegible] - DDE	[illegible]	[illegible]	[illegible]	[illegible]
[illegible] - DDD	[illegible]	ND	ND	0.310
[illegible] - DDD	[illegible]	[illegible]	[illegible]	[illegible]
[illegible] - DDT	ND	ND	[illegible]	ND
[illegible] - DDT	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

[illegible]

BOE-C6-0177029

PESTICIDE ANALYSIS OF RAW SEWAGE

MARCH 30-31, 1970

Concentration in pr gm/l (ppb)

Sample Locations	1	2	3	4	5	6	6				
					Above Montrose Chemical	Below Montrose Chemical					
Sample Time Approx.	8 A.M. 8 A.M.	8 A.M. 8 A.M.	8 A.M. 8 A.M.	8 A.M. 8 A.M.	8 A.M. 8 A.M.	8 A.M. 8 A.M.	AM 2PM	2 PM 8 PM	8PM 2AM	2AM 8AM	Weighted Avg
BHC	0.072	0.405	0.341	This also reflects Montrose Chem.	0.317						
Lindane		0.272	0.045		0.217						
Heptachlor	0.174	1.16	0.069		0.475		0.511				< 1
Aldrin	0.209	2.93	0.079		0.319						
Dieldrin	0.187										
Toxaphene	0.180										
pp' - DDE	[illegible]	34.0	2.40	[illegible]	3.52	[illegible]	[illegible]	[illegible]	163	635	210
pp' - DDE	2.73	15	12.0	436	15.5	[illegible]	[illegible]	225	436	1053	427
pp' - DDD		21.2		19.0		19.2					
pp' - DDD	[illegible]		[illegible]	41.6	2.16	55.2			23.2	52.1	16
pp' - DDT	1.33	50.0	[illegible]	344	3.75	921	[illegible]	[illegible]	[illegible]	2190	696
pp'-DDT	2.24	3.73	[illegible]	630	[illegible].63	122[illegible]	[illegible]	[illegible]	[illegible]	2557	[illegible]
Methane	[illegible]				[illegible].0						
Total	[illegible]	229	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	6482	[illegible]

Note: No entry indicates concentration below minimum detection limit.

Identifications presumptive

*Sample Locations:

1. JC"A", Unit 3A, Bonds and Fries, Sta 69+9[illegible].35 Dwg J.C.-d-24
2. JC"B", Unit 1A, Fries [illegible] Healthy, Sta 53+[illegible].00 Dwg J.C.-p-41
3. JC"C", Unit 1, 2nd [illegible], Sta [illegible]+55.33 Dwg J.C.-p-50
4. JC"D", Unit 1, 23[illegible] & Fig[illegible], Sta [illegible] Dwg J.C.-p-[illegible]
5. Dist. 5 Interceptor, [illegible] Line, [illegible] Co. Sta 56+87.64 Dwg-5-p-[illegible]
6. Dist. 5 Interceptor, [illegible] Chem. Co. Sta [illegible] Dwg 5-p-[illegible]

Site: Montrose Chemical Company
20201 South Normandie Avenue
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Staff Members Responsible: Beth Tirey, Sue Stack

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BOE-C6-0177032

MONTROSE FILE

BOE-C6-0177033

office of corporate status
public market bldg

5-2900
have no Montrose Chem. file
~~[illegible]~~
she says check w/
LA Co. ~~[illegible]~~ clerk's
office

974 ~~1234~~
5222

4073

STATE OF CALIFORNIA—HEALTH AND WELFARE AGENCY

EDMUND G. BROWN JR., Governor

DEPARTMENT OF HEALTH SERVICES
714/744 P STREET
SACRAMENTO, CA 95814

February 24, 1981

Counselor Handelman
Twentieth Century Fox Film Corporation
P.O. Box 900
Beverly Hills, California 90213

Dear Counselor Handelman:

The Hazardous Materials Management Section of the State of California Health Services Agency is conducting an investigation of companies in Los Angeles County whose manufacturing process involves hazardous materials. In particular, we are interested in the Montrose Chemical Company, jointly owned by Stauffer Chemical and Chrisscraft Industries.

In the course of our investigation, we were informed that similar research was conducted by the Twentieth Century Fox Film Corporation in regards to litagation with Chrisscraft Industries. We would appreciate a copy of any information your company has gathered regarding the Montrose Chemical Company. The receipt of this information would facilitate our investigation.

Sincerely,

Mark White
Director, Abandoned Site Project

[illegible] 4-13-81

Spoke to [illegible] Watson [illegible]

[illegible] There were [illegible] and

[illegible] I [illegible].

8075

Stauffer - "Montrose" plant

Beth for Montrose file

THE MERCK INDEX

AN ENCYCLOPEDIA OF CHEMICALS AND DRUGS

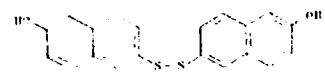
NINTH EDITION

Martha Windholz, *Editor*
Susan Budavari, *Associate Editor*
Lorraine Y. Stroumtsos, *Assistant Editor*
Margaret Noether Fertig, *Assistant Editor*

Published by
MERCK & CO., INC.
RAHWAY, N.J., U.S.A.

1976

BOE-C6-0177037

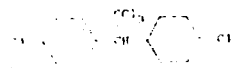


Leaflets, mp 221-222°.

Note: Not to be confused with the insecticide, *p,p'*-DDD [1,1-dichloro-2,2-bis(*p*-chlorophenyl)ethane].

USE: For determination of protein-bound sulfhydryl groups.

2822. **DDT.** *1,1,1-Trichloro-2,2-bis(p-chlorophenyl)ethane; 1,1,1-trichloro-2,2-bis(p-chlorophenyl)-2-ethanol; dichlorodiphenyltrichloroethane, chlorophenothane, dicophane, pentachlorin, p,p'* DDT; Gesarol, Neocid. $C_{14}H_9Cl_5$; mol wt 354.50; C 47.43%, H 2.56%, Cl 50.01%. Polychlorinated nondegradable pesticide. Prepd by condensing chloral or chloral hydrate with chlorobenzene. Zeidler, *Ber.* 7, 1180 (1874). The catalyst may be fuming H_2SO_4 or chlorosulfonic acid. Rueggeberg, Tortans, *Ind. Eng. Chem.* 38, 211 (1946). Cook *et al.*, *ibid.* 39, 868, 1683 (1947). Convenient lab procedures: Bixler, *J. Chem. Ed.* 22, 122 (1945). Ginsburg, *Science* 108, 339 (1948). Large scale production: Mosher *et al.*, *Ind. Eng. Chem.* 38, 916 (1946). Comprehensive monograph (in English and German): *DDT*, Paul Muller, Ed., 3 vols (Birkhauser Verlag, Basel and Stuttgart, 1955).



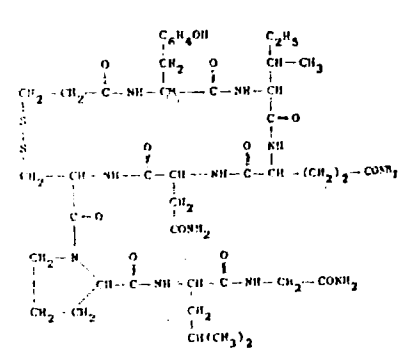
Biaxial elongated tablets, needles from 95% alc: mp 109-108° (as exac 95% alc). 236 nm. Vapor pressure at 20°: 1.9 × 10⁻⁷ mm Hg. Practically insol in water, dil acids, alkalies. Sols in 100 ml: acetone, 58 g; benzene, 75 g; benzyl benzoate, 42 g; carbon tetrachloride, 45 g; chlorobenzene, 24 g; cyclohexanone, 116 g; 95% alc, 2 g; ethyl ether, 29 g; gasoline, 10 g; isopropanol, 3 g; kerosene, 30 g; methylene chloride, 75 g; peanut oil, 11 g; pine oil, 10-16 g; tetralin, 61 g; tributyl phosphate, 90 g. Freely sol in pyridine; dioxane. The sols in organic solvents increase sharply with a rise in temp. C.D.S. H. Frear, *Chemistry of Insecticides, Fungicides, Herbicides*, 3rd ed (Van Nostrand, New York, 1955). Resistant to destruction by light and oxidation. Its unusual stability has resulted in difficulties in residue removal from water, soil and foodstuffs. DDT should not be kept in iron containers and should not be mixed with iron and aluminum salts nor with alkaline substances. High storage temps should also be avoided. Technical grades of DDT are mixtures of several similar compounds and have a setting point of about 88°. *cf* Haller *et al.*, *J. Am. Chem. Soc.* 67, 1591 (1945). LD_{50} orally in rats: 200 mg/kg.

Human Toxicity. Poisoning may occur by ingestion or by absorption through skin or respiratory tract. Acute: tremors of face and neck muscles, tonic and clonic convulsions, cardiac or respiratory failure, death. Estimated oral fatal dose 500 mg/kg body wt of the solid material; solvents such as kerosene increase toxicity. Death occurs in 2 to 24 hrs. *Chronic:* hepatic damage, CNS degeneration, erythrocytosis, dermatitis, weakness, convulsions, coma, death.

USE: Contact insecticide; finest important in [illegible]. P. Müller, Swiss pat. 226,180 (1940); U.S. pat. 2,329,074 (1943 to Geigy). Lauger *et al.*, *Helv. Chim. Acta* 27, [illegible] (1944); Müller, *ibid.* 29, 1504 (1946). Several other [illegible] developed by Müller, *loc. cit.*

THERAPEUTIC: Pediculicide, insecticide.

2823. **Deamino-oxytocin.** *1-(3-Mercaptopropionic acid)-2-(O-benzyl-L-tyrosine)-deaminooxytocin.* CDA-913. Nat. product. $C_{43}H_{66}N_{12}O_{12}S_2$; mol wt 992.19; C [illegible]%, H [illegible]%, N 16.94%, O [illegible]%, S 6.46%. Highly potent analog of the posterior pituitary hormone oxytocin; a difference in structure at the 1 position where the free amino group in the natural oxytocin is replaced by hydroxyl. Synthesis and biological activity: du Vigneaud *et al.*, *J. Biol. Chem.* 235, [illegible] (1960); Hope *et al.*, *ibid.* 237, 2567 (1962); [illegible] *J. Am. Chem. Soc.* 90, 2323 (1968); Ferrier and Porath: Ferrier *et al.*, *J. Biol. Chem.* 240, 4264 (1965). Structure-activity correlation: Jarvis, du Vigneaud, *Science* 143, 545 (1964). Pharmacology and comparison with oxytocin: Chan, du Vigneaud, *Endocrinology* 71, 977 (1962). *Review:* *Advan. Exp. Med. Biol.* vol. 2, 53-104 (1968).



L-Isomer, white plate-like crystals from water, mp 1[illegible]° (Ferrier), 182-183° (Takashima). For amorphous powder: $[\alpha]_D^{20}$ −88.3° (Ferrier); $[\alpha]_D^{20}$ −107° (Hope); $[\alpha]_D^{20}$ −[illegible]° (Takashima), all (*c* = 0.5 in 1*N* acetic acid). Anhydrous form is very hygroscopic.

D-Isomer, white, fluffy powder, $[\alpha]_D^{20}$ +104° (*c* = 0.5 in 1*N* acetic acid). Synthesis: Flouret, du Vigneaud, *J. Med. Chem.* 14, 356 (1971).

THERAPEUTIC: Oxytocic.

2824. **Deanol.** *2-(Dimethylamino)ethanol, β-dimethylaminoethyl alcohol, N,N-dimethyl-2-hydroxyethylamine.* Liquid. $C_4H_{11}NO$; mol wt 89.14; C 53.89%, H 12.4[illegible]%, N 15.71%, O 17.95%. $(CH_3)_2NCH_2CH_2OH$. Prepd by equimolar amounts of ethylene oxide and dimethylamine. Krotz, *Ber.* 37, 3508 (1904). Hanhart, Ingold, *J. Chem. Soc.* 1927, 1012.

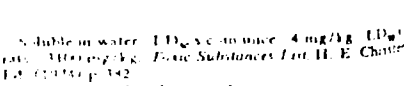
Liquid: d_4^{20} 0.8866; bp_{760} 135°; n_D^{20} 1.43. Miscible with water, alcohol, ether.

Bitartrate. *Atrol, Paxanol, Dimethaen,* crystals, sol in water.

Hemisuccinate. $C_8H_{17}NO_3$. *Tonibral.* White, hygroscopic crystalline powder. Very soluble in water, ethanol; sparingly sol in chloroform, benzene.

THERAPEUTIC: Antidepressant.

2825. **Deanol Aceglumate.** *N-Acetyl-L-glutamic acid compd with 2-(dimethylamino)ethanol (1:1);* dimethylaminoethanol acetylglutamate, demanol aceglumate. Cerebrotonic, Rivastaron. $C_{11}H_{22}N_2O_6$; mol wt 278.32; C 47.4[illegible]%, H 7.97%, N 10.07%, O 34.4[illegible]%. Prepn: Fr. pat M[illegible] (1964 to Interco Fribourg). *C.A.* 61, 12085c (1964).



Soluble in water. LD_{50} s.c. in mice: 4 mg/kg; LD_{50} i.p. rats: 3[illegible] mg/kg. *Toxic Substances List* H. E. Chambers [illegible] p 342.

THERAPEUTIC: Antidepressant.

2826. **Deanol Acetamidobenzoate.** *4-(Acetylamino)benzoic acid compd with 2-(dimethylamino)ethanol (1:1);* dimethylaminoethanol *p*-acetamidobenzoate. DMAE *p*-acetamidobenzoate. Deaner, Deforene. $C_{13}H_{20}N_2O_4$; mol wt 268.31; C 58.19%, H 7.51%, N 10.44%, O 23.85%. Fr. pat. 879,259 (1957 to Roger Labat). Lassalo *et al.*, *J. Pharm. Pharmacol.* 17, *Lil* 48, 345 (1965).

Twentieth Century-Fox Film Corporation
Studio 2001
West Pico Boulevard
Los Angeles, Ca. 90

P.O. Box 900

TO
Beth Tirey
ROOM/STA. NO.

FROM
Debbie
ROOM/STA. NO.

REPRESENTING
Lesley D. Rose

DATE	TIME	PHONE
3-3-81	11.00 a.m.	(213) 699-7411

X Telephoned / Returned Call — Please Call / Will Call Again — Was In / Wants To See You

Information / Comment / Investigate / Contact Me — Note and / Reroute / Return / File — Reply / My Signature / Copy Me / Forwarded Per Request

MESSAGE/REMARKS He is from the L.A. sanitation dept. He sent you a file on Montrose Co. on 1-29-81. Is it lost?

MESSAGE

TO
Beth
ROOM/STA. NO.

FROM
Paul Blaty
EPA
ROOM/STA. NO.

REPRESENTING

DATE	TIME	PHONE

X Telephoned / Returned Call — Please Call / Will Call Again — Was In / Wants To See You

Information / Comment / Investigate / Contact Me — Note and / Reroute / Return / File — Reply / My Signature / Copy Me / Forwarded Per Request

MESSAGE/REMARKS
703-487-4650 to order the publication use - order # PB 254013 cost $[illegible]

MESSAGE

BOE-C6-0177039

1-12-81

Information is contained in material [illegible] for the [illegible] Tox [illegible] Chiscraft Industries [illegible]

Montrose Chemical:

50% owned by Stauffer Chemical Co., 50% owned by Chiscraft Industries.
(Stauffer & Chiscraft [illegible] Montrose in 1966.)
Manufacture DDT.

Pressure: Seepage Pond.

From [illegible] 1966 to 1970, Montrose Chemical maintained a 75' x 50' x 15' seepage pond.

In 1970 [illegible] the installation [illegible] monitoring devices. Montrose lined the pond with concrete.

(Information contained in [illegible] Dist [illegible] Report for EPA, 1975, "Wastewater Treatment Technology Documentation for DDT Manufacture."

There is [illegible] the company.

1-13-81

[illegible]

[illegible]

[illegible]

[illegible]

BOE-C6-0177041

Marsha [illegible] — 29431

Montrose Chemical —

The suit was filed at the end of July, 1980, in New York Federal Court, Southern Dist
Subject — securities — Chrisscraft has been buying 20th Century Stock.
Counsel: Twentieth Century Fox — Handelman
or Stan Pottinger of Troy, Allen & Pottinger.

[illegible] engineers Carl Sjoberg told me he called him asking about Montrose
I called Gravinson to find out why
He said we had to speak to her clients first.

Marsha [illegible] 29431
[illegible]

BOE-C6-0177042

STATE OF CALIFORNIA—HEALTH AND WELFARE

EDMUND G. BROWN JR., Governor

DEPARTMENT OF HEALTH SERVICES
714/744 P STREET
SACRAMENTO, CA 95814

Mr. Les Rose
Industrial Waste Section
Los Angeles County Sanitation Districts
P.O. Box 4998
Whittier, California 90607

January 20,1981

Dear Mr. Rose:

The Hazardous Materials Management Section of the State Health Services Agency is conducting a survey of hazardous waste disposal sites in the Los Angeles area. It has come to our attention that the Los Angeles County Sanitation District's Industrial Waste Section is maintaining a file on a hazardous waste manufacturer that we are investigating. To facilitate our research, we would appreciate a copy of your entire file #1487 on the Montrose Chemical Company in Torrance.

I also wish to thank you for the assistance you gave during my recent visit to your office.

Sincerely,

Beth Tirey

Beth Tirey
Project Assistant

BOE-C6-0177043

LA Co San District
Frontier Chemical - #1[illegible]

Sewer Disposal:
Ph 7.2
Cyanide < 0.05
Zinc [illegible]
Chlorinated hydrocarbons < [illegible]
Pesticides < 0.0[illegible]
Temp [illegible]°F

Haulers:
Western Refuse
Chancellor & Ogden
D.M. McGinnis

Disposal sites:
L.A. County Sanitation District (Com)
Hill I Dr Lorina
LA Co San Dist. D. to Disposal St. #1.

[illegible]

[illegible]

[illegible]

ABANDONED SITE PROJECT DRIVE-BY CHECKLIST

:ite Name [illegible]

:ite Address [illegible]

ity [illegible]

-score _____

Inspectors [illegible]

Date [illegible]

YPE OF WASTE

___ Extremely Hazardous or Hazardous (5pts)

___ Unknown (3pts)

___ Non-Hazardous (0pts)

ISPOSAL METHOD / LOCATION OF WASTE

___ Pits, Ponds, Sumps -- empty or full (5pts)

___ Drums (55-gal) or Tanks (other than raw material storage) (5pts)

___ Other Visible Means of Storing Waste [illegible] (3pts)

___ No Indication of Waste (0pts)

OCALE

___ Recreation Area (5pts)

___ Urban Area (5pts)

___ Rural Area (2pts)

___ Industrial Area (2pts)

___ Commercial Area (3pts)

ACTIVE / INACTIVE SITE

IMMEDIATE ENVIRONMENT

___ Liquid or Semi-Liquid Oozing, Seeping, or Leaching Out of Ground (5pts)

___ Perceivable Site-Specific Odor (4pts)

___ Piles of Dry Material, Randomly Scattered Debris, Disturbed Topography (3pts)

___ Vegetation Stressed or Irregular (3pts)

___ Soil Discolored (3pts)

___ Surface Water Nearby (Lake, River, Creek, Stream, Canal) (3pts)

___ Standing Water On-Site Discolored (3pts)

___ No Apparent Problems (0pts)

DANGER TO PUBLIC HEALTH

___ Waste Accessible to Public (site not secured or waste highly mobile) (5pts)

___ Nearby Residential Area, Site Secured, Waste Not Highly Mobile (3pts)

___ Drainage System (Natural, Man-Made) (3pts)

___ No Apparent Danger (0pts)

OMMENTS:

[illegible]

BOE-C6-0177045

Thermrose at bbk

Acid 1 Acid solutions >H <3

base 1 base solutions >H >12

4 Scrubber residual

Organic 1 Organics

2 Insecticides & intermediates

7 Halogenated aromatics

19 Solvents nonaromatic aromatics

20 Oils & oil sludges

Inorganic 1 Inorganics

2 salts

BOE-C6-0177046

Montrose at Los Angeles County Sanitary Landfill 1970-1979

Organic 1 Organics

2 Insecticides & Intermediates - (DDT probably)

7 Halogenated aromatics - Chlorine + hydrocarbons w/10 more range.

19 Solvents halogenated aromatic - have a highest dust power (ester, ether, ketones, amines, [illegible] hydrocarbons)

[illegible] Oils & oil studies -

Inorganic 1 Inorganics

2 Salts

Misc 1 Miscellaneous ← [illegible]

BOE-C6-0177047

[illegible] WASTE FROM [illegible]
AN UNKNOWN LOCATION

[illegible]any Name: Stauffer Chemical Company
[illegible]cility Name: Montrose Chemical Corp. of Calif. - Torrance Plant (Affiliate)
[illegible]e of Hauling Firm/Contractor: Toombs Dump Truck Service, Inc.
[illegible]dress: (no.) 3152 E. (street) Century Blvd.
(city) Lynwood (state) Calif. (zip code) 90262

Year first used 19 5 0 (10-11)
Year last used (enter "79" if still in use) 19 6 1 (12-13)
Total amount of process waste hauled from this facility:
thousand gallons 0 (14-21)
hundred tons 7 (22-25)
thousand cubic yards 0 (29-36)

Components (or characteristics) of process waste from this facility disposed at site: (1=present in waste; 2=not present in waste; 9=don't know):
FILL IN EVERY BLOCK SPACE

Acid solutions, with pH<3 ..... 2 (37)
pickling liquor 2 (38)
metal plating waste 2 (39)
circuit etchings 2 (40)
inorganic acid manufacture 2 (41)
organic acid manufacture 2 (42)
Base solutions, with pH>10 ..... 2 (43)
caustic soda manufacture 2 (44)
nylon and similar polymer generation 2 (45)
scrubber residual 2 (46)
Heavy metals & trace metals (bonded organically & inorganically) 2 (47)
arsenic, selenium, antimony 2 (48)
mercury 2 (49)
iron, manganese, magnesium 2 (50)
zinc, cadmium, copper, chromium (trivalent) 2 (51)
chromium (hexavalent) 2 (52)
lead 2 (53)
Radioactive residues, >3 pico curies/liter 2 (54)
uranium residuals & residuals for UF_6 recycling 2 (55)
lathanide series elements and rare earth salts 2 (56)
phosphate slag 2 (57)
thorium 2 (58)
radium 2 (59)
other alpha, beta & gamma emitters 2 (60)
Organics 1 (61)
[illegible] & intermediates 1 (62)

BOE-C6-0177048

[illegible] ID #: [illegible]

Company Name: [illegible] Plant (Affiliate)
Facility Name: [illegible]
Name of Hauling Firm/Contractor: [illegible], Inc.
Address: (no.) 3152 E. (street) Century [illegible]
(city) Lynwood (state) Calif. (zip code) 90262

Year first used ..... 19[5][0] (10-11)
Year last used (enter "79" if still in use) ..... 19[7][9] (12-13)
Total amount of process waste hauled from this facility:
thousand gallons ..... [ ][ ][ ][ ][ ][ ][0] (14-21)
hundred tons ..... [ ][ ][ ][ ][ ][ ][0] (22-29)
thousand cubic yards ..... [ ][ ][ ][ ][ ][ ][0] (29-36)

Components (or characteristics) of process waste from this facility disposed at site: (1=present in waste; 2=not present in waste; 0=don't know):
FILL IN EVERY BLOCK SPACE

Acid solutions, with pH<3 ..... [2] (37)
pickling liquor ..... [2] (38)
metal plating waste ..... [2] (39)
circuit etchings ..... [2] (40)
inorganic acid manufacture ..... [2] (41)
organic acid manufacture ..... [2] (42)
Base solutions, with pH>10 ..... [2] (43)
caustic soda manufacture ..... [2] (44)
nylon and similar polymer generation ..... [2] (45)
scrubber residual ..... [2] (46)
Heavy metals & trace metals (bonded organically & inorganically) ..... [2] (47)
arsenic, selenium, antimony ..... [2] (48)
mercury ..... [2] (49)
iron, manganese, magnesium ..... [2] (50)
zinc, cadmium, copper, chromium (trivalent) ..... [2] (51)
chromium (hexavalent) ..... [2] (52)
lead ..... [2] (53)
Radioactive residues, >3 pico curies/liter ..... [2] (54)
uranium residuals & residuals for UF_6 recycling ..... [2] (55)
lanthanide series elements and rare earth salts ..... [2] (56)
phosphate slag ..... [2] (57)
thorium ..... [2] (58)
radium ..... [2] (59)
other alpha, beta & gamma emitters ..... [2] (60)
Organics ..... [2] (61)
pesticides & intermediates ..... [2] (62)
herbicides & intermediates ..... [2] (63)
fungicides & intermediates ..... [2] (64)
rodenticides & intermediates ..... [2] (65)
halogenated aliphatics ..... [2] (66)
halogenated aromatics ..... [2] (67)
acrylates & latex emulsions ..... [2] (68)
PCB/PBB's ..... [2] (69)
amides, amines, imides ..... [2] (70)
plastisers ..... [2] (71)
resins ..... [2] (72)
elastomers ..... [2] (73)
solvents polar (except water) ..... [2] (74)
carbontetrachloride ..... [2] (75)
trichloroethylene ..... [2] (76)
other solvents [illegible] ..... [2] (77)
solvents halogenated aliphatic ..... [2] (78)
solvents halogenated aromatic ..... [2] (79)
oils and oil sludges ..... [2] (80)
esters and ethers ..... [2] (81)
alcohols ..... [2] (82)
aldehydes ..... [2] (83)
[illegible] ..... [2] (84)
[illegible] ..... [2] (85)
[illegible] ..... [2] (86)
[illegible] ..... [2] (87)
[illegible] ..... [2] (88)

BOE-C6-0177049

State of California—Health and Welfare Agency

Department of Health Services

ABANDONED CHEMICAL WASTE DISPOSAL SITE SURVEY

We are conducting a survey to locate abandoned and/or inactive chemical waste disposal sites in California. As part of this effort, we are contacting all currently operating industries which could produce chemical wastes to determine both current and past chemical waste disposal practices.

Below is a survey form to help collect information which will be used to locate and evaluate disposal sites. Your cooperation in completing this form is appreciated. If you are completing this for several plants, please use a separate form for each plant your company has operated and/or currently operates in California. If you do not have adequate space, please use another sheet of paper and identify responses by the question number.

Please return the completed survey form by _____

If you have any questions, please call or write to the Department of Health Services, Hazardous Materials Management Section, 744 P Street, Sacramento, CA 95814, (916) 323-3559. If necessary, trade secrets may be protected by indicating the number of the response you wish to remain confidential: _____

1. Company Name STAUFFER CHEMICAL CORP. - MONTROSE CHEMICAL CORP. TORRANCE PLANT

   Mailing Address 3152 E. CENTURY BLVD. (Number, Street)

   LYNWOOD, CA 90262 (City, Zip)

   Location (if different than above) _____ (Number, Street)

   LOS ANGELES CO _____ (City, County, Zip)

2. Years of operation at this location 33 YRS

3. If a subsidiary, name and mailing address of parent company

   _____ (Name, Number, Street)

   _____ (City, State, Zip)

4. List Standard Industrial Classification (SIC) codes for principle products

Product	SIC Code	Percent of Production
	2898	

5. Do you have Waste Discharge Requirements issued by a Regional Water Quality Control Board for any onsite disposal?
   ☐ Yes ☐ No

   If yes, date you received the requirements _____

   Were your disposal practices any different before receiving the Discharge Requirements? ☐ Yes ☐ No

   If yes, explain _____

BOE-C6-0177050

6. Please complete for all major chemical wastes produced at this plant. Using the key below, indicate method of disposal used for each chemical and whether disposed of on or off site. If you have submitted an application for a Hazardous Waste Facility Permit, indicate the submittal date under the section titled Current Disposal Practices and do not complete that section. If you have not submitted an application for a Hazardous Waste Facility Permit, please complete the section. If you would like information about the Hazardous Waste Facility permitting program, please check here. ☐

KEY: A — on site disposal B — off site disposal

1 — Recycling	4 — Containerized for storage/transit	7 — Land disposal	10 — Well
2 — Treatment	5 — Pour down sewer/storm drain	8 — Ponds	11 — Mineshaft
3 — Incineration	6 — Injection well	9 — Pits	12 — Unknown

Name/Type of Chemical	Disposal Method Pre-1972 Disposal Practices	Disposal Method Current Disposal Practices
ORGANICS	A? B 12	A? B? 100% - 7
PESTICIDES & INTERMEDIATES		
MISC		
CONTAINERS, HAYS, WEEDS, DRUMS,		
GENERAL PLANT REFUSE;		

7. Please complete for any wastes disposed of off site before 1972.

Location of Site	Name of Hauler	Approximate Time Period Site Used
3152 E. CENTURY BLVD LYNWOOD, CA 90262	TOOMBS DUMP TRUCK SERVICE, INC.	1950 - 1961

8. Are there any inactive chemical waste disposal sites on the plant property? ☐ Yes ☐ No ☒ Unknown

If yes, indicate type(s) of disposal site(s). ☐ Incinerator ☐ Ponds ☐ Pits ☐ Well ☐ Containers ☐ Injection Well ☐ Mineshaft ☐ Land Disposal

9. List names and location of any other plants your company operates or has operated in California since 1945.

Name	Location

Survey completed by _____ Title _____

Phone ( ) _____

TELEPHONE CONTACT RECORD

Date	Agency	Contact	Result
1-5-81	[illegible]		
1-6-81 [illegible]	[illegible]	[illegible]	Copy of file to be sent Corresponding check sheets / file copy 3-23-81 file received
1-21-81	[illegible]	[illegible]	[illegible]
1-30-81	[illegible]	[illegible]	[illegible]
2-2-81	[illegible]	[illegible]	[illegible]
2-20-81	[illegible]	[illegible]	[illegible]
1-2-81	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]

COUNTY SANITATION DISTRICTS
OF LOS ANGELES COUNTY

1955 Workman Mill Road / Whittier, California
Mailing Address: P. O. Box 4998 Whittier, California 90607
Telephone: [illegible] / From Los Angeles (213) 685-5217

WALTER E. GARRISON
Chief Engineer and General Manager

Montrose Chemical Corp.
P.O. Box 147
Torrance, Ca. 90507

May 15, 1980

File:05-00.05-00/80-1487

Subject: Required Critical Parameter Report Under Industrial Wastewater Discharge Permit No. 1487

Dear Mr. Kallok:

Your Industrial Wastewater Discharge Permit was approved in the Districts' letter dated June 5, 1974. One of the requirements specified in the approval was the submittal of Critical Parameter (chemical analysis) Reports to the Districts according to the Frequency of Laboratory Analysis Form issued with the Permit.

Your latest Critical Parameter Report was received on May 15, 1980. The Districts have reviewed this report and found that it is delinquent in the following areas:

☐ The analyses submitted by your company indicate that it is in violation of the Sanitation Districts' Phase I effluent limits, copy attached. Corrective actions must be taken to reduce the discharge of the parameters underlined in red on the attached copy of your report. A detailed description, and plans if necessary, of the required corrective actions must be submitted to the Sanitation Districts. Any proposed significant pretreatment system modifications must be approved by the Sanitation Districts prior to construction. Compliance with this requirement is necessary to ensure continued use of the public sewerage system for industrial wastewater discharge.

☒ The parameters underlined in red must also be reported as required on the Frequency of Laboratory Analysis Form issued with your Permit.

☐ You are not in compliance with the Districts requirements for the submittal of Critical Parameter Reports. Please [illegible] copy of this letter and according to the required frequency thereafter.

/_/ The Critical Parameter Report must be signed by a representative of your company.

/_/ Other:

The above items must be completed and returned to the Sanitation Districts within 30 days of the date of this letter. If you have any questions regarding these requirements, please call the Districts' Industrial Waste Section at (213) 699-7411 or (213) 685-5217, extension #261.

Very truly yours,

Walter E. Garrison

By Leon S. Directo
Leon S. Directo
Supervising Civil Engineer

WEG:LSD:wh

Encls. *

NOTE: You are reminded that the critical parameters are to be determined and the report forms submitted to the Districts according to the following schedule:

1. Annual Analysis -- July 1
2. Semi-Annual Analysis -- January 1, July 1
3. * Quarterly Analysis -- January 1, April 1, July 1, October 1

Montrose Chemical Corporation of California

P.O. Box 147
20201 South Normandie Avenue • Torrance, California 90507 • (213) 775 2565 • 328 5462

May 12, 1980

Mr. Jay G. Kremmer
Head, Industrial Waste Section
County Sanitation Districts of
Los Angeles County
P.O. Box 4998
Whittier, California 90607

Dear Mr. Kremmer:

Please find enclosed our "Critical Parameter Report" for April, 1980 covering analysis of our sewer effluent.

Very truly yours,

John L. Kallok
Plant Manager

JLK:wt

Enclosure

cc: Mr. Samuel Rotroson w/enclosure
Mr. Max Sobelman w/enclosure
Mr. Guy A. Dimichele w/enclosure

High pH

SANITATION DISTRICTS OF LOS ANGELES COUNTY
INDUSTRIAL WASTEWATER
CRITICAL PARAMETER REPORT FORM

Ident Code	PARAMETER 1/	2/	QUANTITY VALUES		Ident Code	PARAMETER 1/	2/	QUANTITY VALUES	
A	Flow (Total)		2,500	gals/day	V	Manganese - Total			mg/l
B	Flow (Peak)		50	gals/min.	W	Mercury - Total			mg/l
C	COD			mg/l	X	Molybdenum - Total			mg/l
D	SS (Suspended Solids)		830	mg/l	Y	Nickel - Total			mg/l
E	pH		12.6	Units	Z	Selenium - Total			mg/l
F	Total Dissolved Solids			mg/l	AA	Silver - Total			mg/l
G	Ammonia (N)			mg/l	BB	Sodium - Total			mg/l
H	Sulfide			mg/l	CC	Thallium - Total			mg/l
I	Cyanide		<0.012	mg/l	DD	Tin - Total			mg/l
J	Fluoride			mg/l	EE	Titanium - Total			mg/l
K	Aluminum - Total			mg/l	FF	Zinc - Total		1.18	mg/l
L	Antimony - Total			mg/l	GG	Oil & Grease (Hexane Extract)			mg/l
M	Arsenic - Total			mg/l	HH	Phenols			mg/l
N	Beryllium - Total			mg/l	II	Surfactants (MBAS)			mg/l
O	Boron - Total			mg/l	JJ	Chlorinated Hydrocarbons (except pesticides)		<0.002	mg/l
P	Cadmium - Total			mg/l	KK	Pesticides (Chlor Hydrcb.)		<0.012	mg/l
Q	Chromium - Total			mg/l	LL	Radioactivity (Alpha, Beta & Gamma)			pCi/l
R	Cobalt - Total			mg/l	MM	Temperature		90	Degrees °F
S	Copper - Total			mg/l	NN	Color			Units
T	Iron - Total			mg/l	OO	Thiosulfate (S)			mg/l
U	Lead - Total			mg/l					

NON CRITICAL PARAMETERS (Report When Available)					OTHER PARAMETERS (Report When Requested)				
PP	Calcium			mg/l	A1				
QQ	Magnesium			mg/l	A2				
RR	Potassium			mg/l	A3				
SS	Barium			mg/l	A4				
TT	Nitrate			mg/l	A5				
UU	Chloride			mg/l	A6				
VV	Bromide			mg/l	A7				
WW	Sulfate			mg/l	A8				
XX	Phosphorus Ortho			mg/l	A9				

NOTES 1/ Report all critical parameters required by the Sanitation Districts and any other critical parameter known to be present in the wastewater. Those parameters required by the Districts but known to be absent from the wastewater may be reported by placing the word absent in the appropriate space.

2/ If values are obtained by measurements or analyses write A in this column. Analysis values must be determined using representative 24 hour composite samples by a State Certified or Districts Approved Laboratory. If values are obtained by estimate, write E in this column. *Estimated values are acceptable for new plants only.*

Bio-Technics Laboratory, Inc., 1133 Crenshaw Bl., L.A., CA 90019
(Print) Name and Address of Laboratory Performing Analyses and Flow Measurements

Montrose Chemical Corp. of California 2879
(Print) Name of Company Having Wastewater Discharge — S.I.C. Number(s)

20201 S. Normandie Ave., Torrance, CA 90502
(Print) Address of Wastewater Discharge

20201 S. Normandie Ave., Torrance, CA 90502
(Print) Additional Location Data (Data at one should be for only one discharge point to the sewerage system)

Statement of Accuracy of Data

I hereby affirm that the above data comprise a true and correct representation of the wastewater discharged from the stated discharge point.

Date May 12, 1980 Location Torrance California 90502

Signature John L. Kallok — Plant Manager
Position (Administrative Officer of Company with Wastewater Discharge)

BOE-C6-0177056

4096

CERTIFICATION OF ANALYSIS

Montrose Chemical Corporation
20201 So. Normandie Avenue
Torrance, California 90507

Attn: B. Bratter, DDT Plant Superintendent

Test Report No. 1-2-27300
Date Received: 4-02-80
Date Initiated: 4-07-80
Date Completed: 4-18-80
P.O. No. 186-0082

Sample Description: One (1) bottle of Water labeled as Sewer Sample, Batch No. 04-02-80.

Type of Examination: CHEMICAL ASSAY

Reference: According to methods recommended in The Standard Methods for the Examination of Water and Wastewater, 13th Edition (1971).

Sample Preparation: The sample was prepared according to procedure.

Results:

Analyte	BT Proced. No.	Results
pH	5-1-026-77	12.6
Suspended Solids	5-1-031-77	830 mg/l
Cyanide	5-1-121-79	< 0.012 mg/l
Zinc	5-1-063-75	1.18 mg/l
Chlorinated Hydrocarbons	5-4-010-73	< 0.002 ppm
Pesticides (Chlorinated)	5-4-002-77	< 0.012 ppm

Examination by: Peng Sim Khoo
Peng Sim Khoo, B.S., Chemist

Approved by: [signature]
William P. Van [illegible]verp, M.A., 5-6-80
Chairman, Chemistry Department

ms

[illegible] and data here n apply only to the items [illegible] and are not [illegible] or condition of apparently identical or [illegible] This report is submitted [illegible] the exclusive use of the addressee [illegible] our name or the name of any member [illegible] may be made in connection with [illegible] of advertising or other [illegible] authorization by an [illegible] LABORATORIES, INC.

[illegible] Laboratories, Inc. 1133 Crenshaw Boulevard Los Angeles, California 90019 [illegible] Address SITEC [illegible]-1-1074

Montrose Chemical Corporation of California

P.O. Box 147
20201 South Normandie Avenue • Torrance, California 90507 • (213) 775-2565 • 328-5462

March 3, 1980

Mr. Jay G. Kremmer
Head, Industrial Waste Section
County Sanitation Districts of
Los Angeles County
P.O. Box 4998
Whittier, California 90607

Dear Mr. Kremmer:

Please find enclosed our "Critical Parameter Report" for January 1980 covering analysis of our sewer effluent. I regret the delay in reporting, although the samples were taken January 3, 1980, I did not receive the analyses from Bio Technics Laboratory until today.

Yours very truly,

Guy A. Dimichele

Guy A. Dimichele
Supt. of Maint. & Engr.

GAD:wt

Enclosure: Critical Parameter Report Form

cc: Samuel Rotrosen w/enclosure
Max Sobelman w/enclosure
John L. Kaliok w/enclosure

#1487

SANITATION DISTRICTS OF LOS ANGELES COUNTY
INDUSTRIAL WASTEWATER
CRITICAL PARAMETER REPORT FORM

Ident Code	PARAMETER 1/	2/	QUANTITY VALUES	
A	Flow (Total)		2400	gals/day
B	Flow (Peak)		50	gals/min.
C	COD			mg/l
D	SS (Suspended Solids)		3744	mg/l
E	pH		12.75	Units
F	Total Dissolved Solids			mg/l
G	Ammonia (N)			mg/l
H	Sulfide			mg/l
I	Cyanide		.07	mg/l
J	Fluoride			mg/l
K	Aluminum - Total			mg/l
L	Antimony - Total			mg/l
M	Arsenic Total			mg/l
N	Beryllium Total			mg/l
O	Boron - Total			mg/l
P	Cadmium Total			mg/l
Q	Chromium - Total			mg/l
R	Cobalt - Total			mg/l
S	Copper - Total			mg/l
T	Iron - Total			mg/l
U	Lead - Total			mg/l

Ident Code	PARAMETER 1/	2/	QUANTITY VALUES	
V	Manganese Total			mg/l
W	Mercury Total			mg/l
X	Molybdenum Total			mg/l
Y	Nickel Total			mg/l
Z	Selenium Total		0.62	mg/l
AA	Silver Total			mg/l
BB	Sodium Total			mg/l
CC	Thallium Total			mg/l
DD	Tin Total			mg/l
EE	Titanium Total			mg/l
FF	Zinc Total			mg/l
GG	Oil & Grease (Hexane Extract)			mg/l
HH	Phenols			mg/l
II	Surfactants (MBAS)			mg/l
JJ	Chlorinated Hydrocarbons (except pesticides)		8.9	mg/l
KK	Pesticides (Chlorinated Hydrocarbons)			mg/l
LL	Radioactivity (Alpha, Beta & Gamma)		◀.005	pCi/l
MM	Temperature		90°C	Degrees °F
NN	Color			Units
OO	Thiosulfate (S)			mg/l

NON CRITICAL PARAMETERS
(Report When Available)

PP	Calcium			mg/l
QQ	Magnesium			mg/l
RR	Potassium			mg/l
SS	Barium			mg/l
TT	Nitrate			mg/l
UU	Chloride			mg/l
VV	Bromide			mg/l
WW	Sulfate			mg/l
XX	Phosphorus Ortho			mg/l

OTHER PARAMETERS
(Report When Requested)

A1				
A2				
A3				
A4				
A5				
A6				
A7				
A8				
A9				

NOTES 1/ Report all critical parameters required by the Sanitation Districts and any other critical parameter known to be present in the wastewater. Those parameters required by the Districts but known to be absent from the wastewater may be reported by placing the word absent in the appropriate space.

2/ If values are obtained by measurements or analyses write A in this column. Analysis values must be determined using representative 24 hour composite samples, by a State Certified or Districts Approved Laboratory. If values are obtained by estimate, write E in this column. Estimate dealers are acceptable for new plants only.

BIO-TECHNICS LABORATORY, INC., 1133 Crenshaw Blvd., Los Angeles, CA 90019
(Print) Name and Address of Laboratory Performing Analysis and Flow Measurements

MONTROSE CHEMICAL CORPORATION OF CALIFORNIA — 2879 SIC Number(s)
(Print) Name of Company Having Wastewater Discharge

20201 So. Normandie AV., Torrance, CA 90502
(Print) Address of Wastewater Discharge

(Print) Additional Location Data (State above if this is the only one of its point to the sewerage system)

Statement of Accuracy of Data

I hereby affirm that the above data contains a true and accurate representation of the wastewater discharged from the stated discharge points.

Date March 3, 1980 Location Torrance California 90502

Gary A. Dimichele Superintendent of Engineering & Maintenance
Name Position (Authorized Officer of Company Having Wastewater Discharge)

50-80 ppb
M.LAF

COUNTY SANITATION DISTRICTS
OF LOS ANGELES COUNTY

1955 Workman Mill Road / Whittier, California
(Mailing) Address: P. O. Box 4998, Whittier, California 90607
Telephone (213) 699-7411 / From Los Angeles (213) 685-5217

WALTER E. GARRISON
Chief Engineer and General Manager

Montrose Chemical Corp.
P.O. Box 147
Torrance, Ca. 90507

February 9, 1980

File: 05-00.05-00/80-1497

Subject: Required Critical Parameter Report Under
Industrial Wastewater Discharge Permit No.

Dear Mr. Kallok:

Your Industrial Wastewater Discharge Permit was approved in the Districts' letter dated June 5, 1974. One of the requirements specified in the approval was the submittal of Critical Parameter (chemical analysis) Reports to the Districts according to the Frequency of Laboratory Analysis Form issued with the Permit.

Your latest Critical Parameter Report was received on November 13, 1979. The Districts have reviewed this report and found that it is delinquent in the following areas:

☐ The analyses submitted by your company indicate that it is in violation of the Sanitation Districts' Trade Effluent limits, copy attached. Corrective actions must be taken to reduce the discharge of the parameters underlined in red on the attached copy of your report. A detailed description, and plans if necessary, of the required corrective actions must be submitted to the Sanitation Districts. Any proposed significant pretreatment system modifications must be approved by the Sanitation Districts prior to construction. Compliance with this requirement is necessary to ensure continued use of the public sewerage system for industrial wastewater discharge.

☐ The parameters underlined in red must also be reported as required on the Frequency of Laboratory Analysis Form issued with your Permit.

☐ You are not in compliance with the [illegible] requirements for the submittal of [illegible] Critical Parameter Report [illegible] Please submit a Critical Parameter Report [illegible] items specified in your permit approval [illegible] copy of this letter and [illegible] the required frequency thereafter.

☐ The Critical Parameter Report must be signed by a representative of your company

☐ Other:

The above items must be completed and returned to the Sanitation Districts within 30 days of the date of this letter. If you have any questions regarding these requirements, please call the Districts' Industrial Waste Section at (213) 699-7411 or (213) 685-5217, extension 2261.

Very truly yours,

Walter E. Garrison

By
Leon S. Directo
Supervising Civil Engineer

WEG:LSD:wh

Encls.

pcc: You are reminded that the critical parameters are to be determined and the report forms submitted to the Districts according to the following schedule:

1. Annual Analysis -- July 1
2. Semi-Annual Analysis -- January 1, July 1
3. Quarterly Analysis -- January 1, April 1, July 1, October 1

Montrose Chemical Corporation of California

P.O Box 147

20201 South Normandie Avenue • Torrance, California 90507 • (213) 775 2565 • 328 5462

November 7, 1979

Mr. Jay G. Kremmer
Head, Industrial Wast Section
County Sanitation Districts of
Los Angeles County
P.O. Box 4998
Whittier, California 90607

Dear Mr. Kremmer:

Please find enclosed our "Critical Parameter Report" for October, 1979 covering analysis of our sewer effluent.

Yours very truly,

Guy A. Dimichele

Guy A. Dimichele
Supt. of Engr. and Maintenance

GAD:wt

Enclosure: Critical Parameter Report Form

cc: Samuel Rotrosen w/enclosure
Max Sobelman w/enclosure
John L. Kallok w/enclosure

SANITATION DISTRICTS OF LOS ANGELES COUNTY
INDUSTRIAL WASTEWATER
CRITICAL PARAMETER REPORT FORM

Ident Code	PARAMETER 1/	2/	QUANTITY VALUES		Ident Code	PARAMETER 1/	2/	QUANTITY VALUES	
A	Flow (Total)		3500	gals/day	V	Manganese Total			mg/l
B	Flow (Peak)		50	gals/min	W	Mercury Total			mg/l
C	COD			mg/l	X	Molybdenum Total			mg/l
D	SS (Suspended Solids)		408	mg/l	Y	Nickel Total			mg/l
E	pH		7.2	Units	Z	Selenium Total			mg/l
F	Total Dissolved Solids			mg/l	AA	Silver Total			mg/l
G	Ammonia (N)			mg/l	BB	Sodium Total			mg/l
H	Sulfide			mg/l	CC	Thallium Total			mg/l
I	Cyanide		<0.05	mg/l	DD	Tin Total			mg/l
J	Fluoride			mg/l	EE	Titanium Total			mg/l
K	Aluminum - Total			mg/l	FF	Zinc Total		0.24	mg/l
L	Antimony - Total			mg/l	GG	Oil & Grease (Hexane Extract)			mg/l
M	Arsenic - Total			mg/l	HH	Phenols			mg/l
N	Beryllium - Total			mg/l	II	Surfactants (MBAS)			mg/l
O	Boron - Total			mg/l	JJ	Chlorinated Hydrocarbons (except pesticides)		<0.002	mg/l
P	Cadmium - Total			mg/l					
Q	Chromium - Total			mg/l	KK	Pesticides (Chlor. Hydrcb.)		<0.002	mg/l
R	Cobalt - Total			mg/l	LL	Radioactivity (Alpha, Beta & Gamma)			pCi/l
S	Copper - Total			mg/l	MM	Temperature		90	Degrees °F
T	Iron - Total			mg/l	NN	Color			Units
U	Lead - Total			mg/l	OO	Thiosulfate (S)			mg/l

NON CRITICAL PARAMETERS (Report When Available)				OTHER PARAMETERS (Report When Requested)			
PP	Calcium		mg/l	A1			
QQ	Magnesium		mg/l	A2			
RR	Potassium		mg/l	A3			
SS	Barium		mg/l	A4			
TT	Nitrate		mg/l	A5			
UU	Chloride		mg/l	A6			
VV	Bromide		mg/l	A7			
WW	Sulfate		mg/l	A8			
XX	Phosphorus Ortho		mg/l	A9			

NOTES 1/ Report all critical parameters required by the Sanitation Districts and any other critical parameter known to be present in the wastewater. Those parameters required by the Districts but *known to be absent* from the wastewater may be reported by placing the word absent in the appropriate space.

2/ If values are obtained by measurements or analyses write A in this column. Analysis values must be determined, using representative 24 hour composite samples, by a State Certified or Districts Approved Laboratory. If values are obtained by estimate write E in this column. *Estimated values are acceptable for new plants only.*

BIO-TECHNICS LABORATORY INC. 1133 Crenshaw Bl., Los Angeles, CA 90019

(Print) Name and Address of Laboratory Performing Analyses and Flow Measurements

Montrose Chemical Corporation of California 2879

(Print) Name of Company Having Wastewater Discharge — BIC Number(s)

20201 S. Normandie Ave., Torrance, California 90502

(Print) Address of Wastewater Discharge

(Print) Additional Location Data (Data above should be for only one discharge point to the sewerage system)

Statement of Accuracy of Data

I hereby affirm that the above data comprise a true and correct representation of the wastewater discharged from the stated discharge point.

Date 11/7/79 Location Torrance California 90502

Guy A. Dimichelo — Supt. of Engr. and Maint.

Guy A. Dimichelo — Position (Administrative Officer of Company with Wastewater Discharge)

BOE-C6-0177063

Walter E. Garrison
Chief Engineer and
General Manager

To permit file → I.W. Permit 1487
November 1, 1979

MEMO TO: Jay G. Kremer
Head, Industrial Waste Section

FROM: Ross C. Caballero
Supervisor, Industrial Waste
Inspection and Monitoring

SUBJECT: Results of Monitoring for DDT at:
Montrose Chemical Corporation
20201 S. Normandie Avenue
Torrance, California 90502

Background

In response to your request, a monitoring study has been made at Montrose Chemical Corporation to ascertain current levels of DDT being discharged to the Districts' sewerage system.

From approximately 1951 to June 1, 1971 Montrose Chemical had discharged to the Districts' sewerage system, process wastewater containing DDT. Districts' sampling conducted in March 1970 indicated that at that time DDT discharges to the sewer from Montrose Chemical, were approximately 650 lbs/day[1]. As a result of these discharges there are an estimated 78,000 lbs. of DDT in sediments in a 2300 foot reach of J.O. "D" immediately downstream of Montrose Chemical[2].

In response to pressure by the Districts and litigation brought against Montrose Chemical by the Environmental Defense Fund, all process wastewater discharges to the sewer were terminated on June 1, 1971. After that date, only sanitary wastes and those from a boiler blow-down and a water softener backwash were allowed into the sewer.

In March 1974 Montrose Chemical applied for a Districts' industrial wastewater permit for the 2700 gpd flow from the boiler blowdown and softener backwash, and on June 5, 1974 the Districts issued I.W. Permit #1487 for this discharge. Prior to issuing the permit, the Industrial Waste Monitoring Crew obtained a 24-hour composite of this flow on May 6, 1974. The results showed 233 µg/l of total DDT. Prior to the most recent study conducted in July-August 1979, this one sample was the only one obtained by the Districts of this wastewater discharge. Montrose Chemical had been conducting quarterly analyses of its wastewater for DDT content as required by its I.W. permit.

A summary of Montrose Chemical's CFR data is given in Table 1. As seen, the total mass of DDT now reportedly being discharged is less than 0.001% of the DDT contained in the JWPCP raw sewage. For comparison, the average DDT concentration seen in the raw sewage at the District 28 WRP - an entirely residential area - is 0.15 µg/l.

Details of This Study

The first attempt to characterize Montrose Chemical's current discharge involved sampling the company's wastewater at a drop manhole downstream of the company's sanitary connection serving the restrooms in the office. This sampling location was chosen so that all DDT discharges from the company could be monitored, regardless if the DDT originated from manufacturing or sanitary activities. However, the 12-inch connection between this manhole and the Districts' District 5 Interceptor sewer line lies at an elevation that allows water in the interceptor sewer to back up at high flow conditions and flood out the bottom of the drop manhole. See Figure 1 for the location of this manhole. Thus, the samples taken in July 1979 are probably a mixture of Montrose Chemical's waste and other sewage flow in the District 5 interceptor sewer and even perhaps J.O. "D" - in that at this location there is a 12-inch connection between the two Districts' sewers. The results of these sample analyses are found in Table 2.

In August 1979 a second monitoring study was conducted, which this time included sampling only the wastewater from industrial waste discharge number 1487. These data are shown in Table 3.

Results of this study show higher concentrations of DDT in the drop manhole than in the company's discharge. This is probably related to DDT solids still remaining in the District 5 interceptor. The relative composition percentages of the total reported DDT offers some clue as to the age of the material. Under anaerobic conditions, DDT is known to be rapidly converted to DDD. Whereas in other organisms utilizing aerobic metabolic processing DDT is metabolized to DDE[5]. Figure 2 illustrates these chemical conversions. The manufacturing process produces mostly op'-DDT and pp'-DDT with minor amounts of the other related compounds. In sampling conducted of Montrose Chemical's effluent in 1970, before cessation of discharge of DDT wastes, the average percentage composition was 74% DDT, 5% DDD, and 21% DDE[3]. These samples were taken at the sample drop manhole, but at that time it was possible sample Montrose Chemical's discharge at that point without getting contamination om other flows in the sewer. Comparison of these figures with those obtained from the August 1979 sampling (Table 3) indicates at the present time the DDT being discharged has a lower percentage of DDD and DDE. Trunk sewer sediment analyses conducted in July 1971 approximately 700 feet downstream of Montrose Chemical's connection to the Districts' sewer showed the sediments had the following relative composition[4]: 73% DDT, 5% DDD, 22% DDE, which was very similar to the 1970 results of Montrose Chemical's discharge. Analyses taken over the next several years at this same location indicated that by April 1973 the relative composition had significantly changed and stabilized at: 55% DDT, 18% DDD, 27% DDE[4]. The results of the present study show general agreement between the April 1973 data and the 1979 data from the drop manhole (see Table 2).

MEMO TO: Jay G. Kremer November 1, 1979

FROM: Ross C. Caballero Page Three

Review of the CPR data submitted by Montrose Chemical (Table 1) shows that since January 1977 the company has been unable to detect DDT in its wastewater. The detection limit reported by the company has varied from 2 µg/l to 20 µg/l. The Districts two samples taken August 1979 showed DDT levels 20 to 30 times above the detection limit. The detection level for the Districts' analytical procedure is 0.01 µg/l.

The Districts' Phase I limits specify that there be essentially no discharge of DDT or other chlorinated hydrocarbons to the sewer. Obviously, Montrose Chemical's current discharges, being 350 times greater than that found in residential sewage, is something more than "Essentially None". It would be expected that some DDT should enter the sewer system from the restroom in the office building; however, the approximate ½ gram per day contained in the industrial waste discharge from the boiler blowdown and/or water softener backwash water is somewhat of a mystery. Whether this constitutes a violation of the Phase I limit is unknown to this writer.

Summary

1. All data indicate that Montrose Chemical is currently discharging very small quantities of DDT to the sewer system.

2. The amount of DDT discharged by Montrose Chemical is insignificant in relationship to DDT currently being received at the JWPCP.

3. The large quantities of DDT laden sediments in the sewer downstream of Montrose Chemical constitute the major source of DDT in the sewer system at the present time.

4. The concentration of DDT in Montrose Chemical's industrial wastewater is roughly 350 times higher than that found in residential sewage.

5. The laboratory procedures used by Montrose Chemical for DDT analyses do not have as low a detection limit as does the Districts' procedure.

6. Montrose Chemical's analytical procedures may not be accurately reporting the low level DDT concentrations in the company's wastewater.

Recommendations

1. The Districts' laboratory and Montrose Chemical's laboratory should split a sample to see if comparable results are obtained by each lab.

2. The Districts should do an in-depth inspection of the wastewater line to see if the small quantity of DDT contained therein results from a situation that can be easily corrected, or whether it results from every piece of equipment in the company being contaminated with low levels of DDT.

References

(1) "Pesticides and Heavy Metals Progress Report December 1970," C.W. Carry, J.A. Redner, County Sanitation District report, p. 28.

(2) "Chlorinated Hydrocarbon Study Progress Report July 1973," R.F. Luthy Jr., P.F. Wilson, County Sanitation Districts report, p. 4.

(3) "Pesticides and Heavy Metals Progress Report December 1979," P. 31

(4) "Chlorinated Hydrocarbon Study Progress Report July 1973," p. 9.

(5) "Chemistry and Metabolism of Insecticides" by Paul A. Dahm, Chapter 11 of: Agricultural Practices & Water Quality, by Ted Willrich & George Smith, Iowa State University Press, 1970.

RCC:se
Attachments

Montrose Chemical Corporation of California

P.O. Box 147

20201 South Normandie Avenue • Torrance, California 90507 • (213) 775-2565 • 328-5462

August 6, 1979

Mr. Jay G. Kremmer
Head, Industrial Waste Section
County Sanitation Districts of Los
Angeles County
P. O. Box 4998
Whittier, California 90607

Dear Mr. Kremmer:

Please find enclosed our "Critical Parameter Report" for July, 1979 covering analysis of our sewer effluent.

Yours very truly,

John L. Kallok

John L. Kallok
Plant Manager

JLK:cw

Enclosure: Critical Parameter Report Form

cc: Samuel Rotrosen w/enclosure
Max Sobelman w/enclosure
Guy Dimichele w/enclosure

SANITATION DISTRICTS OF LOS ANGELES COUNTY 8/11/11 #1487
INDUSTRIAL WASTEWATER
CRITICAL PARAMETER REPORT FORM

Ident Code	PARAMETER 1/	2/	QUANTITY VALUES		Ident Code	PARAMETER 1/	2/	QUANTITY VALUES	
A	Flow (Total)		2400	gals/day	V	Manganese Total			mg/l
B	Flow (Peak)		50	gal/min	W	Mercury Total			mg/l
C	COD			mg/l	X	Molybdenum Total			mg/l
D	SS (Suspended Solids)		994	mg/l	Y	Nickel Total			mg/l
E	pH		12.5	Units	Z	Selenium Total			mg/l
F	Total Dissolved Solids			mg/l	AA	Silver Total			mg/l
G	Ammonia (N)			mg/l	BB	Sodium Total			mg/l
H	Sulfide			mg/l	CC	Thallium Total			mg/l
I	Cyanide		<0.05	mg/l	DD	Tin Total			mg/l
J	Fluoride			mg/l	EE	Titanium Total			mg/l
K	Aluminum - Total			mg/l	FF	Zinc Total		0.50	mg/l
L	Antimony - Total			mg/l	GG	Oil & Grease (Hexane Extract)			mg/l
M	Arsenic - Total			mg/l	HH	Phenols			mg/l
N	Beryllium - Total			mg/l	II	Surfactants (MBAS)			mg/l
O	Boron - Total			mg/l	JJ	Chlorinated Hydrocarbons (less pesticides)		<0.002	mg/l
P	Cadmium - Total			mg/l	KK	Pesticides (Chlorinated Hydrocarbons)		<0.002	mg/l
Q	Chromium - Total			mg/l	LL	Radioactivity (Alpha, Beta & Gamma)			pCi/l
R	Cobalt - Total			mg/l	MM	Temperature		90°F	Degrees °F
S	Copper - Total			mg/l	NN	Color			Units
T	Iron - Total			mg/l	OO	Thiosulfate (S)			mg/l
U	Lead - Total			mg/l					

NON CRITICAL PARAMETERS (Report When Available)					OTHER PARAMETERS (Report When Requested)				
PP	Calcium			mg/l	A1				
QQ	Magnesium			mg/l	A2				
RR	Potassium			mg/l	A3				
SS	Sodium			mg/l	A4				
TT	Nitrate			mg/l	A5				
UU	Chloride			mg/l	A6				
VV	Bromide			mg/l	A7				
WW	Sulfate			mg/l	A8				
XX	Phosphorus Ortho			mg/l	A9				

NOTES 1/ Report all critical parameters required by the Sanitation Districts and any other critical parameter known to be present in the wastewater. Those parameters required by the Districts but known to be absent from the wastewater may be reported by placing the word absent in the appropriate space.

2/ If values are obtained by measurements or analyses write A in this column. Analysis values must be determined, using representative 24 hour composite samples, by a State Certified or Districts Approved Laboratory. If values are obtained by estimate, write E in this column. *Estimated values are acceptable for new plants only.*

90019

(Print) BIO-TECHNICS LABORATORY INC. 1133 Crenshaw Blvd., Los Angeles, CA
Name and Address of Laboratory Performing Analyses and Flow Measurements

(Print) Montrose Chemical Corporation of California 2879
Name of Company Having Wastewater Discharge

(Print) 20201 S. Normandie Ave., Torrance, California 90502
Address of Wastewater Discharge

(Print) Additional Location Data (Data above should be for only one discharge point to the sewerage system)

Statement of Accuracy of Data

I hereby affirm that the above data comprise a true and correct representation of the wastewater discharges from the stated discharge point.

Date 8/11/11 Location Torrance California

[signature] Plant Manager
Signature Name Position (Administrative Officer of Company with Wastewater Discharge)

BOE-C6-0177069

SANITATION DISTRICTS OF LOS ANGELES COUNTY
INDUSTRIAL WASTEWATER
CRITICAL PARAMETER REPORT FORM

#1487

Ident Code	PARAMETER 1/	2/	QUANTITY VALUES		Ident Code	PARAMETER 1/	2/	QUANTITY VALUES	
A	Flow (Total)		2400	gals/day	V	Manganese Total			mg/l
B	Flow (Peak)		50	gals/min.	W	Mercury Total			mg/l
C	COD			mg/l	X	Molybdenum Total			mg/l
D	SS (Suspended Solids)		9,970	mg/l	Y	Nickel Total			mg/l
E	pH		12.8	Units	Z	Selenium Total			mg/l
F	Total Dissolved Solids			mg/l	AA	Silver Total			mg/l
G	Ammonia (N)			mg/l	BB	Sodium Total			mg/l
H	Sulfide			mg/l	CC	Thallium Total			mg/l
I	Cyanide		<0.05	mg/l	DD	Tin Total			mg/l
J	Fluoride			mg/l	EE	Titanium Total			mg/l
K	Aluminum - Total			mg/l	FF	Zinc Total			mg/l
L	Antimony - Total			mg/l	GG	Oil & Grease (Hexane Extract)			mg/l
M	Arsenic - Total			mg/l	HH	Phenols			mg/l
N	Beryllium - Total			mg/l	II	Surfactants (MBAS)			mg/l
O	Boron - Total			mg/l	JJ	Chlorinated Hydrocarbons (except pesticides)		<.005	mg/l
P	Cadmium Total			mg/l	KK	Pesticides (Chlor. Hydrocarb.)		<0.005	mg/l
Q	Chromium - Total			mg/l	LL	Radioactivity (Alpha, Beta & Gamma)			pCi/l
R	Cobalt - Total			mg/l	MM	Temperature		90°C	Degrees °F
S	Copper - Total			mg/l	NN	Color			Units
T	Iron - Total			mg/l	OO	Thiosulfate (S)			mg/l
U	Lead - Total			mg/l					

NON-CRITICAL PARAMETERS (Report When Available)				OTHER PARAMETERS (Report When Requested)	
PP	Calcium		mg/l	A1	
QQ	Magnesium		mg/l	A2	
RR	Potassium		mg/l	A3	
SS	Barium		mg/l	A4	
TT	Nitrate		mg/l	A5	
UU	Chloride		mg/l	A6	
VV	Bromide		mg/l	A7	
WW	Sulfate		mg/l	A8	
XX	Phosphorus Ortho		mg/l	A9	

NOTES

1/ Report all critical parameters required by the Sanitation Districts and any other critical parameter known to be present in the wastewater. Those parameters required by the Districts to remain to be absent from the wastewater may be reported by placing the word absent in the appropriate space.

2/ If values are obtained by measurements or analyses write A. [illegible] A analysis values must be determined using representative 24 hour composite sample [illegible] Certified Districts Approved Laboratory. If values are obtained by estimate write E in this column. Estimated values are acceptable for new plants only.

BIO-TECHNICS LABORATORIES 1133 Crenshaw, Los Angeles 90019

(Print) Name and Address of Laboratory Performing Analyses and Flow Measurements

Montrose Chemical Corp. of Ca. 2879

(Print) Name of Company Having Wastewater Discharge SIC Number

20201 S. Normandie Ave., Torrance, California 90502

(Print) Address of Wastewater Discharge

(Print) Additional Location Data (Data above should be for only one discharge point to the sewerage system)

Statement of Accuracy of Data

I hereby affirm that the above data [illegible] a true and correct representation of the wastewater discharged from the stated discharge point.

Date 1/9/79 Location Torrance California

X (Signed) Name

Plant Manager

Position (Administrative Officer of Company with Wastewater Discharge)

BOE-C6-0177070

5-00.05-00/78A

1487

MONITORING AND REPORTING PROGRAM

MONTROSE CHEMICAL CORPORATION OF CALIFORNIA
(File 70-118)

Date May 9, 1978

Report to: California Regional Water Quality Control Board

Report for Month of April, 1978

	Alkaline (Gals.) Waste	Acid (Gals.)	Trash (Cubic Yards)
a. Total amount generated during month	600,400	210,100	280
1. Average amount generated per day	20,010	7,000	9.3

b. Dates of off site transfer

Date	Material Hauled	Gals. or Cubic Yds.	Destination	Hauler
4/3	Waste Sulfuric Acid	11,200 gals	West Covina	Chancellor & Ogden
4/4	"	8,400 gals	"	"
4/5	"	8,400 gals	"	"
4/6	"	5,600 gals	"	"
4/8	"	11,200 gals	"	"
4/10	"	11,200 gals	"	"
4/11	"	2,800 gals	"	"
4/12	"	5,600 gals	"	"
4/13	"	11,200 gals	"	"
4/14	"	11,200 gals	"	"
4/17	"	11,200 gals	"	"
4/18	"	8,400 gals	"	"
4/19	"	11,200 gals	"	"
4/20	"	11,200 gals	"	"
4/21	"	11,200 gals	"	"
4/22	"	11,200 gals	"	"

ETB MAY 10 AM 9 56

BOE-C6-0177071

Date	Material Hauled	Gals. or Cubic Yds.	Destination	Hauler
	Waste			
4/24	Sulfuric Acid	11,200 gals	West Covina	Chancellor & Ogden
4/25	"	11,200 gals	"	"
4/26	"	11,200 gals	"	"
4/27	"	11,200 gals	"	"
4/28	"	11,200 gals	"	"
	Total	207,200 gals		
	Waste			
4/1	Alkaline	21,000 gals	West Covina	Chancellor & Ogden
4/3	"	33,600 gals	"	"
4/4	"	8,400 gals	"	"
4/5	"	8,400 gals	"	"
4/6	"	33,600 gals	"	"
4/7	"	29,400 gals	"	"
4/8	"	12,600 gals	"	"
4/10	"	37,800 gals	"	"
4/11	"	8,400 gals	"	"
4/13	"	16,800 gals	"	"
4/14	"	54,600 gals	"	"
4/15	"	12,600 gals	"	"
4/17	"	33,600 gals	"	"
6/18	"	33,600 gals	"	"
4/19	"	16,800 gals	"	"
4/20	"	16,800 gals	"	"
4/21	"	33,600 gals	"	"
4/22	"	21,000 gals	"	"
4/24	"	29,400 gals	"	"
4/25	"	12,600 gals	"	"
4/26	"	25,200 gals	"	"
4/27	"	8,400 gals	"	"

Date	Material Hauled	Gals, or Cubic Yds.	Destination	Hauler
4/28	Waste Alkaline	42,000 gals	West Covina	Chancellor & Ogde
4/29	"	25,200 gals	"	"
	Total	575,400 gals		
4/4	Solid Waste	80 cu.yds	Rolling Hills	Western Refuse
4/7	"	80 cu.yds	"	"
4/15	"	40 cu.yds	"	"
4/17	"	40 cu.yds	"	"
4/25	"	40 cu.yds	"	"
	Total	280 cu.yds		

c. Names and Addresses of Waste Haulers

(1) Western Refuse Hauling, Inc.
P.O. Box 214
Gardena, California 90246

(2) Chancellor and Ogden, Inc.
3365 Cherry Avenue
Long Beach, California 90807

(3) Wm. H. Hutchison,& Sons Service
217 No. Lagoon Ave.
Wilmington, California 90744

d. Locations of Ultimate Points of Disposal of All Wastes

(1) Alkaline Waste Disposal Sites

a. Los Angeles County Sanitation
Waste Disposal Site No. 1
26300 Crenshaw Blvd.
Rolling Hills, California

b. BKK Co. Land Fill
2210 S. Azusa Avenue
West Covina, California

(2) Acid Waste Disposal Site

BKK Co. Land Fill
2210 S. Azusa Avenue
West Covina, California

(3) Solid Waste Disposal Site

Los Angeles County Sanitation
Waste Disposal Site No. 1
26300 Crenshaw Blvd.
Rolling Hills, California

	Gals. of Alkaline Waste	Gals. of Acid Waste	Cubic Yds. Solid Waste
e. Quantity of waste hauled during reporting period	575,400	207,200	280
f. Quantity of waste stored at plant at end of reporting period	50,000	64,400	60
g. Storage capacity remaining at end of storage period	5[illegible],000	135,600	60

(2) Violations of Waste Discharge Requirement During the Reporting Period.

NONE

I declare under penalty of perjury that the foregoing is true and correct.

Executed on the 9th day of May, 1978

at Torrance, California.

John L. Kallok
(Signature)

John L. Kallok
Plant Manager
(Title)

MONITORING AND REPORTING PROGRAM 5-00.05-00/18A

MONTROSE CHEMICAL CORPORATION OF CALIFORNIA
(File 70-118)

Date January 10, 1978

Report to: California Regional Water Quality Control Board

Report for Month of December, 1977

	Alkaline (Gals.) Waste	Acid (Gals.)	Trash (Cubic Yards)
a. Total amount generated during month	571,200	172,400	600
1. Average amount generated per day	18,426	5,561	19.4

b. Dates of off site transfer

Date	Material Hauled	Gals. or Cubic Yds.	Destination	Hauler
12/1	Waste Sulfuric Acid	11,200 gals	West Covina	Chancellor & Ogden
12/5	"	11,200 gals	"	"
12/6	"	11,200 gals	"	"
12/7	"	11,200 gals	"	"
12/10	"	14,000 gals	"	"
12/12	"	5,600 gals	"	"
12/13	"	8,400 gals	"	"
12/14	"	8,400 gals	"	"
12/15	"	11,200 gals	"	"
12/16	"	5,600 gals	"	"
12/17	"	5,600 gals	"	"
12/19	"	11,200 gals	"	"
12/21	"	11,200 gals	"	"
12/22	"	5,600 gals	"	"
12/23	"	16,800 gals	"	"
12/27	"	5,600 gals	"	"

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Date	Material Hauled	Gals. or Cubic Yds.	Destination	Hauler
12/28	Waste Sulfuric Acid	5,600 gals	West Covina	Chancellor & Ogden
12/30	"	5,600 gals	"	"
12/31	"	5,600 gals	"	"
	Total	170,800 gals		
12/1	Alkaline Waste	25,200 gals	West Covina	Chancellor & Ogden
12/2	"	21,000 gals	"	"
12/3	"	12,600 gals	"	"
12/5	"	16,800 gals	"	"
12/6	"	12,600 gals	"	"
12/7	"	25,200 gals	"	"
12/8	"	16,800 gals	"	"
12/9	"	29,400 gals	"	"
12/10	"	12,600 gals	"	"
12/12	"	33,600 gals	"	"
12/13	"	25,200 gals	"	"
12/14	"	16,800 gals	"	"
12/15	"	16,800 gals	"	"
12/16	"	16,800 gals	"	"
12/17	"	12,600 gals	"	"
12/19	"	33,600 gals	"	"
12/20	"	8,400 gals	"	"
12/21	"	12,600 gals	"	"
12/22	"	16,800 gals	"	"
12/23	"	37,800 gals	"	"
12/27	"	50,400 gals	"	"
12/28	"	37,800 gals	"	"
12/29	"	29,400 gals	"	"
12/30	"	33,600 gals	"	"

Date	Material Hauled	Gals. or Cubic Yds.	Destination	Hauler
12/31	Alkaline Waste	16,800 gals	West Covina	Chancellor & Ogden
	Total	571,200 gals		
12/2	Solid Waste	160 cu.yds	Rolling Hills	Western Refuse
12/6	"	40 cu.yds	"	"
12/7	"	40 cu.yds	"	"
12/9	"	80 cu.yds	"	"
12/13	"	40 cu.yds	"	"
12/15	"	40 cu.yds	"	"
12/21	"	120 cu.yds	"	"
12/22	"	40 cu.yds	"	"
12/30	"	40 cu.yds	"	"
	Total	600 cu.yds		

c. Names and Addresses of Waste Haulers

(1) Western Refuse Hauling, Inc.
P.O. Box 214
Gardena, California 90246

(2) Chancellor and Ogden, Inc.
3365 Cherry Avenue
Long Beach, California 90807

(3) Wm. H. Hutchison,& Sons Service
217 No. Lagoon Ave.
Wilmington, California 90744

d. Locations of Ultimate Points of Disposal of All Wastes

(1) Alkaline Waste Disposal Sites

a. Los Angeles County Sanitation
Waste Disposal Site No. 1
26300 Crenshaw Blvd.
Rolling Hills, California

b. BKK Co. Land Fill
2210 S. Azusa Avenue
West Covina, California

(2) Acid Waste Disposal Site

BKK Co. Land Fill
2210 S. Azusa Avenue
West Covina, California

(3) Solid Waste Disposal Site

Los Angeles County Sanitation
Waste Disposal Site No. 1
26300 Crenshaw Blvd.
Rolling Hills, California

	Gals. of Alkaline Waste	Gals. of Acid Waste	Cubic Yds. Solid Waste
e. Quantity of waste hauled during reporting period	571,200	170,800	600
f. Quantity of waste stored at plant at end of reporting period	50,000	75,000	60
g. Storage capacity remaining at end of storage period	50,000	125,000	60

(2) Violations of Waste Discharge Requirement During the Reporting Period

NONE

I declare under penalty of perjury that the foregoing is true and correct.

Executed on the 10th day of January, 1978

at Torrance, California.

John L. Kallox
(Signature)

John L. Kallox
Plant Manager
(Title)

5-00.05-00/78A

1487

MONITORING AND REPORTING PROGRAM

MONTROSE CHEMICAL CORPORATION OF CALIFORNIA
(File 70-118)

Date January 10, 1978

Report to: California Regional Water Quality Control Board

Report for Month of December, 1977

	Alkaline (Gals.) Waste	Acid (Gals.)	Trash (Cubic Yards)
a. Total amount generated during month	571,200	172,400	600
1. Average amount generated per day	18,426	5,561	19.4

b. Dates of off site transfer

Date	Material Hauled	Gals. or Cubic Yds.	Destination	Hauler
12/1	Waste Sulfuric Acid	11,200 gals	West Covina	Chancellor & Ogden
12/5	"	11,200 gals	"	"
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12/7	"	11,200 gals	"	"
12/10	"	14,000 gals	"	"
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12/13	"	8,400 gals	"	"
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12/16	"	5,600 gals	"	"
12/17	"	5,600 gals	"	"
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K Rhoe

Date	Material Hauled	Gals. or Cubic Yds.	Destination	Hauler
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12/30	"	5,600 gals	"	"
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	Total	170,800 gals		
12/1	Alkaline Waste	25,200 gals	West Covina	Chancellor & Ogden
12/2	"	21,000 gals	"	"
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12/28	"	37,800 gals	"	"
12/29	"	29,400 gals	"	"
12/30	"	33,600 gals	"	"

Date	Material Hauled	Gals. or Cubic Yds.	Destination	Hauler
1/31	Alkaline Waste	16,800 gals	West Covina	Chancellor & OgCen
	Total	571,200 gals		
12/2	Solid Waste	160 cu.yds	Rolling Hills	Western Refuse
12/6	"	40 cu.yds	"	"
12/7	"	40 cu.yds	"	"
12/9	"	80 cu.yds	"	"
12/13	"	40 cu.yds	"	"
12/15	"	40 cu.yds	"	"
12/21	"	120 cu.yds	"	"
12/22	"	40 cu.yds	"	"
12/30	"	40 cu.yds	"	"
	Total	600 cu.yds		

c. Names and Addresses of Waste Haulers

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P.O. Box 214
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Los Angeles County Sanitation
Waste Disposal Site No. 1
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	Gals. of Alkaline Waste	Gals. of Acid Waste	Cubic Yds. Solid Waste
e. Quantity of waste hauled during reporting period	571,200	170,800	600
f. Quantity of waste stored at plant at end of reporting period	50,000	75,000	60
g. Storage capacity remaining at end of storage period	50,000	125,000	60

(2) Violations of Waste Discharge Requirement During the Reporting Period

NONE

I declare under penalty of perjury that the foregoing is true and correct.

Executed on the 10th day of January, 1978

at Torranco, California.

John L. Kallok
(Signature)

John L. Kallok
Plant Manager
(Title)

ANNUAL SUMMARY OF WASTE MONITORING

MONTROSE CHEMICAL CORPORATION OF CALIFORNIA

File (70-118)

Report to: California Regional Waste Control Board

Summary Report for 1977

MONTH	GALLONS ALKALINE WASTE	GALLONS WASTE ACID	CUBIC YARDS TRASH
January	453,60[illegible] gals	103,600 gals	560 cu.yds
February	352,6[illegible]	123,200 gals	320 cu.yds
March	491,4[illegible]	156,800 gals	320 cu.yds
April	583,800 gals	154,000 gals	240 cu.yds
May	621,600 gals	173,600 gals	280 cu.yds
June	495,600 gals	173,600 gals	320 cu.yds
July	315,000 gals	84,000 gals	120 cu.yds
August	474,600 gals	112,000 gals	160 cu.yds
September	529,200 gals	165,200 gals	360 cu.yds
October	508,200 gals	190,400 gals	280 cu.yds
November	546,000 gals	190,400 gals	440 cu.yds
December	571,200 gals	170,800 gals	600 cu.yds
TOTALS	5,943,000 gals	1,797,600 gals	4,000 cu.yds

Hauled By: Chancellor & Ogden Western Refuse

BOE-C6-0177086

c. Names and Addresses of Waste Haulers

(1) Western Refuse Hauling, Inc.
P.O. Box 214
Gardena, California 90246

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3365 Cherry Avenue
Long Beach, California 90807

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2210 S. Azusa Avenue
West Covina, California

(3) Solid Waste Disposal Site

Los Angeles County Sanitation
Waste Disposal Site No. 1
26300 Crenshaw Blvd.
Rolling Hills, California

Violations of Waste Discharge Requirements during the reporting period:

NONE

I declare under penalty of perjury that th foregoing is true and correct.

Executed on the 10th day of January 1978 Torrance, California.

John L. Kallok

John L. Kallok
Plant Manager

JLK:ll

MONTROSE CHEMICAL CORPORATION OF CALIFORNIA

LOS ANGELES, CALIFORNIA 90008

August 15, 1977

PLEASE REPLY TO
P.O. BOX 147
TORRANCE, CA 90507

Mr. Jay G. Kremmer
Head, Industrial Waste Section
County Sanitation Districts of Los Angeles
P.O. Box 4998
Whittier, California 90607

Dear Mr. Kremmer:

Please find enclosed our "Critical Parameter Report" for July, 1977 covering analysis of our sewer effluent.

Very truly yours,

John L. Kallok

John L. Kallok
Plant Manager

JLK:ll

Enclosure

cc: Samuel Rotrosen
Max Sobelman
Guy A. Dimichele

8/16/77

4129

SANITATION DISTRICTS OF LOS ANGELES COUNTY
INDUSTRIAL WASTEWATER
CRITICAL PARAMETER REPORT FORM

#1487

Ident Code	PARAMETER 1/	2/	QUANTITY VALUES		Ident. Code	PARAMETER 1/	2/	QUANTITY VALUES	
A	Flow (Total)		2400	gal/day	V	Manganese - Total			mg/l
B	Flow (Peak)		50	gal/min.	W	Mercury - Total			mg/l
C	COD			mg/l	X	Molybdenum - Total			mg/l
D	SS (Suspended Solids)		4598	mg/l	Y	Nickel - Total			mg/l
E	pH		11.9	Units	Z	Selenium - Total			mg/l
F	Total Dissolved Solids			mg/l	AA	Silver - Total			mg/l
G	Ammonia (N)			mg/l	BB	Sodium - Total			mg/l
H	Sulfide			mg/l	CC	Thallium - Total			mg/l
I	Cyanide		1.51	mg/l	DD	Tin - Total			mg/l
J	Fluoride			mg/l	EE	Titanium - Total			mg/l
K	Aluminum - Total			mg/l	FF	Zinc - Total		<5	mg/l
L	Antimony - Total			mg/l	GG	Oil & Grease (Hexane Extract)			mg/l
M	Arsenic - Total			mg/l	HH	Phenols			mg/l
N	Beryllium - Total			mg/l	II	Surfactants (MBAS)			mg/l
O	Boron - Total			mg/l	JJ	Chlorinated hydrocarbons (except pesticides)		<0.005	mg/l
P	Cadmium - Total			mg/l	KK	Pesticides (Chlor Hydrcb.)		<0.005	mg/l
Q	Chromium - Total			mg/l	LL	Radioactivity (Alpha, Beta & Gamma)			pCi/l
R	Cobalt - Total			mg/l	MM	Temperature		90°C	Degrees °F
S	Copper - Total			mg/l	NN	Color			Units
T	Iron - Total			mg/l	OO	Thiosulfate S.			mg/l
U	Lead - Total			mg/l					

NON-CRITICAL PARAMETERS (Report When Available)				OTHER PARAMETERS (Report When Requested)		
PP	Calcium		mg/l	A1		
QQ	Magnesium		mg/l	A2		
RR	Potassium		mg/l	A3		
SS	Sodium		mg/l	A4		
TT	Nitrate		mg/l	A5		
UU	Chloride		mg/l	A6		
VV	Bromide		mg/l	A7		
WW	Sulfate		mg/l	A8		
XX	Phosphorus-Ortho		mg/l	A9		

8/16/77 Ed Tulne

NOTES 1/ Report all critical parameters required by the Sanitation Districts and any other critical parameter known to be present in the wastewater. Those parameters required by the Districts but known to be absent from the wastewater may be reported by placing the word absent in the appropriate space.

2/ If values are obtained by measurement or analysis write A in this column. Analysis values must be determined, using representative 24 hour composite samples, by a State Certified or Districts Approved Laboratory. If values are obtained by estimate, write E in the column. *Estimated values are acceptable for new plants only.*

90019

BIO-TECHNICS LABORATORY INC. 1133 Crenshaw, Los Angeles

(Print) Name and Address of Laboratory Performing Analyses and Flow Measurements

Montrose Chemical Corp. of Ca. 2879

(Print) Name of Company Having Wastewater Discharge — SIC Number

20201 S. Normandie Ave., Torrance, California 90502

(Print) Address of Wastewater Discharge

(Print) Additional Location Data (Data above should be for only one discharge point to the sewerage system)

Statement of Accuracy of Data

I hereby affirm that the above data constitute a true and correct representation of the wastewater discharged from the stated discharge point.

Date 8/15/77 Place Torrance California

Plant Manager

Signature Name Position (Administrative Officer of Company with Wastewater Discharge)

MONTROSE CHEMICAL CORPORATION OF CALIFORNIA
POST OFFICE BOX 147
TORRANCE, CALIFORNIA 90507

May 3, 1977

Mr. Jay G. Kremmer
Head, Industrial Waste Section
County Sanitation Districts of Los Angeles Co.
P.O. Box 4998
Whittier, California 90607

Dear Mr. Kremmer:

Please find enclosed our "Critical Parameter Report" for April, 1977 covering analysis of our sewer effluent.

Very truly yours,

John L. Kallok

John L. Kallok
Plant Manager

JLK:ll

Enclosure

cc: Samuel Rotrosen
Max Sobelman
Guy A. Dimichele

SANITATION DISTRICTS OF LOS ANGELES COUNTY
INDUSTRIAL WASTEWATER
CRITICAL PARAMETER REPORT FORM

#1487

Ident. Code	PARAMETER 1/	2/	QUANTITY VALUES		Ident. Code	PARAMETER 1/	2/	QUANTITY VALUES	
A	Flow (Total)		2400	gals/day	V	Manganese - Total			mg/l
B	Flow (Peak)		50	gals/min.	W	Mercury - Total			mg/l
C	COD			mg/l	X	Molybdenum - Total			mg/l
D	SS (Suspended Solids)		2048	mg/l	Y	Nickel - Total			mg/l
E	pH		12.0	Units	Z	Selenium - Total			mg/l
F	Total Dissolved Solids			mg/l	AA	Silver - Total			mg/l
G	Ammonia (N)			mg/l	BB	Sodium - Total			mg/l
H	Sulfide			mg/l	CC	Thallium - Total			mg/l
I	Cyanide		<0.05	mg/l	DD	Tin - Total			mg/l
J	Fluoride			mg/l	EE	Titanium - Total			mg/l
K	Aluminum - Total			mg/l	FF	Zinc - Total		0.65	mg/l
L	Antimony - Total			mg/l	GG	Oil & Grease (Hexane Extract)			mg/l
M	Arsenic - Total			mg/l	HH	Phenols			mg/l
N	Beryllium - Total			mg/l	II	Surfactants (MBAS)			mg/l
O	Boron - Total			mg/l	JJ	Chlorinated Hydrocarbons (except pesticides)		<0.03	mg/l
P	Cadmium - Total			mg/l					
Q	Chromium - Total			mg/l	KK	Pesticides (Chlor. Hycarb.)		<0.005	mg/l
R	Cobalt - Total			mg/l	LL	Radioactivity (Alpha, Beta & Gamma)			pCi/l
S	Copper - Total			mg/l	MM	Temperature		90°C	Degrees °F
T	Iron - Total			mg/l	NN	Color			Units
U	Lead - Total			mg/l	OO	Thiosulfat. (S)			mg/l

NON-CRITICAL PARAMETERS (Report When Available)					OTHER PARAMETERS (Report When Requested)			
PP	Calcium			mg/l	A1			
QQ	Magnesium			mg/l	A2			
RR	Potassium			mg/l	A3			
SS	Barium			mg/l	A4			
TT	Nitrate			mg/l	A5			
UU	Chloride			mg/l	A6			
VV	Bromide			mg/l	A7			
WW	Sulfate			mg/l	A8			
XX	Phosphorus-Ortho			mg/l	A9			

NOTES

1/ Report all critical parameters required by the Sanitation Districts and any other critical parameter known to be present in the wastewater. Those parameters required by the Districts but known to be absent from the wastewater may be reported by placing the word absent in the appropriate space.

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90019

BIO-TECHNICS LABORATORY INC. 1133 Crenshaw Blvd., Los Angeles
(Print) Name and Address of Laboratory Performing Analyses and Flow Measurements

Montrose Chemical Corp. 2879
(Print) Name of Company Having Wastewater Discharge — SIC Number(s)

20201 S. Normandie Ave., Torrance, California 90502
(Print) Address of Wastewater Discharge

(Print) Additional Location Data (Data given should be for only one discharge point to the sewerage system)

Statement of Accuracy of Data

I hereby affirm that the above data comprise a true and correct representation of the wastewater discharged from the stated discharge point.

Date 5/3/77 Location Torrance California

Plant Manager
(Signed) Name — Position (Administrative Officer of Company with Wastewater Discharge)

11/77 Pulsna

MONTROSE CHEMICAL CORPORATION OF CALIFORNIA
POST OFFICE BOX 1-7
TORRANCE, CALIFORNIA 90507

February 17, 1977

#1487

Mr. Jay G. Kremmer
Head, Industrial Waste Section
County Sanitation Districts of Los Angeles
P.O. Box 4998
Whittier, California 90607

Dear Mr. Kremmer:

Please find enclosed our "Critical Parameter Report" for January, 1977 covering analysis of our sewer effluent.

Very truly yours,

John L. Kallok

John L. Kallok
Plant Manager

JLK:ll

Enclosure

cc: Samuel Rotroson
Max Sobelman
Guy A. Dimichele

SANITATION DISTRICTS OF LOS ANGELES COUNTY
INDUSTRIAL WASTEWATER
CRITICAL PARAMETER REPORT FORM

Ident. Code	PARAMETER 1/	2/	QUANTITY VALUES		Ident. Code	PARAMETER 1/	2/	QUANTITY VALUES	
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C	COD			mg/l	X	Molybdenum - Total			mg/l
D	SS (Suspended Solids)		326	mg/l	Y	Nickel - Total			mg/l
E	pH		12.0	Units	Z	Selenium - Total			mg/l
F	Total Dissolved Solids			mg/l	AA	Silver - Total			mg/l
G	Ammonia (N)			mg/l	BB	Sodium - Total			mg/l
H	Sulfide			mg/l	CC	Thallium - Total			mg/l
I	Cyanide		1.1	mg/l	DD	Tin - Total			mg/l
J	Fluoride			mg/l	EE	Titanium - Total			mg/l
K	Aluminum - Total			mg/l	FF	Zinc - Total		0.42	mg/l
L	Antimony - Total			mg/l	GG	Oil & Grease (Hexane Extract)			mg/l
M	Arsenic - Total			mg/l	HH	Phenols			mg/l
N	Beryllium - Total			mg/l	II	Surfactants (MBAS)			mg/l
O	Boron - Total			mg/l	JJ	Chlorinated Hydrocarbons (except pesticides)		<.001	mg/l
P	Cadmium - Total			mg/l					
Q	Chromium - Total			mg/l	KK	Pesticides (Chlor. Hycarb.)		0.096	mg/l
R	Cobalt - Total			mg/l	LL	Radioactivity (Alpha, Beta & Gamma)			pCi/l
S	Copper - Total			mg/l	MM	Temperature		90°C	Degrees °F
T	Iron - Total			mg/l	NN	Color			Units
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UU	Chloride			mg/l	A6				
VV	Bromide			mg/l	A7				
WW	Sulfate			mg/l	A8				
XX	Phosphorus-Ortho			mg/l	A9				

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Statement of Accuracy of Data

I hereby affirm that the above data comprise a true and correct representation of the wastewater discharged from the stated discharge point.

Date 2/17/77 Location Torrance California

John L. Kallok Plant Manager

(Signed) Name — Position (Administrative Officer of Company with Wastewater Discharge)

p2/77
w/ Milne

BOE-C6-0177094

COUNTY SANITATION DISTRICTS
OF LOS ANGELES COUNTY

[illegible] Whittier, California
[illegible] P. O. Box [illegible] Whittier, California [illegible]
[illegible] 699-7411 / From Los Angeles (213) 685-5217

JOHN D. PARKHURST
Chief Engineer and General Manager

November 23, 1976 File: 05-00.05-00/76-1487

Montrose Chemical Corporation of California
P. O. Box 147
Torrance, California 90507

Subject: Required Critical Parameter Report(s) Under Industrial Wastewater Discharge Permit No(s) 1487

Dear Sirs:

Your Industrial Wastewater Discharge Permit(s) was approved in the Districts' letter dated June 5, 1974. One of the requirements specified in the approval was the submittal of Critical Parameter (chemical analysis) Reports to the Districts according to the Frequency of Laboratory Analysis Form issued with the Permits(s).

Your latest Critical Parameter Report(s) was received on Nov. 23, 1976. The Districts have reviewed this report and found that it is delinquent in the following areas:

[ ] The parameters underlined in red must also be analyzed as required on the Frequency of Laboratory Analysis Form issued with your Permit(s).

[ ] You are not in compliance with the Districts requirements for the submittal of Critical Parameter Reports. Please submit a Critical Parameter Report on the items specified in your permit approval within 30 days of this letter and according to the required frequency thereafter.

[X] The Critical Parameter Report must be signed by a representative of your company.

[ ] Other:

The above items must be completed and returned to the Sanitation Districts within 30 days of the date of this letter. If you have any questions regarding these requirements, please call the Districts' Industrial Waste Section at (213) 699-7411, extension 261.

Very truly yours,

John D. Parkhurst
Chief Engineer and
General Manager

By Jay G. Kremer
Jay G. Kremer
Head, Industrial Waste Section

JGK:DEA: lc

Encls.

MONTROSE CHEMICAL CORPORATION OF CALIFORNIA
POST OFFICE BOX 147
TORRANCE, CALIFORNIA 90507

#1487

11-23-76

November 22, 1976

Mr. Jay G. Kremmer
Head, Industrial Waste Section
County Sanitation Districts of Los Angeles
P.O. Box 4998
Whittier, California 90607

Dear Mr. Kremmer:

Please find enclosed our "Critical Parameter Report" for October, 1976 covering analysis of our sewer effluent.

Very truly yours,

John L. Kallok
Plant Manager

JLK:ll

Enclosure

cc: Samuel Rotrosen
Max Sobelman
Guy A. Dimichele

Cc/ Milne

11-23-76

(HF 1481)

SANITATION DISTRICTS OF LOS ANGELES COUNTY
INDUSTRIAL WASTEWATER
CRITICAL PARAMETER REPORT FORM

Ident. Code	PARAMETER 1/	2/	QUANTITY VALUES		Ident. Code	PARAMETER 1/	2/	QUANTITY VALUES	
	Flow (Total)		2400	gal/day	V	Manganese - Total			mg/l
	Flow (Peak)		50	gal/min.	W	Mercury - Total			mg/l
C	COD			mg/l	X	Molybdenum - Total			mg/l
	SS (Suspended Solids)		298	mg/l	Y	Nickel - Total			mg/l
	pH		12.4	Units	Z	Selenium - Total			mg/l
F	Total Dissolved Solids			mg/l	AA	Silver - Total			mg/l
G	Ammonia (N)			mg/l	BB	Sodium - Total			mg/l
H	Sulfide			mg/l	CC	Thallium - Total			mg/l
	Cyanide		<0.01	mg/l	DD	Tin - Total			mg/l
	Fluoride			mg/l	EE	Titanium - Total			mg/l
K	Aluminum - Total			mg/l	FF	Zinc - Total		3.68	mg/l
L	Antimony - Total			mg/l	GG	Oil & Grease (Hexane Extract)			mg/l
M	Arsenic - Total			mg/l	HH	Phenols			mg/l
N	Barium - Total			mg/l	II	Surfactants (MBAS)			mg/l
O	Boron - Total			mg/l	JJ	Chlorinated Hydrocarbons (except pesticides)		<0.05	mg/l
P	Cadmium - Total			mg/l	KK	Pesticides (Chlorinated Hydrocarbons)		<0.01	mg/l
Q	Chromium - Total			mg/l	LL	Radioactivity (Alpha, Beta & Gamma)			pCi/l
R	Cobalt - Total			mg/l	MM	Temperature		90°	Degrees °F
S	Copper - Total			mg/l	NN	Color			Units
T	Iron - Total			mg/l	OO	Thiosulfate (S)			mg/l
U	Lead - Total			mg/l					

NON-CRITICAL PARAMETERS (Report When Available)				OTHER PARAMETERS (Report When Requested)		
PP	Calcium		mg/l	A1		
QQ	Magnesium		mg/l	A2		
RR	Potassium		mg/l	A3		
SS	Barium		mg/l	A4		
TT	Nitrate		mg/l	A5		
UU	Chloride		mg/l	A6		
VV	Bromide		mg/l	A7		
WW	Sulfate		mg/l	A8		
XX	Phosphorus Ortho		mg/l	A9		

NOTES 1/ Report all critical parameters required by the Sanitation Districts and any other critical parameter known to be present in the wastewater. Those parameters required by the Districts but known to be absent from the wastewater may be reported as "zero" or "would exist in this appropriate class".

2/ Values are obtained by measurements of analysis which is [illegible]. Analysis must be determined using the standard 24-hour composite sampling [illegible] or approved laboratory. If values are obtained by estimate [illegible] Estimated values are acceptable for new plants only.

90019

BIO-TECHNICS LABORATORY INC. 1133 Crenshaw Blvd., Los Angeles
(Print) Name and Address of Laboratory Performing Analysis and Measurements

Montrose Chemical Corp 2679
(Print) Name of Company Making Wastewater Discharge SIC Number (if)

21201 S. Normandie Ave., Torrance, California 90502
(Print) Address of Wastewater Discharge

(Print) Address and Location (in Data Source Block) of Sample for Wastewater Discharge Point to the Sewerage System

Summary of Analysis of Data

I hereby affirm that the above is a true and correct representation of the wastewater discharged by the stated discharge point.

Date 11-23-76 Location Torrance, California

Plant Manager
Position/Authority of Person Completing Wastewater Discharge

BOE-C6-0177098

MONTROSE CHEMICAL CORPORATION OF CALIFORNIA
POST OFFICE BOX 147
TORRANCE, CALIFORNIA 90507

August 26, 1976

Mr. Jay G. Kremmer
Head, Industrial Waste Section
County Sanitation Districts of Los Angeles
P.O. Box 4998
Whittier, California 90607

Subject: Critical Parameter Report for
Industrial Wastewater Discharge
Permit No. 1487

Dear Mr. Kremmer:

Please find enclosed our "Critical Parameter Report" for July, 1976 covering analysis of our sewer effluent. We are re-submitting this report on the approved County Sanitation Districts form as requested in your letter of August 19, 1976.

Yours very truly,

John L. Kallok
Plant Manager

JLK:ll

Enclosure

cc: Samuel Rotrosen
Max Sobelman
Guy A. Dimichele

SANITATION DISTRICTS OF LOS ANGELES COUNTY
INDUSTRIAL WASTEWATER
CRITICAL PARAMETER REPORT FORM

#1487

Ident. Code	PARAMETER 1/	2/	QUANTITY VALUES		Ident. Code	PARAMETER 1/	2/	QUANTITY VALUES	
	Flow (Total)	A	2400	gals/day	V	Manganese - Total			mg/l
	Flow (Peak)	A	50	gals/min.	W	Mercury - Total			mg/l
	COD			mg/l	X	Molybdenum - Total			mg/l
	SS (Suspended Solids)	A	62	mg/l	Y	Nickel - Total			mg/l
	pH	A	12.2	Units	Z	Selenium - Total			mg/l
F	Total Dissolved Solids			mg/l	AA	Silver - Total			mg/l
G	Ammonia (N)			mg/l	BB	Sodium - Total			mg/l
H	Sulfide			mg/l	CC	Thallium - Total			mg/l
I	Cyanide	A	<0.05	mg/l	DD	Tin - Total			mg/l
J	Fluoride			mg/l	EE	Titanium - Total			mg/l
K	Aluminum - Total			mg/l	FF *	Zinc - Total	A	.21	mg/l
L	Antimony - Total			mg/l	GG	Oil & Grease (Hexane Extract)			mg/l
M	Arsenic - Total			mg/l	HH	Phenols			mg/l
N	Beryllium - Total			mg/l	II	Surfactants (MBAS)			mg/l
O	Boron - Total			mg/l	JJ *	Chlorinated Hydrocarbons (except pesticides)	A	.58	mg/l
P	Cadmium - Total			mg/l	KK *	Pesticides (Chlor. Hycarb.)	A	<0.005	mg/l
Q	Chromium - Total			mg/l	LL	Radioactivity (Alpha, Beta & Gamma)			pCi/l
R	Cobalt - Total			mg/l	MM *	Temperature	A	90°F	Degrees °F
S	Copper - Total			mg/l	NN	Color			Units
T	Iron - Total			mg/l	OO	Thiosulfate (S)			mg/l
U	Lead - Total			mg/l					

NON-CRITICAL PARAMETERS (Report When Available)					OTHER PARAMETERS (Report When Requested)			
PP	Calcium			mg/l	A1			
QQ	Magnesium			mg/l	A2			
RR	Potassium			mg/l	A3			
SS	Barium			mg/l	A4			
TT	Nitrate			mg/l	A5			
UU	Chloride			mg/l	A6			
VV	Bromide			mg/l	A7			
WW	Sulfate			mg/l	A8			
XX	Phosphorus Ortho			mg/l	A9			

NOTES

1/ Report all critical parameters required by the Sanitation Districts and any other critical parameter known to be present in the wastewater. Those parameters required by the Districts but known to be absent from the wastewater may be reported by placing the word absent in the appropriate space.

2/ If values are obtained by measurements or analyses write A in this column. Analysis values must be determined, using representative 24 hour composite samples, by a State Certified or Districts Approved Laboratory. If values are obtained by estimate, write E in this column. *Estimated values are acceptable for new plants only.*

90019

BIO-TECHNICS LABORATORY INC. 1133 Crenshaw Blvd., Los Angeles

(Print) Name and Address of Laboratory Performing Analyses and Flow Measurements

Montrose Chemical Corp. 2879

(Print) Name of Company Having Wastewater Discharge — SIC Number(s)

20201 S. Normandie Ave., Torrance, California 90502

(Print) Address of Wastewater Discharge

(Print) Additional Location Data (Data above should be for only one discharge point to the sewerage system)

Statement of Accuracy of Data

I hereby affirm that the above data comprise a true and correct representation of the wastewater discharged from the stated discharge point.

Date [illegible] Location Torrance, California

[signature] Plant Manager

Signature Name — Position (Administrative Officer of Company with Wastewater Discharge)

COUNTY SANITATION DISTRICT
OF LOS ANGELES COUNT

1955 Workman Mill Road / Whittier, California
Mailing Address: / P. O. Box 4998, Whittier, California 90607
Telephone (213) 699-7411 / From Los Angeles (213) 685 5217

August 19, 1976

File:05-00.05-00/76-1487

Montrose Chemical Corp. of Calif.
P. O. Box 147
Torrance, CA 90507

Subject: Required Critical Parameter Report(s) Under Industrial Wastewater Discharge Permit No(s) 1487

Dear Sirs:

Your Industrial Wastewater Discharge Permit(s) was approved in the Districts' letter dated June 5, 1974. One of the requirements specified in the approval was the submittal of Critical Parameter (chemical analysis) Reports to the Districts according to the Frequency of Laboratory Analysis Form issued with the Permits(s).

Your latest Critical Parameter Report(s) was received on August 19, 1 The Districts have reviewed this report and found that it is delinquent in the following areas:

☐ The parameters underlined in red must also be analyzed as required on the Frequency of Laboratory Analysis Form issued with your Permit(s).

☐ You are not in compliance with the Districts requirements for the submittal of Critical Parameter Reports. Please submit a Critical Parameter Report on the items specified in your permit approval within 30 days of this letter and according to the required frequency therafter.

☐ The Critical Parameter Report must be signed by a representative of your company.

☒ Other: Please submit Critical Parameter Reports on Di forms only. This is necessary to facilitate compute cessing. Please return the enclosed Critical Parame Report form with the appropriate data and signature.

[illegible] be so [illegible] and returned to the Sanitation [illegible] days of the date of this letter. If you have [illegible] these results [illegible], please call the Districts' [illegible] Waste Section at (213) [illegible], extension 261.

Very truly yours,

John D. Parkhurst
Chief Engineer and
General Manager

By Jay G. Kremer
Jay G. Kremer
Head, Industrial Waste Section

JGK:DEA:ct

Encls.*

MONTROSE CHEMICAL CORPORATION OF CALIFO
POST OFFICE BOX 847
TORRANCE, CALIFORNIA 90507

August 18, 1976

Mr. Jay G. Kremmer
Head, Industrial Waste Section
County Sanitation Districts of Los Angeles
P.O. Box 4998
Whittier, California 90607

Dear Mr. Kremmer:

Please find enclosed our "Critical Parameter Report" for July, 1976 covering analysis of our sewer effluent.

Very truly yours,

John L. Kallok
Plant Manager

JLK:ll

Enclosure

cc: Samuel Rotrosen
Max Sobelman
Guy A. Dimichele

MONTROSE CHEMICAL CORPORATION OF CALIFORNIA
POST OFFICE BOX 147
TORRANCE, CALIFORNIA 90507

May 10, 1976

Mr. Jay G. Kremmer
Head, Industrial Waste Section
County Sanitation Districts of Los Angeles
P.O. Box 4998
Whittier, California 90607

Dear Mr. Kremmer:

Please find enclosed our revised "Critical Parameter Report" for April 1976. As requested, we have transferred the data from our report submitted on May 4, 1976 to the approved Sanitation Districts of Los Angeles County Industrial Wastewater Critical Parameter Report Form.

Very truly yours,

John L. Kallok
Plant Manager

JLK:ll

Enclosure

cc: Samuel Rotrosen
Max Sobelman
Guy A. Dimichele

Chris Martin

SW 1487

SANITATION DISTRICTS OF LOS ANGELES COUNTY
INDUSTRIAL WASTEWATER
CRITICAL PARAMETER REPORT FORM

Ident Code	PARAMETER 1/	2/	QUANTITY VALUES	
A	Flow (Total)		2500	gals/day
B	Flow (Peak)			gals/min.
C	COD			mg/l
D	SS (Suspended Solids)		4	mg/l
E	pH		11.8	Units
F	Total Dissolved Solids			mg/l
G	Ammonia (N)			mg/l
H	Sulfide			mg/l
I	Cyanide		0.04	mg/l
J	Fluoride			mg/l
K	Aluminum - Total			mg/l
L	Antimony - Total			mg/l
M	Arsenic - Total			mg/l
N	Beryllium - Total			mg/l
O	Boron - Total			mg/l
P	Cadmium - Total			mg/l
Q	Chromium - Total			mg/l
R	Cobalt - Total			mg/l
S	Copper - Total			mg/l
T	Iron - Total			mg/l
U	Lead - Total			mg/l

Ident Code	PARAMETER 1/	2/	QUANTITY VALUES	
V	Manganese Total			mg/l
W	Mercury - Total			mg/l
X	Molybdenum Total			mg/l
Y	Nickel - Total			mg/l
Z	Selenium - Total			mg/l
AA	Silver Total			mg/l
BB	Sodium - Total			mg/l
CC	Thallium - Total			mg/l
DD	Tin - Total			mg/l
EE	Titanium - Total			mg/l
FF	Zinc - Total		0.7	mg/l
GG	Oil & Grease (Hexane Extractable)			mg/l
HH	Phenols			mg/l
II	Surfactants (MBAS)			mg/l
JJ	Chlorinated Hydrocarbons (except pesticides)		<0.01	mg/l
KK	Pesticides (Chlor Hydrcb.)		0.09	mg/l
LL	Radioactivity (Alpha, Beta & Gamma)			pCi/l
MM	Temperature		90	Degrees °F
NN	Color			Units
OO	Thiosulfate (S)			mg/l

	NON-CRITICAL PARAMETERS (Report When Available)			
PP	Calcium			mg/l
QQ	Magnesium			mg/l
RR	Potassium			mg/l
SS	Barium			mg/l
TT	Nitrate			mg/l
UU	Chloride			mg/l
VV	Bromide			mg/l
WW	Sulfate			mg/l
XX	Phosphorus-Ortho			mg/l

	OTHER PARAMETERS (Report When Requested)			
A1				
A2				
A3				
A4				
A5				
A6				
A7				
A8				
A9				

NOTES

1/ Report all critical parameters required by the Sanitation Districts and any other critical parameter known to be present in the wastewater. Those parameters required by the Districts but known to be absent from the wastewater may be reported by placing the word absent in the appropriate space.

2/ If values are obtained by measurements or analyses write A in this column. Analyses values must be determined using representative 24 hour composite samples, by a State Certified or Districts Approved Laboratory. If values are obtained by estimate, write E in this column. *Estimated values are acceptable for new plants only.*

Bio-Technics Laboratory Inc.
(Print) Name and Address of Laboratory Performing Analyses and Flow Measurements

Montrose Chemical Corp. of Ca. 2879
(Print) Name of Company Having Wastewater Discharge — BIC Number(s)

20201 S. Normandie Ave., Torrance Ca. 90502
(Print) Address of Wastewater Discharge

(Print) Additional Location Data (Data above should refer only one discharge point to the sewerage system)

Statement of Accuracy of Data

I hereby affirm that the above data comprise a true and correct representation of the wastewater discharged from the stated discharge point.

Date May 11, 1976 Location Torrance, California Calif. Zip 90502

John L Kalbach Plant Manager
Signed — Name — Position (Administrative Officer of Company with Wastewater Discharge)

BOE-C6-0177105

COUNTY SANITATION DISTRICTS
OF LOS ANGELES COUNTY

[illegible] Road / Whittier, California
[illegible] Address: P.O. Box [illegible] Whittier, California 90601
Telephone (213) 699-7411, From Los Angeles (213) 685-5217

JOHN D. PARKHURST
Chief Engineer and General Manager

May 7, 1976

File: 05-00.05-00/75-1487

Montrose Chemical Corp. of Calif.
P.O. Box 147
Torrance, CA 90507

Subject: Required Critical Parameter Report(s) Under Industrial Wastewater Discharge Permit No(s) 1487

Dear Sirs:

Your Industrial Wastewater Discharge Permit(s) was approved in the Districts' letter dated June 5, 1974. One of the requirements specified in the approval was the submittal of Critical Parameter (chemical analysis) Reports to the Districts according to the Frequency of Laboratory Analysis Form issued with the Permit(s).

Your latest Critical Parameter Report(s) was received on May 5, 1976. The Districts have reviewed this report and found that it is delinquent in the following areas:

- [ ] The parameters underlined in red must also be analyzed per the Frequency of Laboratory Analysis Form issued with your permit(s).
- [ ] The chemical analyses were not performed by a State approved laboratory and your company laboratory has not been approved by the Sanitation Districts for performing these tests. The analyses must be redone by a laboratory that is State approved. Enclosed is a list of State approved laboratories in your area. If you desire to obtain Districts' approval for your company laboratory to perform these analyses, please contact Ray Stewart at the Districts' San Jose Creek Water Quality Lab at (213) 699-0405.
- [ ] The Critical Parameter Report must be signed by a representative of your company.
- [x] Other: Please submit Critical Parameter Reports on Districts forms only. This is necessary to facilitate computer processing. Please return the enclosed Critical Parmeter Report Form with the appropriate data and signature.

[illegible] must be completed and returned to the Sanitation Districts within [illegible] days of the date of this letter. If you have any questions regarding these requirements, please call the Districts' Industrial Waste Section at [illegible] 691-[illegible], extension 251.

Very truly yours,

John D. Parkhurst
Chief Engineer and
General Manager

By Jay D. Kremer
Jay D. Kremer
Head, Industrial Waste Section

JDK:DSA:ct

Encls. *

MONTROSE CHEMICAL CORPORATION OF CALIFORNIA
POST OFFICE BOX 147
TORRANCE, CALIFORNIA 90507

May 4, 1976

Mr. Jay G. Kremmer
Head, Industrial Waste Section
County Sanitation Districts of Los Angeles
P.O. Box 4998
Whittier, California 90607

Dear Mr. Kremmer:

Please find enclosed our "Critical Parameter Report" for April, 1976 covering analysis of our sewer effluent.

Very truly yours,

John L. Kallok
Plant Manager

JLK:ll

Enclosure

cc: Samuel Rotrosen
Max Sobelman
Guy A. Dimichele

BOE-C6-0177108

COUNTY SANITATION DISTRICTS
OF LOS ANGELES COUNTY

[illegible] Whittier, California [illegible]
[illegible] From Los Angeles (213) 685-52[illegible]

JOHN D. PARKHURST
Chief Engineer and General Manager

Ruey J. Lai, Ph. D.
Environmental Science & Engineering, Inc.
P. O. Box 13454, University Station
Gainesville, Florida 32604

FILE: 5-00.05-00/76-1487M
DATE: April 23, 1976
Industrial Wastewater
Discharge Permit No 1487

Attention: Dr. Lai

Subject: Reference your letter dated April 12, 1976

Subject Company: Montrose Chemical Corporation of California
Post Office Box 147
Torrance, California 90507

We are transmitting herewith the following:

___ Application for Permit to Discharge Industrial Waste
___ Additional Information Questionnaire
X Critical Parameter Report Form
___ Drawings
___ Report
X Supporting Information
___ Other

___ Surcharge Instructions
___ Permit Instructions
X Additional or Revised Permit Infor.

Following Action:
___ For Necessary Action
___ For Your Approval
___ For Your Comments
X For Our Conversation
___ Other

___ For Your Review & Signature
___ Please Complete & Return
___ Please Complete & Submit to City or to Dept. of County Engineer

Special Remarks:

JDP
JDP:JIM:gkb
cc: Montrose Chemical Corp.
Attn: Mr. Max Sobelman, Vice President
Operations

John D. Parkhurst
Chief Engineer and
General Manager

By Jay B. Kremer
Jay B. Kremer
Head, Industrial Waste
Section

Martin Elias

CHEMICAL CORPORATION OF CALIFORN
TORRANCE, CALIFORNIA 90507

February 13, 1976

Mr. Jay G. Kremmer
Head, Industrial Waste Section
County Sanitation Districts of Los Angeles Co.
P.O. Box 4998
Whittier, California 90607

Dear Mr. Kremmer:

Please find enclosed our "Critical Parameter Report" for January, 1976, covering analysis of our sewer effluent.

Very truly yours,

John L. Kallok
Plant Manager

JLK:ll

Enclosure
cc: Samuel Rotrosen
Max Sobelman

MONTROSE CHEMICAL CORPORATION OF CALIFORNIA
POST OFFICE BOX [illegible]
TORRANCE, CALIFORNIA 90507

November 6, 19[illegible]

Mr. Jay G. Kremmer
Head, Industrial Waste Section
County Sanitation Districts of Los Angeles Co.
P.O. Box 4998
Whittier, California 90607

Dear Mr. Kremmer:

Please find enclosed our "Critical Parameter Report" for September, 1975, covering analysis of our sewer effluent.

Very truly yours,

John L. Kallok
Plant Manager

JLK:ll

cc: Samuel Rotrosen
Max Sobelman

Enclosure

[illegible] JLK/Martin/[illegible]

[illegible] $ 1487
[illegible]
[illegible]
[illegible]
[illegible]

BOE-C6-0177111

STAUFFER CHEMICAL CORPORATION OF CALIFORNIA
POST OFFICE BOX 147
TORRANCE, CALIFORNIA 90507

July 23, 1975

Mr. Jay G. Kremmer
Head, Industrial Waste Section
County Sanitation Districts of Los Angeles Co.
P.O Box 4998
Whittier, California 90607

Dear Mr. Kremmer:

Please find enclosed our "Critical Parameter Report" for June, 1975, covering analysis of our sewer effluent.

Very truly yours,

John L. Kallok
Plant Manager

JLK:la

cc: Samuel Rotrosen
Max Sobelman

Enclosure

MON TROSE CHEMICAL CORPORATION OF CALIFORNIA
POST OFFICE BOX 149
TORRANCE, CALIFORNIA 90507

May 12, 1975

Mr. Jay G. Kremmer
Head, Industrial Waste Section
County Sanitation Districts of Los Angeles Co.
P.O Box 4998
Whittier, California 90607

File: 5-00.05-00/74 — 1487

Dear Mr. Kremmer:

Please find enclosed our "Critical Parameter Report" for March, 1975 covering analysis of our sewer effluent.

Yours very truly,

John L. Kallok
Plant Manager

JLK:la

cc: Samuel Rotrosen
Max Sobelman

Enclosure

COUNTY SANITATION DISTRICTS
OF LOS ANGELES COUNTY

[illegible]

[illegible]

[illegible] Manager

September [illegible], 1974

[illegible]

[illegible] Corp.
[illegible] S. Torrance
[illegible], California 90507

Attention: John L. Kallok

Subject: Industrial Wastewater Discharge Permit No. 1437

Dear Mr. Kallok:

A review of your recently submitted Critical Parameter Report Form and previously approved plans and data, indicates that future requirements for analyses should be revised as shown in the enclosed Required Frequency of Laboratory Analyses Form and Critical Parameter Report Form.

If you have any questions regarding these requirements, please contact the Sanitation Districts' Industrial Waste Section.

Your continued cooperation in this matter is appreciated.

Very truly yours,

[illegible]

[illegible] Industrial Waste Section

[illegible]
[illegible] City of Torrance
[illegible] Torrance Blvd.
Torrance, Ca. 90503
Attn: M. Glen [illegible]

[illegible]

BOE-C6-0177114

[illegible] 9-20-71

[illegible]

[illegible], Calif. [illegible]

[illegible]

[illegible]

[illegible] data shall [illegible] Frequencies to the [illegible] on the [illegible] Report Form:

Parameter	Industrial Wastewater Treatment [illegible] Analyses 1/	Industrial Wastewater Characterization 2/ Analyses
Flow (Total)		1 per 3 months
[illegible]		
[illegible]		
Suspended Solids		1 per 3 months
[illegible]		1 per 2 months
Cyanide		1 per 2 months
[illegible]		1 per [illegible]
[illegible]		1 per [illegible]
[illegible]		1 per [illegible]
[illegible]		1 [illegible]

[illegible] with the industrial [illegible]

[illegible] analysis data [illegible] required [illegible] and July 1; [illegible] data on [illegible] wastewater [illegible] the required [illegible] of [illegible]

SANITATION DISTRICTS OF LOS ANGELES COUNTY
INDUSTRIAL WASTEWATER
CRITICAL PARAMETER REPORT FORM

1487

	PARAMETER	2/ QUANTITY VALUES			PARAMETER	2/ QUANTITY VALUES
	Flow	Gal/Day		V	Mercury - Total	mg/l
	Flow	gal/min		W	Nickel - Total	mg/l
	COD	mg/l		X	Molybdenum - Total	mg/l
	SS (Suspended Solids)	mg/l		Y	Silver - Total	mg/l
	pH	Units		Z	Selenium - Total	mg/l
F	Total Dissolved Solids	mg/l		AA	Zinc - Total	mg/l
G	Ammonia (N)	mg/l		BB	Sodium - Total	mg/l
H	Sulfide	mg/l		CC	Thallium - Total	mg/l
I	Cyanide	mg/l		DD	Tin - Total	mg/l
J	Fluoride	mg/l		EE	Titanium - Total	mg/l
K	Aluminum - Total	mg/l		FF	Zinc - Total	mg/l
L	Antimony - Total	mg/l		GG	Oil & Grease (Petroleum)	mg/l
M	Arsenic - Total	mg/l		HH	Phenols	mg/l
N	Beryllium - Total	mg/l		II	Surfactants (MBAS)	mg/l
O	Boron - Total	mg/l		JJ	Chlorinated Hydrocarbons (except pesticides)	mg/l
P	Cadmium - Total	mg/l		KK	Pesticides (Chlorinated Hydrocarbons)	mg/l
Q	Chromium - Total	mg/l		LL	Radioactivity (Alpha, Beta, Gamma)	pc/l
R	Cobalt - Total	mg/l		MM	Temperature	Degrees °C
S	Copper - Total	mg/l		NN	Color	Units
T	Iron - Total	mg/l		OO	Thiosulfate (S)	mg/l
U	Lead - Total	mg/l				

	NON CRITICAL PARAMETERS (Report When Available)				OTHER PARAMETERS (Report When Requested)	
	Calcium	mg/l		A1		
QQ	Magnesium	mg/l		A2		
RR	Potassium	mg/l		A3		
SS	Barium	mg/l		A4		
TT	Nitrate	mg/l		A5		
UU	Chloride	mg/l		A6		
VV	Bromide	mg/l		A7		
WW	Sulfate	mg/l		A8		
XX	Phosphorus-Ortho	mg/l		A9		
				A10		

NOTES 1/ Report all critical parameters listed by the Sanitation Districts and any other critical parameter known to be in the wastewater. Those parameters required by the Districts shall be reported from the wastewater ... ported by placing the word "Absent" in the appropriate value.

2/ If values are obtained by measurement of an analysis of a representative 24-hour composite sample, the values are obtained by estimate. Values in this column are estimated values or approximations only.

(Print) Name and Address of Laboratory Performing Analyses and Flow Measurements

(Print) Name of Company Having Wastewater Discharge — Sic Number(s)

(Print) Address of Wastewater Discharge

(Print) Name of Person Date ... Statement of Accuracy of Data

I hereby affirm that the above data comprises a true ... wastewater discharged from the station in question.

Date ... California

Original Signature ... Representative with Wastewater Discharge Permit

1487

[illegible] INTERNATIONAL CORPORATION OF CALIFORNIA
[illegible]
TORRANCE, CALIFORNIA 90509

August 1, 1974

Mr. Jay G. Kremmer
Head, Industrial [illegible]
County [illegible] Districts of Los Angeles Co.
P.O. Box [illegible]
Whittier, California 90607

File: 5-00.05-00/74

Dear Mr. Kremmer:

Please find enclosed our "Critical Parameter Report" for July, 1974 covering analysis of our sewer effluent.

Very truly yours,

John L. Kallok
Plant Manager

JLK:la

Enclosure

cc: Samuel Rotroson
Max Sobelman

XXX

COUNTY SANITATION DISTRICTS
OF LOS ANGELES COUNTY

Whittier, California 90601
P.O. Box 4998, Whittier, California 90607
213) 699 7411 / From Los Angeles (213) 685 5217

JOHN D. PARKHURST
Chief Engineer and General Manager

June 5, 1974

File: 5-00.05-00/74

City of Los Angeles
200 N. Spring St.
Room 540
Los Angeles, California 90012

Attention: Mr. Jack M. Betz

Subject: Industrial Wastewater Discharge Permit No. 1487
Montrose Chemical Corp. of Calif.
20201 S. Normandie Ave.
Torrance, Ca. 90507

Dear Mr. Betz:

Enclosed are four (4) approved sets of plans and copies of the approved Industrial Wastewater Discharge Permit for the proposed industrial waste discharge from subject company. Plans consist of:

Critical Parameter Report Form, laboratory analysis, description of waste disposal system, drawings: sewer system and plot plan.

Approval of the plans and permit is contingent upon continuing compliance with applicable Ordinance requirements, /__/ upon corrections shown in red on the drawings, /XX/ upon the following specific requirements:

1. Montrose Chemical Corp. of Calif. is advised that additional wastewater pre-treatment facilities may be required to meet the proposed industrial effluent limits, enclosed.

2. This permit is approved for the discharge of boiler blowdown and water softener backwash water only, through an existing connection to the public sewer. Montrose Chemical Corp. of Calif. is prohibited from discharging any process wastes or other wastewater which may contain chlorinated pesticides' their derivatives, or intermediates in their manufacture. Any violation of this requirement may result in revocation of this permit to discharge to the public sewer or in other penalties prescribed in the Sanitation Districts' Ordinance.

*** 3. Tests for Critical Parameters must be performed and reported to the Sanitation
**** Districts on the enclosed Critical Parameter Report Form at the intervals indicated on the enclosed Required Frequency of Laboratory Analyses Form. Analyses shall be performed by a state certified laboratory or by a company laboratory approved by the Sanitation Districts.

Very truly yours,

John D. Parkhurst
Chief Engineer and
General Manager

By Jay D. Kremer
Jay D. Kremer
Head, Industrial Waste Section

JGK:BSB:se
cc: Montrose Chemical Corp. of Calif.
500 S. Virgil
Los Angeles, Ca. 90005
Attn: John L. Kallok

Encls. *, **, ***, ****

SANITATION DISTRICTS OF LOS ANGELES COUNTY

INDUSTRIAL WASTE SECTION

REQUIRED FREQUENCY OF LABORATORY ANALYSES

Company: Montrose Chemical Corp. of California Date June 5, 1974

Address of Property Producing Wastewater Discharge: 20201 S. Normandie Ave. Torrance, Ca. 90507

Industrial Wastewater Discharge Permit No. 1487

SIC No. 2879

Estimated Annual Wastewater Flow Volume 845,000 gallons

The following test data shall be reported at the indicated frequencies to the Sanitation Districts on the Districts' Critical Parameter Report Form:

Test		Minimum Frequency Required For	
Ident. Code.	Parameter	Industrial Wastewater Treatment Surcharge Statement Analyses 1/	Industrial Wastewater Characterization 2/ Analyses
A	Flow (Total)		1 per 6 months
B	Flow (Peak)		1 per 6 months
C	COD		1 per 6 months
D	Suspended Solids		1 per 6 months
E	pH		1 per 6 months
H	Sulfide		1 per 6 months
I	Cyanide		1 per 6 months
[illegible]	Flouride		1 per 6 months
[illegible]	Arsenic-Total		1 per 6 months
P	Cadmium-Total		1 per 6 months
Q	Chromium-Total		1 per 6 months
S	Copper-Total		1 per 6 months
T	Iron-Total		1 per 6 months
U	Lead-Total		1 per 6 months
V	Manganese-Total		1 per 6 months
W	Mercury-Total		1 per 6 months
[illegible]	Nickel-Total		1 per 6 months
EE	Zinc-Total		1 per 6 months
GG	Oil & Grease		1 per 6 months
HH	Phenols		1 per 6 months
JJ	Chlor. Hydrocarb		1 per 3 months
KK	Pesticides		1 per 3 months
[illegible]	Temperature		1 per 6 months

1/ These analysis data shall be submitted annually with the industrial wastewater treatment surcharge statement.

2/ Industries required to submit only annual characterization analysis data should submit it directly to the Districts on July 1; industries required to submit data every 6 months should submit data on January 1 and July 1; industries required to submit data every 3 months should submit data on January 1, April 1, July 1, and October 1. Required industrial wastewater characterization analysis data not received within 45 days of the required date will be considered delinquent and a possible cause for revocation of the Industrial Wastewater Discharge Permit.

SANITATION DISTRICTS OF LOS ANGELES COUNTY
INDUSTRIAL WASTEWATER
CRITICAL PARAMETER REPORT FORM

Ident Code	PARAMETER 1/	2/	QUANTITY VALUES	Ident Code	PARAMETER 1/	2/	QUANTITY VALUES
A	Flow (Total)		gal/day	V	Manganese Total		mg/l
B	Flow (Peak)		gal/min	W	Mercury Total		mg/l
C	COD		mg/l	X	Molybdenum Total		mg/l
D	SS (Suspended Solids)		mg/l	Y	Nickel Total		mg/l
E	pH		Units	Z	Selenium Total		mg/l
F	Total Dissolved Solids		mg/l	AA	Silver Total		mg/l
G	Ammonia (N)		mg/l	BB	Sodium Total		mg/l
H	Sulfide		mg/l	CC	Thallium Total		mg/l
I	Cyanide		mg/l	DD	Tin Total		mg/l
J	Fluoride		mg/l	EE	Titanium Total		mg/l
K	Aluminum Total		mg/l	FF	Zinc Total		mg/l
L	Antimony - Total		mg/l	GG	Oil & Grease (Hexane Extract)		mg/l
M	Arsenic - Total		mg/l	HH	Phenols		mg/l
N	Beryllium Total		mg/l	II	Surfactants (MBAS)		mg/l
O	Boron - Total		mg/l	JJ	Chlorinated Hydrocarbons (except pesticides)		mg/l
P	Cadmium Total		mg/l	KK	Pesticides (Chlorinated Hydrocarbons)		mg/l
Q	Chromium - Total		mg/l	LL	Radioactivity (Alpha, Beta & Gamma)		pCi/l
R	Cobalt Total		mg/l	MM	Temperature		Degrees °F
S	Copper - Total		mg/l	NN	Color		Units
T	Iron - Total		mg/l	OO	Thiosulfate (S)		mg/l
U	Lead - Total		mg/l				

NON CRITICAL PARAMETERS (Report When Available)				OTHER PARAMETERS (Report When Requested)			
PP	Calcium		mg/l	A1			
QQ	Magnesium		mg/l	A2			
RR	Potassium		mg/l	A3			
SS	Barium		mg/l	A4			
TT	Nitrate		mg/l	A5			
UU	Chloride		mg/l	A6			
VV	Bromide		mg/l	A7			
WW	Sulfate		mg/l	A8			
XX	Phosphorus Ortho		mg/l	A9			

NOTES 1/ Report all critical parameters required by the Sanitation Districts and any other critical parameter known to be present in the wastewater. Those parameters required by the Districts but known to be absent from the wastewater may be reported by placing the word absent in the appropriate space.

2/ If values are obtained by measurements or analyses write A in this column. Analysis values must be determined using representative 24 hour composite samples by a State Certified or Districts Approved Laboratory. If values are obtained by estimate write E in this column. *Estimated values are acceptable for new plants only.*

(Print) Name and Address of Laboratory Performing Analyses and Flow Measurements

(Print) Name of Company Having Wastewater Discharge: MONTROSE CHEMICAL CORP OF CALIF — 2829 (SIC Number(s))

(Print) Address of Wastewater Discharge: 20201 S. NORMANDIE A., TORRANCE, CA 90501

(Print) Additional Location Data (Data above should be for only one discharge point to the sewerage system)

Statement of Accuracy of Data

I hereby affirm that the above data contains a true and correct representation of the wastewater discharged from the stated discharge point.

Date _____ Location _____ California _____

(Signed) Name _____ Position (Administrative Officer of Company with Wastewater Discharge)

Inc No 23 7 1

SANITATION DISTRICTS OF LOS ANGELES COUNTY
INDUSTRIAL WASTEWATER
CRITICAL PARAMETER REPORT FORM

Item	PARAMETER 1/	2/	QUANTITY VALUES	Item	PARAMETER 1/	2/	QUANTITY VALUES
A	Flow (Total)		2700 gal/day	V	Mercury - Total		<0.005 mg/l
B	Flow (Peak)		[illegible] gal/min	W	Nickel - Total		0.0005 mg/l
C	COD		401 mg/l	X	Molybdenum - Total		– mg/l
D	SS (Suspended Solids)		1500 mg/l	Y	Boron - Total		– mg/l
E	pH		11.4 Units	Z	Selenium - Total		– mg/l
F	Total Dissolved Solids		– mg/l	AA	Silver - Total		– mg/l
G	Ammonia (N)		– mg/l	BB	Sodium - Total		– mg/l
H	Sulfide		<0.005 mg/l	CC	Thallium - Total		– mg/l
I	Cyanide		6.0 mg/l	DD	Tin - Total		– mg/l
J	Fluoride		3.0 mg/l	EE	Titanium - Total		– mg/l
K	Aluminum - Total		– mg/l	FF	Zinc - Total		32 mg/l
L	Antimony - Total		– mg/l	GG	Oil & Grease (Freon Extract)		– mg/l
M	Arsenic - Total		– mg/l	HH	Phenols		0.53 mg/l
N	Beryllium - Total		– mg/l	II	Surfactants (MBAS)		– mg/l
O	Boron - Total		– mg/l	JJ	Chlorinated Hydrocarbons (except pesticides)		<0.0005 mg/l
P	Cadmium - Total		<0.005 mg/l	KK	Pesticides (Chlorinated Hydrocarbons)		– mg/l
Q	Chromium - Total		<0.005 mg/l	LL	Radioactivity (Alpha, Beta, Gamma)		– pCi/l
R	Cobalt - Total		<0.005 mg/l	MM	Temperature		101.5 Degrees °F
S	Copper - Total		0.05 mg/l	NN	Color		– Units
T	Iron - Total		11 mg/l	OO	Thiosulfate (S)		– mg/l
U	Lead - Total		<0.05 mg/l				

NON-CRITICAL PARAMETERS (Requirements Available)				OTHER PARAMETERS (Requirements Requested)		
FF	Calcium		mg/l	AA		
GG	Magnesium		mg/l	BB		
HH	Potassium		mg/l	CC		
JJ	Barium		mg/l	DD		
KK	Nitrate			EE		
LL	Chloride		mg/l	FF		
MM	Bromide		mg/l	GG		
NN	Sulfate		mg/l	HH		
OO	Phosphate Ortho		mg/l	II		

1 Report the critical parameters listed by the [illegible] that may be present in the wastewater. Those parameters requested by the Districts [illegible] that may be present in the wastewater may be reported by placing the word Unknown in the appropriate space.

2 Have all the analytical measurements of the [illegible] been made by a State Department of Public Health Laboratory? If values were obtained from representative 24 hour composite samples by a State Department of Public Health Laboratory, [illegible] values were obtained by estimate, write E in this column. Estimates are not [illegible] and units.

(Print) Name and Address of Laboratory Performing [illegible]

(Print) Name and Address of Sampling [illegible]

(Print) Address of Wastewater Discharge

(Print) [illegible]

Statement of Accuracy of Data

I [illegible] that the information contained in this report is true and correct to the best of my knowledge and belief.

Date [illegible] Location [illegible] Company [illegible]

[illegible] Plant Manager

Signature of Responsible Person

BOE-C6-0177122

EXISTING INDUSTRY

PERMIT FOR INDUSTRIAL WASTEWATER DISCHARGE
SANITATION DISTRICTS OF LOS ANGELES COUNTY
2020 Beverly Blvd., Los Angeles, Calif. 90057
John D. Parkhurst, Chief Engineer and General Manager

PERMIT NO. 1487

Torrance, Calif.* 3 / 29 / 74 (MO DAY YR.)

Montrose Chemical Corporation of California (PRINT) (FIRM NAME)

500 S. Virgil (STREET) Los Angeles, California 90005 (CITY) (STATE) (ZIP)

Tenant (OWNER, TENANT, ETC.) of the property located at:

20201 S. Normandie Ave. (City) Torrance, California (Zip) 90507
(ADDRESS OF PROPERTY PRODUCING WASTEWATER DISCHARGE)

Map Book No.* 7351 Page No.* 003 Parcel No.* 010-0012
(LEGAL ADDRESS OF PROPERTY PRODUCING WASTEWATER DISCHARGE)

20201 S. Normandie Torrance, California
(LOCATION OF POINT OF WASTEWATER DISCHARGE TO SEWERAGE SYSTEM)

Industrial Wastewater Discharge to the sewerage system

Industry* See attached sheet (GENERAL DESCRIPTION) M.I.* 2879 (FEDERAL SIC NOS.)

Employees (Full Time)* 163 (Part Time)* none

Materials Used* Chloral, Monochlorbenzene, oleum, caustic soda
(GENERAL DESCRIPTION - ADD ADDITIONAL SHEETS AS NEEDED)

Products Produced DDT
(GENERAL DESCRIPTION - ADD ADDITIONAL SHEETS AS NEEDED)

Wastewater Producing Operations All industrial wastes are hauled by contractor to a Class 1 landfill. Boiler blowdown, water softener backwash and sanitary sewage from bathrooms are discharged to sewer.
(GENERAL DESCRIPTION - ADD ADDITIONAL SHEETS AS NEEDED)

Time of Discharge - * 8:30 A.M. to 8:50 A.M. 4:40 AM to 4:50 AM 12:30 A.M. to 12:50 A.M. Days per Week* M T W Th F Sa Su (CIRCLE DAYS)

Wastewater Flow Rate* 2700 AA (Gallons Per Day)

Constituents of Wastewater Discharge Steam boiler blowdown is alkaline with high dissolved solids, softener backwash contain sodium & calcium chlorides.
(GENERAL DESCRIPTION - ATTACH CHEMICAL ANALYSES RESULTS TO THIS APPLICATION)

Company responsible for industrial wastewater discharge:

John L. Kallok (NAME) Plant Manager (POSITION) 328-~~6469~~ 5462 (TELEPHONE NUMBER)

The information furnished is true and correct and that the applicant will comply with the conditions stated on the back of this permit form.

3/29, 1974

Signature of Applicant John L. Kallok (NAME) Plant Manager (POSITION)

Approved by City or County Official
April 2, 1974 No city permit connection to LACSD
County Engineers ☐
Los Angeles ☑
Sanitary Engineer

Approved by Sanitation Districts of Los Angeles County
Date June 5, 1974
John D. Parkhurst, Chief Engineer and General Manager
by L. D. Rose
Position Indust. Waste Eng'r.

Permit may be required by the local City or County Agency.
Permit when properly signed shall be a valid permit unless suspended or revoked.

RETURN THIS COPY TO APPLICANT WHEN APPROVED

BOE-C6-0177123

[illegible] CSD NO. 05 TREATMENT PLANT J.W.P.C.P.

FORM APPROVED
OMB No. 158-R0100

FOR AGENCY USE

STANDARD FORM A—MUNICIPAL

SECTION IV. INDUSTRIAL WASTE CONTRIBUTION TO MUNICIPAL SYSTEM

Submit a description of each major industrial facility discharging to the municipal system, using a separate Section IV for each facility description. Indicate the 4 digit Standard Industrial Classification (SIC) Code for the industry, the major product or raw material, the flow (in thousand gallons per day), and the characteristics of the wastewater discharged from the industrial facility into the municipal system. Consult Table III for standard measures of products or raw materials. (see instructions)

1. Major Contributing Facility (see instructions)

Name	401a	Montrose Chemical Corp. of Calif.
Number & Street	401b	20201 S. Normandie Avenue
City	401c	~~Los Angeles~~ Torrance
County	401d	Los Angeles
State	401e	California
Zip Code	401f	90507

2. Primary Standard Industrial Classification Code (see instructions) 402 2879.

3. Principal Product or Raw Material (see instructions)

				Quantity		Units (See Table III)
Product	403a	DDT	403c	180,000	403e	lb/day
Raw Material	403b	Monochlorbenzene,	403d	140,000	403f	lb/day
		Chloral Oleum Caustic Soda		202,000		lb/day

4. Flow Indicate the volume of water discharged into the municipal system in thousand gallons per day and whether this discharge is intermittent or continuous.
   - 404a 3 thousand gallons per day
   - 404b [X] Intermittent (int) [ ] Continuous (con)

5. Pretreatment Provided Indicate if pretreatment is provided prior to entering the municipal system 405 [ ] Yes [X] No

6. Characteristics of Wastewater (see instructions)

	Parameter Name	COD	SS	Cyanide	Zinc Total			
406a	Parameter Number	00340	00530	00720	01092			
406b	Value	401	1500	[illegible].0	32			

This section contains 1 page.

U.S.A. Form 7512-22 (7-72)

BOE-C6-0177124

PLAN EVALUATION FORM

	SIC NO.	CSD	SEWER NO.	DATE RECEIVED	THOS. M
	1 7 4	5			5 S E

AGENCY

[illegible] CITY [illegible] ANGELES

COMPANY AND LOCATION

CONTROSE CHEM CO OF CALIF
[illegible] S NORMANDIE AVE
[illegible] CA 90507
7351 003 010

CONTACT

[illegible] KALLOCK

PHONE NO.

(213) 328-6969

DESCRIPTION OF FACILITY

CHEMICAL PROCESSOR

DATE	TO	STATUS/REMARKS	INITIAL
7/74	BSB	FOR REVIEW / CLASS 2 - CRITICAL MASTER FILE - OK SURCHARGE LIST - OK INSPECTION REPORT - [illegible]	
16/74		CPRF. Analysis Follow-up by BSB on DEC 9, 1974	DEA

TRANSMITTAL DATE

FOLLOW-UP DATE

Please
[illegible]
with inspectors file
[illegible] May 31, 1974

0.003 MGD X 8.34 X 0.234
~~= 0.00 58~~
= 0.006 lbs/day

COUNTY SANITATION DISTRICTS OF LOS ANGELES

ANALYTICAL REQUEST FORM

[illegible]

DATE 5-30-74

SAMPLE IDENTIFICATION				TESTS						NOTES or COMMENTS
NAME OF PLANT or LOCATION	TYPE	DATE	JOB NO.	pH	[illegible]	[illegible]	TICH	[illegible]	[illegible]	
[illegible] Chem.	Tel	5-8-74	[illegible] 1620	9.65	380	4.53	0.234			
[illegible] Plating	"	5-24-74	[illegible] 1786	9.40				10.4	76.0	
[illegible] Vest	"	"	[illegible] 1787	10.5				2.6	31.2	
[illegible] Plating	"	"	[illegible] 1789	9.0				22.8	28.8	
[illegible] Precision	"	"	[illegible] 1790	10.1				10.8	184	

[illegible] - BIO-TECHNICS LABORATORIES, INC.

Test Report No. 1-5-1019
Date Received: 6/19/74
Date Initiated: 6/22/74
Date Completed: 7/5/74
P.O. Number 186-9332

[illegible]

[illegible] One (1) gallon wastewater, 24 hour sewer composite taken 8:00 A.M. 6/18/74 to 8:00 A.M. 6/19/74 by Montrose Chemical personnel.

[illegible] [illegible]

Reference: Standard Methods for the Examination of Water and Wastewater, 13th Edition, 1971.

Results:

Analyte	BT Procedure No.	Parts per Million (mg/l)
1. Flow (total)	-	2700 gals/day
2. Flow (peak)	-	50 gals/min.
3. COD	5-1-046-70	551
4. Suspended Solids	5-1-031-69	1300
5. pH	5-1-036-69	12.3
6. Sulfide	5-1-078-71	< 0.005
7. Cyanide	5-1-072-71	4.50
8. Fluoride	5-1-016-69	0.26
9. Arsenic (total)	5-1-043-70	< 0.01
10. Cadmium (total)	5-1-059-70	< 0.005
11. Chromium (total)	5-1-011-69	< 0.005
12. Copper (total)	5-1-054-71	< 0.005
13. Iron (total)	5-1-019-69	2.4
14. Lead (total)	5-1-057-70	< 0.005
15. Manganese (total)	5-1-036-70	< 0.01
16. Mercury	5-1-060-70	0.004
17. Nickel	5-1-071-70	< 0.05
18. Zinc (total)	5-1-063-70	13.0
19. Oil & Grease	5-1-023-70	17.5
20. Phenols	5-1-025-69	0.25
21. Chlorinated Hydrocarbons	5-1-010-73	< 0.005
22. Pesticides	5-4-002-71	< 0.005
23. Temperature	-	95°F

Examination by: [signature]
Chian-Shan I, M.S., Chemist

Approved by: [signature]
R.T. Lottritz, B.S., Chief Chemist 7/31/74

[illegible]

[illegible] Laboratories, Inc. 1133 Crenshaw Boulevard · Los Angeles, California 90019 Phone [illegible] · Cable Address: BITEC

BOE-C6-0177127

MONTROSE CHEMICAL CORPORATION OF CALIFORNIA

LOS ANGELES, CALIFORNIA 90005

February 7, 1978

PLEASE REPLY TO
P.O. BOX 147
TORRANCE, CA 90507

Mr. Jay G. Kremer
Head Industrial Waste Section
County Sanitation Districts of
Los Angeles County
1955 Workman Mill Road
Whittier, California

Re: File No. 05-00.05-00/78-1487

Dear Mr. Kremer:

It was brought to our attention that our Critical Parameter report dated January 9, 1978 was incomplete because the analysis of total Zinc was omitted from the report. In checking, it was found that the Bio-Technics Laboratory, who normally analyze and report the critical parameters of our waste water inadevertently neglected to run a total Zinc on this sample before discarding it. Since this was an honest error, we ask to be excused from reporting the value of this parameter because we have no means of rectifying this error.

We notice that we have been submitting Critical Parameter Reports on a quarterly basis for three and one-half years and the total flow and source of our waste water discharge has not changed significantly during this period. Therefore, we wonder if it is still necessary to continue to submit reports on a quarterly basis and to report the parameter values on total Cyanide and total Zinc considering that our sewered waste water will continue to consist of sanitary wastes, boiler blowdown water and the water used to regenerate our water softeners? All other waste water including our process waste liquor is collected and is hauled away to a Class I sanitary landfill. Therefore, if possible we appeal to the District to change the frequency of reporting from quarterly to annually and to eliminate the requirements of reporting total Cyanide, total

Zinc and any other parameters that are no longer critical or relevant in meeting the requirements of our Industrial Waste Water Discharge Permit.

Thank you for your consideration in this matter.

Yours very truly,

John L. Kallok

John L. Kallok
Plant Manager

JLK:ll

COUNTY SANITATION DISTRICTS
OF LOS ANGELES COUNTY

[illegible] / Whittier, California
[illegible] P. O. Box 4998, Whittier, California 90607
[illegible] / From Los Angeles, [illegible] 5217

JOHN D. PARKHURST
Chief Engineer and General Manager

January 25, 1978

Montrose Chemical Corp. of California
P. O. Box 147
Torrance, CA 90507

File: 05-00.05-00/78-1487

Attention: John L. Kallok

Subject: Required Critical Parameter Report Under Industrial Wastewater Discharge Permit No. 1487

Dear Mr. Kallok:

Your Industrial Wastewater Discharge Permit was approved in the Districts' letter dated June 5, 1974. One of the requirements specified in the approval was the submittal of Critical Parameter (chemical analysis) Reports to the Districts according to the Frequency of Laboratory Analysis Form issued with the Permit.

Your latest Critical Parameter Report was received on January 11, 1978. The Districts have reviewed this report and found that it is delinquent in the following areas:

☐ The analyses submitted by your company indicate that it is in violation of the Sanitation Districts' Phase I effluent limits, copy attached. Corrective actions must be taken to reduce the discharge of the parameters underlined in red on the attached copy of your report. A detailed description, and plans if necessary, of the required corrective actions must be submitted to the Sanitation Districts. Any proposed significant pretreatment system modifications must be approved by the Sanitation Districts prior to construction. Compliance with this requirement is necessary to ensure continued use of the public sewerage system for industrial wastewater discharge.

☒ The parameters underlined in red must also be reported as required on the Frequency of Laboratory Analysis Form issued with your Permit.

☐ You are not in compliance with the Districts requirements for the submittal of Critical Parameter Reports. Please submit a Critical Parameter Report on the items specified in your permit approval within 30 days of this letter and according to the required frequency thereafter.

☐ The Critical Parameter Report must be signed by a representative of your company.

☐ Other:

The above items must be completed and returned to the Sanitation Districts within 30 days of the date of this letter. If you have any questions regarding these requirements, please call the Districts' Industrial Waste Section at (213) 699-7411 or (213) 685-5217, extension 261.

Very truly yours,

John D. Parkhurst
Chief Engineer and
General Manager

By Jay G. Kremer
Jay G. Kremer
Head, Industrial Waste Section

JGK:FEJ:lc:ct

Encls. *

NOTE: You are reminded that the critical parameters are to be determined and the report forms submitted to the Districts according to the following schedule:

1. Annual analysis -- July 1
2. Semi-annual analysis -- January 1, July 1
3. Quarterly analysis -- January 1, April 1, July 1, October 1

MONTROSE CHEMICAL CORPORATION OF CALIFORNIA

LOS ANGELES, CALIFORNIA 90008

January 9, 1978

PLEASE REPLY TO
P.O. BOX 147
TORRANCE, CA. 90507

Mr. Jay G. Kremmer
Head, Industrial Waste Section
County Sanitation Districts of Los Angeles
P.O. Box 4998
Whittier, California 90607

Dear Mr. Kremmer:

Please find enclosed our "Critical Parameter Report" for October, 1977 covering analysis of our sewer effluent.

Yours very truly,

John L. Kallok
Plant Manager

JLK:ll

Enclosure

cc: Samuel Rotrosen
Max Sobelman
Guy A. Dimichele

TABLE 1

Summary of DDT Data Reported by Montrose Chemical Corporation of its Wastewater Discharge (I.W. #1487) and Summary of Districts' Monitoring Data of Raw Sewage at the JWPCP

Month	Montrose Chemical Corporation's Data Reported In CPRs			Average DDT Received at JWPCP In Raw Sewage
	Flow	Total DDT Concentration	Total DDT Emission	
	gpd	µg/l	mg/day	gm/day
Apr. 1974	2700	< .5	< 5.1	2,300
July 1974	2700	< 5.	< 51.	7,600
Jan. 1975	2400	< 5.	< 45.	2,700
Mar. 1975	2400	8.	73.	1,900
June 1975	2480	< .5	< 4.7	3,700
Sept. 1975	2400	40.	363.	1,800
Jan. 1976	2480	<10.	< 94.	1,500
Apr. 1976	2500	90.	852.	2,000
July 1976	2400	< 5.	< 45.	8,200
Oct. 1976	2400	<10.	< 91.	2,200
Jan. 1977	2400	96.	872.	2,200
Apr. 1977	2400	< 5.	< 45.	2,400
July 1977	2400	< 5.	< 45.	2,200
Oct. 1977	2400	< 5.	< 45.	3,300
Jan. 1978	2400	< 2.	< 18.	2,200
Apr. 1978	2400	<20.	<182.	2,100
June 1978	2400	< 2.	< 18.	4,000
Sept. 1978	2400	< 2.	< 18.	3,200
Jan. 1979	2400	< 2.	< 18.	2,500
Apr. 1979	2400	< 2.	< 18.	2,400
July 1979	2400	< 2.	< 18.	2,900
Average	2441	<15.	<139.	3,000

Note: Data from Montrose Chemical are from one 24-hour composite taken during the listed month, actual date of sampling not identified; Districts' data are average of weekly composites for the entire corresponding month.

TABLE 2

Results of Sampling in Private Sewer Manhole Downstream of Montrose Chemical Corporation's Industrial and Sanitary Waste Discharges

Parameters	Sample Date					Average of Five Samples
	July 10, 1979	July 11, 1979	July 12, 1979	Aug. 14, 1979	Aug. 15, 1979	
Concentrations - µg/l						
op' - DDE	1.76	0.80	0.77	7.96	1.41	2.54
pp' - DDE	4.00	4.94	4.46	32.7	6.43	10.51
op' - DDD	2.70	3.48	3.35	15.7	1.85	5.42
pp' - DDD	8.58	11.3	10.9	51.5	5.33	17.52
op' - DDT	1.85	2.55	0.30	22.0	4.84	6.31
pp' - DDT	19.3	24.5	7.44	150.	23.6	44.97
Total of Above as DDT	38.2	47.6	27.2	280.	43.5	87.30
Composition Percentages - %						
DDE	16	12	19	15	18	15
DDD	30	31	52	24	16	26
DDT	54	57	29	16	66	59

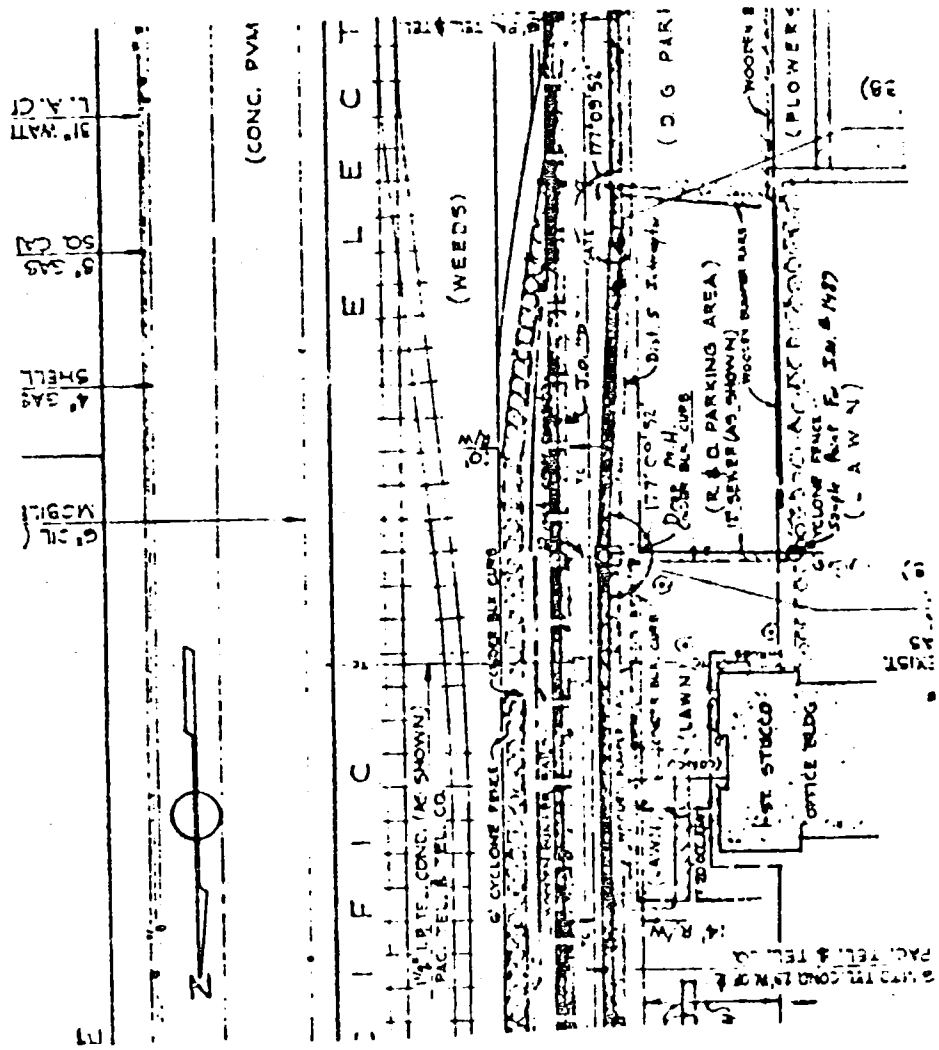
BOE-C6-0177134

TABLE 3

Results of Sampling Montrose Chemical Corporation's
Industrial Waste Discharge
I.W. #1487

Parameters	Sample Dates		Average of Two Samples
	Aug. 14, 1979	Aug. 15, 1979	
Concentrations - µg/l			
op' - DDE	.85	.63	.74
pp' - DDE	5.26	2.86	4.06
op' - DDD	1.30	.76	1.03
pp' - DDD	3.02	1.84	2.43
op' - DDT	5.96	4.05	5.01
pp' - DDT	49.4	33.2	41.30
Total of Above as DDT	65.8	43.3	54.55
Composition Percentages - %			
DDE	9	8	9
DDD	7	6	6
DDT	84	86	85

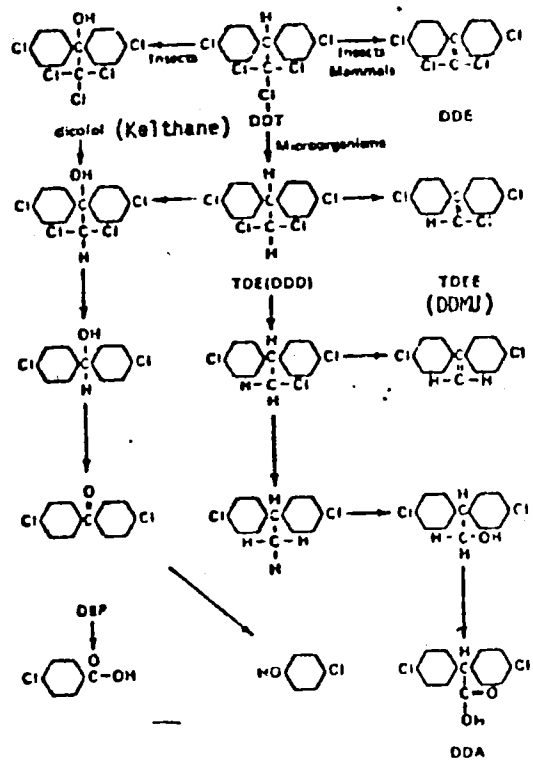
FIGURE 1



(CONC. PVM
(WEEDS)
(D G PAR
(PLOWERS
(R & D PARKING AREA)
(LAWN)
OFFICE BLDG

FIGURE 2

The metabolism of DDT by microorganisms. The metabolites DDE, TDE, TDEE, and DDA are all quite recalcitrant and accumulate in higher organisms. (After F. Matsumura and G. M. Boush in *Soil Biochemistry*, by A. D. McLaren and J. Skujins, Vol. 2, Marcel Dekker, Inc., N. Y., 1972.)



Kremer

1977

DDT Plant Counters U.S. Ban With Worldwide Sales

BY JERRY RUBLOW
Times Staff Writer

More than half the world output of the pesticide DDT is being produced at a Centinela-South Bay area plant, the only facility in the United States that still manufactures the controversial chemical.

The use of DDT has been prohibited in the United States since 1972, but the law does not prevent its manufacture for export, and Montrose Chemical Corp. sales reflect a steady world demand for the product.

According to John L. Kallok, manager of the plant at 20201 Normandie Ave., in the strip of Los Angeles city land that connects the harbor with the downtown area, the greatest demand is for mosquito abatement in tropical countries.

Although production figures are confidential, Kallok said his company manufactures more than half of what is used worldwide, despite competition from producers in Spain, France, Italy, Mexico and Brazil.

Indonesia, India, Africa and other tropical countries are the major users, and consider the product, because of its low cost and ease of application, essential in controlling malaria mosquitos and other disease-causing pests, Kallok said.

Montrose Chemical Corp. is an affiliate of Stauffer Chemical Co., a national corporation with headquarters in Connecticut. The Centinela-South Bay plant has about 150 employes, and has been in operation since 1947, when Kallok, 58, first joined the company as a chemical engineer.

At one time, Kallok said, there were more than 30 DDT plants in the United States but the number had dwindled to less than 10 by 1972 when the government forbade use of the pesticide except in special circumstances.

It was charged that DDT had a serious effect on the ecological balance, with its residue found in birds and fish. Ingestion of the pesticide by birds was believed to cause the shells of their eggs to be more fragile, leading to a decline in the population of some species.

And certain pests were found to be developing a tolerance of the chemical, which, it was feared, would make them harder to control.

The last major DDT application in the United States, Kallok said, was in 1974 when his firm delivered 500,000 pounds to the Pacific Northwest to combat the Tussock Moth which was devasting timberlands in Washington, Oregon and Idaho.

As recently as last summer, however, 500 pounds were used in California when there was a bubonic plague scare in some of the wilderness areas of the state, he added.

Please Turn to Page 5

Los Angeles Times
Centinela South Bay
PART XII
SUNDAY, NOVEMBER 11, 1979

BOE-C6-0177138

Kremer

1479

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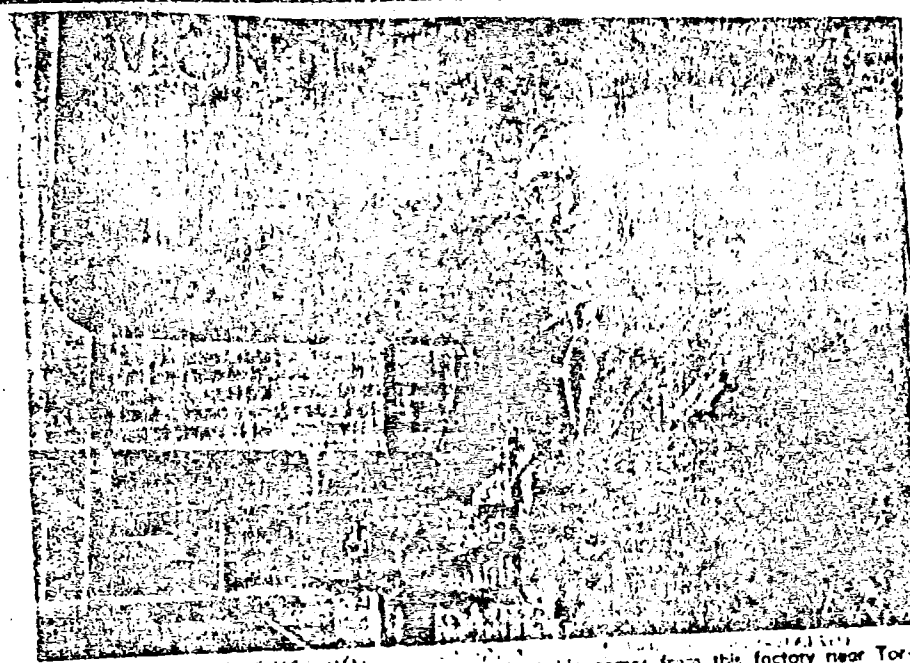
Please Turn to Page 3

Los Angeles Times
Centinela South Bay
B PART XII
SUNDAY, NOVEMBER 11, 1979

BOE-C6-0177139



PESTICIDE POWER—Montrose Chemical Corp. is the last U.S. firm producing controversial DDT. John L. Kallok, plant manager, reports that more than half the world's supply of the pesticide comes from this factory near Torrance. The firm sought worldwide markets in anticipation of this country's 1972 ban on DDT. Most is shipped to countries in tropical zones.

Times photo by Harry Chase

PRODUCER OF DDT

Continued from First Page

According to Kallok, Montrose Chemical Corp. began to more actively seek foreign markets in 1964, in a move that paid off when domestic use of the product was prohibited.

Prior to the ban in 1972, he said, the company had a "good position" in the United States, furnishing large quantities of the chemical to cotton growers and farmers.

Current production is little more than half of what it was before the ban, Kallok said.

He said that the ban was inspired primarily by political considerations, and that DDT does far more good than it does harm.

"It saves lives," Kallok said. "That is a well established fact, while there have never been any substantial studies that prove it is harmful."

He said that the federal hearings that led to its being banned took nearly nine months and involved testimony from 125 scientists.

"Following those hearings, the judge said DDT should not be banned, but he was overruled by William Ruckelshaus, then administrator of the U.S. Environmental Protection Agency," Kallok said.

The plant is subjected to intensive controls and inspection by a number of environmental agencies, and has established a number of modern procedures including a unique water collection system that allows the company to recycle water used in manufacturing without discharging large amounts into the sewage system.

BOE-C6-0177140

CERTIFICATION OF ANALYSIS

Montrose Chemical Corporation
of California
P.O. Box 147
Torrance, California 90507

Attn: Guy A. Dimchele

Test Report No.: 3-03650
Date Received: 1-03-80
Date Initiated: 2-08-80
Date Completed: 2-29-80
P.O. No.: 1487

Sample Description: One (1) bottle of Sewer Water, taken on 1-3-80.

Type of Examination: CHEMICAL ANALYSES

Reference: According to Standard Methods for the Examination of Water and Wastewater, 14th Edition (1975).

Sample Preparation: The sample was prepared according to procedure.

Results:

Analyte	BTP No.	Parts Per Million Result
Solids, Suspended	5-1-031-77	3744
pH	5-1-026-77	12.72
Cyanide	5-1-121-79	0.07
Zinc	5-1-063-73	0.62
Chlorinated Hydrocarbons	5-4-010-73	8.9
Pesticides, Chlorinated	5-4-002-77	< .005

Examination by: Daniel Middleton / [illegible]
Daniel L. Middleton, B.S., Chemist

Approved by: [illegible]
2-29-80 Robert T. Lottritz, B.S.
Vice President of Operations

ce
The conclusions and data herein apply only to the items tested and are not indicative of the quality or condition of apparently identical or similar products. This report is submitted for the exclusive use of the addressee. No use or mention of our name or the name of any member of our staff may be made in connection with any form of advertising or other public announcement without written authorization by an officer of BIO-TECHNICS LABORATORIES INC

BOE-C6-0177141

Montrose Chemical Corporation
of California
Box 147
Torrance, California 90507

Test Report No: 3-03234
Date Received: 10-4-79
Date Initiated: 10-5-79
Date Completed: 10-19-79

Attn: Guy A. Dimchele

Type of Examination: CHEMICAL ASSAYS

Specimen Description: One (1) bottle of sewer water sample.

Reference: Standard Methods for the Examination of Water and Wastewater, 14th Edition (1975).

Results:

Analyte	BTP No.	Parts per Million
Suspended solids	5-1-031-77	408
pH	5-1-026-77	7.2
Cyanide	5-1-121-79	<0.05
Zinc	5-1-063-75	0.24
Chlorinated Hydrocarbon	5-4-010-73	<0.002
Pesticides	5-1-002-77	<0.002
Temperature		90°F

Examination by: Gregory Geib, B.S., Chemist

Approved by: Bong Ja Lee, M.S., Chemist
Chemistry Team Leader
10-30-79

ct

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[illegible] Chemical [illegible] Calif.
[illegible] Hermanie Ave
[illegible], Calif 90[illegible]7

Test Report No. 1-[illegible]-3625
Date Received: 1/7/76
Date Initiated: 1/12/76
Date Completed: 1/27/76

[illegible] Di Michelle

Specimen Description: Two (2) half-gallon amber glass bottles with gummed Montrose labels each reading "January 7, 1976, 0830, Sewer Sample."

Type of Examination: CHEMICAL ASSAYS

Reference: Standard Methods for the Examination of Water and Wastewater, 13th Edition, 1971.

Results:

Analyte	BT Procedure No.	Parts per million (mg/l)
Flow (Total)	-	2480 gal/day
Suspended Solids	5-1-031-71	120
pH	5-1-026-71	11.6
Cyanide	5-1-072-71	<0.001
Zinc	5-1-063-75	0.5
Chlorinated Hydrocarbons	5-4-010-73	< 0.008
Pesticides	5-4-002-71	< 0.01
Temperature (°F)	-	91

Examination by: Daniel T. Earl
Daniel T. Earl, B.S., Chemist

Approved by: Bong Ja Lee, for RTZ
Bong Ja Lee, M.S., Chemist 2/2/76
Chemistry Team Leader

The conclusions and data herein apply only to the items tested and are not indicative of the quality or condition of apparently identical or similar products. This report is submitted for the exclusive use of the addressee. No use or mention of our name or the name of any member of our staff may be made in connection with any form of advertising or other public announcement without written authorization by an officer of BIO TECHNICS LABORATORIES, INC.

Bio Technics Laboratories, Inc. · 1133 Crenshaw Boulevard · Los Angeles, California 90019 Phone 933 6991 Cable Address BITEC

[illegible] Corporation
[illegible]
[illegible], [illegible] 90507

Test Report No. 1-5-6239
Date Received: 3-31-76
Date Initiated: 3-31-76
Date Completed: 4-19-76

[illegible] Mr. [illegible] Carichel

Specimen Description: One (1) amber glass bottle, filled with water sample, labeled: Sewer Sample, 3/31/76.

Type of Examination: CHEMICAL ASSAYS

Reference: Standard Methods for the Examination of Water and Wastewater, 13th Edition, 1971.

Results:

Analyte	BTP No.	Parts per Million (mg/l)
Flow (total)	-	2500 gal/day
Suspended Solids	5-1-031-71	4
pH	5-1-026-71	11.8
Cyanide	5-1-072-71	0.04
Zinc	5-1-063-75	0.7
Chlorinated Hydrocarbons	5-4-010-73	< 0.01
Pesticides	5-4-002-71	0.09
Temperature (°F)	-	90

Examination by: Daniel T. Earl
Daniel T. Earl, B.S., Chemist

Approved by: Bor Ja Lee
Bor Ja Lee, M.S., Chemist 4-28-76
Chemistry Team Leader

jb

The conclusions and data herein apply only to the items tested and are not indicative of the quality or condition of apparently identical or similar products. This report is submitted for the exclusive use of the addressee. No use of reference of our name or the name of any member of our staff may be made in connection with any form of advertising or other public announcement without written authorization by an officer of BIO-TECHNICS LABORATORIES, INC.

Bio-Technics Laboratories, Inc. 1133 Crenshaw Boulevard - Los Angeles, California 90019 Phone 933 6991 - Cable Address BITEC

Montrose Chemical Corporation of California
[illegible] S. Normandie Avenue
Torrance, California 90507

Test Report No.: 1-5-4183
Date Received: 7-7-76
Date Initiated: 7-8-76
Date Completed: 8-11-76

Attn: Guy A. Dimichele, Supt. Engineering & Maintenance

Specimen Description: One (1) one-liter amber glass bottle filled with a water sample and labeled: 7-7-76, Sewer Sample.

Type of Examination: CHEMICAL ASSAYS

Reference: Standard Methods for the Examination of Water and Wastewater, 13th Edition, 197[illegible] and Methods for the Chemical Analysis of Water and Wastes, U.S. Environmental Protection Agency, 1974.

Results:

Analyte	B.T. Procedure No.	Parts Per Million (mg/l)
Suspended Solids	5-1-031-71	62
pH	5-1-026-71	12.2
Cyanide	5-1-072-71	< 0.05
Zinc	5-1-063-75	0.21
Chlorinated Hydrocarbons	5-4-010-73	0.58
Pesticides	5-4-002-71	< 0.005

Examination by: Daniel T. Earl
Daniel T. Earl, B.S., Chemist

Approved by: R. T. Lottrit
R. T. Lottrit, B.S., Chief Chemist 8-12-76

NPP
The conclusions and data herein apply only to the items tested and are not indicative of the quality or condition of apparently identical or similar products. This report is submitted for the exclusive use of the addressee. No use of mention of our name or the name of any member of our staff may be made in connection with any form of advertising, or other public announcement without written authorization by an officer of BIT TECHNICAL LABORATORIES, INC.

IW-1487

Montrose Chemical Corporation of California
20201 S. Normandie Ave.
Torrance, California 90507

Test Report No. 1-5-2416
Date Received: 3-27-75
Date Initiated: 3-27-75
Date Completed: 4-16-75

Attn: Mr. B. Bratter

Sample Description: One (1) water sample (sewer), taken 3-27-75 at 9:30 A.M..

Type of Examination: Assay for Suspended Solids, pH, Cyanide, Zinc, Pesticides (Chlorinated Hydrocarbons), Temperature.

Reference: Standard Methods for Examination of Water and Wastewater, 13th Edition.

Results:

	Analytes	BT Procedure No.	Results in Parts Per Million (mg/l)
1.	Flow (Total)		2400 gals/day
2.	Flow (Peak)		50 gals/day
3.	Suspended Solids	5-1-031-69	124
4.	Cyanide	5-1-072-71	20.5
5.	Zinc (Total)	5-1-063-70	11.7
6.	Pesticides (Chlorinated Hydrocarbons)	5-4-010-70	0.008 (p.p. DDT) ?
7.	pH	5-1-026-69	9.7
8.	Temperature		22°C.

Examination by: C. H. Huang
C.H. Huang, M.S., Chemist

Approved by: R. T. Lottritz
R.T. Lottritz, B.S., Chief Chemist 4-21-75

kk

The conclusions and data herein apply only to the items tested and are not indicative of the quality or condition of apparently identical or similar products. This report is submitted for the exclusive use of the addressee. No use or mention of our name or the name of any member of our staff may be made in connection with any form of advertising or other public announcement without written authorization by an officer of BIO-TECHNICS LABORATORIES INC.

BOE-C6-0177146

Montrose Chemical Corporation of California
20201 S. Normandie Avenue
Torrance, California 90502

Attn: Mr. Bernard Bratter

Test Report No. 1-5-2891
Date Received: 6-26-75
Date Initiated: 6-26-75
Date Completed: 7-11-75

Sample Description: Two (2) sewer water samples, Industrial Waste Water Discharge permit #1427, SIC #2879, Dated 6-26-75.

Type of Examination: CHEMICAL ASSAYS

Reference: Standard Methods for the Examination of Water and Wastewater, 13th Edition, 1971.

Results:

Analyte	BT Procedure No.	Results in Parts per Million (mg/l)
1. Total Flow	-	2480 gals/day
2. Suspended Solids	5-1-031-69	88
3. pH	5-1-026-69	12
4. Cyanide	5-1-072-71	0.05
5. Zinc	5-1-063-70	1
6. Chlorinated Hydrocarbons	5-4-010-70	0.008
7. Pesticides	5-4-002-71	< 0.0005
8. Temperature	-	90°F
9. Peak flow		50* GPM

Examination by: C. H. Huang
C.H. Huang, M.S., Chemist

Approved by: R. T. Lottritz
R.T. Lottritz, B.S., Chief Chemist 7-17-75

nr

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Montrose Chemical Corporation of Calif.
[illegible] S. Normandie Ave.
Torrance, Calif. 90507

Test Report No. 1-5-3273
Date Received: 9/26/75
Date Initiated 9/26/75
Date Completed: 10/21/75

Attn: Mr. B. Bratter, DDT Plant Superintendent

Specimen Description: One (1) Wastewater Sample labeled Water to Sewer, SIC No. 2879

Type of Examintion: CHEMICAL ASSAY

Reference: Standard Methods for the Examination of Water and Wastewater, 13th Edition, 1971

Results:

Analyte	BT Procedure No.	Results in ppm (mg/l)
1) Flow (gal/day)	-	2400
2) Suspended Solids	5-1-031-69	2832
3) pH	5-1-026-69	10.09
4) Cyanide	5-1-072-71	0.0001
5) Zinc	5-1-063-70	.023
6) Chlorinated Hydrocarbons	5-4-010-70	< 005
7) Pesticides	5-4-002-71	0.04
8) Temperature (°F)	-	90

Examination by: Daniel T. Earl
Daniel T. Earl, B.S., Chemist

Approved by: R. T. Lettritz
R.T. Lettritz, B.S.,
Chief Chemist

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Bio Technics Laboratories, Inc. · 1133 Crenshaw Boulevard · Los Angeles, California 90019

Sample Rec'd By: [illegible]

PRIORITY:

AUTHORIZED BY:

LABORATORY JOB NUMBER: SJO 43-38

* Received In Laboratory *

8 23 79

[illegible] 17 AS: 08

INDUSTRIAL WASTE MONITORING RESULTS

SAMPLE IDENTIFICATION

I.W. Permit Number: 1487

Sample Request Number: (2)

Sample Source or Company Name: Montrose Chemical Corp.

Address: 20201 S. Normandie Av. Torrance

* Actual Location Where Sample Taken: Co sampling hit (industrial only)

* Time & Date of Sample: 1200 8-15-79 to 1245 8-16-79

Reason for Sampling: ☐ Routine ☐ Phase I ☐ Treatment Plant Upset ☐ Sewer System Problem ☑ Other: DDT Survey

Monitoring Requested By: Caballero Ext 204 Sample To Be Saved After Analysis No

* Sampled By: WHC. Durfin Sample Volume:

* Sample Split With Company? No Preservation Used Ice

Accounting Charges: ☑ For Samples Taken In JOS. APP-206, AFE-2129, WO-625; ☐ For Samples Taken Outside JOS. Dist.# ____, APP-104, WO-330

* Flow When Sampled:

24 Hour Composite: Grab Sample:

Total Flow During Composite Period: unknown gallons

Flow Rate At Time of Sample: ____ g.p.m.

Obtained From: ☐ Visual Estimate, ☐ Effluent Flow Meter, ☐ Influent Water Meter, ☐ Impossible To Tell If Flow Existed When Sampled

FIELD TEST RESULTS

pH 7.0 Temperature ____ Color translucent gray green Cyanide ____

Odor ____

Total Sulfide ____ Dissolved Sulfide ____ Other ____

LABORATORY TEST RESULTS

Check Tests Requested

Check If Results To Be Reported To Requestor ASAP

	CONSTITUENT	RESULTS	INITIAL
✓	pH	7.2	[illegible]
✓	SUSPENDED SOLIDS, mg/l	41	[illegible]
	SUSPENDED SOLIDS, mg/l (AFTER NEUTRALIZATION TO pH 7)		
✓	COD, mg/l O	34	[illegible]
	COD, mg/l O (AFTER NEUTRALIZATION TO pH 7)		
	TOTAL DISSOLVED SOLIDS (TDS), mg/l		
	CHLORIDE, mg/l Cl		
	SULFATE, mg/l SO_4		
	AMMONIA NITROGEN, mg/l N		
	NITRATE NITROGEN, mg/l N		
	TOTAL CYANIDE, mg/l CN		
	TOTAL SULFIDE, mg/l S		
	SULFITE SULFUR, mg/l S		
	THIOSULFATE SULFUR, mg/l S		
	TOTAL CADMIUM, mg/l Cd		
	TOTAL CHROMIUM, mg/l Cr		
	TOTAL COPPER, mg/l Cu		
	TOTAL LEAD, mg/l P		
	TOTAL MERCURY, mg/l Hg		
	TOTAL NICKEL, mg/l Ni		
	TOTAL ZINC, mg/l Zn		
	TOTAL PHENOLS, mg/l C₆H₅OH		
	[illegible], mg/l		

[illegible] Laboratory files, Frenzy, Wunderlich, Original of this sheet to Requestor.

INDUSTRIAL WASTE MONITORING REQUEST

INITIAL	DATE

NOTES:

1. Remember to fill in all information on top section of this page and all sample identification information on other side except for items mark. with *
2. Use one request sheet for each sample requested.
3. Print all information neatly, using dark ink.

Jay G. Brown
Head, Industrial Waste Section

FROM: _____
(print name)

Sample Request Number: _____

Monitoring Location: _____

Company Contact (name, title, telephone no.): _____

Industrial Waste Location: Page No.: _____ Coordinates _____ _____ Monitoring Date - Mailing: _____

Monitoring Priority: ☐ 75% (1 to 3 Days), ☐ 50% (2 to 4 Days), ☐ [illegible]

Special Instructions or Precautions to Be Observed: _____

Type of Monitoring Requested

☐ FLOW MEASUREMENT
- ☐ Read Water Meters
- ☐ Use Company's Effluent Meter
- ☐ Use CSL Flow Meters
- ☐ Other: _____
- ☐ _____ days (length of monitoring project).

☐ GRAB SAMPLING
- _____ liter(s) (Min. sample volume req'd.)
- _____ ☐ or ☐ [illegible] (Min. sample [illegible] interval)

☐ COMPOSITE SAMPLING
- _____ liter(s) (Min. sample volume req'd.)
- _____ hours (Duration of each composite)
- _____ days (Duration of monitoring project)

☐ DISCRETE SAMPLING
- _____ hours (Duration of monitoring)
- _____ ml (Min. [illegible] per sample)
- _____ [illegible]

Specify for [illegible]

☐ Use Internal Sample
- _____ minutes (Time between samples, [illegible])
- _____ samples total (Number)

☐ Use Proportional Sample
- _____ [illegible] (Flow between samples)

Sampling Grid: Indicate below the critical [illegible] quantities, [illegible] required

1. Sample Type:
- ☐ [illegible]
- ☑ Composite [illegible] 15 minute intervals
- ☐ Composite flow [illegible] _____ gallon intervals
- ☐ Composite [illegible] _____ minute intervals
- ☐ [illegible] _____ gallon intervals

2. Time and Date of [illegible]:
- [illegible] 1800 ☐ : 15 Aug 79
- [illegible] 1830 : 16 Aug 79

3. Condition (Clarifier, Sample box, etc.): [illegible]

4. [illegible] _____

PRIORITY

AUTHORIZED BY

LABORATORY JOB NUMBER

Received in Laboratory

INDUSTRIAL WASTE MONITORING RESULTS

SAMPLE IDENTIFICATION

I.W. Permit Number: 1927

Sample Request Number: (2)

Sample Source or Company Name: [illegible]

Address: [illegible] Normandie Av. Torrance

Actual Location Where Sample Taken: Co. sampling MH - [illegible]

Time & Date of Sample: [illegible] 8-14-79 to [illegible] 8-15-79

Reason for Sampling: ☐ Routine ☐ Phase I ☐ Treatment Plant Upset ☐ Sewer System Profile ☑ Other: [illegible] Survey

Monitoring Requested By: Caballero Ext. [illegible] Sample To Be Saved After Analysis: No

Sampled By: IWMC [illegible] Sample Volume: 2 l[illegible]

Sample Split With Company? No Preservation Used: [illegible]

Accounting Charges: ☑ For Samples Taken In JOS. AFF-206, AFE-2129, WO 625. ☐ For Samples Taken Outside JOS. Dist # ____, AFF-3[illegible], WO-330

Flow When Sampled:

23.5 Hour Composite: Grab Sample:

Total Flow During Composite Period: unknown gallons Flow Rate At Time of Sample: ____ g.p.m.

Obtained From: ☐ Visual Estimate, ☐ Effluent Flow Meter, ☐ Influent Water Meter, ☐ Impossible to Tell If Flow Existed When Sampled

FIELD TEST RESULTS

pH 6.0 Temperature ____ Color translucent [illegible] Cyanide ____

Odor ____

Total Sulfide ____ Dissolved Sulfide ____ Other ____

LABORATORY TEST RESULTS

— Check Tests Requested

— Check If Results To Be Reported To Requestor ASAP

		CONSTITUENT	RESULTS	
✓		pH	[illegible]	[illegible]
✓		SUSPENDED SOLIDS, mg/l	[illegible]	[illegible]
		SUSPENDED SOLIDS, mg/l (AFTER NEUTRALIZATION TO pH 7)		
✓		COD, mg/l O	[illegible]	[illegible]
		COD, mg/l O (AFTER NEUTRALIZATION TO pH 7)		
		TOTAL DISSOLVED SOLIDS [illegible]		
		CHLORIDE, mg/l Cl		
		SULFATE, mg/l SO4		
		AMMONIA NITROGEN, mg/l N		
		NITRATE NITROGEN, mg/l N		
		TOTAL CYANIDE, mg/l CN		
		[illegible]		
		[illegible]		
		[illegible]		
		TOTAL CADMIUM, mg/l Cd		
		TOTAL CHROMIUM, mg/l Cr		
		[illegible]		
		TOTAL LEAD, mg/l Pb		
		[illegible] Hg		
		[illegible] Ni		
		[illegible] Zn		
		[illegible]		
		[illegible] mg/l		

[illegible]

BOE-C6-0177151

INDUSTRIAL WASTE MONITORING REQUEST

INITIAL	DATE

NOTE:

1. Requestor to fill in all information on top of "Item" of this page and all sample identification information on other side except for items marked with *
2. Use one request sheet for each sample requested.
3. Print all information neatly, using dark ink.

[illegible] Industrial Waste Section

FROM _____ (print name)

Sample Request Number _____

Monitoring Location _____

[illegible] (name, title, telephone no.) _____

[illegible] Page No. _____ Coordinates _____ Monitoring Date Deadline _____

Monitoring Priority ☐ ASAP (1 Day), ☐ Soon (2 to 4 Days), ☐ [illegible]

Special Instructions or Precautions to be Observed _____

Type of Monitoring Requested:

☐ FLOW MEASUREMENT
- ☐ Head Water Meters
- ☐ Use Company's Effluent Meter
- ☐ Use CIS Flow Meters
- ☐ Other _____
- ☐ _____ days (length of monitoring project)

☐ GRAB SAMPLING
- _____ liters (minimum sample volume req'd)
- ☐ or ☐ [illegible] (length of monitoring [illegible])

☐ COMPOSITE SAMPLING
- _____ liters (minimum sample volume req'd)
- _____ hours (duration of each composite)
- _____ days (length of monitoring project)

☐ DISCRETE SAMPLING
- _____ hours (duration of monitoring)
- _____ ml (sample/containers, 350 max.)
- _____ sample bottles (no maximum)

SPECIFY [illegible] FOLLOWING:

☐ Time Interval Sample
- _____ minutes (time [illegible])
- _____ sample [illegible] (4 maximum)

☐ Flow Proportioned Sample
- _____ gallons (minimum sample)

[illegible] to define the actual [illegible]

1. [illegible]
- ☐ [illegible] 15 [illegible]
- ☐ [illegible] _____ [illegible]
- ☐ [illegible] _____ [illegible]
- ☐ [illegible] _____ [illegible]

2. [illegible]
- 13 15 ☐ 14 Aug 79
- 12 45 ☐ 14 Aug 79

3. Condition of Clarifier, Sample Box, etc.
- 4/4 - Post

[illegible] No sample 1415 - 1600 & 14 79

BOE-C6-0177152

MONTROSE CHEMICAL CORPORATION OF CALIFORNIA
POST OFFICE BOX 147
TORRANCE, CALIFORNIA 90503

January 26, 1979

Mr. Jay G. Kremmer
Head, Industrial Waste Section
County Sanitation Districts of Los
Angeles County
P.O. Box 4998
Whittier, California 90607

Dear Mr. Kremmer:

Please find enclosed our "Critical Parameter Report" for January, 1979 covering analysis of our sewer effluent.

Yours very truly,

John L. Kallok
Plant Manager

JLK:ll

Enclosure: Critical Parameter Report Form

cc: Samuel Rotrosen w/enclosure
Max Sobelman w/enclosure
Guy Dimichele w/enclosure

SANITATION DISTRICTS OF LOS ANGELES COUNTY
INDUSTRIAL WASTEWATER
CRITICAL PARAMETER REPORT FORM

#1487

Ident Code	PARAMETER 1/	2/	QUANTITY VALUES	
A	Flow (Total)		2400	Gal/day
B	Flow (Peak)		50	Gal/min
C	CBOD			mg/l
D	SS (Suspended Solids)			mg/l
E	pH		7.9	Units
F	Total Dissolved Solids			mg/l
G	Ammonia (N)			mg/l
H	Sulfide			mg/l
I	Cyanide		< 0.05	mg/l
J	Fluoride			mg/l
K	Aluminum Total			mg/l
L	Antimony Total			mg/l
M	Arsenic Total			mg/l
N	Beryllium Total			mg/l
O	Boron Total			mg/l
P	Cadmium Total			mg/l
Q	Chromium Total			mg/l
R	Cobalt Total			mg/l
S	Copper Total			mg/l
T	Iron Total			mg/l
U	Lead Total			mg/l
V	Manganese Total			mg/l
W	Mercury Total			mg/l
X	Molybdenum Total			mg/l
Y	Nickel Total			mg/l
Z	Selenium Total			mg/l
AA	Silver Total			mg/l
BB	Sodium Total			mg/l
CC	Thallium Total			mg/l
DD	Tin Total			mg/l
EE	Titanium Total			mg/l
FF	Zinc Total		0.17	mg/l
GG	Oil & Grease (Hexane Extract)			mg/l
HH	Phenols			mg/l
II	Surfactants (MBAS)			mg/l
JJ	Chlorinated Hydrocarbons (as Pesticides)		< 0.002	mg/l
KK	Pesticides (Other than Chlorinated Hydrocarbons)		< .002	mg/l
LL	Radioactivity (Alpha, Beta & Gamma)			pCi/l
MM	Temperature		90	Degrees °F
NN	Color			Units
OO	Thiosulfate (S)			mg/l

NON CRITICAL PARAMETERS
(Report When Available)

PP	Calcium		mg/l
QQ	Magnesium		mg/l
RR	Potassium		mg/l
SS	Barium		mg/l
TT	Nitrate		mg/l
UU	Chloride		mg/l
VV	Bromide		mg/l
WW	Sulfate		mg/l
XX	Phosphorus Ortho		mg/l

OTHER PARAMETERS
(Report When Requested)

A1			
A2			
A3			
A4			
A5			
A6			
A7			
A8			
A9			

NOTES 1/ Report all critical parameters required by the Sanitation Districts and any other critical parameter known to be present in the wastewater. The parameters required by the Districts but known not to be present from the wastewater may be reported by placing the word absent in the appropriate space.

2/ If values are obtained by measurements or analyses write A in the column. Analysis values must be determined, using representative 24 hour composite samples, by a State Certified or Districts Approved Laboratory. If values are obtained by estimate write E in this column. *Estimated values are acceptable for new plants only.*

BIO-TECHNICS LABORATORY INC. 1133 Crenshaw Blvd., Los Angeles 90019
(Print) Name and Address of Laboratory Performing Analyses and Flow Measurements

Montrose Chemical Corp. 2879
(Print) Name of Company Having Wastewater Discharge — SIC Number(s)

20201 S. Normandie Ave., Torrance, California 90502
(Print) Address of Wastewater Discharge

(Print) Additional Location Data (Data above should be for only one discharge point to the sewerage system)

Statement of Accuracy of Data

I hereby affirm that the above data comprise a true and complete representation of the wastewater discharged from the stated discharge point.

Date _____ Location Torrance California

Signed _____ Name Plant Manager
Position (Administrative Officer of Company with Wastewater Discharge)

BOE-C6-0177154

SANITATION DISTRICTS OF LOS ANGELES COUNTY
INDUSTRIAL WASTEWATER
CRITICAL PARAMETER REPORT FORM

1487

Ident Code	PARAMETER 1/	2/ QUANTITY VALUES	
(A)	Flow Total	2400	gals/day
B	Flow (Peak)	50	gals/min
C	COD		mg/l
(D)	SS (Suspended Solids)	328	mg/l
(E)	pH	11.7	Units
F	Total Dissolved Solids		mg/l
G	Ammonia (N)		mg/l
H	Sulfide		mg/l
(I)	Cyanide	<0.05	mg/l
J	Fluoride		mg/l
K	Aluminum Total		mg/l
L	Antimony Total		mg/l
M	Arsenic Total		mg/l
N	Beryllium Total		mg/l
O	Boron Total		mg/l
P	Cadmium Total		mg/l
Q	Chromium Total		mg/l
R	Cobalt Total		mg/l
S	Copper Total		mg/l
T	Iron Total		mg/l
U	Lead Total		mg/l

Ident Code	PARAMETER 1/	2/ QUANTITY VALUES	
V	Manganese Total		mg/l
W	Mercury Total		mg/l
X	Molybdenum Total		mg/l
Y	Nickel Total		mg/l
Z	Selenium Total		mg/l
AA	Silver Total		mg/l
BB	Sodium Total		mg/l
CC	Thallium Total		mg/l
DD	Tin Total		mg/l
EE	Titanium Total		mg/l
(FF)	Zinc Total	0.4	mg/l
GG	Oil & Grease (Hexane Extractable)		mg/l
HH	Phenols		mg/l
II	Surfactants (MBAS)		mg/l
(JJ)	Chlorinated Hydrocarbons (Pesticides excluded)	<0.002	mg/l
(KK)	Pesticides (Chlorinated Hydrocarbons)	<0.002	mg/l
LL	Radioactivity (Alpha, Beta & Gamma)		pCi/l
(MM)	Temperature	90	Degrees °F
NN	Color		Units
OO	Thiosulfate (S)		mg/l

NON CRITICAL PARAMETERS
(Report When Available)

PP	Calcium		mg/l
QQ	Magnesium		mg/l
RR	Potassium		mg/l
SS	Barium		mg/l
TT	Nitrate		mg/l
UU	Chloride		mg/l
VV	Bromide		mg/l
WW	Sulfate		mg/l
XX	Phosphorus Ortho		mg/l

OTHER PARAMETERS
(Report When Requested)

A1		
A2		
A3		
A4		
A5		
A6		
A7		
A8		
A9		

NOTES 1/ Report all critical parameters that are required by the Sanitation Districts and any other critical parameter known to be present in the wastewater. Those parameters already required by the Districts but known to be absent from the wastewater may be reported by placing the word absent in the appropriate space.

2/ If values are obtained by measurements or analysis write A in this column. Analysis values must be determined using representative 24 hour composite samples by an State Certification Districts Approved Laboratory. If values are obtained by estimate, write E in this column. Estimated values are acceptable for new plants only.

90019

BIO-TECHNICS LABORATORY INC. 1133 Crenshaw Blvd., Los Angeles
(Print) Name and Address of Laboratory Performing Analyses and Flow Measurements

2879
EPA Number(s)

Montrose Chemical Corporation of Ca.
(Print) Name of Company Having Wastewater Discharge

20201 S. Normandie Ave., Torrance, California 90502
(Print) Address of Wastewater Discharge

(Print) Additional Location Data (Data above shows site for only one discharge point in the same type system)

Statement of Accuracy of Data

I hereby affirm that the above data represents a true and correct representation of the wastewater discharged from the stated discharge point.

Date 1/26/79 Location Torrance California 90502

Signature Name

Plant Manager
Position (Administrative Officer of Company with Wastewater Discharge)

MONTROSE CHEMICAL CORPORATION OF CALIFORNIA
POST OFFICE BOX 117
TORRANCE, CALIFORNIA 90507

November 3, 1978

Mr. Jay G. Kremmer
Head, Industrial Waste Section
County Sanitation Districts of Los Angeles
P.O. Box 4998
Whittier, California 90607

Dear Mr. Kremmer:

Please find enclosed our "Critical Parameter Report" for September, 1978, covering analysis of our sewer effluent.

Yours very truly,

John L. Kallok
Plant Manager

JLK:ll

Enclosure: Critical Parameter Report Form

cc: Samuel Rotrosen w/enclosure
Max Sobelman w/enclosure
Guy Dimichele w/enclosure

4197

SANITATION DISTRICTS OF LOS ANGELES COUNTY
INDUSTRIAL WASTEWATER
CRITICAL PARAMETER REPORT FORM

#1487

Ident Code	PARAMETER 1/	2/	QUANTITY VALUES		Ident Code	PARAMETER 1/	2/	QUANTITY VALUES	
A	Flow (Total)		2400	gals/day	V	Manganese Total			mg/l
B	Flow (Peak)		50	gals/min.	W	Mercury Total			mg/l
C	COD			mg/l	X	Molybdenum Total			mg/l
D	SS (Suspended Solids)		344	mg/l	Y	Nickel Total			mg/l
E	pH		9.2	Units	Z	Selenium Total			mg/l
F	Total Dissolved Solids			mg/l	AA	Silver Total			mg/l
G	Ammonia (N)			mg/l	BB	Sodium Total			mg/l
H	Sulfide			mg/l	CC	Thallium Total			mg/l
I	Cyanide		<0.5	mg/l	DD	Tin - Total			mg/l
J	Fluoride			mg/l	EE	Titanium - Total			mg/l
K	Aluminum - Total			mg/l	FF	Zinc Total		<0.02	mg/l
L	Antimony - Total			mg/l	GG	Oil & Grease (Hexane Extract)			mg/l
M	Arsenic - Total			mg/l	HH	Phenols			mg/l
N	Beryllium Total			mg/l	II	Surfactants (MBAS)			mg/l
O	Boron - Total			mg/l	JJ	Chlorinated Hydrocarbons (except pesticides)		<0.002	mg/l
P	Cadmium - Total			mg/l	KK	Pesticides (Chlor. Hydrocarb.)		<0.002	mg/l
Q	Chromium - Total			mg/l	LL	Radioactivity (Alpha, Beta & Gamma)			pCi/l
R	Cobalt - Total			mg/l	MM	Temperature		95°	Degrees °F
S	Copper - Total			mg/l	NN	Color			Units
T	Iron - Total			mg/l	OO	Thiosulfate (S)			mg/l
U	Lead - Total			mg/l					

NON CRITICAL PARAMETERS (Report When Available)					OTHER PARAMETERS (Report When Requested)			
PP	Calcium			mg/l	A1			
QQ	Magnesium			mg/l	A2			
RR	Potassium			mg/l	A3			
SS	Barium			mg/l	A4			
TT	Nitrate			mg/l	A5			
UU	Chloride			mg/l	A6			
VV	Bromide			mg/l	A7			
WW	Sulfate			mg/l	A8			
XX	Phosphorus Ortho			mg/l	A9			

NOTES 1/ Report all critical parameters required by the Sanitation Districts and any other critical parameter known to be present in the wastewater. Those parameters required by the Districts but known to be absent from the wastewater may be reported by placing the word absent in the appropriate space.

2/ If values are obtained by measurements or analyses write A in this column. Analysis values must be determined, using representative 24 hour composite samples, by a State Certified or Districts Approved Laboratory. If values are obtained by estimate, write E in this column. Estimated values are acceptable for new plants only.

90019

BIO-TECHNICS LABORATORY INC. 1133 Crenshaw Blvd., Los Angeles

(Print) Name and Address of Laboratory Performing Analyses and Flow Measurements

Montrose Chemical Corporation of California 2879

(Print) Name of Company Having Wastewater Discharge (SIC Number(s))

20201 S. Normandie Ave., Torrance, California 90502

(Print) Address of Wastewater Discharge

(Print) Additional Location Data (Data above should be for only one discharge point to the sewerage system)

Statement of Accuracy of Data

I hereby affirm that the above data comprise a true and correct representation of the wastewater discharged from the stated discharge point.

Date 11/3/78 Location Torrance California 90502

(Signed) Name

Plant Manager

Position (Administrative Officer or Company with Wastewater Discharge)

MONTROSE CHEMICAL CORPORATION OF CALIFORNIA
POST OFFICE BOX 637
TORRANCE, CALIFORNIA 90503

July 1, 1978

Mr. Jay G. Kremmer
Head, Industrial Waste Section
County Sanitation Districts of Los Angeles
P.O. Box 4998
Whittier, California 90607

Dear Mr. Kremmer:

Please find enclosed our "Critical Parameter Report" for June, 1978, covering analysis of our sewer effluent.

Yours very truly,

John L. Kallok
Plant Manager

JLK:ll

Enclosure

cc: Samuel Rotrosen
Max Sobelman
Guy A. Dimichele

BOE-C6-0177158

INDUSTRIAL WASTEWATER
CRITICAL PARAMETER REPORT FORM

1/	2/ QUANTITY VALUES	Ident. Code	PARAMETER 1/	2/ QUANTITY VALUES	
	[illegible]	V	[illegible]		mg/l
[illegible]	560	W	Vanadium - Total		mg/l
		X	Molybdenum - Total		mg/l
[illegible] Total	1160	Y	Nickel - Total		mg/l
	11.9	Z	Beryllium - Total		mg/l
[illegible] Solids		AA	Silver - Total		mg/l
[illegible]		BB	Sodium - Total		mg/l
		CC	Strontium - Total		mg/l
[illegible]	< 0.01	DD	Tin - Total		mg/l
[illegible]		EE	Titanium - Total		mg/l
[illegible] - Total		FF	Zinc - Total	0.4	mg/l
[illegible] - Total		GG	Oil & Grease (Hexane Extract)		mg/l
[illegible] - Total		HH	Phenols		mg/l
[illegible] - Total		II	Surfactants (MBAS)		mg/l
[illegible]		JJ	Chlorinated Hydrocarbons (Pesticide Pesticides)	<0.002	mg/l
[illegible] - Total		KK	Pesticides (Chlorinated Hydrocarbons)	<0.002	mg/l
[illegible] - Total		LL	Radioactivity Alpha, Beta & Gamma		pCi/l
[illegible] - Total		MM	Temperature	90 °F Degrees	°F
[illegible] - Total		NN	Color		Units
[illegible] - Total		OO	Thiosulfate (S)		mg/l

NON-CRITICAL PARAMETERS (Report When Available)			OTHER PARAMETERS (Report When Requested)
[illegible]		A1	
[illegible]		A2	
[illegible]		A3	
		A4	
		A5	
		A6	
		A7	
		A8	
[illegible]		A9	

Report all critical parameters required by the Sanitation Districts and any other critical parameter known to be present in the wastewater. The quantities indicated by the Districts but known to be absent from the wastewater may be reported by placing the word "absent" in the quantity space.

1/ Values are obtained by Chemical Analysis [illegible] Analysis values must be determined using [illegible] Approved Laboratory if values are obtained [illegible] values are acceptable for new plants only.

[illegible] GENETIC ANALYSIS LABORATORY INC. [illegible] Crenshaw Blvd., Los Angeles 90029

Name and Address of Laboratory Performing Analysis and Flow Measurements

Montrose Chemical Corp. 2879 (SIC Number)

Name of Company Making Wastewater Discharge

20201 S. Normandie Ave., Torrance, California 90502

Address of Wastewater Discharge

A Sketch of Location Data (Data above should be for only one discharge point to the sewerage system)

Statement of Accuracy of Data

I/We affirm that the above data contains a true and correct representation of the wastewater discharged from the plant's discharge point.

Date 12/3/82 Location Torrance, California

[illegible] Plant Manager

Name Position (Administrative Officer of Company with Wastewater Discharge)

MONTROSE CHEMICAL CORPORATION OF CALIFORNIA
POST OFFICE BOX 117
TORRANCE, CALIFORNIA 90507

April 28, 1978

Mr. Jay G. Kremmer
Head, Industrial Waste Section
County Sanitation Districts of Los Angeles
P.O. Box 4998
Whittier, California 90607

Dear Mr. Kremmer:

Please find enclosed our "Critical Parameter Report" for April, 1978, covering analysis of our sewer effluent.

Yours very truly,

John L. Kallok
Plant Manager

JLK:ll

Enclosure

cc: Samuel Rotrosen
Max Sobelman
Guy A. Dimichele

SAN[illegible] DISTRICTS OF LOS ANGELES COUNTY
INDUSTRIAL WASTEWATER
CRITICAL PARAMETER REPORT FORM

#1487

Code	PARAMETER 1/	2/ QUANTITY VALUES		Ident Code	PARAMETER 1/	2/ QUANTITY VALUES	
	Flow (Total)	2400	[illegible]	V	Magnesium Total		mg/l
	Flow (Peak)		[illegible]	W	Mercury Total		mg/l
C	COD		mg/l	X	Molybdenum Total		mg/l
	SS (Suspended Solids)	1110	mg/l	Y	Nickel Total		mg/l
	pH	8.6	Units	Z	Selenium Total		mg/l
F	Total Dissolved Solids		mg/l	AA	Silver Total		mg/l
G	Ammonia (N)		mg/l	BB	Sodium Total		mg/l
H	Sulfide		mg/l	CC	Thallium Total		mg/l
	Cyanide	<0.05	mg/l	DD	Tin Total		mg/l
J	Fluoride		mg/l	EE	Titanium Total		mg/l
K	Aluminum Total		mg/l	FF	Zinc Total	0.73	mg/l
L	Antimony Total		mg/l	GG	Oil & Grease (Freon Extractable)		mg/l
M	Arsenic Total		mg/l	HH	Phenols		mg/l
N	Beryllium Total		mg/l	II	Surfactants (MBAS)		mg/l
O	Boron Total		mg/l	JJ	Chlorinated Hydrocarbons (see instructions)	<0.02	mg/l
P	Cadmium Total		mg/l	KK	Pesticides (Chlorinated Hydrocarbons)	<0.02	mg/l
Q	Chromium Total		mg/l	LL	Radioactivity (Alpha, Beta & Gamma)		pCi/l
R	Cobalt Total		mg/l	MM	Temperature	90°C	Degrees °F
S	Copper Total		mg/l	NN	Color		Units
T	Iron Total		mg/l	OO	Thiosulfate (S)		mg/l
U	Lead Total		mg/l				

NON-CRITICAL PARAMETERS (Report When Available)			OTHER PARAMETERS (Report When Requested)		
PP	Calcium	mg/l	A1		
QQ	Magnesium	mg/l	A2		
RR	Potassium	mg/l	A3		
SS	Sodium	mg/l	A4		
TT	Nitrate	mg/l	A5		
UU	Chloride	mg/l	A6		
VV	Bromide	mg/l	A7		
WW	Sulfate	mg/l	A8		
XX	Phosphorus Ortho	mg/l	A9		

NOTES 1/ Report all critical parameters requested by the Sanitation Districts and any other critical parameter known to be present in the wastewater. Those parameters requested by the Districts but known to be absent from the wastewater may be reported by placing the word "absent" in the appropriate space.

2/ If values are obtained by measurement, write the measurement. Analysis values must be determined using representative 24 hour composite samples [illegible] Approved Laboratory. If values are obtained by estimate, write E in the column. [illegible] values are acceptable for new plants only.

90019

BIO-TECHNICS LABORATORY INC 1111 Crenshaw Blvd, Los Angeles
(Print) Name and Address of Laboratory Performing Analyses and Flow Measurements

Montrose Chemical Corp. 2879
(Print) Name of Company Having Wastewater Discharge SIC Number(s)

20201 S. Normandie Ave., Torrance, California 90502
(Print) Address of Wastewater Discharge

(Print) Additional Location Data [illegible]

Statement of Accuracy of Data

I hereby affirm that the above [illegible] of the wastewater discharged from the stated discharge point.

Date _____ Location Torrance Certified _____

[illegible] Plant Manager
Signature Title (Authorized Representative of Company with Wastewater Discharge)

BOE-C6-0177161

SANITATION DISTRICTS OF LOS ANGELES COUNTY
INDUSTRIAL WASTEWATER
CRITICAL PARAMETER REPORT FORM

#1487

Ident. Code	PARAMETER 1/	2/	QUANTITY VALUES		Ident. Code	PARAMETER 1/	2/	QUANTITY VALUES	
	Flow (Total)		2400	gals/day	V	Manganese - Total			mg/l
	Flow (Peak)		50	gals/min.	W	Mercury - Total			mg/l
	COD			mg/l	X	Molybdenum - Total			mg/l
	Sol (Suspended Solids)		3560	mg/l	Y	Nickel - Total			mg/l
	pH			Units	Z	Selenium - Total			mg/l
	Total Dissolved Solids			g/l	AA	Silver - Total			mg/l
	Ammonia (N)			mg/l	BB	Sodium - Total			mg/l
	Sulfide			mg/l	CC	Thallium - Total			mg/l
	Cyanide		<0.05	mg/l	DD	Tin - Total			mg/l
	Fluoride			mg/l	EE	Titanium - Total			mg/l
	Aluminum - Total			mg/l	FF *	Zinc - Total		0.15	mg/l
	Antimony - Total			mg/l	GG	Oil & Grease (Hexane Extract)			mg/l
	Arsenic - Total			mg/l	HH	Phenols			mg/l
	Beryllium - Total			mg/l	II	Surfactants (MBAS)			mg/l
	Boron - Total			mg/l	JJ *	Chlorinated Hydrocarbons (except pesticides)		<0.0002	mg/l
	Cadmium - Total			mg/l	KK *	Pesticides (Chlor. Hycarb.)		<0.0002	mg/l
	Chromium - Total			mg/l	LL	Radioactivity (Alpha, Beta & Gamma)			pCi/l
	Cobalt - Total			mg/l	MM *	Temperature		90°	Degrees °F
	Copper - Total			mg/l	NN	Color			Units
	Iron - Total			mg/l	OO	Thiosulfate (S)			mg/l
	Lead - Total			mg/l					

NON-CRITICAL PARAMETERS (Report When Available)				OTHER PARAMETERS (Report When Requested)		
PP	Calcium		mg/l	A1		
QQ	Magnesium		mg/l	A2		
RR	Potassium		mg/l	A3		
SS	Barium		mg/l	A4		
TT	Nitrate		mg/l	A5		
UU	Chloride		mg/l	A6		
VV	Bromide		mg/l	A7		
WW	Sulfate		mg/l	A8		
XX	Phosphorus Ortho		mg/l	A9		

NOTES 1/ Report all critical parameters required by the Sanitation Districts and any other critical parameter known to be present in the wastewater. Those parameters required by the Districts but known to be absent from the wastewater may be reported by placing the word absent in the appropriate space.

2/ If values are obtained by measurements or analysis write A in this column. Analysis values must be determined, using representative 24 hour composite samples, by a State Certified or Districts Approved Laboratory. If values are obtained by estimate, write E in this column. Estimated values are acceptable for new plants only.

(Print) Name and Address of Laboratory Performing Analyses and Flow Measurements: BIO-TECHNICS LABORATORY INC. 1133 Crenshaw Blvd., Los Angeles 90019

(Print) Name of Company Having Wastewater Discharge: Montrose Chemical Corp. BIC Number(s): 2879

(Print) Address of Wastewater Discharge: 2020 S. Normandie Ave., Torrance, California 90502

(Print) Additional Location Data (Data above should be for only one discharge point to the sewerage system)

Statement of Accuracy of Data

I hereby affirm that the above data comprise a true and correct representation of the wastewater discharged from the stated discharge point.

Date 3/1/78 Location Torrance California

John B. Kalbe Plant Manager

Signature Name Position (Administrative Officer of Company with Wastewater Discharge)

3-7-78

LAW OFFICES
KNAPP, GILL, HIBBERT & STEVENS
828 CITY NATIONAL BANK BUILDING
808 SOUTH OLIVE STREET
LOS ANGELES 90014
TELEPHONE (213) 627-8471

JOSEPH C. GILL
1900-1966

HUGH GORDON
OF COUNSEL

THOMAS A. DUGAN
JAMES D. JONES
DAVID P. CHRISTIANSON

March 19, 1971

Mr. John D. Parkhurst
Chief Engineer and General Manager
County Sanitation Districts of
Los Angeles County
2020 Beverly Boulevard
Los Angeles, California 90057

Re: Environmental Defense Fund vs.
County Sanitation Districts of
Los Angeles County, et al.

Dear Mr. Parkhurst:

On March 15 a continued hearing was held before Judge Stephens relative to the various pending Motions. After denying the Motion of Ocean Fish Protective Association to Intervene the court indicated informally that it was not presently disposed to rule on the other pending Motions. The court thereupon called a short recess in order to give everyone a further opportunity to consider the matter.

When the court reconvened Mr. Swafford on behalf of Montrose put forth the proposition that I discussed orally with you last week. In short, he represented to the court and counsel that within 90 days Montrose would undertake to cut all existing lines to the Districts' system. It would, in lieu thereof, construct two new lines; one from the boiler blow-down and the other from the toilets within the plant. All industrial waste would be disposed of after recycling at a Class 1 dump.

On the basis of this representation the court continued all pending matters to June 14, 1971. Mr.

JOHN D. PARKHURST

BOE-C6-0177163

KNAPP, GILL, HIBBERT & STEVENS

Mr. John D. Parkhurst
March 19, 1971
Page Two

Swafford has assured me that the staff at Montrose will keep the District advised in detail of their plans.

Very truly yours,

B. Richard Marsh

B. Richard Marsh

BRM:jh

I.W. COPY

3-00.03-00/71
Montrose

STATE OF CALIFORNIA—RESOURCES AGENCY

RONALD REAGAN, Governor

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION
107 SOUTH BROADWAY, SUITE 9026
LOS ANGELES, CALIFORNIA 90012

1971 MAR 2 AM 8 43

March 1, 1971

Montrose Chemical Corporation of California
P.O. Box 147
Torrance, California 90507

ATTENTION: Mr. Max Sobelman, Vice-President

Re: Waste Discharge Requirements (File 70-118)

Gentlemen:

Reference is made to our letter dated February 16, 1971, which transmitted a draft of proposed requirements for the disposal of wastes from your Torrance facility by hauling.

Pursuant to Section 13263 of the Water Code of the State of California, this California Regional Water Quality Control Board, at its meeting held on February 24, 1971, reviewed these proposed requirements, considering all factors in the case, and adopted Order No. 71-11 (copy attached) relative to this waste discharge.

Also attached is a copy of the specifications for technical reports to be submitted by you. Please reference these reports to our Requirement File No. 5688.

Very truly yours,

Original signed by
Raymond M. Hertel

RAYMOND M. HERTEL
Executive Officer

cc: Department of Water Resources
Bureau of Sanitary Engineering
Department of Fish and Game, Region 5
Los Angeles County Health Department
Los Angeles County Flood Control District
County Sanitation Districts of Los Angeles County
City of Los Angeles Bureau of Sanitation
Central and West Basin Water Replenishment District

Enclosure

[illegible]
[illegible] Suite 1801
[illegible], California, 90028

[illegible] LEE ROGERS
[illegible] Old Town Road
East Setauket, New York 11733
Phone: 516-751-5191

WILLIAM H. RODGERS, JR.
School of Law, University of Washington
Seattle, Washington 98105
Phone: 206-543-6064

Attorneys for Plaintiff

FILED
OCT 22 1979
CLERK, U.S. DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA
BY DEPUTY

UNITED STATES DISTRICT COURT

CENTRAL DISTRICT OF CALIFORNIA

213-688-3652 Los Angeles
714-831-4020 Laguna [illegible]

ENVIRONMENTAL DEFENSE FUND, individually and on behalf of all the People of the United States of America,

Plaintiff,

-vs-

MONTROSE CHEMICAL CORPORATION OF CALIFORNIA, a corporation, and COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY,

Defendants.

CIVIL NO. 70-2389-[illegible]

COMPLAINT FOR INJUNCTION AND DECLARATORY JUDGMENT
([illegible])

Applicable Statutes, Jurisdiction and Description of the Parties

1. This is a civil suit seeking injuctive relief to restrain the MONTROSE CHEMICAL CORPORATION OF CALIFORNIA (MONTROSE) from discharging the biocide DDT from its plant in Torrance, California, into and through the Los Angeles County sewage system and ultimately into the estuaries and coastal waters of Santa Monica Bay and the Pacific Ocean. As used herein the term "DDT" or "DDT residues" includes p,p'-DDT [1,1,1-trichloro-2,2-bis(p-chlorophenyl)-ethane], which is the major component of the commercial product, o,p'-DDT [1,1,1-trichloro-2-o-chlorophenyl-2-p-chlorophenylethane], and their degradation products including

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[illegible] 2,2-bis(p-chlorophenyl)-thylene], p,p'-DDD ([illegible] 2,2-bis(p-chlorophenyl)-ethane], and several other [illegible] related chemicals. This suit seeks an order requiring defendant MONTROSE to take all necessary and appropriate steps to assure that it complies with the laws here relied upon with respect to the discharge of DDT from its plant. The suit also seeks an order directing defendant SANITATION DISTRICTS to comply with applicable law. This action arises under:

(a) The Ninth and Fourteenth Amendments to the Constitution of the United States.

(b) The Federal Water Pollution Control Act, as amended by the Water Quality Improvement Act of 1970, Public Law 91-224, 84 Stat. 91, 33 U.S.C. Sec. 466 et seq.

(c) The California Porter-Cologne Water Quality Control Act, Cal. Water Code Sec. 13000 et seq.

(d) The California law of nuisance as defined by statute, Cal. Civil Code, Sec. 3479, 3480, Cal. Water Code Secs. 13001, 13050(m), and by common law.

(e) The California Fish and Game Code Secs. 2014, 5650, 5651, 12015.

(f) The California Health and Safety Code Sec. 5411.

(g) The rules and regulations of the Sanitation Districts of the County of Los Angeles.

(h) The Refuse Act of 1899, 33 U.S.C. Sec. 407.

(i) Section 101(c) of the National Environmental Policy Act of 1969, 83 Stat. 852, 42 U.S.C. Secs. 4331 et seq.

(j) The Food, Drug and Cosmetic Act, 21 U.S.C. Sec. 331 1969, 83 Stat. 852.

2. Plaintiff ENVIRONMENTAL DEFENSE FUND (EDF) is a non-profit, public-benefit membership corporation organized and

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[illegible] laws of the State of New York, with its principal place of business in East Setauket, New York. EDF's members are scientists and other citizens of the United States, including residents of California. Among its objectives and purposes, EDF is dedicated to, and its major activities are directed toward, the preservation and enhancement of the environment, including the protection of the integrity, biological viability and productivity of estuaries and coastal waters. EDF carries out educational activities, promotes research, and when necessary employs legal action to carry out its objectives. See Article 1, par. 2(b)-(h) of EDF's By-Laws, Appendix infra. EDF's Scientists Advisory Committee, which includes some of the world's foremost environmental scientists, assures that positions it takes are thoroughly supported by scientific evidence. EDF has a demonstrated ability to present scientific testimony before administrative agencies and courts of law. Through its by-laws, membership, activities and conduct, EDF has exhibited a special interest in the aesthetic, conservational, health and recreational aspects of the marine environment.

3. EDF brings this action on behalf of itself in pursuit of its purposes and objectives as heretofore described, on behalf of its members, including its many members who are residents of the State of California, and on behalf of all other citizens of the United States who have an interest in the protection and enhancement of our natural environment, including wildlife and fisheries, and an interest in a healthful and salubrious environment. In particular, EDF brings this suit on behalf of its members and other citizens who, by reason of defendants' conduct complained of herein, are being deprived and threatened with deprivation of their usual enjoyment of the benefits flowing from the biological integrity, viability and productivity of the estuaries and coastal waters of Southern

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[illegible], including their fisheries and bird life.

4. Upon information and belief defendant MONTROSE is a business corporation organized and operated under the laws of the State of California. MONTROSE maintains an office and carries on business at 20201 South Normandie Avenue, Torrance, California, and operates a plant in Torrance for the manufacture and sale of DDT. This defendant and its officers are and have been responsible for the illegal actions, including the failure to perform duties owed to the plaintiff (and those others on behalf of whom [illegible] brings suit) complained of herein. Relief is sought against MONTROSE and its officers to enjoin them from further illegal actions and to compel them to fulfill their legal duties to plaintiff.

5. Upon information and belief, defendant SANITATION DISTRICTS is a governmental agency of Los Angeles County. It maintains an office and carries on business at 2020 Beverly Boulevard, Los Angeles, California. SANITATION DISTRICTS operates a system of trunk sewers which serve homes, industries and commercial establishments throughout Los Angeles County. Relief is sought against this defendant to enjoin it from further illegal actions and to compel it to fulfill its legal duties to plaintiff.

6. This Court has jurisdiction over this action under 21 U.S.C. Sec. 332; 28 U.S.C. Sec. 1331(a); 28 U.S.C. Sec. 1332; 28 U.S.C. Sec. 1337; 42 U.S.C. Sec. 1983; and may grant declaratory relief under 28 U.S.C. Secs. 2201 and 2202.

7. The amount in controversy, exclusive of interest and costs, exceeds $10,000.00.

GENERAL ALLEGATIONS

I. DEFENDANT'S DDT MANUFACTURING OPERATION

8. In the operation of its DDT manufacturing plant located in Torrance, California, MONTROSE releases an effluent that is high in DDT concentrations into the local sewage system. The sewage system "dom[illegible]" [illegible] plant has contained as much

[illegible] (ppb) of chlorinated hydrocarbons, [illegible]arily of DDT residues. Substantially all of such [illegible] attributable to the effluent from the MONTROSE plant. [illegible] effluent is eventually processed at the White Point Sewage Treatment Plant. The effluent from that plant has contained as much as 157 ppb of chlorinated hydrocarbons also consisting primarily of DDT residues, practically all of which is attributable to the effluent from the MONTROSE plant. The discharge from the sewage treatment plant eventually reaches the Pacific Ocean. A discharge from that plant containing 85 ppb of DDT residues is equivalent to at least 100 pounds of DDT being discharged daily into the Pacific Ocean, and for some weeks the weekly average discharge has been that high or higher in DDT residues.

II. THE ENVIRONMENTAL CHARACTERISTICS OF DDT AND ITS HAZARDS TO FISH, WILDLIFE AND HUMAN HEALTH

9. Mobility - DDT is a mobile material once it has been released in the environment. It is carried by air and water to all parts of the world and is therefore found far from where it has been used or, as in this case, discharged from a manufacturing plant.

10. Biological Activity - DDT has a broad spectrum of toxicity and biological activity to virtually all animals and some plants. It is a biocide - not merely an insecticide. It affects non-target organisms by various mechanisms of action including nerve toxicity, hepatic enzyme induction, enzyme inhibition, estrogenic activity, photosynthetic inhibition, carcinogenesis, and mutagenesis.

11. Persistence - DDT is extremely stable or persistent in the environment, retaining its broad spectrum of toxicity and biological activity for many years in non-target organisms often [illegible] and distances from the original site of the DDT [illegible]

[illegible] very low solubility [illegible] water, but a high solubility in lipid or fatty tissues. Since all organisms contain lipids, they accumulate DDT from the inorganic environment in which they live and retain it in their tissues. Non-target organisms, including man, all over the world have therefore become contaminated with its residues.

13. Biological Concentration - DDT is passed up food chains as one organism becomes food for another. Because the DDT is retained by each successive organism, it becomes more concentrated with each higher step in the food chain. DDT therefore reaches the highest concentrations in carnivores at the tops of these food chains, including birds, fish and man.

14. Because of the above combination of characteristics, DDT is an inherently uncontrollable material once it has been released into the environment. As such, it is a hazard to the non-target organisms in which it accumulates, including man.

15. DDT is endangering the reproduction and survival of many non-target organisms. For example, DDT residues are a major hazard to bird populations, causing direct death, reproductive failure and, in some species, catastrophic population declines approaching extinction. DDT residues likewise are causing direct kills and reproductive failures of fish, thereby threatening important freshwater and marine fisheries. DDT residues also are causing great damage to useful invertebrates of many species and are causing a variety of other ecological and environmental damage.

16. The carcinogenicity of DDT has been demonstrated in test animals in a definitive study sponsored by the National Cancer Institute which confirmed earlier evidence of the same nature from other laboratories. Carcinogenesis in these animals indicates a high probability, but not a certainty, that DDT is a human [illegible]. Other [illegible] that human victims of

[illegible] contain more than twice the concentration of DDT [illegible] in their fat as occurs in the general population, [illegible] that are consistent with the probability that DDT is a human carcinogen.

17. DDT is mutagenic in rats, as shown by recent experiments using the dominant-lethal test by Dr. Marvin Legator of the U.S. Food and Drug Administration. As with carcinogenesis, mutagenesis in rats indicates a high probability, but not a certainty, that DDT affects human genetics. Some effects of the present contamination of human tissues may therefore become apparent in future generations.

18. Carcinogenesis and mutagenesis are specific, relatively rare biological events and the ability to induce them is possessed by relatively few chemicals. Since carcinogenesis and mutagenesis are not evaluated by using human subjects, the practical and valid method for evaluating such events is by using high dosage levels in test animals which, contrary to popular belief, cannot convert innocuous materials into carcinogens and mutagens.

19. In those carnivorous birds in which DDT residues accumulate, DDT inhibits reproduction by causing the birds to lay abnormally thin-shelled eggs which break prematurely in the nest and therefore do not produce chicks. DDT residues inhibit reproduction of fish by killing the fry after the contaminated adult female passes the residues into the eggs.

20. As a consequence of the foregoing phenomenon, DDT is bringing some species of birds to the brink of extinction in California. Examples of prominent species now threatened are the Bald Eagle, Peregrine Falcon, Double-crested Cormorant, Osprey, Common Loon, Brown Pelican, Ashy Petrel, and American Egret. With continued discharge of DDT into the California marine ecosystem, [illegible] population of [illegible] and marine

expected to disappear from Central and Southern California coastal regions. So great has been the population [illegible] of the once plentiful Brown Pelican in coastal waters that the bird is now rare and endangered as a breeding species in the continental United States except in Southern Florida.

21. DDT is not necessary for the suppression of disease vectors, including malaria, in the continental United States. DDT is similarly not necessary for agricultural pest-control purposes, for there are substitute methods of control, including various integrated control techniques which are feasible and can be made available where necessary.

III. THE PARTICULAR EFFECT OF DEFENDANT'S DDT EFFLUENT

22. Defendant MONTROSE's plant in Terrance, California, located within Los Angeles County, accounts for most of the DDT production in the continental United States. It is, in fact, the world's largest DDT manufacturing plant. There are no major river systems in Southern California from which there could be agricultural pesticide (including DDT) run-off into the estuaries and ocean as there is in San Francisco Bay from the Sacramento and San Joaquin Rivers. Accordingly, agricultural drainage could not account for high concentrations of DDT residues in the estuaries and coastal waters of Southern California.

23. A study of the distribution of chlorinated hydrocarbon residues, particularly DDT residues, in marine fish in the Los Angeles area discloses that coastal fish of that region had concentrations higher than those in similar fish taken from the vicinity of San Francisco Bay. Indeed, marine fish taken from the coastal waters of Southern California were more highly contaminated with DDT residues than most freshwater fish examined in California. Anchovies taken from Southern California waters near Terminal Island had as much as 12.3 parts per million (ppm) of DDT residues and the livers of various fish from

BOE-C6-0177173

[illegible] hundreds of ppm of DDT. Several [illegible] mackerel taken from coastal waters in the [illegible] of Los Angeles have been confiscated by the Food and [illegible] Administration because they contained excessive residues of DDT. The mackerel fishery is now closely monitored by state and federal officials. Serious damage has already occurred and continued discharge of DDT into coastal waters eventually will destroy the important commercial and sport fisheries of Southern California.

24. Brown Pelicans feed on fish. The only nesting ground for Brown Pelicans in California in recent years has been Anacapa Island. Presently, no normal reproduction of Brown Pelicans is occurring on that island. Studies have shown that the mature pelicans build nests and lay eggs with shells too thin to withstand breakage in the nest. The egg shells have been spongy, flaky and so thin as to expose the membrane of the egg. The nesting colony has been littered with broken eggs. Virtually no chicks have survived. This thin egg-shell phenomenon is directly attributable to DDT contamination of the adult pelicans resulting from their feeding on DDT-contaminated fish of the coastal waters.

25. As a result of the DDT contamination described above, the Brown Pelican is rare and endangered and will soon disappear as a breeding species in the State of California.

26. The damage to the integrity, viability and productivity of the estuaries and coastal waters of Southern California here described is being caused in substantial part by the effluent containing DDT residues that is discharged from defendant MONTROSE's DDT manufacturing plant located in Torrance, California, and which passes through defendant SANITATION DISTRICTS' sewer system.

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FIRST CLAIM FOR RELIEF

27. As a consequence of the aforementioned discharge of DDT from defendant MONTROSE's plant into defendant SANITATION DISTRICTS' sewage system and thus into the Pacific Ocean, defendants have violated the water quality standards for the Los Angeles region of the State of California. These standards prohibit the discharge of any wastes that could affect the quality of the waters of the state without the filing of reports and the specification of requirements implementing water quality control plans. Upon information and belief, neither defendant has filed such reports nor secured approval of such requirements for the discharge of DDT directly or indirectly into the Pacific Ocean or its estuaries, in violation of law. Further, were such application made, no approval could be lawfully given under the provisions of the California statute.

28. The aforementioned standards for the Los Angeles region of the State of California have been approved by the Secretary of the Interior pursuant to the authority invested in him by the Federal Water Pollution Control Act (33 U.S.C. Secs. 446g(c)(1) as being consistent with the purposes of that Act and are, therefore, the applicable federal water quality standards for the Los Angeles region of the State of California. The defendants' conduct, then, is in violation of Federal as well as State law. Further, defendants' conduct violates the federal water quality criteria requiring that the best treatment available be utilized and that there be no degradation of our waters to the end that the quality of our waters be maintained and enhanced. Defendants can comply with such standards, laws and policies, only by terminating the discharge of DDT from the manufacturing plant into the sewer system and the waters in question.

29. The violation of the laws and policies enumerated in paragraphs 27 and 28 are causing and will cause serious, permanent

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[illegible] plaintiff for which it has no plain and [illegible] at law.

SECOND CLAIM FOR RELIEF

[illegible] The continued discharge of effluent containing DDT from defendant MONTROSE's manufacturing plant and defendant SEWER DISTRICTS' treatment plant constitutes a discharge of refuse into the navigable waters of the United States in violation of the Refuse Act, 33 U.S.C. Sec. 407.

31. The United States Army Corps of Engineers has not granted either defendant a permit under the Refuse Act for the discharge of effluent containing DDT into such navigable waters.

32. By reason of the facts set forth in paragraphs 30 and 31 hereof, the defendants are violating the Refuse Act and are thereby causing serious, permanent and irreparable damage to plaintiff for which it has no adequate remedy at law.

THIRD CLAIM FOR RELIEF

33. The coastal waters of the Los Angeles region, the estuaries thereof, and the fish and wildlife living therein are held by the State of California and its people in the public domain and in public trust for the public benefit, particularly the public's right to fishing and recreation. Similarly, the California Fish & Game Code Sec. 16 provides that the fish and wildlife of the state are the "property of the people" and consequently are held in trust for the use of the people.

34. The defendants, by discharging DDT and authorizing its discharge, respectively, into a sewer system and eventually into the coastal waters of the Los Angeles region are violating the public trust, destroying the property of the people of the state and otherwise acting inconsistently with the public trust and public uses for which the waters, the fish and wildlife are held.

35. By reason of the facts set out in paragraphs 33 and 34, plaintiff is suffering serious, permanent and irreparable damage

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quate remedy at law.

FOURTH CLAIM FOR RELIEF

The California Health and Safety Code Sec. 5411 forbids the discharge of the effluent of treated sewage or industrial waste in a manner which will result in contamination, pollution or nuisance.

37. The defendants, by discharging DDT and authorizing its discharge, respectively, into the coastal waters of the Los Angeles region have violated the provisions of the Health & Safety Code in the above particulars.

38. By reason of the facts set out in paragraphs 36 and 37, plaintiff is suffering serious, permanent and irreparable damage for which it has no adequate remedy at law.

FIFTH CLAIM FOR RELIEF

39. The California Fish & Game Code Secs. 2014, 5650, 12000, and 12015 make it unlawful to deposit into the waters of the state "any substance or material deleterious to fish, plant life, or bird life" and require a violator to clean up the proscribed substances.

40. The defendants, by discharging DDT and authorizing its discharge, respectively, into the coastal waters of the Los Angeles region have violated the Fish & Game Code in the above particulars.

41. By reason of the facts set out in paragraphs 39 and 40, plaintiff is suffering serious, permanent and irreparable damage for which it has no adequate remedy at law.

SIXTH CLAIM FOR RELIEF

42. The California law of nuisance, by statute and common law, forbids conduct that is injurious to health and destructive to the free use of property. California Civil Code Secs. 3479, 3480; California Water Code Sec. 13050(d), 13050(m).

43. The defendants, by discharging DDT and authorizing its

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respectively, into the coastal waters of the Los Angeles [illegible] have created a nuisance in violation of the common law and [illegible] statutes of the State of California.

44. By reason of the facts set out in paragraphs 42 and 43, plaintiff is suffering serious, permanent and irreparable damage for which it has no adequate remedy at law.

SEVENTH CLAIM FOR RELIEF

45. The written policies and regulations of defendant SEWER DISTRICTS forbid the discharge of wastes into the sewer system that would create nuisances, menace public health or impose abnormal costs on the Districts for collecting and disposing of wastes.

46. The defendants, by discharging DDT and authorizing its discharge, respectively, into the sewer system of Los Angeles County have violated these written policies and regulations.

47. By reason of the facts set forth in paragraphs 45 and 46, plaintiff is suffering serious, permanent [illegible] damage for which it has no adequate remedy at law.

EIGHTH CLAIM FOR RELIEF

48. Section 101(c) of the National Environmental Policy Act of 1969 declares that "(t)he Congress recognizes that each person should enjoy a healthful environment and that each person has a responsibility to contribute to the preservation and enhancement of the environment."

49. The defendants, by discharging DDT and authorizing its discharge respectively, into the coastal waters of the Los Angeles region have deprived plaintiff of this federal right to a healthful environment.

50. By reason of the facts set forth in paragraphs 48 and 49, plaintiff is suffering serious, permanent and irreparable damage for which it has no adequate remedy at law.

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NINTH CLAIM FOR RELIEF

[illegible] Food, Drug & Cosmetic Act, 21 U.S.C. Sec. 331, [illegible] the adulteration of any food in interstate commerce.

[illegible] The defendants, by discharging DDT and authorizing its discharge, respectively, into the coastal waters of the Los Angeles region in quantities resulting in concentrations in food fish in excess of Food and Drug Administration tolerance levels effectively have adulterated food in interstate commerce.

53. By reason of the facts set forth in paragraphs 51 and 52, plaintiff is suffering serious, permanent and irreparable damage for which it has no adequate remedy at law.

TENTH CLAIM FOR RELIEF

54. The defendants, by discharging DDT and authorizing its discharge, respectively, into the coastal waters of the Los Angeles region are depriving plaintiff of fundamental rights under the Ninth and Fourteenth Amendments of the Constitution of the United States including the right recognized by Section 101(c) of The National Environmental Policy Act of 1969 of each person to a healthful environment.

55. By reason of the facts set forth in paragraph 54, the plaintiff is suffering serious, permanent and irreparable damage for which it has no adequate remedy at law.

WHEREFORE, plaintiff prays for judgment:

1. Enjoining defendant MONTROSE from discharging effluent from its aforementioned DDT plant into any sewage system or any waterway leading into a sewage system, or any other waterway that may hereafter be constructed that contains any amount of DDT that can be detected by the most sensitive analytical methods available.

2. Enjoining defendant SEWER DISTRICTS from authorizing and encouraging defendant MONTROSE to permit further

BOE-C6-0177179

violations of the law and ordering defendant SEWER DISTRICTS to cease violating applicable law and to commence enforcing its own policies.

3. Granting to the plaintiff the cost of this action.

4. Granting to the plaintiff such other and further relief as this Court may deem just and proper.

DATED: This 22nd day of October, 1970.

SLAFF, MOSK & RUDMAN

EDWARD LEE ROGERS

WILLIAM H. RODGERS, JR.

BY: _____
NORMAN G. RUDMAN
Attorneys for Plaintiff

BOE-C6-0177180

APPENDIX

BYLAWS

of

ENVIRONMENTAL DEFENSE FUND

Incorporated

ARTICLE I: NAME AND OBJECTIVES

1. The name of the corporation shall be Environmental Defense Fund, Incorporated, hereafter referred to as EDF.

2. The objectives of EDF shall include the following:

   (a) to encourage and support the wise use of natural resources;

   (b) to pursue and to encourage others to pursue research relevant to the wise use of natural resources;

   (c) to promote interdisciplinary collaboration among scientists toward the advancement of environmental science;

   (d) to effect a joining of the best scientific findings with the most appropriate social action discovered by the social sciences and legal theory in order that practical decisions shall be made which shall best promote a quality environment;

   (e) to encourage public education on the problems of maintaining a salubrious environment;

   (f) to prevent, or to prevent the continuance of, environmental degradation by taking whatever legal measures are necessary to provide scientists fair and impartial forums in which their scientific findings may be presented objectively to their fellow citizens and tested through cross examination;

   (g) to receive and administer funds for scientific, educational, and charitable purposes;

   (h) to conduct and disseminate the results of research by all means not in violation of the laws of the United States or the State of New York or otherwise inconsistent with the provisions of the EDF Certificate of Incorporation in furtherance of the wise use of natural resources.

BOE-C6-0177181

July 17, 1970

File 5-320.20.10

Montrose Chemical Corporation
of California
Post Office Box 147
Torrance, California 90507

Attention: Mr. A. R. Wilson
Vice President, Operations

16?

Gentlemen:

This is in reply to your letter of June 11, 1970, in which you discussed the problems facing your plant in controlling the discharge of pesticide residuals from your manufacturing process.

For the past few months the laboratory personnel at the Districts' Joint Water Pollution Control Plant have been continuously sampling the treated discharge and measuring the chlorinated hydrocarbon pesticide concentration. Results to date have indicated that the concentration of these materials in the discharge from the Districts' plant is considerably higher than for similar municipal treatment plants serving other communities.

A comprehensive investigation of the pesticide concentration in the raw sewage tributary to the plant has indicated rather conclusively that your firm is the primary source of observed pesticide concentrations in the plant effluent.

Even though the [illegible] Water Quality Control Board has not [illegible] of pesticides in the plant effluent, [illegible] immediately take [illegible] to eliminate pesticides [illegible] in the coming months, the [illegible] the [illegible] there is [illegible] not be [illegible]

[illegible] office of the [illegible] system.

[illegible]

Copy.
7/24/70

BOE-C6-0177182

Rough Draft

July 6, 1970

File: 5-100.20.10

Montrose Chemical Corp. of Calif.
P. O. Box 147
Torrance, California 90507

DRAFT

Attention Mr. A. R. Wilcox
Vice President, Operations

Dear Mr. Wilcox:

DDT Discharged to Sewer System
Your letter of June 16, 1970

Thank you for subject letter confirming discussion of June 11, 1970 concerning the topic of minimizing DDT discharges to the public sewer.

Keeping significant quantities of DDT, DDD and DDE from Districts' sewer system is the objective of all concerned. In common with all controversial matters, subjective definitions of what constitutes a significant quantity abound, tend toward extremes and may be unrealistic. ~~Further, a truly objective definition of what constitutes a significant quantity is impossible in that that would constitute another type of unrealistic extreme.~~ In the light of information at hand and in the absence of compelling reasons to do otherwise, an arbit[illegible] definition of an excessive discharge of DDT plus related chlorinated hydrocarbons from your plant as being anything greater than 3 pounds per day (1m[illegible]ent flow rates) is being considered. Such a definition is intended to b[illegible]promise between the no DDT position and that which is technologically feasible. Pending development of chemical systems to degrade DDT and related [illegible]ances to innocous products, it is proposed that you make every reasonable effort to reduce the DDT, DDD, DDE content of wastes discharged to the sewer from your plant to 3 pounds per day or less.

BOE-C6-0177183

The remarks in your letter concerning lipid solubility of DDT and concentration in solid sediments in sewage treatment plants is supported by analyses made in Districts' laboratory. In the activated sludge process wherein waste water is aerated in the presence of an aerobic biomass, DDT and related substances are substantially removed from the water by the biomass. The relative abundance of DDT, DDD and DDE isomers was unchanged in the process, suggesting physical transfer only through lipid solubility. When the sewage treatment process is limited to primary separation of sludges, followed by anaerobic digestion of the sludge, transfer of DDT and related substances from the waste water is much less complete. Anaerobic digestion converts DDT to DDE and destroys some of the DDE. However, the concentration of DDT, DDD and DDE in digested sludge is still many times higher than the sewage from which it was derived. In order to reduce distribution of DDT to the environment in consequence of the Sanitation Districts' normal functioning, the quantity of DDT allowed to enter the sewer system must be decreased. In brief, dilution is not the solution to pollution.

Analytical data being accumulated by the Districts indicate occasional discharges of DDT from your plant take place one or two magnitudes higher than the range reported. Actual frequency is not known, but appears to be often enough to merit serious consideration. Your comments concerning immediate steps that could be taken to eliminate, or at least minimize, such occurrences is solicited.

Very truly yours,

John D. Parkhurst

By
Lester A. Haug

c. Mr. Sterling Busch

5-320.20.10

MONTROSE CHEMICAL CORPORATION OF CALIFORNIA
AFFILIATE OF STAUFFER CHEMICAL COMPANY
POST OFFICE BOX 147
TORRANCE, CALIFORNIA 90507

June 16, 1970

1970 JUN 17 AM 9 02

John D. Parkhurst
Chief Engineer & General Manager
Sanitation Districts of Los Angeles County
2020 Beverly Blvd.
Los Angeles, California 90057

Dear Mr. Parkhurst:

This is to confirm recent discussions concerning waste effluents entering the Los Angeles County Sewer from the Torrance Plant of the Montrose Chemical Corporation of California.

Recently your personnel have monitored our effluent discharge for DDT content and your values have been found to correspond closely to current values being obtained in our local laboratories. Our analysis has shown the total of DDT and all its isomers and metabolites to range from somewhat below 1 ppm. to about 5 ppm., which compares with your findings of slightly less than 5 ppm. Considering the complexity of the samples and sensitivity of these test procedures these results would be considered as checking each other.

During the past several years we have gradually reduced the quantity of DDT-like materials being discharged into the county sewer. This has resulted both from reducing the concentration in the water and also by reducing the quantity of water being discharged. Currently the quantity of water is about 1/3 of what it was 3 or 4 years ago and the concentration of DDT-like materials also considerably reduced. As better analytical tools have become available we have been able to improve our monitoring and understanding of the problem.

At the present time we are working with the Aero General Corporation who is the prime contractor to the Federal Water Quality Administration to develop chemical systems to degrade DDT. They have reported some success with synthetic mixtures and are now proposing a plant-sized demonstration unit. Montrose and Aerojet General are

Vet. w Hung F.D.D.

JOHN D. PARKHURST

discussing with the Federal Water Quality Administration a plan for an overall Pilot Plant program to eliminate DDT and its isomers and metabolites. We expect that this work will continue in the same direction as during the present past toward process modifications to place the plant on total recycle to the greatest possible degree with the substantially reduced final effluent volume treated by a system similar to that developed by Aerojet General or some other suitable procedure so that the final effluent is reduced in quantity and concentration.

I would like to point out that our effluent is currently being diluted in the order of 1,000 to 1 in the county sewer treatment plant which in itself greatly reduces the impact of final discharge. And, further DDT which is lipid-soluble and not water-soluble is concentrated in the solid sediments in the treating plant, where as part of the sludge it is subjected to anaerobic bacterial decomposition. The literature contains numerous references which point out that DDT is readily degraded under anaerobic conditions by bacteria normally present in activated sludges. This degradation further lessens the impact on the receiving waters. ?

In summary, we have made notable progress in reducing the absolute quantity of DDT-like materials being discharged into the county sewer system and are continuing an active campaign both on our own and in cooperation with Aerojet General and with the Federal Water Quality Administration to further reduce the quantity of water being discharged and to reduce the DDT content of the effluent to where it will be negligible.

We appreciate the opportunity for open discussion and look toward its continuation.

Yours very truly,

A. R. Wilcox
Vice-President,
Operations

ARW:cg

cc: Mr. Sterling Buesch

BOE-C6-0177186

County Sanitation Districts

Office of Chief Engineer

MEMORANDUM

To: Walter E. Garrison GARRISON

Date: June 4, 1970

From: Franklin D. Dryden

Subject: ANOTHER MACKEREL CATCH WITH HIGH D.D.T.

Jack Betz called to advise us that the City had been contacted by Mr. Shindler of the Regional Water Quality Control Board for information concerning producers of D.D.T. in the Los Angeles area. The reason for the call was apparently another mackerel catch which was determined to be high in D.D.T. The catch was reported to have been made somewhere between the Los Angeles harbor and Catalina Island in the past several days. The City advised Shindler that the only large D.D.T. producer they knew of was Montrose Chemical and that they discharged into the Sanitation Districts sewerage system even though they were located within the City of Los Angeles and operated on a City Industrial Waste Permit. Jack wanted us to know in case there were subsequent Regional Board or newspaper inquiries into the situation.

BOE-C6-0177187

4228

County Sanitation Districts

Office of Chief Engineer

MEMORANDUM

To: Walt Garrison GARRISON Date: 5/14/70

From: Les Hang

Subject: Montrose Chemical Co. (DDT manufacture)

Art Martin informs me that in a recent conversation with Mr Busch (5/5/70) he was told that Montrose Chemical is the only DDT mfgr in Los Angeles County (Montrose plant is in City of L.A.)

The attached report indicates DDT is present in all J.A. sewers but there is much higher concentration downstream of the Montrose Chem. plant.

Acid soap acid waste was tested earlier and found to contain little DDT.

Sand Canyon is being delivered daily to P.V. Landfill by Montrose Chem.

Last paragraph of FWPCA report indicates company is planning some in-plant treatment.

Will discuss at your best time

Les Hang

3-9111.50.2.20

Joint Water Pollution Control Plant
April 22, 1970

MEMO TO: Mr. John D. Parkhurst
Chief Engineer and
General Manager

ATTENTION: Mr. Franklin D. Dryden
Deputy Assistant
Chief Engineer

FROM: Raymond M. Stewart

SUBJECT: Pesticide Sampling Program - Progress Report

1970 APR 28 PM 1 15

COUNTY SANITATION DISTRICTS
OF LOS ANGELES COUNTY
[illegible]

The samples collected during the first week of the raw sewage pesticide study have been analyzed. The major trunks in the vicinity of JWPCP, and locations above and below Montrose Chemical Company on the District 5 Interceptor were checked. Samples were composited hourly in equal portions for six hours. The four six-hour composites representing 24 hours beginning at approximately 8:00 A.M. from each location were combined relative to the average flow for each six-hour period. The six hour samples were saved, to be analyzed independently should results from the 24-hour composite indicate the need for further investigation. In the case of the group reported in Table 1, only the four composites immediately below Montrose Chemical Company were tested individually.

Respectfully submitted,

Raymond M. Stewart
Director of Laboratories

RMS:hdm

Summary

Above Montrose Chem. [illegible] ppb
Below " " [illegible] ppb
Also high in J.C. "D" [illegible] ppb

UNITED STATES GOVERNMENT USDI, FWPCA, PACIFIC SOUTHWEST REGION
760 Market Street, San Francisco, Calif. 94102

Memorandum

TO : Thomas N. Sargent, Research Sanitary Engineer
Southeast Water Laboratory, FWPCA

DATE: MAR 30 1970

FROM : Director

SUBJECT: Information on the Manufacture of DDT or DDD in California

We have recently completed the collection of information on the Montrose Chemical Corporation of California which you requested in your letter of December 31, 1969. The results of these efforts are presented below.

Located at
20201 Normandie Ave
Torrance P.O.
(Located in L.A harbor strip)
District 5
Because L.A City has I.W. inspection responsibility on this plant, — District inspection has been infrequent. PD control has been biggest problem to date.

In brief, there is partial treatment of the DDT wastes in the Montrose Chemical Corporation plant which results in a liquid portion being discharged to a county sewer along with domestic wastes and a solids portion being trucked away to a land disposal site.

The Los Angeles County Joint Water Pollution Control Plant receives the liquid wastes and has initiated a sampling program for DDT which includes influent and effluent sources on the Montrose Chemical Corporation property as well as various points through its own treatment plant and receiving waters of the San Gabriel, Rio Hondo, and San Jose streams, and the Pacific Ocean. The major study is to be performed during the coming summer and only preliminary data is available at the present time. These indicate higher DDT levels in the vicinity of this treatment plant than have been observed in other plants both in Los Angeles and in the San Francisco Bay area. The source of course is not presently known since many other possibilities exist besides the referenced chemical plant.

A more detailed breakdown of treatment within the Montrose Chemical Corporation plant is as follows. The numbered paragraphs refer to possible DDT waste sources with a brief description of their route.

1. Acid waste. Possible DDT-bearing sulfuric acid (from DDT processing) is collected and disposed of in the following priority:

   a. Reuse within plant

Buy U.S. Savings Bonds Regularly on the Payroll Savings Plan

BOE-C6-0177190

b. Resale
c. Trucked to Los Angeles County treatment plant where it is neutralized and admitted to the treatment process
d. Land disposal in an abandoned quarry

Over the past six months we are advised that all such wastes have been disposed of by a. and b. above. In other words, it is an infrequent occurence that methods c. and d are employed. We do not know the volume of this disposed acid waste.

2. Excess caustic waste liquor. Flow is approximately 10 gpm. After removal of solids and pH adjustment, it is discharged into the county sewer. Solids are collected by a combination of settling and filtration and are hauled away by a commercial waste hauler in the form of a cake. Ultimate destination is unknown. disposal?

3. Acid vent air scrubber. Scrubber wash water is considered as being DDT-free. It is discharged into the county sewer.

4. Various fume scrubbers. Wastes are in liquid form. After pH adjustment, wastes are discharged into the county sewer.

5. Boiler blow-down. Essentially non-DDT bearing.

6. Cooling towers. Essentially non-DDT bearing.

Total flow in corporation sewer is approximately 0.5 mgd, compared to a total influent flow at the county plant of approximately 400 mgd.

Future planned improvements to in-plant treatment at Montrose Chemical Corporation include use of : DDT-preferential coagulants; activated carbon; biochemical degradation; and destruction by heat (DDT converted to HCL at about 1500°F).

If you desire information in addition to the above, please let us know, as both above parties have been very cooperative in assisting us.

Paul De Falco, Jr.

cc: Mr. J. L. Kallok, Maintenance Superintendent, Montrose Chemical Corp. of Calif., Torrance, Calif.
Mr. R. M. Stewart, Dir. of Laboratories, L. A. Co. Joint Water Pollution Control Plant, Harbor City, Calif.

State of California
Resources Agency
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, LOS ANGELES REGION

ORDER NO. 71-11

WASTE DISCHARGE REQUIREMENTS
FOR
MONTROSE CHEMICAL CORPORATION OF CALIFORNIA
(File 70-118)

The California Regional Water Quality Control Board, Los Angeles Region, finds:

1. Montrose Chemical Corporation of California filed a Report of Waste Discharge (our Report No. 950) dated December 30, 1970.

2. Montrose Chemical Corporation of California is disposing of up to 16,000 gallons per day of concentrated waste caustic liquor at a Class I (unlimited) landfill. These wastes result from the manufacture of dichlorodiphenyltrichloroethane (DDT) at a facility located at 20201 South Normandie Avenue, in the City of Los Angeles. Prior to disposal these wastes are stored in uncovered concrete-lined and/or steel tanks at that location.

3. This manufacturing facility is in West Coast Hydrologic Subarea, for which subarea the Board has not yet adopted a water quality control plan.

4. These wastes are extremely pollutionable and would affect the beneficial uses of any receiving waters, surface or underground, and consequently must be isolated from such waters.

5. Sanitary wastes from this facility are discharged to the community sewer system. Other industrial wastes, of non-processing origin including boiler blowdown and fume scrubber water, are also discharged to the sewer.

6. The Board has transmitted a draft of this proposed order and attachments to the discharger and to the interested agencies and persons and has notified them of its intent to prescribe waste discharge requirements for this discharge at a public meeting to be held on February 24, 1971.

7. At that public meeting the Board heard and considered the comments and correspondence pertaining to the discharge.

IT IS HEREBY ORDERED, that Montrose Chemical Corporation of California shall comply with the following:

A. Waste Discharge Requirements

1. Industrial wastes from the site shall not be discharged to ground or to watercourses or in any manner which would affect, directly directly, waters of the state.

2. Industrial wastes stored at the site shall be held in impervious containers as proposed and shall not be allowed to escape therefrom.

3. Wastes transported from the site shall be confined in impervious containers and shall not be permitted to leak or otherwise escape to the ground or to affect waters of the state. Final disposal of these wastes shall be at a legal point of disposal, and in accordance with the provisions of Division 7.5 of the Water Code. For the purpose of these requirements, a legal disposal site is a Class I disposal site for which requirements have been established by a California Regional Water Quality Control Board and which is in full compliance therewith.

4. Neither any treatment nor disposal of wastes shall cause pollution or nuisance.

B. Provisions

1. Waste disposal tanks shall have adequate freeboard to accept and retain direct rainfall and wastes without overtopping.

2. Means shall be provided to divert storm runoff from waste pits and to preclude their being overtopped.

3. A copy of this Order shall be maintained at the site so as to be available at all times to operating personnel.

4. In the event of any change in name of operator or in control or ownership of land or waste disposal facilities presently owned or controlled by the discharger, the discharger shall:

   a. Notify this Board of such change; and
   b. Notify the succeeding owner or operator by letter, a copy of which shall be filed with this Board, of the existence of this Order.

5. Montrose Chemical Corporation of California shall submit technical reports to the Board in accordance with specifications prepared by the Executive Officer.

I, Raymond M. Hertel, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on February 24, 1971.

Raymond M. Hertel

RAYMOND M. HERTEL, Executive Officer

BOE-C6-0177193

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD,
LOS ANGELES REGION

Monitoring and Reporting Program
for
Montrose Chemical Corporation of California
(File 70-118)

1. Montrose Chemical Corporation of California shall file a monthly report with this Board, beginning in March 1971. These reports shall be submitted by the 15th day of the following month. For any month that no waste disposal is made, a statement to that effect shall be submitted.

   Each report shall contain the following information:

   a. Total volume of wastes discharged from the facility during the report period and average discharge in gallons per day;

   b. Dates of offsite transfer of wastes;

   c. Names and addresses of all waste haulers;

   d. Locations of the ultimate points of disposal of all wastes;

   e. Quantity of wastes hauled during reporting period;

   f. Quantity of wastes stored at plant at end of reporting period;

   g. Storage capacity remaining at end of reporting period.

2. Any violation of waste discharge requirements during the reporting period shall be reported by the discharger. If a violation occurs, the discharger shall submit a complete statement of the circumstances which caused the violation and of the actions undertaken or proposed to prevent recurrence and to achieve complete compliance with the requirements.

3. By January 30 of each year the discharger shall submit an annual report to this Board. The report shall contain tabular and graphical summaries of monitoring data obtained during the previous year.

4. Each report shall contain the following completed declaration:

   "I declare under penalty of perjury that the foregoing is true and correct.

   Executed on the _____ day of _____ at _____.

   _____.

   _____(Signature)

   _____ _____(Title)"

Ordered by: Raymond M. Hertel
RAYMOND M. HERTEL
Executive Officer

February 24, 1971

BOE-C6-0177194

MONTROSE CHEMICAL CORP

20201 S. Normandie Ave., Torrance

Industrial Waste, 24-Hour Composite

8:00 a.m. May 6 to 8:00 a.m. May 7, 1974

To Determine Strength of Waste

AFE-WO: 1830-625

Requested by: J. Kremer
Copy: J. Chu
B. Nielsen
W. Rappard
S. Maguin

Laboratory Job Number	SJ01620
Constituent	Value
pH	9.65
Suspended Solids, mg/l	380
Total COD, mg/l O	433

Work performed at: San Jose Creek Water Quality Laboratory, County Sanitation Districts of Los Angeles County

BOE-C6-0177195

MONTROSE CHEMICAL CORP

20201 S. Normandie Ave., Torrance

Industrial Waste, 24-Hour Composite

8:00 a.m. May 6 to 8:00 a.m. May 7, 1974

Chlorinated Hydrocarbon Analysis

AFE-WO: 1830-625

Requested by: J. Kremer
Copy: J. Chu
B. Nielsen
R. Rappard
S. Maguin

CONSTITUENT	Value in µg/liter
op' - DDE	3.04
pp' - DDE	24.9
op' - DDD	6.41
pp' - DDD	22.2
op' - DDT	1[illegible].7
pp' - DDT	16[illegible]
Aroclor 1242	<0.01
Aroclor 1254	<0.01
Total Chlorinated Hydrocarbons	233

Work performed at: San Jose Creek Water Quality Laboratory, County Sanitation Districts of Los Angeles County

BOE-C6-0177196

[illegible]STROSE CHEMICAL COMPANY

[illegible] Effluent - Grab Samples

[illegible] and 1:00 PM March 23, 1971

[illegible]orinated Hydrocarbon Analysis

[illegible]: [illegible]

Requested by: J. [illegible]
Copy: K, Payne, J. Redner

SAMPLE DESCRIPTION / CONSTITUENT in µg/liter	9:00 AM	1:00 PM	
[illegible]' - [illegible]	16.2	7.59	
[illegible]' - [illegible]	52.4	29.3	
[illegible]' - [illegible]	3.15	0.632	
[illegible] - [illegible]	8.49	4.13	
[illegible]' - [illegible]	40.5	31.4	
[illegible]' - [illegible]	183.	101.	
[illegible]	ND*	0.239	
[illegible]	ND	0.122	
[illegible]	ND	0.692	
[illegible]	302	175	

*[illegible]

Work performed at: Central [illegible], County Sanitation Districts of Los Angeles County.

BOE-C6-0177197

COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY
Industrial Wastes from Various Companies in the Pomona Area
Grab Samples
May 26, 1971
Chlorinated Hydrocarbon Analysis

APE-WO: 330

Requested by: J. Kremer
Copy: J. Rodner
K. Payne

CONSTITUENT in µg/liter \ SAMPLE DESCRIPTION	Northwest Paper Company	Garden State Paper Company	Hollytex Carpet Mills	Walter Carpet Mill
op' - DDE	0.166	ND	0.395	0.227
pp' - DDE	0.[illegible]	0.426	1.09	0.840
op' - DDD	ND*	ND	ND	0.310
pp' - DDD	ND	0.329	0.425	0.865
op' - DDT	ND	ND	0.344	ND
pp' - DDT	0.462	0.484	1.0[illegible]	[illegible]
TOTAL CHLORINATED HYDROCARBONS	1.19	1.1[illegible]	[illegible].22	2.48

* not detectable

Work performed at: Central Laboratory, County Sanitation Districts of Los Angeles County.

4239

PESTICIDE ANALYSIS OF RAW SEWAGE

MARCH 30-31, 1970

Concentration in pr gm/l (ppb)

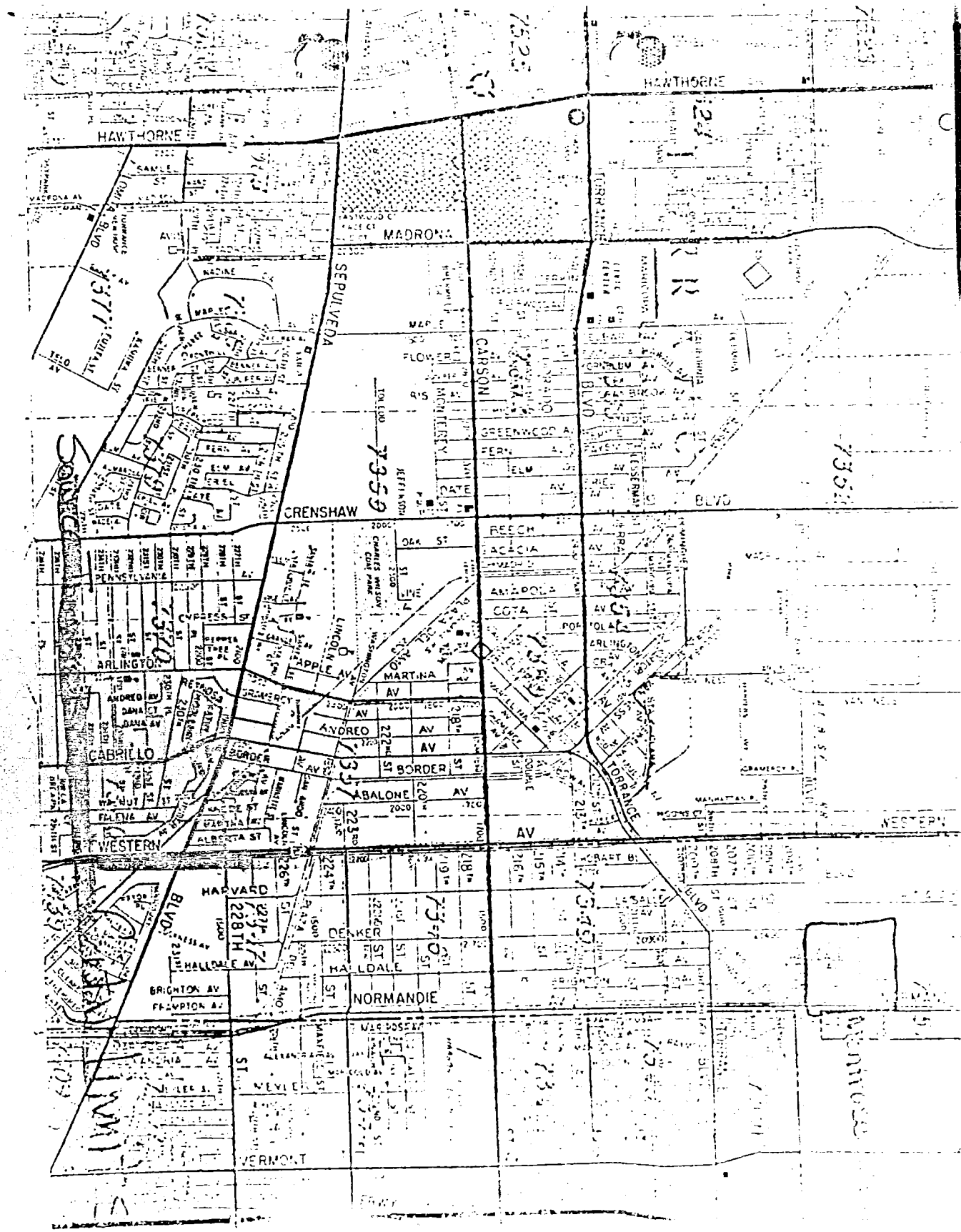
Sample Location*	1	2	3	4	Above Montrose Chemical 5	Below Montrose Chemical 6	6				
Sample Time Approx.	3 A.M. 8 A.M.	8A.M. 8A.M.	[illegible] A.M. [illegible] A.M.	[illegible] A.M. [illegible] A.M.	[illegible] A.M. [illegible] A.M.	[illegible] A.M. [illegible] A.M.	[illegible] 2PM	2 PM 8 PM	[illegible] 2AM	2AM 8AM	Weighted Avg
BHC	0.072	0.405	0.341	This also reflect Montrose Chem.	0.317						
Lindane		0.272	0.045		0.217						
Heptachlor	0.174	1.16	0.069		0.475		0.511				< 1
Aldrin	0.209	2.93	0.079		0.319						
Dieldrin	0.187										
Toxaphene	0.180										
op' - DDE	0.989	34.0	2.49	94.3	3.52	253	79.9	89.5	163	635	210
pp' - DDE	2.73	15	12.1	496	15.5	478	183	225	436	1053	429
op' - DDD		21.2		18.0		13.2					
pp' - DDD	0.097		1.09	41.6	2.[illegible]	55.2			23.2	52.1	16
op' - DDT	1.33	50.0	2.59	344	3.75	921	149	373	513	2190	696
pp'-DDT	2.24	3.73	5.44	630	[illegible].63	1220	329	412	[illegible]	2557	383
Kethane	4.09				11.0						
Total	12.3	229	24.2	1614	46.0	2954	[illegible]40	[illegible]60	[illegible]01	6182	2234

Note: No entry indicates concentration below minimum detection limit.

Identifications presumptive

*Sample Locations:

1. JO"A", Unit 3A, Bonds and Fries, Sta 69+98.35 Dwg J.O.-d-24
2. JO"B", Unit 1A, Fries and Realty, Sta 53+98.00 Dwg J.O.-p-41
3. JO"C", Unit 1, 2nd MH East of Figueroa, Sta 18+55.33 Dwg J.O.-p-50
4. JO"D", Unit 1, 230th St. & Figueroa, Sta 47+49.77 Dwg J.O.-p-49
5. Dist. 5 Interceptor, North Prop. line, Montrose Chem. Co. Sta 56+87.64 Dwg-5-p-64
6. Dist. 5 Interceptor, South of Montrose Chem. Co. Sta 46+50.00 Dwg 5-p-64


HAWTHORNE
MADRONA
SEPULVEDA
CARSON
CRENSHAW
BLVD
ARLINGTON
CABRILLO
WESTERN
HARVARD
DENKER
HALLDALE
NORMANDIE
VERMONT
TORRANCE
BORDER
ABALONE
ANDREO
MARTINA
AMAPOLA
COTA
BEECH
ACACIA
GREENWOOD
FERN
ELM
DATE
OAK ST
PENNSYLVANIA
CYPRESS
APPLE AV
LINCOLN
GRAMERCY
ALBERTA ST
HOBART BL
BRIGHTON AV
FRAMPTON AV
MEYLER
228TH
7359
7357
7349
7371
7370
7525
4240

[illegible] E. [illegible]rrison
[illegible] Engineer and
[illegible]eral Manager

I.W. Permit 1437
July 23, 1979

MEMO TO: Jay G. Kremer
Head, Industrial Waste Section

THRU: Ross C. Caballero
Supervisor, Industrial Waste
Inspection and Monitoring

FROM: Kell Jensen
Industrial Waste Inspector

SUBJECT: Montrose Chemical Corp. of California
20201 S. Normandie Avenue
Torrance, CA

This inspector visited Montrose Chemical Corp., on July 11, 1979. The purpose was to verify that no DDT contaminated wastewater was being discharged. I spoke with Mr. John Kallok, Plant Manager, who also took me through the plant.

All wastewater that has any potential of containing DDT is collected via drains into a large settling pond. All showers, sinks, and process water go to this area. The water is reused in their process. Water not reusable is stored and hauled to BKK by Chancellor and Ogden. Discharges that do enter the sewer system eminate from the urinals, water closets, boiler blow-down and recharging of water softening units. No rainwater enters the sewer. Rainwater in the process area is impounded and reused. Rainwater by the offices drain to the railroad tracks.

It appears that Montrose has pretty well eliminated their sources of DDT contamination from entering the sewerage system.

KJ:se
7-11-79
cc: E. Burr
J. Milne

COASTAL WATER RESEARCH PROJECT

Biennial Report for the years 1979 - 1980

edited by
Willard Bascom

Southern California Coastal
Water Research Project
646 W. Pacific Coast Highway
Long Beach, California 90806
213/435-7071

BOE-C6-0177202

SUMMARY OF FINDINGS

The opening section of this report dealing with changes in the sea off Palos Verdes points up the fact that in recent years the ecology of this region, once badly damaged by DDT and other pollutants, now has improved in several ways. First, we noticed that the DDT levels in the upper two centimeters of sediments had decreased substantially. Last year our trawls picked up certain species of fish not seen off Palos Verdes for more than 10 years. When we examined their stomachs we found large numbers of tiny shrimp-like microcrustaceans that had also been greatly reduced in this area. Apparently, the DDT had nearly wiped out this valuable fish food; once the DDT level in the upper sediments dropped, the microcrustaceans, and their predators, returned. These microcrustaceans had not been much affected at a depth of 300 m, but at 150 m they had increased 16 fold in the 5 years since 1974; at 60 m they increased 6 fold. The echinoderm population in the region did not increase in the same period.

Microcrustaceans and Echinoderms, Page 13

The bottomfish population in the Palos Verdes area has changed in subtle ways. In the last few years the numbers of yellowchin sculpin and California tonguefish have increased. Generally speaking, however, the abundance of bottomfish declined everywhere along the southern California mainland shelf during the 1970's, probably because of higher water temperature and greater transparency. The number of species off Palos Verdes continues to be about the same.

Bottomfish Population, Page 21

The intertidal algae of the Palos Verdes peninsula have been surveyed at various times since 1908. Our study compares species lists made by several investigators over a period of 70 years with the algae present in 1980 and concludes that there are about the same number of species present now as when the first measurements were made. At some stations this is 70 species, up from a lowpoint in 1970 of 15 species. The temporary reduction in diversity has been attributed to several causes, including the effects of sewage effluents, human trampling and aerial fall-out of pollutants, but no clear cause-and-effect relationship is evident.

Intertidal Algae, Page 35

BOE-C6-0177203

STATE OF CALIFORNIA—HEALTH AND WELFARE

DEPARTMENT OF HEALTH SERVICES
714/744 P STREET
SACRAMENTO, CA 95814
(916) 323-6042

EDMUND G. BROWN JR., Governor

September 25, 1981

Mr. Rolf Mall
State Department of Fish and Game
350 Golden Shore
Long Beach, CA. 90802

Dear Mr. Mall:

Staff of the Hazardous Materials Management Section's Abandoned Site Project have become aware of a situation which may cause marine pollution and endangerment of wildlife. The problem is a deposit of sediment, which is 40% DDT, in a Los Angeles County Sanitation District sewer line.

You will find enclosed with this letter a Sanitation District report which verifies the existence of the sediment problem. Our concern, and the reason we're writing to you, is that increased use of the sewer line could result in a flushing of the DDT through the treatment plant and into the ocean. We feel it is appropriate the Department of Fish and Game be made aware of the situation and be included in any discussions about remedying the problem.

You may contact Beth Jines at (916) 323-6042 or (ATSS) 473-6042 to discuss this investigation. Thank you for your attention.

Sincerely,

Mark N. White

Mark N. White, P.E., Manager
Abandoned Site Project
Hazardous Materials Management Section

Enclosure
cc: Earl Margitan
Los Angeles
Hazardous Materials Management Section
107 South Broadway
Los Angeles, CA. 90012

Site: Montrose Chemical Company
20201 South Normandie Avenue
Torrance, Calif. 90502

Company Contact: None

Staff Members Responsible: Beth Tirey, Sue Stack

Problem: During the years 1946 (+-) through 1970, Montrose Chemical made use of an earthen-walled seepage pond on site to dry their waste water, which is contaminated with DDT.

Sanitation District inspectors report a "slug" of DDT sludge in truck sewer downstream from the plant. It may be slowly washing into the sewer waters.

Montrose is owned by Stauffer Chemical. It is one of two known locations of active DDT manufacturing in the United States.

History: We don't know the exact date when this chemical plant began to manufacture DDT, but it was probably towards the end of the 1940's or early in the 1950's. The waste water from DDT manufacture was routed through redwood "pipes" to an on site evaporation pond (75 x 50 x 15 ft.), and eventually into the County Sanitation District's sewer.

In 1970, as a result of a successful civil suit, the plant's waste water handling system was upgraded. The seepage pond was lined with concrete and pond overflow, which had been routed into the sewer, was routed through a filtration system.

The company's present handling of waste water results in very little, if any, DDT or DDE entering the sewer.

ASP Action To Date: We checked and found no current regulatory action at RWQCB, HMMS Regional Operation, Flood Control District, Secretary of State, and Department of the County Engineer. The only current regulation of this firm seems to be through the County Sanitation Districts and RCRA/EPA (Eric has a file card, but no interim document on file).

Other Comments: One of our concerns is with the soil around and under the concrete-lined pond; was all DDT-contaminated soil removed? Miller Chambers thinks traces of DDT or DDE might still be present in this soil. If so, the soil poses a hazard to the community and the work force because of its potential for becoming airborne, and also poses a hazard to wildlife because it can enter the food chain.

Our second concern is over the constant "trickling" of DDT sludge into raw sewage as the sewage flushes past the DDT "slug" in the line. Mr. Beeker of the County Sanitation District reports that the slug consists of 74,000 pounds of DDT spread within 2,300 feet of 57-inch diameter trunk line.

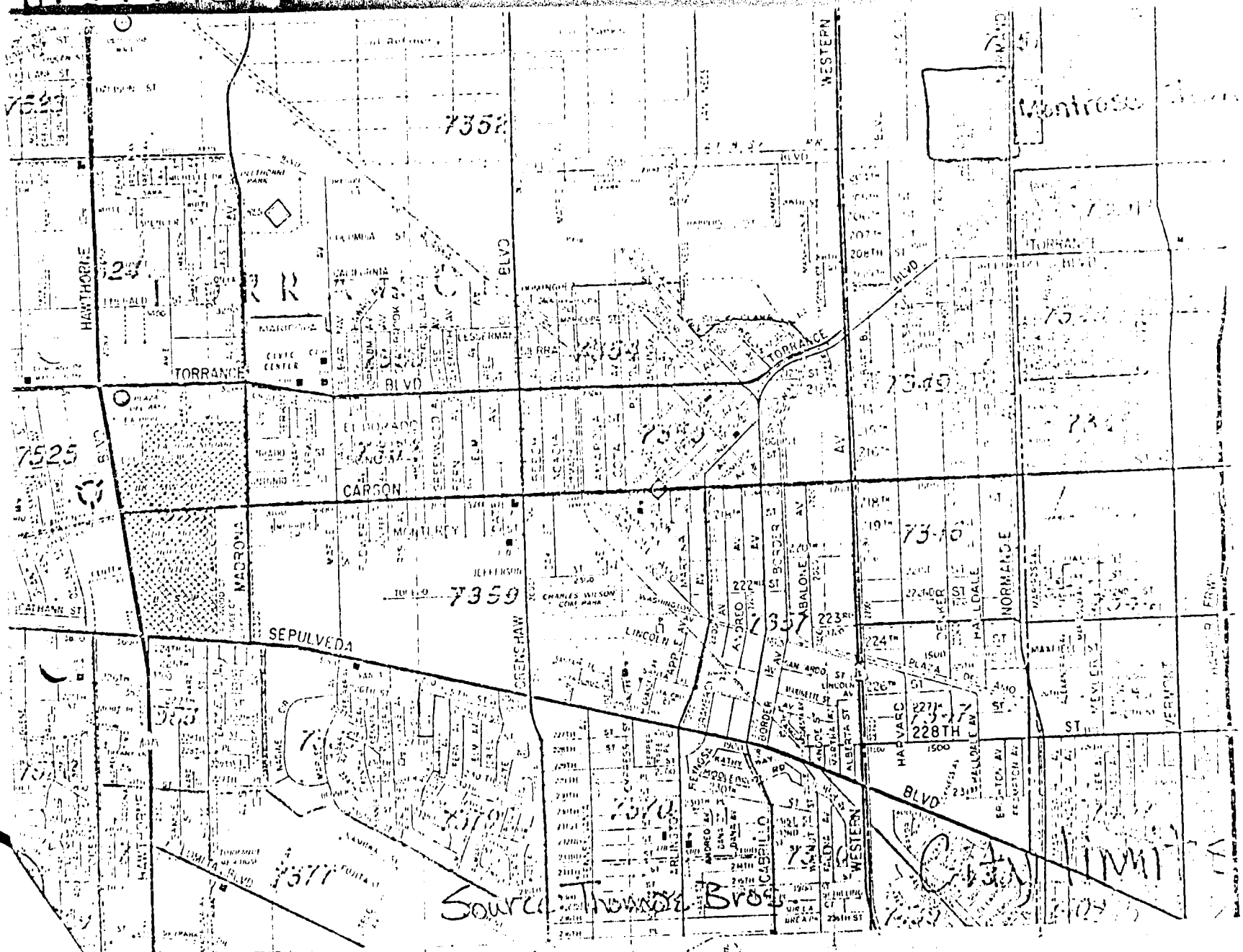
Its interesting to us that although the Montrose plant lies within the City of Los Angeles, their sewage and this DDT slug are in the county's lines.

Recommendations: Soil on site should be sampled by Regional Operations staff, and soil samples analyzed for DDT contamination. If contamination is found, Montrose should be issued a cleanup deadline.

The sewer contamination problem should be referred to EPA since 1) the contamination lies in the Sanitation District's line, off the Montrose property, and 2) the Sanitation District is probably financed by a clean water grant and hence, would likely respond to EPA'a "clout".

BOE-C6-0177206

4246



BOE-C6-0177207

STATE OF CALIFORNIA—HEALTH AND WELFARE AGENCY

EDMUND G. BROWN JR., Governor

DEPARTMENT OF HEALTH SERVICES
714 744 P STREET
SACRAMENTO, CA 95814
(916) 323-6042

September 25, 1981

Mr. Rolf Mall
State Department of Fish and Game
350 Golden Shore
Long Beach, CA. 90802

Dear Mr. Mall:

Staff of the Hazardous Materials Management Section's Abandoned Site Project have become aware of a situation which may cause marine pollution and endangerment of wildlife. The problem is a deposit of sediment, which is 40% DDT, in a Los Angeles County Sanitation District sewer line.

You will find enclosed with this letter a Sanitation District report which verifies the existence of the sediment problem. Our concern, and the reason we're writing to you, is that increased use of the sewer line could result in a flushing of the DDT through the treatment plant and into the ocean. We feel it is appropriate the Department of Fish and Game be made aware of the situation and be included in any discussions about remedying the problem.

You may contact Beth Jines at (916) 323-6042 or (ATSS) 473-6042 to discuss this investigation. Thank you for your attention.

Sincerely,

Mark N. White

Mark N. White, P.E., Manager
Abandoned Site Project
Hazardous Materials Management Section

Enclosure
cc: Earl Margitan
Los Angeles
Hazardous Materials Management Section
107 South Broadway
Los Angeles, CA. 90012

State of California

Department of Health Serv

Memorandum

To : Miller Chambers
Los Angeles HMMS

Date : July 21, 1981

Subject: Montrose Chemical Company, 2020 South Normancie Ave.

From : Sue Stack
Sue Stack
Abandoned Site Project

Beth Tirey and I recently presented information concerning Montrose Chemical Company to Jim Stahler. Mr. Stahler shares our concern that a "slug" of DDT may be lodged somewhere in the County Sanitation District sewer lines near Montrose; he directed us to contact you so that you would in turn contact the Sanitation District.

Attached is a copy of our summary regarding this abandoned hazardous waste problem. We would appreciate your assistance resolving the question of whether contamination in the sewer line was ever cleaned up. If the Sanitation District cannot produce evidence to show the DDT slug was removed, Abandoned Site Project staff will refer the situation to the Regional Water Quality Control Board and the State Department of Fish and Game.

Thank you for your help. Please respond to either Beth Tirey or me (phone ATSS 473-6042) as soon as possible.

Attachment

BOE-C6-0177209

STATE OF CALIFORNIA

OFFICE MEMO

DATE 1/2/81

TO

Beth

ROOM NUMBER

FROM

Sue

PHONE NUMBER

SUBJECT: tip

please call this guy (below) and ask him for more info about the site indicated Tell him Mr. Kiado asked you to follow up on this.

MONTROSE CHEM
CONCRETE LINED
POND.
TORRENCE
DDT MANUF.
HE HAS REPORT
SHOWING DISPOSAL
OF CHLORO BENZENE
& DDT WHILE POND
UNLINED
ED KLEPINGER
(202) 488-1015
(D.C.)
from Kiado

P.S. you might also check w/ Schuberg, H_2O Bd. etc.

January 5, 1981

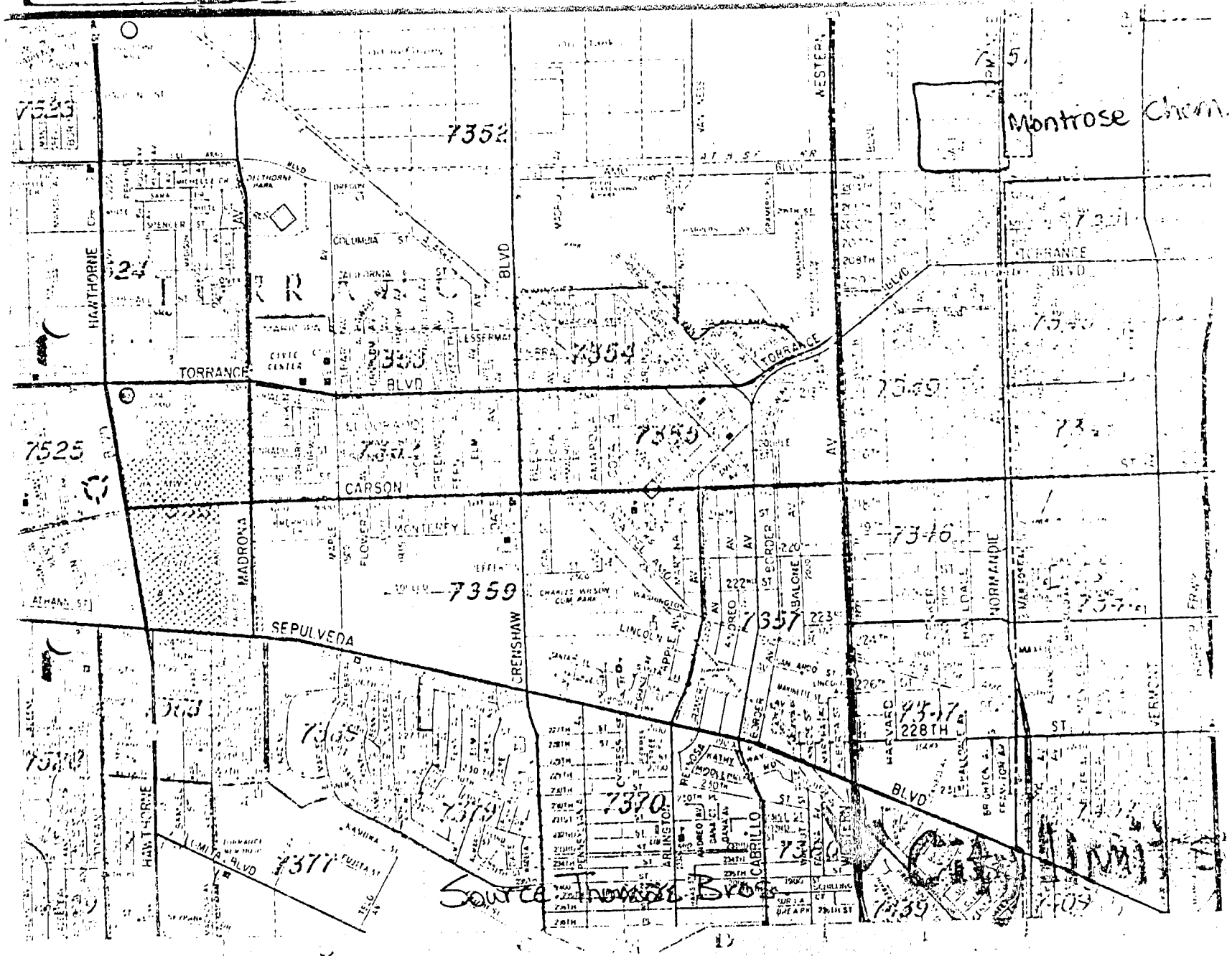
Montrose Chemical - Torrance - 213-[illegible]

Ed Klepinger 202-[illegible]-1615. 20201 S. Wilmarty

Torrance

BOE-C6-0177211

4251



BOE-C6-0177212

POTENTIAL HAZARDOUS WASTE SITE
IDENTIFICATION AND PRELIMINARY ASSESSMENT

REGION	SITE NUMBER (to be assigned by Hq)
IX	

NOTE: This form is completed for each potential hazardous waste site to help set priorities for site inspection. The information submitted on this form is based on available records and may be updated on subsequent forms as a result of additional inquiries and on-site inspections.

GENERAL INSTRUCTIONS: Complete Sections I and III through X as completely as possible before Section II (*Preliminary Assessment*).

I. SITE IDENTIFICATION

A. SITE NAME: MONTROSE CHEMICAL CO.

B. STREET (or other identifier): 20201 South Normandie Ave

C. CITY: TORRANCE

D. STATE: CA

E. ZIP CODE: 90502

F. COUNTY NAME: LOS ANGELES

G. OWNER/OPERATOR (If known)
1. NAME: STAUFFER
2. TELEPHONE NUMBER: (213) 328 5462

H. TYPE OF OWNERSHIP
☐ 1. FEDERAL ☐ 2. STATE ☐ 3. COUNTY ☐ 4. MUNICIPAL ☒ 5. PRIVATE ☐ 6. UNKNOWN

I. SITE DESCRIPTION: ACTIVE CHEMICAL (DDT) MANUFACTURING PLANT

J. HOW IDENTIFIED (i.e., citizen's complaints, OSHA citations, etc.): REFERRAL FROM SANITARY INSPECTOR

K. DATE IDENTIFIED (mo., day, & yr.): 01/01/81

L. PRINCIPAL STATE CONTACT
1. NAME: Sue Stack
2. TELEPHONE NUMBER: (916) 322 5863

II. PRELIMINARY ASSESSMENT (complete this section last)

A. APPARENT SERIOUSNESS OF PROBLEM
☒ 1. HIGH ☐ 2. MEDIUM ☐ 3. LOW ☐ 4. NONE ☐ 5. UNKNOWN

B. RECOMMENDATION
☐ 1. NO ACTION NEEDED (no hazard)
☐ 3. SITE INSPECTION NEEDED
a. TENTATIVELY SCHEDULED FOR:
b. WILL BE PERFORMED BY:
☒ 2. IMMEDIATE SITE INSPECTION NEEDED
a. TENTATIVELY SCHEDULED FOR:
b. WILL BE PERFORMED BY:
☐ 4. SITE INSPECTION NEEDED (low priority)

C. PREPARER INFORMATION
1. NAME: Sue Stack
2. TELEPHONE NUMBER: (916) [illegible]
3. DATE (mo., day, & yr.): 5/22/81

III. SITE INFORMATION

A. SITE STATUS
☒ 1. ACTIVE (Those industrial or municipal sites which are being used for waste treatment, storage, or disposal on a continuing basis, even if infrequently.)
☐ 2. INACTIVE (Those sites which no longer receive wastes.)
☐ 3. OTHER (specify): (Those sites that include such incidents like "midnight dumping" where no regular or continuing use of the site for waste disposal has occurred.)

B. IS GENERATOR ON SITE?
☐ 1. NO ☒ 2. YES (specify generator's four-digit SIC Code):

C. AREA OF SITE (in acres): ~40

D. IF APPARENT SERIOUSNESS OF SITE IS HIGH, SPECIFY COORDINATES
1. LATITUDE (deg.-min.-sec.)
2. LONGITUDE (deg.-min.-sec.)

E. ARE THERE BUILDINGS ON THE SITE?
☐ 1. NO ☒ 2. YES (specify):

EPA 215A (3/80)

BOE-C6-0177213

Continued From Front

'ARACTERIZATION OF SITE ACTIVITY

Indicate the major site activity(ies) and deta elating to each activity by marking 'X' in the opriate boxes.

'X'	A. TRANSPORTER	X	B. STORER	X	C. TREATER	X	D. DISPOSER
	1. RAIL		1. PILE		1. FILTRATION		1. LANDFILL
	2. SHIP		2. SURFACE IMPOUNDMENT		2. INCINERATION		2. LANDFARM
	3. BARGE		3. DRUMS		3. VOLUME REDUCTION		3. OPEN DUMP
	4. TRUCK		4. TANK, ABOVE GROUND		4. RECYCLING/RECOVERY		4. SURFACE IMPOUNDMENT
	5. PIPELINE		5. TANK, BELOW GROUND		5. CHEM./PHYS. TREATMENT		5. MIDNIGHT DUMPING
	6. OTHER (specify):		6. OTHER (specify):		6. BIOLOGICAL TREATMENT		6. INCINERATION
					7. WASTE OIL REPROCESSING		7. UNDERGROUND INJECTION
					8. SOLVENT RECOVERY	X	8. OTHER (specify): Sewer line "plug"
					9. OTHER (specify):		

E. SPECIFY DETAILS OF SITE ACTIVITIES AS NEEDED

approximately 74,000 lbs of powdered DDT is clogging the sewer line near the plant

V. WASTE RELATED INFORMATION

A. WASTE TYPE

☐ 1. UNKNOWN ☐ 2. LIQUID ☐ 3. SOLID ☒ 4. SLUDGE ☐ 5. GAS

B. WASTE CHARACTERISTICS

☐ 1. UNKNOWN ☐ 2. CORROSIVE ☐ 3. IGNITABLE ☐ 4. RADIOACTIVE ☐ 5. HIGHLY VOLATILE
☒ 6. TOXIC ☐ 7. REACTIVE ☐ 8. INERT ☐ 9. FLAMMABLE

☐ 10. OTHER (specify):

C. WASTE CATEGORIES

1. Are records of wastes available? Specify items such as manifests, inventories, etc. below.

2. Estimate the amount (specify unit of measure) of waste by category; mark 'X' to indicate which wastes are present.

a. SLUDGE	b. OIL	c. SOLVENTS	d. CHEMICALS	e. SOLIDS	f. OTHER
AMOUNT 74,000	AMOUNT	AMOUNT	AMOUNT 74,000	AMOUNT	AMOUNT
UNIT OF MEASURE pounds	UNIT OF MEASURE	UNIT OF MEASURE	UNIT OF MEASURE pounds	UNIT OF MEASURE	UNIT OF MEASURE
☐ (1) PAINT, PIGMENTS	☐ (1) OILY WASTES	☐ (1) HALOGENATED SOLVENTS	☐ (1) ACIDS	☐ (1) FLYASH	☐ (1) LABORATORY PHARMACEUT.
☐ (2) METALS SLUDGES	☐ (2) OTHER (specify):	☐ (2) NON-HALOGNTD. SOLVENTS	☐ (2) PICKLING LIQUORS	☐ (2) ASBESTOS	☐ (2) HOSPITAL
☐ (3) POTW		☐ (3) OTHER (specify)	☐ (3) CAUSTICS	☐ (3) MILLING/MINE TAILINGS	☐ (3) RADIOACTIVE
☐ (4) ALUMINUM SLUDGE			☐ (4) PESTICIDES	☐ (4) FERROUS SMLTG. WASTES	☐ (4) MUNICIPAL
☒ (5) OTHER (specify): DDT in POTW line			☐ (5) DYES/INKS	☐ (5) NON-FERROUS SMLTG. WASTES	☐ (5) OTHER (specify)
			☐ (6) CYANIDE	☐ (6) OTHER (specify):	
			☐ (7) PHENOLS		
			☐ (8) HALOGENS		
			☐ (9) PCB		
			☐ (10) METALS		
			☐ (11) OTHER (specify)		

Continue On Page 3

BOE-C6-0177214

Continued From Page 2

V. WASTE RELATED INFORMATION (continued)

3. LIST SUBSTANCES OF GREATEST CONCERN WHICH MAY BE ON THE SITE (place in descending order of hazard).

DDT, DDE

4. ADDITIONAL COMMENTS OR NARRATIVE DESCRIPTION OF SITUATION KNOWN OR REPORTED TO EXIST AT THE SITE.

Also possibility of soil contamination near holding pond

VI. HAZARD DESCRIPTION

A. TYPE OF HAZARD	B. POTENTIAL HAZARD (mark 'X')	C. ALLEGED INCIDENT (mark 'X')	D. DATE OF INCIDENT (mo., day, yr.)	E. REMARKS
1. NO HAZARD				
2. HUMAN HEALTH	X			
3. NON-WORKER INJURY/EXPOSURE				
4. WORKER INJURY				
5. CONTAMINATION OF WATER SUPPLY (ocean outfall)	X			ocean outfall
6. CONTAMINATION OF FOOD CHAIN	X			
7. CONTAMINATION OF GROUND WATER				
8. CONTAMINATION OF SURFACE WATER				
9. DAMAGE TO FLORA/FAUNA	X			
10. FISH KILL				
11. CONTAMINATION OF AIR				
12. NOTICEABLE ODORS				
13. CONTAMINATION OF SOIL	X			around pond
14. PROPERTY DAMAGE				
15. FIRE OR EXPLOSION				
16. SPILLS/LEAKING CONTAINERS/RUNOFF/STANDING LIQUIDS				
17. SEWER, STORM DRAIN PROBLEMS	X			
18. EROSION PROBLEMS				
19. INADEQUATE SECURITY				
20. INCOMPATIBLE WASTES				
21. MIDNIGHT DUMPING				
22. OTHER (specify):				

Continue On Reverse

Continued From Front

VII. PERMIT INFORMATION

A. INDICATE ALL APPLICABLE PERMITS HELD BY THE SITE.

- [ ] 1. NPDES PERMIT
- [ ] 2. SPCC PLAN
- [ ] 3. STATE PERMIT *(specify)*:
- [ ] 4. AIR PERMITS
- [x] 5. LOCAL PERMIT
- [ ] 6. RCRA TRANSPORTER
- [ ] 7. RCRA STORER
- [ ] 8. RCRA TREATER
- [ ] 9. RCRA DISPOSER
- [ ] 10. OTHER *(specify)*:

B. IN COMPLIANCE?

- [x] 1. YES
- [ ] 2. NO
- [ ] 3. UNKNOWN

4. WITH RESPECT TO *(list regulation name & number)*: current sewerage

VIII. PAST REGULATORY ACTIONS

- [ ] A. NONE
- [x] B. YES *(summarize below)*

wastewater treatment has been upgraded because of lawsuit

IX. INSPECTION ACTIVITY *(past or on-going)*

- [x] A. NONE
- [ ] B. YES *(complete items 1,2,3, & 4 below)*

1. TYPE OF ACTIVITY	2. DATE OF PAST ACTION (mo., day, & yr.)	3. PERFORMED BY: (EPA/State)	4. DESCRIPTION

X. REMEDIAL ACTIVITY *(past or on-going)*

- [ ] A. NONE
- [ ] B. YES *(complete items 1, 2, 3, & 4 below)*

1. TYPE OF ACTIVITY	2. DATE OF PAST ACTION (mo., day, & yr.)	3. PERFORMED BY: (EPA/State)	4. DESCRIPTION

NOTE: Based on the information in Sections III through X, fill out the Preliminary Assessment *(Section II)* information on the first page of this form.

BOE-C6-0177216

DHS

POTENTIAL HAZARDOUS WASTE SITE
TENTATIVE DISPOSITION

REGION	SITE NUMBER

I. SITE IDENTIFICATION

A. SITE NAME	B. STREET	
MONTROSE	20201 S. NORMANDIE	
C. CITY	D. STATE	E. ZIP CODE
TORRANCE	CA	90502

II. TENTATIVE DISPOSITION

Indicate the recommended action(s) and agency(ies) that should be involved by marking 'X' in the appropriate boxes.

RECOMMENDATION	MARK 'X'	ACTION AGENCY: EPA	STATE	LOCAL	PRIVATE
A. NO ACTION NEEDED — NO HAZARD					
B. INVESTIGATIVE ACTION(S) NEEDED *(If yes, complete Section III.)*	X				
C. REMEDIAL ACTION NEEDED *(If yes, complete Section IV.)*	X				
D. ENFORCEMENT ACTION NEEDED	X	X			

E. RATIONALE FOR DISPOSITION

DDT could be flushed through POTW at any time.

F. INDICATE THE ESTIMATED DATE OF FINAL DISPOSITION *(mo., day, & yr.)*	G. IF A CASE DEVELOPMENT PLAN IS NECESSARY, INDICATE THE ESTIMATED DATE ON WHICH THE PLAN WILL BE DEVELOPED *(mo., day, & yr.)*

H. PREPARER INFORMATION

1. NAME	2. TELEPHONE NUMBER	3. DATE *(mo., day, & yr.)*

III. INVESTIGATIVE ACTIVITY NEEDED

A. IDENTIFY ADDITIONAL INFORMATION NEEDED TO ACHIEVE A FINAL DISPOSITION.

B. PROPOSED INVESTIGATIVE ACTIVITY *(Detailed Information)*

1. METHOD FOR OBTAINING NEEDED ADDITIONAL INFO.	2. SCHEDULED DATE OF ACTION *(mo, day, & yr)*	3. TO BE PERFORMED BY *(EPA, Contractor, State, etc.)*	4. ESTIMATED MANHOURS	5. REMARKS
a. TYPE OF SITE INSPECTION				
(1)				
(2)				
(3)				
b. TYPE OF MONITORING				
(1)				
(2)				
c. TYPE OF SAMPLING				
(1)				
(2)				

Continue On Reverse

EH 2158 (3/80)

BOE-C6-0177217

DHS	POTENTIAL HAZARDOUS WASTE SITE FINAL STRATEGY DETERMINATION	REGION	SITE NUMBER

I. SITE IDENTIFICATION

A. SITE NAME	B. STREET	
C. CITY	D. STATE	E. ZIP CODE

II. FINAL DETERMINATION

Indicate the recommended action(s) and agency(ies) that should be involved by marking 'X' in the appropriate boxes.

RECOMMENDATION	MARK 'X'	ACTION AGENCY: EPA	STATE	LOCAL	PRIVATE
A. NO ACTION NEEDED					
B. REMEDIAL ACTION NEEDED, BUT NO RESOURCES AVAILABLE *(If yes, complete Section III.)*					
C. REMEDIAL ACTION *(If yes, complete Section IV.)*					
D. ENFORCEMENT ACTION NEEDED					

E. RATIONALE FOR FINAL STRATEGY DETERMINATION

F. IF A CASE DEVELOPMENT PLAN HAS BEEN PREPARED, SPECIFY THE DATE PREPARED *(mo., day, & yr.)*	G. IF AN ENFORCEMENT CASE HAS BEEN FILED, SPECIFY THE DATE FILED *(mo., day, & yr.)*

H. PREPARER INFORMATION

1. NAME	2. TELEPHONE NUMBER	3. DATE *(mo., day, & yr.)*

III. REMEDIAL ACTIONS TO BE TAKEN WHEN RESOURCES BECOME AVAILABLE

List all remedial actions, such as excavation, removal, etc. to be taken as soon as resources become available. See instructions for a list of Key Words for each of the actions to be used in the spaces below. Provide an estimate of the approximate cost of the remedy.

A. REMEDIAL ACTION	B. ESTIMATED COST	C. REMARKS
	$	
	$	
	$	
	$	
	$	
	$	
	$	
	$	
D. TOTAL ESTIMATED COST	$	

Continued on Reverse

EH 2[illegible] 13 801

DHS

POTENTIAL HAZARDOUS WASTE SITE
IDENTIFICATION AND PRELIMINARY ASSESSMENT

REGION: IX

SITE NUMBER (to be assigned by Hq):

NOTE: This form is completed for each potential hazardous waste site to help set priorities for site inspection. The information submitted on this form is based on available records and may be updated on subsequent forms as a result of additional inquiries and on-site inspections.

GENERAL INSTRUCTIONS: Complete Sections I and III through X as completely as possible before Section II (Preliminary Assessment).

I. SITE IDENTIFICATION

A. SITE NAME: MONTROSE CHEMICAL CO.

B. STREET (or other identifier): 20201 South Normandie Ave.

C. CITY: Torrance

D. STATE: CA

E. ZIP CODE: 90502

F. COUNTY NAME: Los Angeles

G. OWNER/OPERATOR (If known)
1. NAME: STAUFFER
2. TELEPHONE NUMBER: (213) 328 5462

H. TYPE OF OWNERSHIP
☐ 1. FEDERAL ☐ 2. STATE ☐ 3. COUNTY ☐ 4. MUNICIPAL ☒ 5. PRIVATE ☐ 6. UNKNOWN

I. SITE DESCRIPTION: ACTIVE CHEMICAL (DDT) MANUFACTURING PLANT

J. HOW IDENTIFIED (i.e., citizen's complaints, OSHA citations, etc.): REFERRAL FROM SANITARIAN INSPECTOR

K. DATE IDENTIFIED (mo., day, & yr.): 01/01/81

L. PRINCIPAL STATE CONTACT
1. NAME: Sue Stack
2. TELEPHONE NUMBER: (916) 322 5505

II. PRELIMINARY ASSESSMENT (complete this section last)

A. APPARENT SERIOUSNESS OF PROBLEM
☒ 1. HIGH ☐ 2. MEDIUM ☐ 3. LOW ☐ 4. NONE ☐ 5. UNKNOWN

B. RECOMMENDATION
☐ 1. NO ACTION NEEDED (no hazard)
☐ 3. SITE INSPECTION NEEDED
a. TENTATIVELY SCHEDULED FOR:
b. WILL BE PERFORMED BY:
☒ 2. IMMEDIATE SITE INSPECTION NEEDED
a. TENTATIVELY SCHEDULED FOR:
b. WILL BE PERFORMED BY:
☐ 4. SITE INSPECTION NEEDED (low priority)

C. PREPARER INFORMATION
1. NAME: Sue Stack
2. TELEPHONE NUMBER: (916) [illegible]
3. DATE (mo., day, & yr.): 5/22/81

III. SITE INFORMATION

A. SITE STATUS
☒ 1. ACTIVE (Those industrial or municipal sites which are being used for waste treatment, storage, or disposal on a continuing basis, even if infrequently.)
☐ 2. INACTIVE (Those sites which no longer receive wastes.)
☐ 3. OTHER (specify): (Those sites that include such incidents like "midnight dumping" where no regular or continuing use of the site for waste disposal has occurred.)

B. IS GENERATOR ON SITE?
☐ 1. NO ☒ 2. YES (specify generator's four-digit SIC Code):

C. AREA OF SITE (in acres): ~40

D. IF APPARENT SERIOUSNESS OF SITE IS HIGH, SPECIFY COORDINATES
1. LATITUDE (deg.-min.-sec.):
2. LONGITUDE (deg.-min.-sec.):

E. ARE THERE BUILDINGS ON THE SITE?
☐ 1. NO ☒ 2. YES (specify):

Continue on back

EM 215A (3/80)

BOE-C6-0177219

Continued From Front

CHARACTERIZATION OF SITE ACTIVITY

Indicate the major site activity(ies) and details relating to each activity by marking 'X' in the appropriate boxes.

X	A. TRANSPORTER	X	B. STORER	X	C. TREATER	X	D. DISPOSER
	1. RAIL	X	1. PILE		1. FILTRATION		1. LANDFILL
	2. SHIP		2. SURFACE IMPOUNDMENT		2. INCINERATION		2. LANDFARM
	3. BARGE		3. DRUMS		3. VOLUME REDUCTION		3. OPEN DUMP
	4. TRUCK		4. TANK, ABOVE GROUND		4. RECYCLING/RECOVERY		4. SURFACE IMPOUNDMENT
	5. PIPELINE		5. TANK, BELOW GROUND		5. CHEM./PHYS. TREATMENT		5. MIDNIGHT DUMPING
	6. OTHER (specify):		6. OTHER (specify):		6. BIOLOGICAL TREATMENT		6. INCINERATION
					7. WASTE OIL REPROCESSING		7. UNDERGROUND INJECTION
					8. SOLVENT RECOVERY	X	8. OTHER (specify): sewer line "plug"
					9. OTHER (specify):		

E. SPECIFY DETAILS OF SITE ACTIVITIES AS NEEDED

approximately 74,000 lbs of powdered DDT is clogging the sewer line near the plant

V. WASTE RELATED INFORMATION

A. WASTE TYPE

☐ 1. UNKNOWN ☐ 2. LIQUID ☐ 3. SOLID ☒ 4. SLUDGE ☐ 5. GAS

B. WASTE CHARACTERISTICS

☐ 1. UNKNOWN ☐ 2. CORROSIVE ☐ 3. IGNITABLE ☐ 4. RADIOACTIVE ☐ 5. HIGHLY VOLATILE
☒ 6. TOXIC ☐ 7. REACTIVE ☐ 8. INERT ☐ 9. FLAMMABLE

☐ 10. OTHER (specify):

C. WASTE CATEGORIES

1. Are records of wastes available? Specify items such as manifests, inventories, etc. below.

2. Estimate the amount (specify unit of measure) of waste by category; mark 'X' to indicate which wastes are present.

a. SLUDGE	b. OIL	c. SOLVENTS	d. CHEMICALS	e. SOLIDS	f. OTHER
AMOUNT 74,000	AMOUNT	AMOUNT	AMOUNT 74,000	AMOUNT	AMOUNT
UNIT OF MEASURE pounds	UNIT OF MEASURE	UNIT OF MEASURE	UNIT OF MEASURE pounds	UNIT OF MEASURE	UNIT OF MEASURE
X (1) PAINT, PIGMENTS	X (1) OILY WASTES	X (1) HALOGENATED SOLVENTS	X (1) ACIDS	X (1) FLYASH	X (1) LABORATORY PHARMACEUT.
(2) METALS SLUDGES	(2) OTHER (specify):	(2) NON-HALOGNTD. SOLVENTS	(2) PICKLING LIQUORS	(2) ASBESTOS	(2) HOSPITAL
(3) POTW		(3) OTHER (specify):	(3) CAUSTICS	(3) MILLING/ MINE TAILINGS	(3) RADIOACTIVE
(4) ALUMINUM SLUDGE			X (4) PESTICIDES	(4) FERROUS SMLTG. WASTES	(4) MUNICIPAL
X (5) OTHER (specify): DDT in POTW line			(5) DYES/INKS	(5) NON-FERROUS SMLTG. WASTES	(5) OTHER (specify):
			(6) CYANIDE	(6) OTHER (specify):	
			(7) PHENOLS		
			(8) HALOGENS		
			(9) PCB		
			(10) METALS		
			(11) OTHER (specify):		

Continue on Page 3

BOE-C6-0177220

Continued From Page 2

V. WASTE RELATED INFORMATION (continued)

3. LIST SUBSTANCES OF GREATEST CONCERN WHICH MAY BE ON THE SITE (place in descending order of hazard).

DDT, DDE

4. ADDITIONAL COMMENTS OR NARRATIVE DESCRIPTION OF SITUATION KNOWN OR REPORTED TO EXIST AT THE SITE.

Also possibility of soil contamination near holding pond

VI. HAZARD DESCRIPTION

A. TYPE OF HAZARD	B. POTENTIAL HAZARD (mark 'X')	C. ALLEGED INCIDENT (mark 'X')	D. DATE OF INCIDENT (mo., day, yr.)	E. REMARKS
1. NO HAZARD				
2. HUMAN HEALTH	X			
3. NON-WORKER INJURY/EXPOSURE				
4. WORKER INJURY				
5. CONTAMINATION OF WATER SUPPLY (ocean outfall)	X			ocean outfall
6. CONTAMINATION OF FOOD CHAIN	X			
7. CONTAMINATION OF GROUND WATER				
8. CONTAMINATION OF SURFACE WATER				
9. DAMAGE TO FLORA/FAUNA	X			
10. FISH KILL				
11. CONTAMINATION OF AIR				
12. NOTICEABLE ODORS				
13. CONTAMINATION OF SOIL	X			around pond
14. PROPERTY DAMAGE				
15. FIRE OR EXPLOSION				
16. SPILLS/LEAKING CONTAINERS/ RUNOFF/STANDING LIQUIDS				
17. SEWER, STORM DRAIN PROBLEMS	X			
18. EROSION PROBLEMS				
19. INADEQUATE SECURITY				
20. INCOMPATIBLE WASTES				
21. MIDNIGHT DUMPING				
22. OTHER (specify):				

Continue On Reverse

BOE-C6-0177221

Continued From Front

VII. PERMIT INFORMATION

A. INDICATE ALL APPLICABLE PERMITS HELD BY THE SITE.

- [ ] 1. NPDES PERMIT
- [ ] 2. SPCC PLAN
- [ ] 3. STATE PERMIT *(specify)*:
- [ ] 4. AIR PERMITS
- [x] 5. LOCAL PERMIT
- [ ] 6. RCRA TRANSPORTER
- [ ] 7. RCRA STORER
- [ ] 8. RCRA TREATER
- [ ] 9. RCRA DISPOSER
- [ ] 10. OTHER *(specify)*:

B. IN COMPLIANCE?

- [x] 1. YES
- [ ] 2. NO
- [ ] 3. UNKNOWN

4. WITH RESPECT TO *(list regulation name & number)*: current sewerage

VIII. PAST REGULATORY ACTIONS

- [ ] A. NONE
- [x] B. YES *(summarize below)*

wastewater treatment has been up-graded because of lawsuit

IX. INSPECTION ACTIVITY *(past or on-going)*

- [x] A. NONE
- [ ] B. YES *(complete items 1,2,3, & 4 below)*

1. TYPE OF ACTIVITY	2. DATE OF PAST ACTION (mo., day, & yr.)	3. PERFORMED BY: (EPA/State)	4. DESCRIPTION

X. REMEDIAL ACTIVITY *(past or on-going)*

- [ ] A. NONE
- [ ] B. YES *(complete items 1, 2, 3, & 4 below)*

1. TYPE OF ACTIVITY	2. DATE OF PAST ACTION (mo., day, & yr.)	3. PERFORMED BY: (EPA/State)	4. DESCRIPTION

NOTE: Based on the information in Sections III through X, fill out the Preliminary Assessment *(Section II)* information on the first page of this form.

BOE-C6-0177222

DHS

POTENTIAL HAZARDOUS WASTE SITE
TENTATIVE DISPOSITION

REGION	SITE NUMBER

I. SITE IDENTIFICATION

A. SITE NAME	B. STREET	
MONTROSE	20201 S. NORMANDIE	
C. CITY	**D. STATE**	**E. ZIP CODE**
TORRANCE	CA	90502

II. TENTATIVE DISPOSITION

Indicate the recommended action(s) and agency(ies) that should be involved by marking 'X' in the appropriate boxes.

RECOMMENDATION	MARK "X"	ACTION AGENCY: EPA	STATE	LOCAL	PRIVATE
A. NO ACTION NEEDED — NO HAZARD					
B. INVESTIGATIVE ACTION(S) NEEDED *(If yes, complete Section III.)*	X				
C. REMEDIAL ACTION NEEDED *(If yes, complete Section IV.)*	X				
D. ENFORCEMENT ACTION NEEDED	X	X			

E. RATIONALE FOR DISPOSITION

DDT could be flushed through POTW at any time.

F. INDICATE THE ESTIMATED DATE OF FINAL DISPOSITION *(mo., day, & yr.)*	G. IF A CASE DEVELOPMENT PLAN IS NECESSARY, INDICATE THE ESTIMATED DATE ON WHICH THE PLAN WILL BE DEVELOPED *(mo., day, & yr.)*

H. PREPARER INFORMATION

1. NAME	2. TELEPHONE NUMBER	3. DATE *(mo., day, & yr.)*

III. INVESTIGATIVE ACTIVITY NEEDED

A. IDENTIFY ADDITIONAL INFORMATION NEEDED TO ACHIEVE A FINAL DISPOSITION.

B. PROPOSED INVESTIGATIVE ACTIVITY *(Detailed Information)*

1. METHOD FOR OBTAINING NEEDED ADDITIONAL INFO.	2. SCHEDULED DATE OF ACTION *(mo, day, & yr)*	3. TO BE PERFORMED BY *(EPA, Contractor, State, etc.)*	4. ESTIMATED MANHOURS	5. REMARKS
a. TYPE OF SITE INSPECTION				
(1)				
(2)				
(3)				
b. TYPE OF MONITORING				
(1)				
(2)				
c. TYPE OF SAMPLING				
(1)				
(2)				

Continue on Reverse

EH 2158 (3/80)

BT 401-J-1 (10-86)
STATE OF CALIFORNIA

P.O. BOX 647
SACRAMENTO CA 95803

BOARD OF EQUALIZATION
HAZARDOUS WASTE CONTROL ACCOUNT

8186

NOTICE OF FACILITY FEE

Due on or before 11/1/86 for State Fiscal Year 7/1/86 to 6/30/87

CAD008242711

Mail to:
BOARD OF EQUALIZATION
EXCISE TAX UNIT
P.O. BOX 647
SACRAMENTO CA 95803
(916) 322 9070

MONTROSE CHEMICAL CORP OF CALIFORNIA
P O BOX 147
TORRANCE CA 90507
20201 S. Normandie, Torrance

Read Instructions On Back Before Preparing

Make Changes Above If Name or Address Incorrect

FACILITY FEE PAYMENT SCHEDULE

A TYPES AND SIZES OF FACILITIES.	B NO. OF PERMITS	C ANNUAL FEE	D TOTAL ANNUAL FEES BY CATEGORY (Col B x C)
1. **DISPOSAL FACILITY** is a hazardous waste facility used for the disposal of hazardous wastes.		$61,270.00	
2. **LARGE TREATMENT FACILITY** is a treatment facility which treats or recycles 1,000 or more tons of hazardous waste in any one month of the state's current fiscal year.		$18,381.00	
3. **SMALL TREATMENT FACILITY** is a treatment facility which does not meet the criteria for a large treatment facility.		$12,254.00	
4. **LARGE STORAGE FACILITY** is a storage facility which stores 1,000 or more tons of hazardous waste in any one month of the state's current fiscal year.		$12,254.00	
5. **SMALL STORAGE FACILITY** is a storage facility which does not meet the criteria for a large storage facility.		$ 6,127.00	
6. **OTHER.** An explanation must be attached. See instructions on back.		$ 00.00	
7. Total amount of annual fee(s). (Add amounts in column D)			$
8. TOTAL AMOUNT DUE AND PAYABLE. (Divide amount on line 7 by 2)			$

I hereby certify that this notice, including any accompanying statements is true and correct to the best of my knowledge and belief.

SIGNATURE
AND TITLE.....PH. No. (.....).....

MAKE CHECK OR MONEY ORDER PAYABLE TO STATE BOARD OF EQUALIZATION
Always Write Your Account Number on Your Check or Money Order

BT 401-J-1 (10-86) DUPLICATE - KEEP FOR YOUR RECORDS

STATE OF CALIFORNIA

P.O. BOX 647
SACRAMENTO CA 95803

BOARD OF EQUALIZATION
HAZARDOUS WASTE CONTROL ACCOUNT

8186

NOTICE OF FACILITY FEE

Due on or before 11/1/86 for State Fiscal Year 7/1/86 to 6/30/87

CAD008242711

Mail to:
BOARD OF EQUALIZATION
EXCISE TAX UNIT
P.O. BOX 647
SACRAMENTO CA 95803
(916) 322 9070

MONTROSE CHEMICAL CORP OF CALIFORNIA
P O BOX 147
TORRANCE CA 90507

Read Instructions On Back Before Preparing

Make Changes Above If Name or Address Incorrect

FACILITY FEE PAYMENT SCHEDULE

A	B	C	D
TYPES AND SIZES OF FACILITIES.	NO. OF PERMITS	ANNUAL FEE	TOTAL ANNUAL FEES BY CATEGORY (Col B x C)
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7. Total amount of annual fee(s). (Add amounts in column D)			$
8. TOTAL AMOUNT DUE AND PAYABLE. (Divide amount on line 7 by 2)			$

I hereby certify that this notice, including any accompanying statements is true and correct to the best of my knowledge and belief.

SIGNATURE
AND TITLE.....PHONE.(....).....

MAKE CHECK OR MONEY ORDER PAYABLE TO STATE BOARD OF EQUALIZATION

Always Write Your Account Number on Your Check or Money Order

NOTICE OF FACILITY FEE

GENERAL

Pursuant to Section 25205.2 of the Health and Safety Code, effective July 1, 1986, each operator of a facility shall pay a facility fee for each state fiscal year, or any portion thereof, to the State Board of Equalization. "Facility" means a hazardous waste storage, treatment, or disposal facility, including a resource recovery facility or waste transfer station, which has been issued a permit or a grant of interim status by the Department of Health Services. This includes facilities accepting infectious waste for disposal. "Facility" does not include any facility operated by a local government agency which is used exclusively for household hazardous waste collection. The Department of Health Services has identified you as an operator of a facility, therefore, you must complete the Facility Fee Payment Schedule on the front of this notice and remit any amounts due to the State Board of Equalization. The total fee is due in equal semiannual installments on 11/1/86 and 4/1/87. If you do not receive a billing for the second installment, it is your responsibility to make timely payment. Late payments are subject to a penalty of 10% (.10) and interest at the rate then in effect.

FILING REQUIREMENTS

The fee is due for each permit and/or grant of interim status you hold even if you hold more than one at a given location. You must report the number of permits and/or grants of interim status by the type and size as indicated on the Facility Fee Payment Schedule. If a permit or grant of interim status falls under more than one category, you must include that permit or grant of interim status in the category with the greater rate. For example, if you hold a permit allowing you to operate as both a LARGE TREATMENT FACILITY with a fee of $15,381.00 (line 2) and a SMALL STORAGE FACILITY with a fee of $6,127.00 (line 5) you must count that permit as being subject to the greater LARGE TREATMENT FACILITY fee. If you require additional assistance, please call one of the following Department of Health Services offices:

Berkeley: (415) 540 2043
Fresno: (209) 445 5938
Los Angeles: (213) 620 2380
Sacramento: (916) 739 3145
San Diego: (619) 236 4717

PREPARATION OF FACILITY FEE PAYMENT SCHEDULE

COLUMN A. TYPES AND SIZES OF FACILITIES.

LINE 1 - 5. Determine the type and size for each permit and/or grant of interim status as explained in the FILING REQUIREMENTS above.

LINE 6. OTHER. If you are not required to pay a fee, you must attach a detailed explanation. If you applied for closure and did not accept hazardous waste after June 30, 1986, you must enclose a copy of your request for closure. If you have a permit variance granted by the Department of Health Services, you must attach a copy.

COLUMN B. NO. OF PERMITS. Enter the number of permits and/or grants of interim status you hold for each type of facility.

COLUMN D. TOTAL ANNUAL FEE DUE BY CATEGORY. Multiply Column B (No. of Permits) x Column C (Fee) for lines 1 thru 5. Enter the result for each line in Column D.

LINE 7. Add all amounts in Column D and enter the total.

LINE 8. TOTAL AMOUNT DUE AND PAYABLE. Divide the amount on line 7 by 2. This is the amount due from you.

If during the course of the state's current fiscal year you find that you fall under a category other than the category originally reported, you must notify the Board.

FILE CHECKLIST

SURVEILLANCE FILE

DOCUMENT DESCRIPTION	DATE	INITIALS	LOCATION
Activity Record			
Record of Public Review			
Judgements			
Enforcement Orders/ Settlement Agreements			
Enforcement Referrals			
Laboratory Results			
Completed Enforcement Actions			
Notice of Violation			
Compliance Monitoring and Enforcement Log (CMEL)			
Inspection Reports			
- Inspection Checklist			
- Waste Classifications			
- Manifests			
- Applications			
- Monitoring Data			
Annual ISD Reports			
Facility Summary Information			
Facility Management Plan			
Non-Permit Variance (generator/hauler)			
Cassette Tapes			

EPA ID NO. _____ FILE NAME _____

ACTIVITY RECORD

DATE	INITIAL	ACTION

BOE-C6-0177228

TOXIC SUBSTANCES CONTROL DIVISION

RECORD OF PUBLIC REVIEW

Requester:	Representing:	Date:

I have read the Department's guidelines and wish to inspect the following public record.

Complete Description of Record:

To be completed by Departmental Office:

Approved _____ Inspected by _____ Date _____

Disclosure of the requested record is prohibited by law:

_____

Department Representative:	Section/Unit:	Date:

State of California—Health and Welfare Agency

Department of Health Services
Hazardous Materials Management Section

HAZARDOUS WASTE

SURVEILLANCE AND ENFORCEMENT REPORT

Date: May 19, 182

Firm Name: Montrose Chemical Corp of Cal

Site Class: ☐ 1 ☐ 11-1 ☐ 11-2 ☐ 111

Address: 20201 So. Normandie Avenu

Site Permit No. CAD 008242711

Torrance, CA

☐ Producer ☐ Hauler

Telephone:

☒ Other Storage Site

Activity: Interim Status Document

Comments:

A. Montrose Chemical Corp. was visited May 4, 1981 because soil sampling on February 24, 1981 reported 2.5% monochlorobenzene. Subsequent samples on May 5, 1981 reported less than 0.3% DDT. An Interim Status Document was issued March 30, 1981 and Montrose was inspected May 17, 1982 for compliance.

B. Persons Present:

John Kallok, Plant Manager

Bernard Bratter, Production Superintendent

Mary Cooper, HWMB

Randy Marcus, EPA Monitor

C. Description of Facility:

Montrose Chemical Manufactures DDT (dichlorodiphenyl-trichlorethane), formulates and grinds DDT into water dispersible and dusting powders for sale abroad. Hazardous waste practice consist of storage for acid and alkaline solutions.

D. Waste Stream Generated:

DDT process generates two waste streams. They are: Acid waste which is separated from DDT and the amount left over from the recovery process.

1. Alkaline waste is produced, when: fumes from vent scrublers are neutralized with NaOH, spent NaoH is collected from a DDT neutralizier step, rinse water from a

Inspector: Mary Cooper 8/6/82

EH 204 (4/80) MARY COOPER

BOE-C6-0177230

HAZARDOUS MATERIALS MANAGEMENT REPORT
continued

DDT wash step and from showers, sinks recycle water, lab and rain.

E. Waste Management Facilities and Procedures:

Acid Storage Area: Montrose has two 50×10^4 gallons railcars and one 1.0×10^5 gallon tank that house acid waste. Acid is retrieved from the DDT by an acid separation step. Some acid is recycled while a portion is routed for storage then disposed of at a Class I TSD Facility.

Alkaline Storage Area: There are two tanks (5.0×10^4 and 1.0×10^5 gallons capacity) and two holding tanks with a total capacity of 2.5×10^4 gallons.

Source of the alkaline wastes are:

(1) Neutralized fumes from the reactor, acid separation, MCB storage and acid recovery steps.

(2) Acidified DDT that is neutralized with NaOH

(3) H_2O rinsed DDT step

(4) Non usable water from the H_2O recycled pond.

The pond may collect H_2O from:

A. Showers

B. Sinks

C. Laboratory

D. Wash down of DDT

E. Rain water

(5) Industrial waste

F. Observations;

Montrose had administrative controls in force.

Temporary Storage area for laboratory waste and supplies, the floor is not a continuous base that is impervious to the waste; concrete was cracked.

Nonpotable source was not clearly labeled in English, "Polluted-not safe for

HAZARDOUS MATERIALS MANAGEMENT REPORT
continued

human use" and Spanish, "Peligro, contaminacium, No Usar",

H_2O recycle Pond, Mr. Kallock reported that the contaminant DDT is of the constituents. I asked to review the analytical report, it was not availabe. Photos were not allowed - Bernie Bratter provided photos that must clear corporate approval prior to being forwarded to the Department. Four photos:

1. Pond
2. Laboratory storage area
3. Acid area
4. Alkaline area

G. Discussion:

Mr. Kallock was informed that I anticipated corporate forwarding all four photos to the Department. If any of the photos contain proprietary information the corporated should so designate "trade secret" but all photos must be submitted to the DOHS.

A questionaire was filled out by Mr. Bernard Bratter, Mr. Kallock wish to submitt the questionaire to corporate for approval- and it would take three weeks. I replied okay.

Enforcement letter will be mailed after receipt of photos and confirmation of information contained in questionaire.

The Department has been verbally notified of Montrose chemical's decision to cease operation - A written notification will be forthcoming. Montrose Chemical will submit their closure plan for DOHS final approval.

EH 202-A (7/79)

8019 002

BOE-C6-0177232

PERMIT NUMBER

Date of Issue

CALIFORNIA EXTREMELY HAZARDOUS WASTE DISPOSAL PERMIT

California Department of Health Services
Hazardous Waste Management Branch

Pursuant to Section 66595, Title 22, Division 4, California Administrative Code, approval is granted to:

Telephone No.

County

to dispose of the wastes listed below subject to acceptance by:

Disposal Site (Name and Address)

and

Registered Hazardous Waste Hauler (Name and Address)

Alternate Disposal Site (Name and Address)

All handlers must be instructed in safety precautions for handling the materials to ensure worker and public safety.

Description of Waste:
(Including Composition with Upper and Lower Concentration of Hazardous Components)

	Waste Component(s)	Upper	Lower	%	ppm	QUANTITY On One Time Basis: Number:	Units:
WASTE 1							

On Year's Permit:
Per Disposal (est'd) ____
Per Year (est'd) ____

Description of Packaging, Containerization and Transport: ☐ Drums ☐ Cartons ☐ Bottles ☐ Tank Truck ☐ Other

PROPOSED METHOD OF DISPOSAL ☐ Burial ☐ Ponding ☐ Storage** ☐ Incineration ☐ Other (Specify): ____
☐ Treatment (Specify): ____
☐ Recycling (Specify method of reuse): ____

Packaging, containerization, and transport of the material shall be in accordance with Title 49, Code of Federal Regulations for hazardous materials, and with regulations of the California Highway Patrol, Title 13, California Administrative Code, for intrastate transport of hazardous materials and, for PCB-containing wastes, in accordance with U.S.E.P.A. regulations set forth in Title 40 CFR Part 761.

Permit to be used on a one time basis . . . . . ☐

Permit to be used for a period of one year from date of issue until (expiration date) ____ ☐

For renewal, send a copy of existing permit with cover letter requesting any additional amendments.

The producer shall be responsible for renewing permit before expiration date and for recording the Extremely Hazardous Waste "Permit Number" in the lower right corner of the California Liquid Waste Hauler Record accompanying the waste. If there are any questions, please contact:

Authorized Signature

**Storage means holding at an off-site facility for greater than 72 hours. (Section 66192, Title 22, CAC)

Montrose Chemical Corporation of California

P.O. Box 147

20201 South Normandie Avenue • Torrance, California 90507 • (213) 775-2565 • 328-5462

May 26, 1982

3-2945

MAY 27 1982
Department
Services
LES
Section

Ms. Susan Romero
Department of Health Services
107 South Broadway, Rm. 7128
Los Angeles, California 90012

Dear Ms. Romero:

Enclosed is our completed application for a California Extremely Hazardous Waste Disposal Permit.

We plan to dispose of the listed waste as soon as a permit is granted.

Very truly yours,

John L. Kallok

John L. Kallok
Plant Manager

JLK:dgm

Enc.

CALIFORNIA DEPARTMENT OF HEALTH SERVICES
Hazardous Waste Management Branch

APPLICATION FOR
CALIFORNIA EXTREMELY HAZARDOUS WASTE DISPOSAL PERMIT*

For Office Use Only:
Permit No.
Date Handled

WASTE PRODUCER. PLEASE CHECK APPLICABLE PERMIT REQUEST:

XX New Permit

☐ Renewal Permit (Previous Permit No. _____ Date _____)

☐ Amendment (Current Permit No. _____ Date _____)

☐ Verbal Permit (No. _____ Date _____)
(If given verbal emergency permit by telephone)

Please type or print clearly. Provide all information requested, since omission will result in delay or denial of permit. Allow 15 days process time from day of permit receipt

WASTE PRODUCER:

Name of Firm: Montrose Chemical Corp. of California
Telephone No. (Include Area Code): 213/328-5462
Street and No. (or P.O. Box): 20201 South Normandie
County: Los Angeles
City: Torrance
State: CA
Zip Code: 90502
Pick-up Address (If different than above): Same
Applicant (Typed): John L. Kallok
Title: Plant Manager
Signature of Applicant: John L. Kallok
Date: 5/25/82

PROPOSED HAULER:

Name of Firm: U.S. Services
Street and No. (or P.O. Box): 14168 Orange Avenue, Suite D
City: Paramount
State: CA
Zip Code: 90723
Hauler No.: 923
EPA ID NUMBER: CAT080034259

PROPOSED DISPOSAL (OR OTHER) FACILITY:

Name of Firm: ENSCO
Street and No. (or P.O. Box): P. O. Box 1975 American Road
City: El Dorado
State: Arkansas
Zip Code: 71730
EPA No. ARD069748192

HAZARDOUS MATERIALS MANAGEMENT SECTION OFFICES

714/744 P Street
Sacramento, CA 95814
(916) 322-2337

2151 Berkeley Way, Rm. 119
Berkeley, CA 94704
(415) 540-2043

5545 East Shields Ave.
Fresno, CA 93727
(209) 291 6676

107 South Broadway
Rm. 7012
Los Angeles, CA 90012
(213) 620 2380

MAY 27 1982
Dept. of Health Services
LOS ANGELES

*Required for handling or disposal of extremely hazardous wastes. (Section 66570, Title 22, CAC).

CALIFORNIA DEPARTMENT OF HEALTH SERVICES
Hazardous Waste Management Branch

APPLICATION FOR CALIFORNIA EXTREMELY HAZARDOUS WASTE PERMIT

Company Montrose Chemical Corp. of Calif. City Torrance Date 5/25/82

Description of Waste: (Including Composition with Upper and Lower Concentration of Hazardous Components)	Waste Component(s)	Upper	Lower	%	ppm	QUANTITY On One Time Basis: Number:	Units:
WASTE 1	12 - G.E. "Pyranol (PCB) Capacitors"	Percentage		☐	☐	2	Drums
	each containing 1.8 gals. of PCB	Unknown		☐	☐		
	fluid, packed in 2 - steel DOT 17H			☐	☐	On Year's Permit: Per Disposal rest'd	
	55 gal. drums			☐	☐	Per Year rest'd	
				☐	☐		

Description of Packaging, Containerization and Transport: ☒ Drums ☐ Cartons ☐ Bottles ☐ Tank Truck ☐ Other

PROPOSED METHOD OF DISPOSAL ☐ Burial ☐ Ponding ☐ Storage** ☒ Incineration ☐ Other (Specify): _____
☐ Treatment (Specify): _____
☐ Recycling (Specify method of reuse): _____

Packaging, containerization, and transport of the material shall be in accordance with Title 49, Code of Federal Regulations for hazardous materials, and with regulations of the California Highway Patrol, Title 13, California Administrative Code, for intrastate transport of hazardous materials and, for PCB containing wastes, in accordance with U.S.E.P.A. regulations set forth in Title 40 CFR Part 761.

Each drum is sealed and PCB caution and ORM-E-UN 2315 labels have been applied. The total weight of each drum is approximately 615 pounds gross.

☐ Check if additional wastes are described on page 3 of 3.

PERMIT TO BE USED FOR: *(Length of Time)*

☒ On a one time basis

☐ For a period of one year from date of issue

PERMIT RENEWALS: *Application for renewal of a one-year blanket permit, using this form, must be received at least 15 days prior to expiration date to keep permit in effect. No reminder of the need to renew will be sent.*

For renewal, send a copy of existing permit with cover letter requesting any additional amendments.

**Storage means holding at an off-site facility for greater than 72 hours (Section 66192, Title 22, CAC)

CALIFORNIA DEPARTMENT OF HEALTH SERVICES
Hazardous Waste Management Branch

APPLICATION FOR CALIFORNIA EXTREMELY HAZARDOUS WASTE PERMIT

Company Montrose Chemical Corp. of Calif. City Torrance Date 5/25/82

ADDITIONAL WASTES

WASTE 2

Description of Waste: (Including Composition with Upper and Lower Concentration of Hazardous Components) NONE

Waste Component(s)	Upper	Lower	%	ppm
			☐	☐
			☐	☐
			☐	☐
			☐	☐
			☐	☐

QUANTITY — On One Time Basis: Number: Units:

On Year's Permit: For Disposal est'd ____ For Year est'd ____

Description of Packaging, Containerization and Transport: ☐ Drums ☐ Cartons ☐ Bottles ☐ Tank Truck ☐ Other

PROPOSED METHOD OF DISPOSAL: ☐ Burial ☐ Ponding ☐ Storage** ☐ Incineration ☐ Other (Specify) ____
☐ Treatment (Specify): ____
☐ Recycling (Specify method of reuse): ____

WASTE 3

Description of Waste: (Including Composition with Upper and Lower Concentration of Hazardous Components) NONE

Waste Component(s)	Upper	Lower	%	ppm
			☐	☐
			☐	☐
			☐	☐
			☐	☐
			☐	☐

QUANTITY — On One Time Basis: Number: Units:

On Year's Permit: For Disposal est'd ____ For Year est'd ____

Description of Packaging, Containerization and Transport: ☐ Drums ☐ Cartons ☐ Bottles ☐ Tank Truck ☐ Other

PROPOSED METHOD OF DISPOSAL: ☐ Burial ☐ Ponding ☐ Storage** ☐ Incineration ☐ Other (Specify) ____
☐ Treatment (Specify): ____
☐ Recycling (Specify method of reuse): ____

WASTE 4

Description of Waste: (Including Composition with Upper and Lower Concentration of Hazardous Components) NONE

Waste Component(s)	Upper	Lower	%	ppm
			☐	☐
			☐	☐
			☐	☐
			☐	☐
			☐	☐

QUANTITY — On One Time Basis: Number: Units:

On Year's Permit: For Disposal est'd ____ For Year est'd ____

Description of Packaging, Containerization and Transport: ☐ Drums ☐ Cartons ☐ Bottles ☐ Tank Truck ☐ Other

PROPOSED METHOD OF DISPOSAL: ☐ Burial ☐ Ponding ☐ Storage** ☐ Incineration ☐ Other (Specify) ____
☐ Treatment (Specify): ____
☐ Recycling (Specify method of reuse): ____

Montrose Chemical Corporation of California

P.O. Box 147

20201 South Normandie Avenue • Torrance, California 90507 • (213) 775-2565 • 328-5462

May 21, 1982

MAY 25 1982
of Health
LOS ANGELES

Ms. Susan Romero
Department of Health Services
107 South Broadway, Room 7128
Los Angeles, California 90012

Dear Ms. Romero:

This is to inform you that we intend to dispose of two 55-gallon drums containing capacitors filled with Pyranol, a PCB fluid, as soon as a permit to proceed is granted. Please consider this as a formal application for a permit.

The following information for obtaining the permit is submitted as requested:

1. Description of waste: two 55-gallon DOT-17H steel drums, each containing six GE Pyranol capacitors. Each capacitor is filled with 1.8 gallons of Pyranol (PCB content unkown) fluid. The void spaces in the drums are filled with an oil absorbent to entirely fill the drum.

2. Each drum is sealed and PCB caution and ORM-E-UN 2315 labels have been applied. The total weight of each drum is approximately 615 lbs. gross.

3. It is proposed to ship the drums to Ensco in El Dorado, Arkansas, EPA No. ARD069748192, for disposal by incineration.

4. The contract hauler certified to transport the drums from our plant to Ensco is U. S. Services located at 14168 Orange Av, Suite D, Paramount, CA 90723, EPA No. CAT080034259.

We request a permit be granted based on the above. If additional information is required, please let us know.

Very truly yours,

John L. Kallok

John L. Kallok
Plant Manager

JLK:dgm

STATE OF CALIFORNIA—HEALTH AND WELFARE AGENCY

GEORGE DEUKMEJIAN, Governor

DEPARTMENT OF HEALTH SERVICES
107 SOUTH BROADWAY, ROOM 7128
LOS ANGELES, CA 90012
(213) 620-2380

March 26, 1984

Mr. Samuel Rotrosen, President
Montrose Chemical Corporation
of California
2401 Morris Avenue
P.O. Box E
Union, NJ 07083

Dear Mr. Rotrosen:

NOTICE OF VIOLATION & DIRECTIVE TO COMPLY - MONTROSE CHEMICAL, TORRANCE, CALIFORNIA

The Department has obtained evidence of contamination of the subject site by DDT and related waste chemicals. Such contaminants pose an immediate threat of off-site release of hazardous wastes.

You are directed to immediately take measures to prevent any further release of hazardous waste from the site. You are further directed to initiate the following interim corrective measures:

a. Ensure compliance with the existing orders of the U.S. Environmental Protection Agency and the California Regional Water Quality Control Board, Los Angeles Region.

b. Initiate immediate measures to maintain the site in a manner that prevents airborne release of fugitive dust potentially containing hazardous waste.

c. Provide 24-hour surveillance to assure compliance with item b.

d. Immediately obtain representative samples of on-site piles of crushed rock to determine contamination by DDT and derivatives and report results within 10 working days from your receipt of this letter.

e. Provide site access to representatives of this Department.

f. Provide notification to this Department of any on-site activities at least 10 working days prior to commencement of such activities.

g. Provide this office with a report of full compliance with items c thru f within 15 working days from your receipt of this letter.

P 438 677 099

RECEIPT FOR CERTIFIED MAIL

Sent to
Montrose Chem. Corp of Calif
Street and No.
2401 Morris Avenue
P.O., State and ZIP Code
UNION, NJ 07083

Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to whom and Date Delivered	
Return Receipt Showing to whom, Date and Address of Delivery	
TOTAL Postage and Fees	$

Postmark or Date
Samuel Rotrosen, President
March 26, 1984 - A.A.

PS Form 3800, Feb. 1982

PS Form 3811, July 1982

● SENDER: Complete items 1, 2, 3, and 4. Add your address in the "RETURN TO" space on reverse.

(CONSULT POSTMASTER FOR FEES)

1. The following service is requested (check one).
   - ☑ Show to whom and date delivered ..... ____ $
   - ☐ Show to whom, date, and address of delivery .. ____ $
2. ☐ RESTRICTED DELIVERY ..... ____ $
   (The restricted delivery fee is charged in addition to the return receipt fee.)

TOTAL $ ____

3. ARTICLE ADDRESSED TO: Samuel Rotrosen
Montrose Chemical Corp. of Calif.
2401 Morris Avenue
UNION, NJ 07083

4. TYPE OF SERVICE:
   - ☐ REGISTERED
   - ☒ CERTIFIED
   - ☐ EXPRESS MAIL
   - ☐ INSURED
   - ☐ COD

ARTICLE NUMBER
P438 677 099

(Always obtain signature of addressee or agent)

I have received the article described above.
SIGNATURE ☐ Addressee ☐ Authorized agent

5. DATE OF DELIVERY
C. Branilla

POSTMARK (may be on reverse side)

6. ADDRESSEE'S ADDRESS (Only if requested)

7. UNABLE TO DELIVER BECAUSE:

7a. EMPLOYEE'S INITIALS

RETURN RECEIPT

BOE-C6-0177240

Failure to comply with the above directives will result in this office referring this matter for appropriate legal action.

Sincerely,

Angelo J. Bellomo

Angelo Bellomo, Chief
Southern California Section
Toxic Substances Control Division

cc: Alexis Strauss
U.S. EPA - Region IX
215 Fremont Street
San Francisco, CA 94105

Bob Ghirelli
Regional Water Quality Control Board
107 South Broadway, Room 4027
Los Angeles, CA 90012

Anastacio Medina
Los Angeles County Health
2615 South Grand Avenue, 6th Floor
Los Angeles, CA 90007

Ed Camarena
South Coast Air Quality
Management District
9150 Flair Drive
El Monte, CA 91731

Gil Jensen
Program Management Section
Toxic Substances Control Division
744 P Street
Sacramento, CA 95814

David Mulliken, Esq.
Latham & Watkins
Attorneys at Law
701 B Street, Suite 2100
San Diego, CA 92101-8197

Certified Mail
(RRR)
#P438677099

S/B-D-1

Montrose Chemical Corporation of California

P.O. Box 147
20201 South Normandie Avenue • Torrance, California 90507 • (213) 775-2565 • 328-5462

May 20, 1982

MAY 24 1982
of Health Services
LOS ANGELES

Ms. Mary J. Cooper
Waste Management Specialist
Department of Health Services
Hazardous Materials Management Section
107 S. Broadway, Room 7128
Los Angeles, California 90012

Dear Ms. Cooper:

Enclosed is our revised copy of the Interim Status Inspection Checklist, which was originally given to you Monday, May 17, 1982. Also enclosed are the original photographs (4) taken during the inspection on Monday.

If you have any questions, please do not hesitate to call me.

Very truly yours,

John L. Kallok

John L. Kallok
Plant Manager

dgm

Enc.

REVISED Rec'd 5/24/82 MJC

State Department of Health Services
Hazardous Materials Management Section
5545 East Shields Avenue
Fresno, CA 93727
291-6676

INTERIM STATUS INSPECTION CHECKLIST

EPA. I.D.#

Company Name:

Address:

County:

Telephone:

Persons Interviewed:

SDOHS Inspector:

I. General Conditions

A. Identification and general responsibilities of operator

1. Has the owner/operator ensured that the operation of the facility will not imperil public health and safety, wildlife, domestic livestock or the environment?	✓ Yes	No	NA
2. Does the owner/operator allow SDOHS to inspect the facility, take samples and inspect records?	✓ Yes	No	NA
3. Does the owner/operator maintain qualified personnel and equipment necessary for safe operation of the facility?	✓ Yes	No	NA
4. Has the owner/operator notified SDOHS of a proposed change of ownership, method of operation or proposed closure of the facility 30 days prior to such an event?	✓ Yes	No	NA
5. Did the owner/operator report to SDOHS, within 24 hours after occurrence, all accidents involving hazardous wastes which resulted in, or could have resulted in, a hazard to public health or safety, wildlife, domestic livestock, or to the environment?	✓ Yes	No	NA

BOE-C6-0177243

B. Records

	Yes	No	NA
1. Is there a copy of the Interim Status Document at the facility and at the owner/operator's place of busniess?	✓		

II. Special Conditions

Storage of Wastes

	Yes	No	NA
1. Is hazardous waste stored at the facility for more than one (1) year without written approval from SDOHS?		✓	
2. If hazardous waste is stored at the facility for more than one (1) year, has the owner/operator paid fees to SDOHS in accordance with Art. 8, Ch. 30, Div. 4, Title 22 CAC.?			✓
3. Is hazardous waste stored in a secure enclosure, building, room or fenced area which prevents unauthorized access and in a manner that will prevent spills?	✓		
a. Are warning signs in English/Spanish posted and visible?	✓		
4. Is the hazardous waste area constructed of an impervious material and designed to contain spills or surface water runoff?	✓		

Storage in Tanks

	Yes	No	NA
1. Does each above ground hazardous waste storage tank have a spill confinement structure capable of holding the entire contents of the tank plus sufficient freeboard? (2' required)	✓		
2. Are hazardous waste storage tanks constructed of materials compatible with stored wastes or protected with liners compatible with stored wastes?	✓		
3. Prior to use, were hazardous waste storage tanks and their appurtenances certified by a registered California engineer to be structurally sound and of adequate construction for the intended use?	✓		

4. Is each hazardous waste storage tank and storage area marked with NFPA hazard identification placards? ✓ Yes ___ No ___ NA

5. Are valves on hazardous waste storage tanks locked when the facility is unattended? ✓ Yes ___ No ___ NA

Storage in Ponds - We do not have ANY Storage Ponds.

1. Are any of the following hazardous wastes stored in open storage ponds?

   a. Extremely hazardous wastes as defined in Secs. 66064 and 66685, Title 22, CAC. without a written permit from SDOHS. ___ Yes ___ No ✓ NA

   b. Flammable wastes as defined in Sec. 66072, Title 22, CAC. ___ Yes ___ No ✓ NA

   c. Wastes containing volatile, toxic substances in excess of 10 percent by weight. ___ Yes ___ No ✓ NA

2. Are hazardous sludges, concentrates and residues removed from a storage pond for disposal properly handled, transported and disposed as hazardous waste? ___ Yes ___ No ✓ NA

3. Are storage ponds provided with physical barriers or other devices to prevent migratory waterfowl from using them? ___ Yes ___ No ✓ NA

Storage in Containers

1. Are hazardous waste storage containers in a condition which allows safe transport and handling? ___ Yes ___ No ✓ NA

2. Are hazardous waste container storage areas widely separated or physical barriers provided to prevent commingling of incompatible wastes if a container was to rupture? ___ Yes ___ No ✓ NA

	Yes	No	NA
3. Are records maintained for hazardous waste containers stored for more than 90 days pursuant to Sec. 66545, Title 22, CAC.?			✓
4. Are hazardous waste containers stored for more than 90 days labeled as follows:?			
a. Composition and physical state of the waste.			✓
b. Special safety recommendations and for handling.			✓
c. Statements calling attention to the particular hazardous properties of the waste.			✓
d. Amount of waste and name and address of the producer of the waste.			✓
e. Date of acceptance at the facility.			✓
5. Are empty containers contaminated with hazardous materials stored, handled, processed and disposed of as hazardous waste?			✓

Storage of Water Reactive Waste

	Yes	No	NA
1. Are water reactive wastes stored in a rain-tight and waterproof area?			✓

Transfer of Wastes

	Yes	No	NA
1. Are hazardous wastes permanently disposed of at the facility?		✓	
2. Are equipment and pipes and lines used to handle, transfer, pump or store hazardous wastes maintained to prevent leaks and spills of hazardous wastes?	✓		

Treatment of Wastes

1. If incompatible wastes are mixed for the purposes of treatment, is the mixing process controlled to prevent hazards to health and safety?	Yes	No	✓ NA

Incineration of Waste

1. Is the facilty operated to minimize release of harmful and obnoxious gases?	Yes	No	✓ NA
2. Does the facilty comply with all air emission and air quality standards and requirements?	Yes	No	✓ NA

Disposal by Land Spreading

1. Are any of the following hazardous wastes disposed of by land spreading?

a. Extremely hazardous wastes defined in Secs. 66064 and 66685, Title 22, CAC. without a written permit from SDOHS.	Yes	No	✓ NA
b. Flammable wastes.	Yes	No	✓ NA
c. Wastes containing volatile, toxic or substances in excess of 10 percent by weight.	Yes	No	✓ NA
d. Corrosive wastes containing total concentrations by weight in excess of 10 percent of any strong mineral acid or alkali.	Yes	No	✓ NA

Disposal by Landfilling

1. Are hazardous wastes buried in areas potentially subject to slides, slippage, erosion or other geologic instabilities?	Yes	No	✓ NA
2. Is hazardous waste covered within 24 hours with six (6) inches of compacted impermeable soil?	Yes	No	✓ NA

3. Does the final cover in a burial area consist of three (3) feet of compacted impermeable soil?	Yes	No	✓ NA
4. After application of the final cover, have sufficient measures such as diversion ditches, rip-rap to prevent erosion or other measures as required by RWQCB been implemented?	Yes	No	✓ NA
5. Are extremely hazardous waste, flammable waste or strong oxidizers applied to the working face of the landfill?	Yes	No	✓ NA

Disposal in Wells

1. Are the location, construction and use of disposal wells such that the wastes in each well cannot escape and mix with wastes in other wells?	Yes	No	✓ NA
2. Are inactive wells covered with three feet of compacted, impermeable material?	Yes	No	✓ NA
3. Are records of location and wastes in each well maintained?	Yes	No	✓ NA
4. When wells are being drilled, are special precautions taken to prevent damage to burial cells?	Yes	No	✓ NA

Disposal in Ponds

1. Are any of the following hazardous wastes deposited in open disposal ponds?

a. Extremely hazardous wastes as defined in Secs. 66064 and 66685, Title 22, CAC. without a written permit from SDOHS.	Yes	No	✓ NA
b. Flammable wastes as defined in Sec. 66072, Title 22, CAC.	Yes	No	✓ NA
c. Wastes containing volatile, toxic substances in excess of 10 percent by weight.	Yes	No	✓ NA

	Yes	No	NA
2. Are hazardous sludges, concentrates and residues removed from a disposal pond for disposal elsewhere properly handled, transported and disposed as hazardous waste?			✓
3. Are disposal ponds provided with physical barriers or other devices to prevent migratory waterfowl from using them?			✓

Disposal in Cells

	Yes	No	NA
1. Are burial cells located, constructed and used so that wastes in one cell cannot escape and mix with wastes in other cells?			✓
2. Does each burial cell have an adequately composed barrier and liner?			✓
3. Are all closed burial cells covered with at least three feet of compacted, impermeable material?			✓
4. Are records maintained on the location of each burial cell and lists of all wastes disposed in them?			✓
5. Has the liner of each burial cell been penetrated or damaged?			✓

Recycling

	Yes	No	NA
1. Is the mixing of potentially incompatible materials during recovery, neutralization or detoxification conducted under controlled conditions?			✓
2. Has the owner/operator submitted a written statement justifying having not recycled a waste the Department has determined recyclable?	✓		

Management of Extremely Hazardous Waste

	Yes	No	NA
1. Does the operator handle extremely hazardous waste under an Extremely Hazardous Waste Disposal Permit?		✓	

Management of Powdered Waste – We do not dispose of powdered waste

	Yes	No	NA
1. Is powdered waste containerized or if water reactive is it wetted as a slurry?			✓✓

Management of Asbestos Waste -We do not have any Asbestos Waste

	Yes	No	NA
1. Are asbestos wastes received in sealed containers and handled to prevent damage?			✓
2. Are wetted asbestos wastes allowed to dry?			✓
3. Are dry asbestos wastes wetted thoroughly?			✓
4. Are asbestos wastes covered by six (6) inches of soil or nonhazardous soil waste within 24 hours after receipt?			✓

Forbidden Hazardous Waste

1. Are the following wastes handled at the facility?

	Yes	No	NA
a. Extremely hazardous waste unless approved by permit.		✓	
b. Flammable or water reactive waste.		✓	
c. Organic solvents or sludges containing volatile toxic substances in excess of 10 percent by weight.		✓	
d. Corrosive wastes containing in excess of 10 percent by weight of any strong mineral acid or alkali.	✓		
e. Burning waste.		✓	
f. Forbidden and Class A explosives.		✓	

Management of Incompatible Waste

1. Are the following incompatible wastes handled separately during handling storage and disposal?

	Yes	No	NA
a. Alkalies and cyanides.	✓		
b. Acids.	✓		

c. Toxic wastes, pesticides and flammable waste	✓ Yes	No	NA
d. Strong oxidizers.	Yes	No	✓ NA

Management of Pesticide Wastes

1. Are empty pesticide containers properly stored, handled, treated and disposed?	✓ Yes	No	NA

Management of PCB Waste

1. Are PCB wastes managed according to Part 761, Title 40 CFR.?	Yes	No	✓ NA

Safety and Emergency Procedures

1. Is non-potable water supply clearly marked in English and Spanish- "Polluted-Not Safe for Human Use"? questioned ? MC	Yes	No	✓ NA
2. Is the public water supply protected from cross contamination?	✓ Yes	No	NA
3. Does the private water supply meet drinking water standards?	✓ Yes	No	NA
If not, are faucets and taps clearly marked in English/Spanish?	Yes	No	✓ NA
4. Is the facility perimeter fenced and posted to prevent entry by humans and livestock?	✓ Yes	No	NA
5. If the facility is operated at night is it sufficiently lighted?	✓ Yes	No	NA
6. Is the facility perimeter and entry point(s) marked in English/Spanish - "Caution - Hazardous Waste Area - Unauthorized Persons Keep Out"?	✓ Yes	No	NA
7. Does the facility have adequate telephone or radio communications to be used in the event of an emergency?	✓ Yes	No	NA
8. Are safety showers provided and in workable condition?	✓ Yes	No	NA

9. Are eyewashes provided and in workable condition? ✓ Yes ___ No ___ NA

10. Are first aid kits provided, maintained and available for immediate use? ✓ Yes ___ No ___ NA

11. Is the following NIOSH approved equipment provided in adequate numbers?

    a. Protective headgear and face masks. ✓ Yes ___ No ___ NA

    b. Chemically resistant apparel and gloves. ✓ Yes ___ No ___ NA

    c. SCBA's and respirators with approved cartridges. ✓ Yes ___ No ___ NA

12. Are emergency alarms or other communication devices capable of summoning emergency assistance available? ✓ Yes ___ No ___ NA

13. Does the facility have fire fighting equipment available to fight Class A and B fires? ✓ Yes ___ No ___ NA

Record Keeping and Reporting (on site and off site Disposal Facilities only)

1. Has the owner/operator done the following:

    a. Complete manifests for all hazardous waste received. ___ Yes ___ No ✓ NA

    b. Submit manifests to SDOHS on a monthly basis. ___ Yes ___ No ✓ NA

c. Submit monthly report for:

1. Fees due and payable for previous month.	Yes	No	✓ NA
2. Summary of number of loads received and disposed of on or to land plus manifests for previous month.	Yes	No	✓ NA
3. Submit to SDOHS info on hazardous waste delivered by pipeline containing identity source, chemical composition, weight, volume, physical state, hazardous properties and methods used to dispose of for the previous month.	Yes	No	✓ NA

Has the owner/operator submitted to DOHS by the last day of the month the following:

2. a. A record of all hazardous waste disposed of during the previous month showing the identity, source, chemical composition, weight or volume, physical state, container type, hazardous properties and method used to dispose of each waste.	Yes	No	✓ NA
b. A report showing the amount of fees due and payable to DOHS for the previous month.	Yes	No	✓ NA
c. Payment for fees due and payable to DOHS in conformance with Article 8, Chapter 30, Div. 4, Title 22, CAC.	Yes	No	✓ NA

Safety, Equipment, and Emergency Response

1. Identification number and notices:

   a. Does owner/operator have an EPA Identification Number? Number CAD008242711 — ✓ Yes ___ No

2. Notices

   a. Does owner/operator receive hazardous waste from a foreign source? ___ Yes ✓ No

   b. If so, was DOHS notified at least four weeks in advance? ___ Yes ✓ No

3. Waste Analysis

   a. Does owner/operator analyze waste prior to treating, storing or disposing of the waste? (Existing published or documented data may be substituted for analyses). ✓ Yes ___ No

   b. Does owner/operator have a written Waste Analysis Plan? ✓ Yes ___ No ___ NA

      (1) Is plan DOHS approved ✓ Yes ___ No

      (2) Is plan kept at site, (verification clause) ✓ Yes ___ No

      (3) Does plan specify parameters and a rationale for selecting these parameters? ✓ Yes ___ No

      (4) Does plan specify test methods used? ✓ Yes ___ No

      (5) Does plan specify sampling methods to be used? (Sampling method should be able to produce a representative sample). ✓ Yes ___ No

      (6) Does plan specify the frequency with which the initial analysis will be reviewed or repeated? (Analyses should be completed when process changes or waste composition changes). ✓ Yes ___ No

4. Security

a. Does owner/operator have means to prevent unauthorized entry of persons or livestock onto the active portion of the facility — ✓ Yes ___ No

If yes, what means FENCE

(24 hour surveillance or an artifical barrier such as fence or an attendent, T.V. monitors, locked entrance etc. are acceptable).

b. Is a sign visible from 25 feet posted at each entrance to the facility? Sign legend in English and Spanish reading "Caution - Hazardous Waste Area - Unauthorized Persons Keep Out"? — ✓ Yes ___ No

Inspections

1. Does the owner/operator inspect the facility at a reasonable frequency to detect malfunctions, deteriorations and errors which may threaten the environment and human health? — ✓ Yes ___ No

2. Does the owner/operator have a written inspection schedule for inspection of monitoring equipment, safety and emergency equipment, operational devices and dikes and sumps ets. — ✓ Yes ___ No

3. Has the schedule been approved by SDOHS? — ✓ Yes ___ No

4. Is the schedule kept at the facility? — ✓ Yes ___ No

5. Does the schedule identify the problem areas to be checked? — ✓ Yes ___ No

6. Is the frequency of inspection such that deterioration or malfunction which may threaten the environment or human health between inspections? — ✓ Yes ___ No

7. Are observations maintained in an inspection log or summary showing dates and times of inspection, name of inspector, observations recorded and date and nature of repair? — ✓ Yes ___ No

Personnel Training

1. Does the owner/operator provide classroom or on the job training to facility personnel? — ✓ Yes ___ No

2. Are instructors trained in hazardous waste management procedures? ✓ Yes ___ No

3. Does training include:

   a. Emergency response including use of emergency equipment and systems? ✓ Yes ___ No

   b. Has current personnel completed training by May 19, 1981 and new employees six (6) months after date of employment? ✓ Yes ___ No

   c. Is an annual training review conducted? ✓ Yes ___ No

   d. Are training records maintained? ✓ Yes ___ No

   e. Are training records maintained for 3 years on former employees? ✓ Yes ___ No

   f. Does the owner/operation maintain following documents and records at the facility:

      (1) Job title for each position at the facility related to HWM. ✓ Yes ___ No

      (2) Written job description for each position listed above. ✓ Yes ___ No

      (3) Written records of the type and amount of introductory and continuing training ✓ Yes ___ No

Ignitable, Reactive and Incompatible Wastes

1. Does owner/operator take precautions to prevent accidental ignition or reaction of ignitable or reactive waste? ✓ Yes ___ No

2. Are "No Smoking" signs displayed in hazardous areas? ✓ Yes ___ No
   If yes, are these signs located conspicuously? ✓ Yes ___ No

3. Are these wastes treated, stored, or disposed to prevent:

   a. Generation of heat or pressure, fire or explosion or violent reaction. ✓ Yes ___ No

   b. Production of toxic mists, fumes, dusts or gases. ✓ Yes ___ No

c. Production of flammable fumes or gases. ✓ Yes ___ No

d. Damage to structure of facility ✓ Yes ___ No

e. A threat to human health or the environment. ✓ Yes ___ No

Facility Maintenance and Operation

1. Is facility maintained to minimize possibility of fire, explosion and release of hazardous waste to the air, soil or surface water? ✓ Yes ___ No

Equipment Testing and Maintenance

1. Does facility test and maintain communication systems, alarm systems, fire protection equipment, spill control equipment and decontamination equipment? ✓ Yes ___ No

Aisle Space

1. Is sufficient aisle space maintained to allow unobstructed movement of equipment and personnel? ✓ Yes ___ No

Arrangements with Local Authorities

1. Have arrangements been made with police, fire departments and emergency response teams? ✓ Yes ___ No

2. Has facility provided local authorities with a facility layout, types of wastes handled, and other information they would need to respond? ✓ Yes ___ No

3. If local authorities have declined to enter into such arrangements, is refusal documented? ___ Yes ___ No ✓ NA

Contingency Plan

1. Does facility have an SDOHS approved contingency plan? ✓ Yes ___ No

2. Does the contingency plan describe personnel responsibilities and action to be taken in the event of fire, explosion or release of hazardous waste? ✓ Yes ___ No

3. Does the plan describe agreements with police, fire departments, hospitals, contractors and State and local emergency response teams? ✓ Yes ___ No

4. Does the plan list names, addresses and phone numbers for all emergency cooordinators? ✓ Yes ___ No

5. Does the plan list all emergency equipment available at the facility along with its location and capabilities? ✓ Yes ___ No

6. Does the plan include an evacuation plan including signals and alternate routes? ✓ Yes ___ No

7. Is a copy of the plan at the facility? ✓ Yes ___ No

8. Has the plan been submitted to DOHS and local authorities such as police, fire, hospitals, etc. ✓ Yes ___ No

9. Is the plan reviewed and amended when:

   a. Applicable regulations are revised ✓
   b. The plan fails in our emergency ✓
   c. The list of emergency coordinators changes ✓
   d. The list of emergency equipment changes ✓

10. Has an emergency coordinator been designated? ✓ Yes ___ No

11. Is the emergency coordinator thoroughly familiar with the plan and emergency procedures (as outlined in the ISD). ✓ Yes ___ No

12. Does the emergency coordinator thoroughly understand his responsibilities in an emergency? ✓ Yes ___ No

13. Is there a Spill Prevention Control and Countermeasure plan? ✓ Yes ___ No

Record Keeping

Operating Record

1. Does the owner/operator maintain a written operating record at the facility? ✓ Yes ___ No

2. Does the operating record contain:

a. A description and quantity of each hazardous waste received, method and date of TSD.	✓ Yes	No	
b. Location of each waste and quantity at each location with cross-referencing to specific manifest document numbers.	✓ Yes	No	
c. Waste analyses and trial tests.	✓ Yes	No	
d. Reports and details of incidents that required implementing the contingency plan.	✓ Yes	No	
e. Inspection results and records retained 3 years.	✓ Yes	No	
f. Monitoring, testing and analytical data where required.	✓ Yes	No	
g. Closure cost estimates.	✓ Yes	No	

Availability, Retention and Disposition of Records

1. Were all records available for inspection?	✓ Yes	No	

Annual Report

1. Has the owner/operator prepared an annual report?	✓ Yes	No	

Additional Reports

1. Were the following additional reports available for inspection?:	✓ Yes	No	NA
a. Releases, fire and explosion.	✓ Yes	No	
b. Groundwater contamination and monitoring data	Yes	No	✓ NA
c. Facility closure.	✓ Yes	No	

Closure

1. Does the owner/operator have a closure plan? ✓ Yes ___ No

   If yes, is this plan approved by CRWQCB? ✓ Yes ___ No
   Is this plan kept at the facility? ✓ Yes ___ No

   Is this plan available for inspection? ✓ Yes ___ No

Financial Responsibility

1. Have cost estimates for facility closure been prepared? ✓ Yes ___ No
   If yes are cost estimates maintained at the facility? ✓ Yes ___ No

2. Are these estimates available for inspection? ✓ Yes ___ No

3. Have cost estimates been updated for inflation? ✓ Yes ___ No

Off Site Facility - This is not an Off Site Facility

1. Waste Analysis

   a. Is there an approved waste analysis plan which specifies the analyses generators must supply? ___ Yes ___ No NA

   b. Does the waste analysis plan specifiy the procedures used to identify waste on the manifest (at the facility) and the sampling method to be used? ___ Yes ___ No NA

   c. When receiving particular wastes for the first time, is a detailed chemical/physical analysis obtained? ___ Yes ___ No NA
      Is the analysis updated when necessary? ___ Yes ___ No NA

2. Use of Manifest

   a. Does owner/operator require a manifest before waste is accepted? ___ Yes ___ No NA

   b. Are wastes inspected to ensure the delivered wastes match the description on the manifest? ___ Yes ___ No NA

   c. Are manifests checked for completeness? ___ Yes ___ No NA

d. Is manifest signed and dated to certify that waste covered by manifest was received? Yes No NA

e. Are manifests retained for at least three (3) years? Yes No NA

f. Are legible copies of completed manifests provided to SDOHS on monthly basis? Yes No NA

g. Are manifests reconciled with the delivery and discrepanices reported? Yes No NA

Manifest Discrepancies

1. Does owner/operator note any significant discrepancies in the manifest? (See ISD for definition of significant discrepancy). Yes No NA

2. Does owner/operator try to reconcile the discrepancies with generator or transporter before accepting the waste? Yes No NA

3. If a load is returned because manifest discrepancy was not resolved, does the owner/operator notify SDOHS immediately? Yes No NA

4. If a load is accepted with resolved manifest discrepancy, does owner/operator note on SDOHS manifest copy how the discrepancy was resolved? Yes No NA

Annual Report

1. Has the owner/operator prepared an annual report? (Refer to ISD regarding essentials of report). Yes No NA

Unmanifested Waste Report

1. Has the facility received unmanifested waste? Yes No NA

2. If so, was a report received within 15 days? Yes No ✓ NA

Groundwater Monitoring (Effective November 19, 1981)

1. Effective November 19, 1981 has the owner/operator implemented a groundwater monitoring program? Yes No NA

2. Is the plan approved by the CRWQCB? Yes No NA

3. If not, has a waiver been obtained from CRWQCB? Yes No NA

Landfills (Effective November 19, 1981)

1. Does the operating record include:

   a. Map showing the exact location and dimension of each cell. Yes No NA

   b. The contents of each cell and the approximate location of each hazardous waste in each cell. Yes No NA

2. Does the closure plan specify the function and design of the cover? Yes No NA

3. Does the closure plan address control of pollution migration (via groundwater, surface water and air), surface water infiltration and erosion? Yes No NA

4. Does the closure plan address the following:

   a. Type and amount of waste in the landfill. Yes No NA

   b. Mobility and migration of waste. Yes No NA

   c. Site location, topography and surrounding land use with respect to pollution migration. Yes No NA

   d. Climate. Yes No NA

e. Characteristics of the cover. Yes No NA

f. Geology, soil profile and hydrology. Yes No NA

5. Does post-closure plan appear complete? Yes No NA

6. Is the landfill liner adequate to receive liquid waste? Yes No NA

7. Are liquid wastes treated or stabilized? Yes No NA

8. Is the landfill receiving liquid wastes after November 19, 1981? Yes No NA

9. Are empty containers crushed prior to burial? Yes No NA

10. Are ignitable and reactive wastes buried without inactivation? Yes No NA

11. Are incompatible wastes placed in the same cell? Yes No NA

Tanks - For offsite storage facility - This is not an offsite storage facility

1. Are hazardous wastes stored which could cause rupture, leaking or corrosion? Yes No NA

2. Do uncovered tanks have a 2 foot freeboard, dikes or containment structures? Yes No NA

3. If the tank is continuously fed, is there a waste feed cutoff? Yes No NA

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4. Are waste analyses completed when a tank is used to store a substantially different waste than before? ___ Yes ___ No NA

5. Are tanks inspected as follows:

   a. Discharge control daily. ✓ Yes ___ No NA

   b. Monitoring equipment daily. ✓ Yes ___ No NA

   c. Waste level daily. ✓ Yes ___ No NA

   d. Construction materials weekly. ___ Yes ___ No NA

   e. Containment construction weekly. ___ Yes ___ No NA

6. Are ignitable, reactive or incompatible waste stored in same tanks? ___ Yes ___ No NA

7. Does onwer/operator have closure plan for tanks ___ Yes ___ No NA

Land Treatment

1. Can wastes applied be biodegraded? ___ Yes ___ No NA

2. Have run-off and run-on diversion and collection areas been constructed? (Effective November 19, 1981) ___ Yes ___ No NA

3. Before application are wastes analyzed to determine?:

   a. Concentrations of toxic or hazardous components. ___ Yes ___ No NA

   b. Concentrations of As, Cd, Pb, Hg. ___ Yes ___ No NA

4. Has owner/operator filed an unsaturated zone monitoring plan with RWQCB? (Refer to ISD for essentials of unsaturated zone monitoring plan). ___ Yes ___ No NA

5. Are records kept of application dates, rates, quantities and location? Yes No NA

6. Does facility have a closure and post closure plan? Yes No NA

7. Are reactive or ignitable wastes applied without immediate soil incorporation to render them inactive? Yes No NA

8. Are incompatible wastes applied in same area? Yes No NA

Chemical, Physical and Biological Treatment

1. Are hazardous wastes stored which could cause rupture, leaking or corrosion? Yes No NA

2. Is treatment equipment equipped with an inflow cutoff device? Yes No NA

3. Is waste analysis conducted when a hazardous waste to be treated is substantially different than the previously treated waste? Yes No NA

4. Is waste analysis conducted when a substantially different process is to be used? Yes No NA

5. Are inspections conducted on:

   a. Discharge control and safety equipment daily. Yes No NA

   b. Monitoring equipment daily. Yes No NA

   c. Construction materials of treatment process or equipment weekly. Yes No NA

   d. Construction materials of containment structures weekly. Yes No NA

6. Is ignitable or reactive waste placed in a treatment process or equipment without inactivation or protection? Yes No NA

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7. Are incompatible wastes commingled or placed in unwashed treatment equipment? Yes No NA

Incineration and other Thermal Treatment

1. Is the incinerator brought to steady state before addition of the waste? Yes No NA

2. Is any waste not previously incinerated analyzed for heating value, halogen and sulfur content, and for lead and mercury? Yes No NA

3. Are monitoring inspections conducted on:

   a. Instrumentation every 15 minutes. Yes No NA

   b. Visual stack emissions hourly. Yes No NA

   c. Entire incinerator and equipment daily. Yes No NA

4. Is all waste and residue removed from the incinerator at closure? Yes No NA

5. Is open burning and detonation conducted? Yes No NA

Surface Impoundments

1. Are at least two (2) feet of freeboard maintained? Yes No NA

2. Do earthen dikes have a protective cover? Yes No NA

3. Is waste analyzed when treating a waste is substantially different from waste previously treated in that impoundment? Yes No NA

4. Is freeboard inspected daily? Yes No NA

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5. Are surface impoundments, dikes and vegetation inspected weekly? ____ Yes ____ No NA

6. Are reactive and ignitable wastes inactivated before storage impounding? ____ Yes ____ No NA

7. Are incompatible wastes placed in same impoundment? ____ Yes ____ No NA

Waste Piles

1. Are waste piles covered or protected from wind? ____ Yes ____ No NA

2. Is incoming waste analyzed before being added to the pile? ____ Yes ____ No NA

3. If leachate or run-off is hazardous, is waste placed on an impermeable base and run-on diverted and run-off collected? (Effective November 19, 1981) ____ Yes ____ No NA

4. Is the pile protected from and run-on? (Effective November 19, 1981) ____ Yes ____ No NA

5. Are liquids or wastes containing liquids placed on the pile? ____ Yes ____ No NA

6. Is ignitable or reactive waste added to the pile unless inactive or managed to protect it from any material or conditions which may cause it to ignite or react? ____ Yes ____ No NA

7. Are incompatible wastes placed in the same pile? ____ Yes ____ No NA

8. Are incompatible waste piles physically separated? ____ Yes ____ No NA

9. Are incompatible waste areas decontaminated prior to addition of new waste? ____ Yes ____ No NA

Storage of Containers

1. Are containers compatible with stored wastes in them? Yes No NA

2. Are all containers closed? Yes No NA

3. Are containers properly handled to prevent rupture or leakage? Yes No NA

4. Are container storage areas inspected for leaks, corrosion or other deterioration on a weekly basis? Yes No NA

5. Are containers used to store ignitable or reactive waste stored at least 50 feet from the facility's property line? Yes No NA

6. Are incompatible wastes stored in same containers? Yes No NA

7. Is hazardous waste added to unwashed containers previously used to store incompatible waste? Yes No NA

8. Are incompatible waste containers physically separated from other incompatible waste areas? Yes No NA

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ABANDONED SITE PROJECT DRIVE-BY CHECKLIST

5/8 0-1

ite Name [illegible]

ite Address [illegible]

ity [illegible]

Score _____

Inspectors [illegible]

[illegible]

Date [illegible]

YPE OF WASTE

5 Extremely Hazardous or Hazardous (5pts)

___ Unknown (3pts)

___ Non-Hazardous (0pts)

ISPOSAL METHOD / LOCATION OF WASTE

___ Pits, Ponds, Sumps -- empty or full (5pts)

___ Drums (55-gal) or Tanks (other than raw material storage) (5pts)

5 Other Visible Means of Storing Waste DDT stored in bags on pallets (3pts)

___ No Indication of Waste (0pts)

OCALE

___ Recreation Area (5pts)

5 Urban Area (5pts)

___ Rural Area (2pts)

5 Industrial Area (2pts)

___ Commercial Area (3pts)

CTIVE / INACTIVE SITE

IMMEDIATE ENVIRONMENT

___ Liquid or Semi-Liquid Oozing, Seeping, or Leaching Out of Ground (5pts)

___ Perceivable Site-Specific Odor (4pts)

5 Piles of Dry Material, Randomly Scattered Debris, Disturbed Topography (3pts)

___ Vegetation Stressed or Irregular (3pts)

___ Soil Discolored (3pts)

___ Surface Water Nearby (Lake, River, Creek, Stream, Canal) (3pts)

___ Standing Water On-Site Discolored (3pts)

___ No Apparent Problems (0pts)

DANGER TO PUBLIC HEALTH

5 Waste Accessible to Public (site not secured or waste highly mobile) (5pts)

___ Nearby Residential Area, Site Secured, Waste Not Highly Mobile (3pts)

___ Drainage System (Natural, Man-Made) (3pts)

___ No Apparent Danger (0pts)

OMMENTS:

This is a very large, active facility.
There were several hundred pallets of 50 lb paper bags of DDT stacked on the [illegible].
The bags are partially covered by a polyethylene type [illegible] [illegible], leaving the bags exposed.

4309

BOE-C6-0177269

MONITORING AND REPORTING PROGRAM

MONTROSE CHEMICAL CORPORATION OF CALIFORNIA
(File 70-118)

5688

Date February 1, 1980

Report to: California Regional Water Quality Control Board

Report for Month of January, 1980

	Alkaline (Gals.) Waste	Acid (Gals.)	Trash (Cubic Yards)
a. Total amount generated during month	823,200	157,600	1,040
1. Average amount generated per day	26,500	5,100	33-1/2

b. Dates of off site transfer

Date	Material Hauled	Gals. or Cubic Yds.	Destination	Hauler
1/2/80	Alkaline Waste	12,600 gals.	BKK, West Covina	Chancellor & Ogden
1/3	"	42,000 gals.	"	"
1/4	"	37,800 gals.	"	"
1/5	"	37,800 gals.	"	"
1/7	"	33,600 gals.	"	"
1/8	"	29,400 gals.	"	"
1/9	"	25,200 gals.	"	"
1/10	"	29,400 gals.	"	"
1/11	"	58,800 gals.	"	"
1/12	"	21,000 gals.	"	"
1/14	"	46,200 gals.	"	"
1/15	"	25,200 gals.	"	"
1/16	"	16,800 gals.	"	"
1/17	"	29,400 gals.	"	"
1/18	"	16,800 gals.	"	"
1/19	"	16,800 gals.	"	"

Date	Material Hauled	Gals. or Cubic Yds.	Destination	Hauler
1/20	Alkaline Waste	8,400 gals.	BKK, West Covina	Chancellor & Ogden
1/21	"	54,600 gals.	"	"
1/22	"	50,400 gals.	"	"
1/23	"	16,800 gals.	"	"
1/24	"	29,400 gals.	"	"
1/25	"	21,000 gals.	"	"
1/26	"	16,800 gals.	"	"
1/28	"	46,200 gals.	"	"
1/29	"	42,000 gals.	"	"
1/30	"	33,600 gals.	"	"
1/31	"	25,200 gals.	"	"
	TOTAL	823,200 gals.		
1/3	Solid Waste	40 cu. yds.	Rolling Hills	Western Refuse
1/4	"	40 cu. yds.	"	"
1/5	"	40 cu. yds.	"	"
1/7	"	160 cu. yds.	"	"
1/10	"	40 cu. yds.	"	"
1/14	"	80 cu. yds.	"	"
1/16	"	80 cu. yds.	"	"
1/17	"	80 cu. yds.	"	"
1/19	"	40 cu. yds.	"	"
1/21	"	80 cu. yds.	"	"
1/23	"	120 cu. yds.	"	"
1/24	"	80 cu. yds.	"	"
1/28	"	80 cu. yds.	"	"
1/30	"	40 cu. yds.	"	"
1/31	"	40 cu. yds.	"	"
	TOTAL	1,040 cu. yds.		

Date	Material Hauled	Gals. or Cubic Yds.	Destination	Hauler
1/2	Waste Sulfuric Acid	11,200 gals.	BKK, West Covina	Chancellor & Ogden
1/3	"	11,200 gals.	"	"
1/4	"	8,400 gals.	"	"
1/7	"	11,200 gals.	"	"
1/8	"	11,200 gals.	"	"
1/9	"	8,400 gals.	"	"
1/10	"	8,400 gals.	"	"
1/14	"	5,600 gals.	"	"
1/15	"	8,400 gals.	"	"
1/16	"	5,600 gals.	"	"
1/17	"	8,400 gals.	"	"
1/18	"	8,400 gals.	"	"
1/21	"	11,200 gals.	"	"
1/22	"	11,200 gals.	"	"
1/23	"	11,200 gals.	"	"
1/24	"	11,200 gals.	"	"
1/25	"	11,200 gals.	"	"
1/28	"	5,600 gals.	"	"
1/29	"	2,800 gals.	"	"
1/30	"	5,600 gals.	"	"
1/31	"	11,200 gals.	"	"
	TOTAL	187,600 gals.		

BOE-C6-0177272

c. Names and Addresses of Waste Haulers

(1) Western Refuse Hauling, Inc.
P.O. Box 214
Gardena, California 90246

(2) Chancellor and Ogden, Inc.
3365 Cherry Avenue
Long Beach, California 90807

(3) Wm. H. Hutchison,& Sons Service
217 No. Lagoon Ave.
Wilmington, California 90744

d. Locations of Ultimate Points of Disposal of All Wastes

(1) Alkaline Waste Disposal Sites

a. Los Angeles County Sanitation
Waste Disposal Site No. 1
26300 Crenshaw Blvd.
Rolling Hills, California

b. BKK Co. Land Fill
2210 S. Azusa Avenue
West Covina, California

(2) Acid Waste Disposal Site

BKK Co. Land Fill
2210 S. Azusa Avenue
West Covina, California

(3) Solid Waste Disposal Site

Los Angeles County Sanitation
Waste Disposal Site No. 1
26300 Crenshaw Blvd.
Rolling Hills, California

	Gals. of Alkaline Waste	Gals. of Acid Waste	Cubic Yds. Solid Waste
e. Quantity of waste hauled during reporting period	823,200	187,600	1,040
f. Quantity of waste stored at plant at end of reporting period	35,000	90,000	60
g. Storage capacity remaining at end of storage period	65,000	110,000	60

(2) Violations of Waste Discharge Requirement During the Reporting Period

I declare under penalty of perjury that the foregoing is true and correct.

Executed on the 5th day of February, 1980

at Torrance, California.

John L. Kallok (Signature)

Plant Manager

(Title)

MONITORING AND REPORTING PROGRAM

MONTROSE CHEMICAL CORPORATION OF CALIFORNIA
(File 70-118)

Date January 3, 1980

Report to: California Regional Water Quality Control Board

5688

Report for Month of December, 1979

	Alkaline (Gals.) Waste	Acid (Gals.)	Trash (Cubic Yards)
a. Total amount generated during month	590,000	177,400	
1. Average amount generated per day	19,000	5,700	

b. Dates of off site transfer

Date	Material Hauled	Gals. or Cubic Yds.	Destination	Hauler
12/1	Alkaline Waste	12,600 gals.	BKK West Covina	Chancellor & Ogden
12/3	"	12,600 gals.	"	"
12/4	"	16,800 gals.	"	"
12/5	"	25,200 gals.	"	"
12/6	"	25,200 gals.	"	"
12/7	"	16,800 gals.	"	"
12/8	"	29,400 gals.	"	"
12/10	"	29,400 gals.	"	"
12/11	"	25,200 gals.	"	"
12/12	"	21,000 gals.	"	"
12/13	"	33,600 gals.	"	"
12/14	"	29,400 gals.	"	"
12/15	"	29,400 gals.	"	"
12/17	"	16,800 gals.	"	"
12/18	"	21,000 gals.	"	"
12/19	"	25,200 gals.	"	"

Date	Material Hauled	Gals. or Cubic Yds.	Destination	Hauler
12/20	Alkaline Waste	21,000 gals.	BKK West Covina	Chancellor & Ogden
12/21	"	25,200 gals.	"	"
12/22	"	29,400 gals.	"	"
12/26	"	25,200 gals.	"	"
12/27	"	16,800 gals.	"	"
12/28	"	16,800 gals.	"	"
12/29	"	33,600 gals.	"	"
12/31	"	29,400 gals.	"	"
	Total	567,000 gals.		

Date	Material Hauled	Gals. or Cubic Yds.	Destination	Hauler
12/3	Waste Sulfuric Acid	8,400 gals.	BKK West Covina	Chancellor & Ogden
12/4	"	11,200 gals.	"	"
12/5	"	11,200 gals.	"	"
12/6	"	11,200 gals.	"	"
12/10	"	11,200 gals.	"	"
12/11	"	11,200 gals.	"	"
12/12	"	11,200 gals.	"	"
12/13	"	11,200 gals.	"	"
12/17	"	11,200 gals.	"	"
12/18	"	8,400 gals.	"	"
12/19	"	11,200 gals.	"	"
12/20	"	11,200 gals.	"	"
12/26	"	11,200 gals.	"	"
12/27	"	11,200 gals.	"	"
12/28	"	11,200 gals.	"	"
	Total	162,400 gals.		

c. Names and Addresses of Waste Haulers

(1) Western Refuse Hauling, Inc.
P.O. Box 214
Gardena, California 90246

(2) Chancellor and Ogden, Inc.
3365 Cherry Avenue
Long Beach, California 90807

(3) Wm. H. Hutchison & Sons Service
217 No. Lagoon Ave.
Wilmington, California 90744

d. Locations of Ultimate Points of Disposal of All Wastes

(1) Alkaline Waste Disposal Sites

a. Los Angeles County Sanitation
Waste Disposal Site No. 1
26300 Crenshaw Blvd.
Rolling Hills, California

b. BKK Co. Land Fill
2210 S. Azusa Avenue
West Covina, California

(2) Acid Waste Disposal Site

BKK Co. Land Fill
2210 S. Azusa Avenue
West Covina, California

(3) Solid Waste Disposal Site

Los Angeles County Sanitation
Waste Disposal Site No. 1
26300 Crenshaw Blvd.
Rolling Hills, California

	Gals. of Alkaline Waste	Gals. of Acid Waste	Cubic Yds. Solid Waste
e. Quantity of waste hauled during reporting period	567,000	162,400	
f. Quantity of waste stored at plant at end of reporting period	35,000	60,000	
g. Storage capacity remaining at end of storage period	65,000	90,000	

(2) Violations of Waste Discharge Requirement During the Reporting Period

I declare under penalty of perjury that the foregoing is true and correct.

Executed on the 7th day of January, 1980

at Torrance, California.

John L. Kallok (Signature)

Plant Manager
(Title)

MONITORING AND REPORTING PROGRAM

MONTROSE CHEMICAL CORPORATION OF CALIFORNIA
(File 70-118)

5688

Date _____

Report to: California Regional Water Quality Control Board

Report for Month of SEPTEMBER 1980

	Alkaline (Gals.) Waste	Acid (Gals.)	Trash (Cubic Yards)
a. Total amount generated during month	351,200	152,200	520
1. Average amount generated per day	11,700	5,100	17

b. Dates of off site transfer

Date	Material Hauled	Gals. or Cubic Yds.	Destination	Hauler
9/2	Alkaline Waste	16,800 gals.	BKK, West Covina	Chancellor & Ogden
9/3	"	4,200 gals.	"	"
9/4	"	12,600 gals.	"	"
9/5	"	8,400 gals.	"	"
9/6	"	12,600 gals.	"	"
9/8	"	16,800 gals.	"	"
9/9	"	16,800 gals.	"	"
9/10	"	16,800 gals.	"	"
9/11	"	12,600 gals.	"	"
9/12	"	12,600 gals.	"	"
9/13	"	8,400 gals.	"	"
9/15	"	16,800 gals.	"	"
9/16	"	16,800 gals.	"	"
9/17	"	16,800 gals.	"	"
9/18	"	16,800 gals.	"	"
9/19	"	12,600 gals.	"	"

Date	Material Hauled	als. or Cubic Yds.	Destin ion	Hauler
9/20	Alkaline Waste	12,600 gals.	BKK, West Covina	Chancellor & Ogden
9/22	"	8,400 gals.	"	"
9/23	"	16,800 gals.	"	"
9/24	"	25,200 gals.	"	"
9/25	"	25,200 gals.	"	"
9/26	"	8,400 gals.	"	"
9/27	"	16,800 gals.	"	"
9/29	"	16,800 gals.	"	"
9/30	"	12,600 gals.	"	"
	TOTAL	361,200 gals.		
9/4	Solid Waste	40 cu. yds.	Rolling Hills	Western Refuse
9/5	"	40 cu. yds.	"	"
9/8	"	40 cu. yds.	"	"
9/10	"	40 cu. yds.	"	"
9/11	"	40 cu. yds.	"	"
9/15	"	40 cu. yds.	"	"
9/22	"	80 cu. yds.	"	"
9/23	"	80 cu. yds.	"	"
9/25	"	40 cu. yds.	"	"
9/28	"	40 cu. yds.	"	"
9/30	"	40 cu. yds.	"	"
	TOTAL	520 cu. yds.		

Date	Material Hauled	Gals. or Cubic Yds.	Destination	Hauler
9/2	Waste Sulfuric Acid	8,400 gals.	BKK, West Covina	Chancellor & Ogden
9/3	"	11,200 gals.	"	"
9/10	"	11,200 gals.	"	"
9/11	"	5,600 gals.	"	"
9/15	"	11,200 gals.	"	"
9/16	"	11,200 gals.	"	"
9/17	"	11,200 gals.	"	"
9/22	"	11,200 gals.	"	"
9/23	"	11,200 gals.	"	"
9/24	"	11,200 gals.	"	"
9/25	"	11,200 gals.	"	"
9/29	"	11,200 gals.	"	"
9/30	"	11,200 gals.	"	"
	TOTAL	137,200 gals.		

c. Names and Addresses of Waste Haulers

(1) Western Refuse Hauling, Inc.
P.O. Box 214
Gardena, California 90246

(2) Chancellor and Ogden, Inc.
3365 Cherry Avenue
Long Beach, California 90807

(3) Wm. H. Hutchison,& Sons Service
217 No. Lagoon Ave.
Wilmington, California 90744

d. Locations of Ultimate Points of Disposal of All Wastes

(1) Alkaline Waste Disposal Sites

a. Los Angeles County Sanitation
Waste Disposal Site No. 1
26300 Crenshaw Blvd.
Rolling Hills, California

b. BKK Co. Land Fill
2210 S. Azusa Avenue
West Covina, California

(2) Acid Waste Disposal Site

BKK Co. Land Fill
2210 S. Azusa Avenue
West Covina, California

(3) Solid Waste Disposal Site

Los Angeles County Sanitation
Waste Disposal Site No. 1
26300 Crenshaw Blvd.
Rolling Hills, California

	Gals. of Alkaline Waste	Gals. of Acid Waste	Cubic Yds. Solid Waste
e. Quantity of waste hauled during reporting period	361,200	137,200	520
f. Quantity of waste stored at plant at end of reporting period	20,000	60,000	40
g. Storage capacity remaining at end of storage period	80,000	140,000	40

(2) Violations of Waste Discharge Requirement During the Reporting Period

I declare under penalty of perjury that the foregoing is true and correct.

Executed on the 6th day of October, 1980

at Torrance, California.

John L. Kalick (Signature)

Plant Manager
(Title)

MONITORING AND REPORTING PROGRAM

5688

MONTROSE CHEMICAL CORPORATION OF CALIFORNIA
(File 70-118)

Date September 2, 1980

Report to: California Regional Water Quality Control Board

Report for Month of August, 1980

	Alkaline (Gals.) Waste	Acid (Gals.)	Trash (Cubic Yards)
a. Total amount generated during month	452,600	150,600	360
1. Average amount generated per day	14,600	4,860	11.6

b. Dates of off site transfer

Date	Material Hauled	Gals. or Cubic Yds.	Destination	Hauler
8/1	Alkaline Waste	16,800 gals.	BKK, West Covina	Chancellor & Ogden
8/2	"	25,200 gals.	"	"
8/4	"	25,200 gals.	"	"
8/5	"	16,800 gals.	"	"
8/6	"	16,800 gals.	"	"
8/7	"	12,600 gals.	"	"
8/8	"	16,800 gals.	"	"
8/9	"	12,600 gals.	"	"
8/11	"	16,800 gals.	"	"
8/12	"	16,800 gals.	"	"
8/13	"	12,600 gals.	"	"
8/14	"	21,000 gals.	"	"
8/15	"	12,600 gals.	"	"
8/16	"	8,400 gals.	"	"
6/18	"	16,800 gals.		
8/19	"	8,400 gals.	"	

Date	Material Hauled	als. or Cubic Yds.	Destin ion	Hauler
8/20	Alkaline Waste	12,600 gals.	BKK, West Covina	Chancellor & Ogden
8/21	"	16,800 gals.	"	"
8/22	"	12,600 gals.	"	"
8/23	"	12,600 gals.	"	"
8/25	"	16,800 gals.	"	"
8/26	"	16,800 gals.	"	"
8/27	"	16,800 gals.	"	"
8/28	"	29,400 gals.	"	"
8/29	"	21,000 gals.	"	"
8/30	"	21,000 gals.	"	"
	TOTAL	432,600 gals.		
8/5	Solid Waste	40 cu. yds.	Rolling Hills	Western Refuse
8/11	"	40 cu. yds.	"	"
8/12	"	80 cu. yds.	"	"
8/19	"	80 cu. yds.	"	"
8/23	"	80 cu. yds.	"	"
8/28	"	40 cu. yds.	"	"
	TOTAL	360 cu. yds.		

Date	Material Hauled	Gals. or Cubic Yds.	Destination	Hauler
8/1	Waste Sulfuric Acid	8,400 gals	BKK, West Covina	Chancellor & Ogden
8/4	"	8,400 gals.	"	"
8/5	"	5,600 gals.	"	"
8/6	"	8,400 gals.	"	"
8/7	"	11,200 gals.	"	"
8/11	"	11,200 gals.	"	"
8/13	"	8,400 gals.	"	"
8/14	"	11,200 gals.	"	"
8/15	"	11,200 gals.	"	"
8/18	"	8,400 gals.	"	"
8/19	"	11,200 gals.	"	"
8/20	"	11,200 gals.	"	"
8/26	"	11,200 gals.	"	"
8/27	"	8,400 gals.	"	"
8/28	"	11,200 gals.	"	"
	TOTAL	145,600 gals.		

c. Names and Addresses of Waste Haulers

(1) Western Refuse Hauling, Inc.
P.O. Box 214
Gardena, California 90246

(2) Chancellor and Ogden, Inc.
3365 Cherry Avenue
Long Beach, California 90807

(3) Wm. H. Hutchison,& Sons Service
217 No. Lagoon Ave.
Wilmington, California 90744

d. Locations of Ultimate Points of Disposal of All Wastes

(1) Alkaline Waste Disposal Sites

a. Los Angeles County Sanitation
Waste Disposal Site No. 1
26300 Crenshaw Blvd.
Rolling Hills, California

b. BKK Co. Land Fill
2210 S. Azusa Avenue
West Covina, California

(2) Acid Waste Disposal Site

BKK Co. Land Fill
2210 S. Azusa Avenue
West Covina, California

(3) Solid Waste Disposal Site

Los Angeles County Sanitation
Waste Disposal Site No. 1
26300 Crenshaw Blvd.
Rolling Hills, California

	Gals. of Alkaline Waste	Gals. of Acid Waste	Cubic Yds. Solid Waste
e. Quantity of waste hauled during reporting period	432,600	145,600	40
f. Quantity of waste stored at plant at end of reporting period	30,000	45,000	360
g. Storage capacity remaining at end of storage period	70,000	155,000	40

(2) Violations of Waste Discharge Requirement During the Reporting Period

I declare under penalty of perjury that the foregoing is true and correct.

Executed on the 4th day of September, 1980

at Torrance, California.

John L. Kallok (Signature)

Plant Manager
(Title)

MONITORING AND REPORTING PROGRAM

MONTROSE CHEMICAL CORPORATION OF CALIFORNIA
(File 70-118)

Date August 4, 1980 5688

Report to: California Regional Water Quality Control Board

Report for Month of July, 1980

	Alkaline (Gals.) Waste	Acid (Gals.)	Trash (Cubic Yards)
a. Total amount generated during month	195,000	61,600	640
1. Average amount generated per day	6,300	2,000	21

b. Dates of off site transfer

Date	Material Hauled	Gals. or Cubic Yds.	Destination	Hauler
7/1	Alkaline Waste	16,800 gals.	BKK, West Covina	Chancellor & Ogden
7/2	"	21,000 gals.	"	"
7/3	"	16,800 gals.	"	"
7/7	"	33,600 gals.	"	"
7/8	"	16,800 gals.	"	"
7/9	"	16,800 gals.	"	"
7/10	"	16,800 gals.	"	"
7/11	"	16,800 gals.	"	"
7/12	"	12,600 gals.	"	"
7/14	"	12,600 gals.	"	"
7/29	"	4,200 gals.	"	"
7/30	"	12,600 gals.	"	"
7/31	"	12,600 gals.	"	"
	TOTAL	210,000 gals.		

8/7

Date	Material Hauled	als. or Cubic Yds.	Destin on	Hauler
7/1	Waste Sulfuric Acid	11,200 gals.	BKK, West Covina	Chancellor & Ogden
7/3	"	8,400 gals.	"	"
7/7	"	11,200 gals.	"	"
7/8	"	11,200 gals.	"	"
7/9	"	11,200 gals.	"	"
7/10	"	8,400 gals.	"	"
	TOTAL	61,600 gals.		

Date	Material Hauled	Gals. or Cubic Yds.	Destination	Hauler
7/1	Solid Waste	160 cu. yds.	Rolling Hills	Western Refuse
7/8	"	80 cu. yds.	"	"
7/9	"	40 cu. yds.	"	"
7/10	"	120 cu. yds.	"	"
7/14	"	40 cu. yds.	"	"
7/17	"	120 cu. yds.	"	"
7/18	"	80 cu. yds.	"	"
	TOTAL	640 cu. yds.		

c. Names and Addresses of Waste Haulers

(1) Western Refuse Hauling, Inc.
P.O. Box 214
Gardena, California 90246

(2) Chancellor and Ogden, Inc.
3365 Cherry Avenue
Long Beach, California 90807

(3) Wm. H. Hutchison,& Sons Service
217 No. Lagoon Ave.
Wilmington, California 90744

d. Locations of Ultimate Points of Disposal of All Wastes

(1) Alkaline Waste Disposal Sites

a. Los Angeles County Sanitation
Waste Disposal Site No. 1
26300 Crenshaw Blvd.
Rolling Hills, California

b. BKK Co. Land Fill
2210 S. Azusa Avenue
West Covina, California

(2) Acid Waste Disposal Site

BKK Co. Land Fill
2210 S. Azusa Avenue
West Covina, California

(3) Solid Waste Disposal Site

Los Angeles County Sanitation
Waste Disposal Site No. 1
26300 Crenshaw Blvd.
Rolling Hills, California

	Gals. of Alkaline Waste	Gals. of Acid Waste	Cubic Yds. Solid Waste
e. Quantity of waste hauled during reporting period	210,000	61,600	640
f. Quantity of waste stored at plant at end of reporting period	10,000	40,000	40
g. Storage capacity remaining at end of storage period	50,000	160,000	40

(2) Violations of Waste Discharge Requirement During the Reporting Period

I declare under penalty of perjury that the foregoing is true and correct.

Executed on the 5 day of August, 1980

at Torrance, California.

John L. Kallok (Signature)

Plant Manager

(Title)

MONITORING AND REPORTING PROGRAM

MONTROSE CHEMICAL CORPORATION OF CALIFORNIA
(File 70-118)

5688

Date July 2, 1980

Report to: California Regional Water Quality Control Board

Report for Month of June, 1980

	Alkaline (Gals.) Waste	Acid (Gals.)	Trash (Cubic Yards)
a. Total amount generated during month	535,200	131,200	360
1. Average amount generated per day	17,840	4,370	12

b. Dates of off site transfer

Date	Material Hauled	Gals. or Cubic Yds.	Destination	Hauler
6/2	Alkaline Waste	21,000 gals.	BKK, West Covina	Chancellor & Ogden
6/3	"	16,800 gals.	"	"
6/4	"	29,400 gals.	"	"
6/5	"	58,800 gals.	"	"
6/6	"	46,200 gals.	"	"
6/7	"	4,200 gals.	"	"
6/9	"	16,800 gals.	"	"
6/10	"	16,800 gals.	"	"
6/11	"	21,000 gals.	"	"
6/12	"	33,600 gals.	"	"
6/13	"	21,000 gals.	"	"
6/14	"	16,800 gals.	"	"
6/16	"	29,400 gals.	"	"
6/17	"	16,800 gals.	"	"
6/18	"	21,000 gals.	"	"
6/19	"	12,600 gals.	"	"

Date	Material Hauled	Gals. or Cubic Yds.	Destination	Hauler
6/20	Alkaline Waste	8,400 gals.	BKK, West Covina	Chancellor & Ogden
6/21	"	12,600 gals.	"	"
6/23	"	37,800 gals.	"	"
6/24	"	21,000 gals.	"	"
6/25	"	16,800 gals.	"	"
6/26	"	16,800 gals.	"	"
6/27	"	12,600 gals.	"	"
6/28	"	21,000 gals.	"	"
6/30	"	21,000 gals.	"	"
	TOTAL	550,200 gals.		
6/6	Solid Waste	80 cu. yds.	Rolling Hills	Western Refuse
6/17	"	80 cu. yds.	"	"
6/20	"	160 cu. yds.	"	"
6/27	"	40 cu. yds.	"	"
	TOTAL	360 cu. yds.		

Date	Material Hauled	Gals. or Cubic Yds.	Destination	Hauler
6/3	Waste Sulfuric Acid	11,200 gals.	BKK, West Covina	Chancellor & Ogden
6/4	"	11,200 gals.	"	"
6/9	"	11,200 gals.	"	"
6/10	"	12,600 gals.	"	"
6/11	"	8,400 gals.	"	"
6/12	"	8,400 gals.	"	"
6/16	"	11,200 gals.	"	"
6/17	"	5,600 gals.	"	"
6/18	"	8,400 gals.	"	"
6/19	"	5,600 gals.	"	"
6/23	"	11,200 gals.	"	"
6/24	"	11,200 gals.	"	"
6/25	"	11,200 gals.	"	"
6/26	"	5,600 gals.	"	"
6/30	"	11,200 gals.	"	"
	TOTAL	144,200 gals.		

c. Names and Addresses of Waste Haulers

(1) Western Refuse Hauling, Inc.
P.O. Box 214
Gardena, California 90246

(2) Chancellor and Ogden, Inc.
3365 Cherry Avenue
Long Beach, California 90807

(3) Wm. H. Hutchison,& Sons Service
217 No. Lagoon Ave.
Wilmington, California 90744

d. Locations of Ultimate Points of Disposal of All Wastes

(1) Alkaline Waste Disposal Sites

a. Los Angeles County Sanitation
Waste Disposal Site No. 1
26300 Crenshaw Blvd.
Rolling Hills, California

b. BKK Co. Land Fill
2210 S. Azusa Avenue
West Covina, California

(2) Acid Waste Disposal Site

BKK Co. Land Fill
2210 S. Azusa Avenue
West Covina, California

(3) Solid Waste Disposal Site

Los Angeles County Sanitation
Waste Disposal Site No. 1
26300 Crenshaw Blvd.
Rolling Hills, California

	Gals. of Alkaline Waste	Gals. of Acid Waste	Cubic Yds. Solid Waste
e. Quantity of waste hauled during reporting period	550,200	144,200	360
f. Quantity of waste stored at plant at end of reporting period	25,000	40,000	60
g. Storage capacity remaining at end of storage period	75,000	160,000	60

(2) Violations of Waste Discharge Requirement During the Reporting Period

I declare under penalty of perjury that the foregoing is true and correct.

Executed on the 7th day of July, 1980

at Torrance, California.

John L. Kallok (Signature)

Plant Manager
(Title)

MONITORING AND REPORTING PROGRAM

MONTROSE CHEMICAL CORPORATION OF CALIFORNIA
(File 70-118)

Date June 2, 1980

Report to: California Regional Water Quality Control Board

5688

Report for Month of May, 1980

	Alkaline (Gals.) Waste	Acid (Gals.)	Trash (Cubic Yards)
a. Total amount generated during month	561,200	107,000	320
1. Average amount generated per day	18,100	5,480	1.0

b. Dates of off site transfer

Date	Material Hauled	Gals. or Cubic Yds.	Destination	Hauler
5/1	Alkaline Waste	12,600 gals.	BKK, West Covina	Chancellor & Ogden
5/2	"	12,600 gals.	"	"
5/3	"	16,800 gals.	"	"
5/5	"	16,800 gals.	"	"
5/6	"	16,800 gals.	"	"
5/7	"	25,200 gals.	"	"
5/8	"	33,600 gals.	"	"
5/9	"	21,000 gals.	"	"
5/10	"	25,200 gals.	"	"
5/11	"	8,400 gals.	"	"
5/12	"	37,800 gals.	"	"
5/13	"	16,800 gals.	"	"
5/14	"	12,600 gals.	"	"
5/15	"	25,200 gals.	"	"
5/16	"	21,000 gals.	"	"
5/17	"	12,600 gals.	"	"

Date	Material Hauled	Gals. or Cubic Yds.	Destination	Hauler
5/19	Alkaline Waste	29,400 gals.	BKK, West Covina	Chancellor & Ogden
5/20	"	29,400 gals.	"	"
5/21	"	25,200 gals.	"	"
5/22	"	33,600 gals.	"	"
5/23	"	29,400 gals.	"	"
5/24	"	12,600 gals.	"	"
5/27	"	29,400 gals.	"	"
5/28	"	16,800 gals.	"	"
5/29	"	12,600 gals.	"	"
5/30	"	16,800 gals.	"	"
5/31	"	21,000 gals.	"	"
	TOTAL	571,200 gals.		
5/9	Solid Waste	80 cu. yds.	Rolling Hills	Western Refuse
5/19	"	80 cu. yds.	"	"
5/27	"	120 cu. yds.	"	"
5/28	"	40 cu. yds.	"	"
	TOTAL	320 cu. yds.		

Date	Material Hauled	C.Y. or Cubic Yds.	Destination	Hauler
5/1	Waste Sulfuric Acid	5,600 gals.	BKK, West Covina	Chancellor & Ogden
5/2	"	8,400 gals.	"	"
5/5	"	8,400 gals.	"	"
5/6	"	5,600 gals.	"	"
5/7	"	11,200 gals.	"	"
5/8	"	11,200 gals.	"	"
5/12	"	11,200 gals.	"	"
5/13	"	5,600 gals.	"	"
5/14	"	11,200 gals.	"	"
5/15	"	2,800 gals.	"	"
5/21	"	11,200 gals.	"	"
5/22	"	5,600 gals.	"	"
5/23	"	8,400 gals.	"	"
5/27	"	11,200 gals.	"	"
5/28	"	8,400 gals.	"	"
5/29	"	5,600 gals.	"	"
5/30	"	8,400 gals.	"	"
	TOTAL	140,000 gals.		

c. Names and Addresses of Waste Haulers

(1) Western Refuse Hauling, Inc.
P.O. Box 214
Gardena, California 90246

(2) Chancellor and Ogden, Inc.
3365 Cherry Avenue
Long Beach, California 90807

(3) Wm. H. Hutchison, & Sons Service
217 No. Lagoon Ave.
Wilmington, California 90744

d. Locations of Ultimate Points of Disposal of All Wastes

(1) Alkaline Waste Disposal Sites

a. Los Angeles County Sanitation
Waste Disposal Site No. 1
26300 Crenshaw Blvd.
Rolling Hills, California

b. BKK Co. Land Fill
2210 S. Azusa Avenue
West Covina, California

(2) Acid Waste Disposal Site

BKK Co. Land Fill
2210 S. Azusa Avenue
West Covina, California

(3) Solid Waste Disposal Site

Los Angeles County Sanitation
Waste Disposal Site No. 1
26300 Crenshaw Blvd.
Rolling Hills, California

	Gals. of Alkaline Waste	Gals. of Acid Waste	Cubic Yds. Solid Waste
e. Quantity of waste hauled during reporting period	571,200	140,000	320
f. Quantity of waste stored at plant at end of reporting period	40,000	53,000	80
g. Storage capacity remaining at end of storage period	60,000	147,000	80

(2) Violations of Waste Discharge Requirement During the Reporting Period

I declare under penalty of perjury that the foregoing is true and correct.

Executed on the 4th day of June, 1980

at Torrance, California.

John L. Kallok (Signature)

Plant Manager

(Title)

MONITORING AND REPORTING PROGRAM

MONTROSE CHEMICAL CORPORATION OF CALIFORNIA
(File 70-118)

Date April 2, 1980

Report to: California Regional Water Quality Control Board

5688

Report for Month of March, 1980

	Alkaline (Gals.) Waste	Acid (Gals.)	Trash (Cubic Yards)
a. Total amount generated during month	481,400	138,600	1,400
1. Average amount generated per day	15,530	4,470	45

b. Dates of off site transfer

Date	Material Hauled	Gals. or Cubic Yds.	Destination	Hauler
3/1	Alkaline Waste	16,800 gals.	BKK, West Covina	Chancellor & Ogden
3/3	"	29,400 gals.	"	"
3/4	"	29,400 gals.	"	"
3/5	"	16,800 gals.	"	"
3/6	"	25,200 gals.	"	"
3/7	"	16,800 gals.	"	"
3/8	"	25,200 gals.	"	"
3/10	"	16,800 gals.	"	"
3/11	"	16,800 gals.	"	"
3/12	"	16,800 gals.	"	"
3/13	"	16,800 gals.	"	"
3/14	"	12,600 gals.	"	"
3/15	"	4,200 gals.	"	"
3/17	"	16,800 gals.	"	"
3/18	"	16,800 gals.	"	"
3/19	"	12,600 gals.	"	"

Date	Material Hauled	Gals. or Cubic Yds.	Destination	Hauler
3/20	Alkaline Waste	16,800 gals.	BKK, West Covina	Chancellor & Ogden
3/21	"	21,000 gals.	"	"
3/22	"	16,800 gals.	"	"
3/24	"	21,000 gals.	"	"
3/25	"	25,200 gals.	"	"
3/26	"	25,200 gals.	"	"
3/27	"	25,200 gals.	"	"
3/28	"	16,800 gals.	"	"
3/29	"	16,800 gals.	"	"
3/31	"	16,800 gals.	"	"
	TOTAL	491,400 gals.		
3/3	Solid Waste	80 cu. yds.	Rolling Hills	Western Refuse
3/5	"	120 cu. yds.	"	"
3/6	"	120 cu. yds.	"	"
3/11	"	160 cu. yds.	"	"
3/12	"	40 cu. yds.	"	"
3/13	"	120 cu. yds.	"	"
3/15	"	160 cu. yds.	"	"
3/18	"	160 cu. yds.	"	"
3/20	"	80 cu. yds.	"	"
3/21	"	40 cu. yds.	"	"
3/26	"	160 cu. yds.	"	"
3/29	"	160 cu. yds.	"	"
	TOTAL	1,400 cu. yds.		

Date	Material Hauled	Gals. or Cubic Yds.	Destination	Hauler
3/5	Waste Sulfuric Acid	5,600 gals.	BKK, West Covina	Chancellor& Ogder
3/8	"	5,600 gals.	"	"
3/10	"	11,200 gals.	"	"
3/11	"	5,600 gals.	"	"
3/12	"	8,400 gals.	"	"
3/13	"	11,200 gals.	"	"
3/14	"	8,400 gals.	"	"
3/15	"	5,600 gals.	"	"
3/17	"	8,400 gals.	"	"
3/18	"	11,200 gals.	"	"
3/19	"	8,400 gals.	"	"
3/20	"	11,200 gals.	"	"
3/21	"	11,200 gals.	"	"
3/22	"	5,600 gals.	"	"
3/24	"	11,200 gals.	"	"
3/25	"	11,200 gals.	"	"
3/26	"	11,200 gals.	"	"
3/27	"	11,200 gals.	"	"
3/31	"	11,200 gals.	"	"
	TOTAL	173,600 gals.		

c. Names and Addresses of Waste Haulers

(1) Western Refuse Hauling, Inc.
P.O. Box 214
Gardena, California 90246

(2) Chancellor and Ogden, Inc.
3365 Cherry Avenue
Long Beach, California 90807

(3) Wm. H. Hutchison,& Sons Service
217 No. Lagoon Ave.
Wilmington, California 90744

d. Locations of Ultimate Points of Disposal of All Wastes

(1) Alkaline Waste Disposal Sites

a. Los Angeles County Sanitation
Waste Disposal Site No. 1
26300 Crenshaw Blvd.
Rolling Hills, California

b. BKK Co. Land Fill
2210 S. Azusa Avenue
West Covina, California

(2) Acid Waste Disposal Site

BKK Co. Land Fill
2210 S. Azusa Avenue
West Covina, California

(3) Solid Waste Disposal Site

Los Angeles County Sanitation
Waste Disposal Site No. 1
26300 Crenshaw Blvd.
Rolling Hills, California

	Gals. of Alkaline Waste	Gals. of Acid Waste	Cubic Yds. Solid Waste
e. Quantity of waste hauled during reporting period	491,400	173,600	1,400
f. Quantity of waste stored at plant at end of reporting period	15,000	140,000	60
g. Storage capacity remaining at end of storage period	85,000	60,000	60

(2) Violations of Waste Discharge Requirement During the Reporting Period

I declare under penalty of perjury that the foregoing is true and correct.

Executed on the 2nd day of April, 1980

at Torrance, California.

John L. Kallok (Signature)

Plant Manager
(Title)

MONITORING AND REPORTING PROGRAM

MONTROSE CHEMICAL CORPORATION OF CALIFORNIA
(File 70-118)

5688

Date May 1, 1980

Report to: California Regional Water Quality Control Board

Report for Month of April, 1980

	Alkaline (Gals.) Waste	Acid (Gals.)	Trash (Cubic Yards)
a. Total amount generated during month	497,000	142,000	880
1. Average amount generated per day	16,560	4,730	29-1/3

b. Dates of off site transfer

Date	Material Hauled	Gals. or Cubic Yds.	Destination	Hauler
4/1	Alkaline Waste	29,400 gals.	BKK, West Covina	Chancellor & Ogden
4/2	"	16,800 gals.	"	"
4/3	"	21,000 gals.	"	"
4/5	"	16,800 gals.	"	"
4/7	"	25,200 gals.	"	"
4/8	"	25,200 gals.	"	"
4/9	"	16,800 gals.	"	"
4/10	"	21,000 gals.	"	"
4/11	"	12,600 gals.	"	"
4/12	"	16,800 gals.	"	"
4/14	"	25,200 gals.	"	"
4/15	"	12,600 gals.	"	"
4/16	"	16,800 gals.	"	"
4/17	"	12,600 gals.	"	"
4/18	"	12,600 gals.	"	"
4/19	"	12,600 gals.	"	"

Date	Material Hauled	Gals. or Cubic Yds.	Destination	Hauler
4/21	Alkaline Waste	16,800 gals.	BKK, West Covina	Chancellor & Ogden
4/22	"	16,800 gals.	"	"
4/23	"	16,800 gals.	"	"
4/24	"	25,200 gals.	"	"
4/25	"	16,800 gals.	"	"
4/26	"	12,600 gals.	"	"
4/28	"	12,600 gals.	"	"
4/29	"	33,600 gals.	"	"
4/30	"	16,800 gals.	"	"
	TOTAL	462,000 gals.		
4/1	Solid Waste	120 cu. yds.	Rolling Hills	Western Refuse
4/4	"	80 cu. yds.	"	"
4/8	"	160 cu. yds.	"	"
4/11	"	80 cu. yds.	"	"
4/15	"	80 cu. yds.	"	"
4/18	"	80 cu. yds.	"	"
4/23	"	160 cu. yds.	"	"
4/28	"	40 cu. yds.	"	"
4/30	"	80 cu. yds.	"	"
	TOTAL	880 cu. yds.		

Date	Material Hauled	Gals. or Cubic Yds.	Destination	Hauler
4/1	Waste Sulfuric Acid	11,200 gals.	BKK, West Covina	Chancellor & Ogden
4/2	"	11,200 gals.	"	"
4/3	"	11,200 gals.	"	"
4/5	"	8,400 gals.	"	"
4/7	"	11,200 gals.	"	"
4/8	"	11,200 gals.	"	"
4/9	"	11,200 gals.	"	"
4/10	"	11,200 gals.	"	"
4/14	"	5,600 gals.	"	"
4/15	"	11,200 gals.	"	"
4/16	"	11,200 gals.	"	"
4/17	"	11,200 gals.	"	"
4/19	"	5,600 gals.	"	"
4/21	"	11,200 gals.	"	"
4/22	"	11,200 gals.	"	"
4/23	"	5,600 gals.	"	"
4/24	"	11,200 gals.	"	"
4/28	"	11,200 gals.	"	"
4/29	"	5,600 gals.	"	"
4/30	"	8,400 gals.	"	"
	TOTAL	196,000 gals.		

c. Names and Addresses of Waste Haulers

(1) Western Refuse Hauling, Inc.
P.O. Box 214
Gardena, California 90246

(2) Chancellor and Ogden, Inc.
3365 Cherry Avenue
Long Beach, California 90807

(3) Wm. H. Hutchison,& Sons Service
217 No. Lagoon Ave.
Wilmington, California 90744

d. Locations of Ultimate Points of Disposal of All Wastes

(1) Alkaline Waste Disposal Sites

a. Los Angeles County Sanitation
Waste Disposal Site No. 1
26300 Crenshaw Blvd.
Rolling Hills, California

b. BKK Co. Land Fill
2210 S. Azusa Avenue
West Covina, California

(2) Acid Waste Disposal Site

BKK Co. Land Fill
2210 S. Azusa Avenue
West Covina, California

(3) Solid Waste Disposal Site

Los Angeles County Sanitation
Waste Disposal Site No. 1
26300 Crenshaw Blvd.
Rolling Hills, California

	Gals. of Alkaline Waste	Gals. of Acid Waste	Cubic Yds. Solid Waste
e. Quantity of waste hauled during reporting period	462,000	196,000	880
f. Quantity of waste stored at plant at end of reporting period	50,000	86,000	60
g. Storage capacity remaining at end of storage period	50,000	134,000	60

(2) Violations of Waste Discharge Requirement During the Reporting Period

I declare under penalty of perjury that the foregoing is true and correct.

Executed on the 13 day of May, 1980

at Torrance, California.

John L. Kallok (Signature)

Plant Manager
(Title)

MONITORING AND REPORTING PROGRAM

MONTROSE CHEMICAL CORPORATION OF CALIFORNIA
(File 70-118)

Date March 5, 1980

Report to: California Regional Water Quality Control Board

5688

Report for Month of February, 1980

	Alkaline (Gals.) Waste	Acid (Gals.)	Trash (Cubic Yards)
a. Total amount generated during month	682,000	177,400	920
1. Average amount generated per day	23,500	6,100	31.7

b. Dates of off site transfer

Date	Material Hauled	Gals. or Cubic Yds.	Destination	Hauler
2/1	Alkaline Waste	25,200 gals.	BKK, West Covina	Chancellor & Ogden
2/2	"	25,200 gals.	"	"
2/3	"	8,400 gals.	"	"
2/4	"	33,600 gals.	"	"
2/5	"	37,800 gals.	"	"
2/6	"	16,800 gals.	"	"
2/7	"	16,800 gals.	"	"
2/8	"	29,400 gals.	"	"
2/9	"	16,800 gals.	"	"
2/11	"	29,400 gals.	"	"
2/12	"	16,800 gals.	"	"
2/13	"	37,800 gals.	"	"
2/14	"	37,800 gals.	"	"
2/15	"	21,000 gals.	"	"
2/16	"	42,000 gals.	"	"
2/18	"	25,200 gals.	"	"

Date	Material Hauled	Gals. or Cubic Yds.	Destination	Hauler
2/19	Alkaline Waste	37,800 gals.	BKK, West Covina	Chancellor & Ogden
2/20	"	25,200 gals.	"	"
2/21	"	25,200 gals.	"	"
2/22	"	29,400 gals.	"	"
2/23	"	25,200 gals.	"	"
2/24	"	12,600 gals.	"	"
2/25	"	33,600 gals.	"	"
2/26	"	16,800 gals.	"	"
2/27	"	16,800 gals.	"	"
2/28	"	16,800 gals.	"	"
2/29	"	12,600 gals.	"	"
	TOTAL	672,000 gals.		

Date	Material Hauled	Gals. or Cubic Yds.	Destination	Hauler
2/1	Waste Sulfuric Acid	8,400 gals.	BKK, West Covina	Chancellor & Ogden
2/4	"	11,200 gals.	"	"
2/5	"	11,200 gals.	"	"
2/6	"	11,200 gals.	"	"
2/7	"	11,200 gals.	"	"
2/8	"	8,400 gals.	"	"
2/11	"	11,200 gals.	"	"
2/22	"	2,800 gals.	"	"
2/28	"	8,400 gals.	"	"
2/29	"	8,400 gals.	"	"
	TOTAL	92,400 gals.		
2/1	Solid Waste	160 cu. ft.	Rolling Hills	Western Refuse
2/4	"	40 cu. ft.	"	"
2/5	"	80 cu. ft.	"	"
2/7	"	40 cu. ft.	"	"
2/11	"	120 cu. ft.	"	"
2/13	"	40 cu. ft.	"	"
2/15	"	80 cu. ft.	"	"
2/18	"	40 cu. ft.	"	"
2/19	"	40 cu. ft.	"	"
2/21	"	40 cu. ft.	"	"
2/22	"	80 cu. ft.	"	"
2/23	"	40 cu. ft.	"	"
2/25	"	80 cu. ft.	"	"
2/27	"	40 cu. ft.	"	"
	TOTAL	920 cu. ft.		

c. Names and Addresses of Waste Haulers

(1) Western Refuse Hauling, Inc.
P.O. Box 214
Gardena, California 90246

(2) Chancellor and Ogden, Inc.
3365 Cherry Avenue
Long Beach, California 90807

(3) Wm. H. Hutchison,& Sons Service
217 No. Lagoon Ave.
Wilmington, California 90744

d. Locations of Ultimate Points of Disposal of All Wastes

(1) Alkaline Waste Disposal Sites

a. Los Angeles County Sanitation
Waste Disposal Site No. 1
26300 Crenshaw Blvd.
Rolling Hills, California

b. BKK Co. Land Fill
2210 S. Azusa Avenue
West Covina, California

(2) Acid Waste Disposal Site

BKK Co. Land Fill
2210 S. Azusa Avenue
West Covina, California

(3) Solid Waste Disposal Site

Los Angeles County Sanitation
Waste Disposal Site No. 1
26300 Crenshaw Blvd.
Rolling Hills, California

	Gals. of Alkaline Waste	Gals. of Acid Waste	Cubic Yds. Solid Waste
e. Quantity of waste hauled during reporting period	672,000	92,400	920
f. Quantity of waste stored at plant at end of reporting period	25,000	175,000	60
g. Storage capacity remaining at end of storage period	75,000	45,000	60

(2) Violations of Waste Discharge Requirement During the Reporting Period

I declare under penalty of perjury that the foregoing is true and correct.

Executed on the 5th day of March, 1980

at Torrance, California.

John L. Kallok (Signature)

Plant Manager
(Title)

Walter E. Morrison
Chief Engineer and
General Manager

To permit file → I.W. Permit 1487
November 1, 1979

MEMO TO: Jay G. Kremer
Head, Industrial Waste Section

FROM: Ross C. Caballero
Supervisor, Industrial Waste
Inspection and Monitoring

SUBJECT: Results of Monitoring for DDT at:
Montrose Chemical Corporation
20201 S. Normandie Avenue
Torrance, California 90502

Background

In response to your request, a monitoring study has been made at Montrose Chemical Corporation to ascertain current levels of DDT being discharged to the Districts' sewerage system.

From approximately 1951 to June 1, 1971 Montrose Chemical had discharged to the Districts' sewerage system, process wastewater containing DDT. Districts' sampling conducted in March 1970 indicated that at that time DDT discharges to the sewer from Montrose Chemical, were approximately 650 lbs/day(1). As a result of these discharges there are an estimated 76,000 lbs. of DDT in sediments in a 2000 foot reach of J.O. "D" immediately downstream of Montrose Chemical(2).

In response to pressure by the Districts and litigation brought against Montrose Chemical by the Environmental Defense Fund, all process wastewater discharges to the sewer were terminated on June 1, 1971. After that date, only sanitary wastes and those from a boiler blow-down and a water softener backwash were allowed into the sewer.

In March 1974 Montrose Chemical applied for a Districts' industrial wastewater permit for the 2700 gpd flow from the boiler blowdown and softener backwash, and on June 5, 1974 the Districts issued I.W. Permit #1487 for this discharge. Prior to issuing the permit, the Industrial Waste Monitoring Crew obtained a 24-hour composite of this flow on May 6, 1974. The results showed 233 µg/l of total DDT. Prior to the most recent study conducted in July-August 1979, this one sample was the only one obtained by the Districts of this wastewater discharge. Montrose Chemical had been conducting quarterly analyses of its wastewater for DDT content as required by its I.W. permit.

A summary of Montrose Chemical's CPR data is given in Table 1. As seen, the total mass of DDT now reportedly being discharged is less than 0.001% of the DDT contained in the JWPCP raw sewage. For comparison, the average DDT concentration seen in the raw sewage at the District 28 WRP - an entirely residential area - is 0.15 µg/l.

Details of This Study

The first attempt to characterize Montrose Chemical's current discharge involved sampling the company's wastewater at a drop manhole downstream of the company's sanitary connection serving the restrooms in the office. This sampling location was chosen so that all DDT discharges from the company could be monitored, regardless if the DDT originated from manufacturing or sanitary activities. However, the 12-inch connection between this manhole and the Districts' District 5 Interceptor sewer line lies at an elevation that allows water in the interceptor sewer to back up at high flow conditions and flood out the bottom of the drop manhole. See Figure 1 for the location of this manhole. Thus, the samples taken in July 1979 are probably a mixture of Montrose Chemical's waste and other sewage flow in the District 5 interceptor sewer and even perhaps J.O. "D" - in that at this location there is a 12-inch connection between the two Districts' sewers. The results of these sample analyses are found in Table 2.

In August 1979 a second monitoring study was conducted, which this time included sampling only the wastewater from industrial waste discharge number 1487. These data are shown in Table 3.

Results of this study show higher concentrations of DDT in the drop manhole than in the company's discharge. This is probably related to DDT solids still remaining in the District 5 interceptor. The relative composition percentages of the total reported DDT offers some clue as to the age of the material. Under anaerobic conditions, DDT is known to be rapidly converted to DDD. Whereas in other organisms utilizing aerobic metabolic processing DDT is metabolized to DDE[5]. Figure 2 illustrates these chemical conversions. The manufacturing process produces mostly op'-DDT and pp'-DDT with minor amounts of the other related compounds. In sampling conducted of Montrose Chemical's effluent in 1970, before cessation of discharge of DDT wastes, the average percentage composition was 74% DDT, 5% DDD, and 21% DDE[3]. These samples were taken at the sample drop manhole, but at that time it was possible to sample Montrose Chemical's discharge at that point without getting contamination from other flows in the sewer. Comparison of these figures with those obtained from the August 1979 sampling (Table 3) indicates at the present time the DDT being discharged has a lower percentage of DDD and DDE. Trunk sewer sediment analyses conducted in July 1971 approximately 700 feet downstream of Montrose Chemical's connection to the Districts' sewer showed the sediments had the following relative composition[4]: 73% DDT, 5% DDD, 22% DDE, which was very similar to the 1970 results of Montrose Chemical's discharge. Analyses taken over the next several years at this same location indicated that by April 1973 the relative composition had significantly changed and stabilized at: 55% DDT, 18% DDD, 27% DDE[4]. The results of the present study show general agreement between the April 1973 data and the 1979 data from the drop manhole (see Table 2).

MEMO TO: Jay G. Kremer

FROM: Ross C. Caballero

Review of the CPR data submitted by Montrose Chemical (Table 1) shows that since January 1977 the company has been unable to detect DDT in its wastewater. The detection limit reported by the company has varied from 2 µg/l to 20 µg/l. The Districts two samples taken August 1979 showed DDT levels 20 to 30 times above the detection limit. The detection level for the Districts' analytical procedure is 0.01 µg/l.

The Districts' Phase I limits specify that there be essentially no discharge of DDT or other chlorinated hydrocarbons to the sewer. Obviously, Montrose Chemical's current discharges, being 350 times greater than that found in residential sewage, is something more than "Essentially None". It would be expected that some DDT should enter the sewer system from the restroom in the office building; however, the approximate ½ gram per day contained in the industrial waste discharge from the boiler blowdown and/or water softener backwash water is somewhat of a mystery. Whether this constitutes a violation of the Phase I limit is unknown to this writer.

Summary

1. All data indicate that Montrose Chemical is currently discharging very small quantities of DDT to the sewer system.

2. The amount of DDT discharged by Montrose Chemical is insignificant in relationship to DDT currently being received at the JWPCP.

3. The large quantities of DDT laden sediments in the sewer downstream of Montrose Chemical constitute the major source of DDT in the sewer system at the present time.

4. The concentration of DDT in Montrose Chemical's industrial waste-water is roughly 350 times higher than that found in residential sewage.

5. The laboratory procedures used by Montrose Chemical for DDT analyses do not have as low a detection limit as does the Districts' procedure.

6. Montrose Chemical's analytical procedures may not be accurately reporting the low level DDT concentrations in the company's waste-water.

Recommendations

1. The Districts' laboratory and Montrose Chemical's laboratory should split a sample to see if comparable results are obtained by each lab.

2. The Districts should do an in-depth inspection of the waste-water line to see if the small quantity of DDT contained therein results from a situation that [illegible] corrected, or whether it results from every piece of [illegible] in the company being contaminated with low level [illegible]

MEMO TO: Jay G. Kremer

FROM: Ross C. Caballero

References

(1) "Pesticides and Heavy Metals Progress Report December 1970," C.W. Carry, J.A. Redner, County Sanitation District report, p. 23.

(2) "Chlorinated Hydrocarbon Study Progress Report July 1973," R.F. Luthy Jr., P.F. Wilson, County Sanitation Districts report, p. 4.

(3) "Pesticides and Heavy Metals Progress Report December 1979," P. 31

(4) "Chlorinated Hydrocarbon Study Progress Report July 1973," p. 9.

(5) "Chemistry and Metabolism of Insecticides' by Paul A. Dahm, Chapter 11 of: Agricultural Practices & Water Quality, by Ted Willrich & George Smith, Iowa State University Press, 1970.

RCC:se
Attachments

SANITATION DISTRICTS OF LOS ANGELES COUNTY
INDUSTRIAL WASTEWATER
CRITICAL PARAMETER REPORT FORM

Ident. Code	PARAMETER 1/	2/	QUANTITY VALUES		Ident. Code	PARAMETER 1/	2/	QUANTITY VALUES	
A	Flow (Total)		3500	gals/day	V	Manganese - Total			mg/l
B	Flow (Peak)		50	gals/min.	W	Mercury - Total			mg/l
C	COD			mg/l	X	Molybdenum - Total			mg/l
D	SS (Suspended Solids)		408	mg/l	Y	Nickel - Total			mg/l
E	pH		7.2	Units	Z	Selenium - Total			mg/l
F	Total Dissolved Solids			mg/l	AA	Silver - Total			mg/l
G	Ammonia (N)			mg/l	BB	Sodium - Total			mg/l
H	Sulfide			mg/l	CC	Thallium - Total			mg/l
I	Cyanide		<0.05	mg/l	DD	Tin - Total			mg/l
J	Fluoride			mg/l	EE	Titanium - Total			mg/l
K	Aluminum - Total			mg/l	FF	Zinc - Total		0.24	mg/l
L	Antimony - Total			mg/l	GG	Oil & Grease (Hexane Extract)			mg/l
M	Arsenic - Total			mg/l	HH	Phenols			mg/l
N	Beryllium - Total			mg/l	II	Surfactants (MBAS)			mg/l
O	Boron - Total			mg/l	JJ	Chlorinated Hydrocarbons (except pesticides)		<0.002	mg/l
P	Cadmium - Total			mg/l					
Q	Chromium - Total			mg/l	KK	Pesticides (Chlor. Hydrocarb.)		<0.002	mg/l
R	Cobalt - Total			mg/l	LL	Radioactivity (Alpha, Beta & Gamma)			pCi/l
S	Copper - Total			mg/l	MM	Temperature		90	Degrees °F
T	Iron - Total			mg/l	NN	Color			Units
U	Lead - Total			mg/l	OO	Thiosulfate (S)			mg/l
	NON CRITICAL PARAMETERS (Report When Available)					OTHER PARAMETERS (Report When Requested)			
PP	Calcium			mg/l	A1				
QQ	Magnesium			mg/l	A2				
RR	Potassium			mg/l	A3				
SS	Barium			mg/l	A4				
TT	Nitrate			mg/l	A5				
UU	Chloride			mg/l	A6				
VV	Bromide			mg/l	A7				
WW	Sulfate			mg/l	A8				
XX	Phosphorus-Ortho			mg/l	A9				

NOTES 1/ Report all critical parameters required by the Sanitation Districts and any other critical parameter known to be present in the wastewater. Those parameters required by the Districts but known to be absent from the wastewater may be reported by placing the word absent in the appropriate space.

2/ If values are obtained by measurements or analyses write A in this column. Analysis values must be determined using representative 24 hour composite samples, by a State Certified or Districts Approved Laboratory. If values are obtained by estimate, write E in this column. *Estimated values are acceptable for new plants only.*

BIO-TECHNICS LABORATORY INC. 1133 Crenshaw Bl., Los Angeles, CA 90019

(Print) Name and Address of Laboratory Performing Analyses and Flow Measurements

Montrose Chemical Corporation of California 2879

(Print) Name of Company Having Wastewater Discharge — SIC Number

20201 S. Normandie Ave., Torrance, California 90502

(Print) Address of Wastewater Discharge

(Print) Additional Location Data (Data above should be for only one discharge point to the sewerage system)

Statement of Accuracy of Data

I hereby affirm that the above data comprise a true and correct representation of the wastewater discharged from the stated discharge point.

Date 11/7/79 Location Torrance Cal. [illegible]

[signature] Supt. of Engr. and Maint.

Name Position (Administrative Contact of Contractor with Wastewater Discharge)

Mr. [illegible]
Mr. J. L. Kallok
Mr. Samuel Rot[illegible]

BOE-C6-0177324

Montrose Chemical Corporation of California

P.O. Box 147

20201 South Normandie Avenue • Torrance, California 90507 • (213) 775-2565 • 328-5462

March 26, 1982

REGISTERED MAIL-RETURN RECEIPT REQUESTED

Department of Health Services
Hazardous Waste Management Branch
744 P Street
Sacramento, California 95814

Gentlemen:

Your recent letter requesting information on hazardous wastes from this location has been received. It is our desire to be cooperative with the Department in developing the information it needs to adequately control hazardous wastes. Upon reviewing the request, the purpose this form will serve is not apparent since this information is already supplied to the Department. Also, we don't have any guidelines concerning what components, characteristics and frequency must be considered. Therefore, we are reluctant to sign a "penalty of perjury" clause.

In our response we have assumed you are seeking a listing of hazardous wastes produced from this facility during 1981. These will show the characteristics which we believe would be of concern. Some of these wastes are produced on a regular basis, others may result from an occasional activity such as a tank cleanout. There are other possible wastes that were not produced during this period. They are not included.

As you know, a waste is seldom of a constant composition. We will include a range of composition for the waste which will normally cover most circumstances. Obviously, we cannot supply a composition range for all possible components. With this degree of uncertainty, we do not believe the "penalty of perjury" clause is appropriate and it has been stricken.

Very truly yours,

Richard G. Wilson

Richard G. Wilson
Director of Manufacturing

RGW:dgm

Att.(5)

bc: Mr. Gary Ford
Mr. Bill Pagano
Mr. Jim Wiseman
Mr. J. L. Kallok
Mr. Samuel [illegible]

TREAM INFORMATION

Return to:
Hazardous Waste Management Branch
744 P Street, Sacramento, CA 95814

structions: if you produce more than 1,000 kg/month of hazardous wastes, you are required to complete this form for *each* hazardous waste stream your company produces. If at any time your hazardous waste stream changes significantly or you generate a hazardous waste stream for which you have not notified the Department, you are required to complete and submit this form indicating the change or addition. This information is considered confidential and will not be available to the public. Complete each field as accurately as possible (type or print) and sign and date each form before returning to the Hazardous Waste Management Branch (HWMB) at 714 P St., Sacramento, CA 95814.

Facility Name	EPA I.D. Number
MONTROSE CHEMICAL CORPORATION OF CALIFORNIA	CAD008242711
Mailing Address / Street / County	Contact Name
P. O. Box 147 / Los Angeles	John L. Kallok, Plant Mgr
City / Zip Code	Phone Number
Torrance, CA / 90507	(213) 775-2565

Waste Stream Category (Select from attached list): 3. Acid solution containing no metals

FOR HWMB USE

Status: Existing Waste Stream XX New Waste Stream ☐ Change in Existing Waste Stream ☐

Generating Process (brief description): Manufacture of DDT

Approximate annual volume: 15,000 Units: Tons XX Gallons ☐

	COMPONENTS	Concentration	Indicate Units PPM	Indicate Units %	For HWMB Use Only	Characteristics
1.	Sulfuric Acid	22-36	☐	XX		Corrosive ☒
2.	DDT & Derivatives	87-2300	XX	☐		Ignitable ☐
3.	Chlorobenzene Sulfonic Acid	0.4-1.5	☐	XX		Reactive ☐
4.	(Sodium salt of monochloro-NaMCBS benzene sulfonic acid)	0.07-0.75	☐	XX		Toxic ☐
5.	Water	Balance	☐	☐		Other ☐
6.			☐	☐		STATES
7.			☐	☐		Liquid ☒
8.			☐	☐		Gas ☐
9.			☐	☐		Sludge ☐
10.			☐	☐		Solid ☐

VERIFICATION

I hereby certify ~~under penalty of perjury~~ that this information is, to my knowledge, accurate and that the Department of Health Services will be notified of any significant changes in this waste stream.

Signature: Richard G. Wilson Title: Director of Manufacturing Date: March 26, 1982

Total number of Waste Stream Information Forms submitted to HWMB: 5

DHS 8046 (1/82)

STREAM INFORMATION

Return to:
Hazardous Waste Management Branch
744 P Street, Sacramento, CA 95814

Instructions: If you produce more than 1,000 kg/month of hazardous wastes, you are required to complete this form for *each* hazardous waste stream your company produces. If at any time your hazardous waste stream changes significantly or you generate a hazardous waste stream for which you have not notified the Department, you are required to complete and submit this form indicating the change or addition. This information is considered confidential and will not be available to the public. Complete each field as accurately as possible (type or print) and sign and date each form before returning to the Hazardous Waste Management Branch (HWMB) at 714 P St., Sacramento, CA 95814.

Facility Name: MONTROSE CHEMICAL CORPORATION OF CALIFORNIA	EPA I.D. Number: C A D 0 0 8 2 4 2 7 1 1 1
Mailing Address: P. O. Box 147	Street:	County: Los Angeles	Contact Name: John L. Kallok, Plant Mgr
City: Torrance, CA	Zip Code: 90507	Phone Number: (213) 775-2565
Waste Stream Category (Select from attached list): 6. Alkaline solution containing no metals	FOR HWMB USE:

Status: Existing Waste Stream ☒ New Waste Stream ☐ Change in Existing Waste Stream ☐

Generating Process (brief description): Manufacture of DDT

Approximate annual volume: 8000 Units: Tons ☒ Gallons ☐

	COMPONENTS	Concentration	Indicate Units PPM	Indicate Units %	For HWMB Use Only	Characteristics
1.	NaOH	0.3-2.5	☐	☒		Corrosive ☒
2.	Na_2SO_4	2-10	☐	☒		Ignitable ☐
3.	NaMCBS (sodium salt of monochloro-benzene sulfonic acid)	0.1-1.0	☐	☒		Reactive ☐
4.	DDT & Derivatives	100-3000	☒	☐		Toxic ☐
5.	Water	Balance	☐	☐		Other ☐
6.			☐	☐		STATES
7.			☐	☐		Liquid ☒
8.			☐	☐		Gas ☐
9.			☐	☐		Sludge ☐
10.			☐	☐		Solid ☐

VERIFICATION

I hereby certify that this information is , to my knowledge, accurate and that the Department of Health Services will be notified of any significant changes in this waste stream.

Signature: Richard G. Wilson Title: Director of Manufacturing Date: March 26, 1982

Total number of Waste Stream Information Forms submitted to HWMB 5

DHS 8046 (1/82)

BOE-C6-0177327

Health and Welfare Agency

Department of Health Services

STREAM INFORMATION

Return to:
Hazardous Waste Management Branch
744 P Street, Sacramento, CA 95814

Instructions: if you produce more than 1,000 kg/month of hazardous wastes, you are required to complete this form for *each* hazardous waste stream your company produces. If at any time your hazardous waste stream changes significantly or you generate a hazardous waste stream for which you have not notified the Department, you are required to complete and submit this form indicating the change or addition. This information is considered confidential and will not be available to the public. Complete each field as accurately as possible (type or print) and sign and date each form before returning to the Hazardous Waste Management Branch (HWMB) at 714 P St., Sacramento, CA 95814.

Facility Name	EPA I.D. Number
MONTROSE CHEMICAL CORPORATION OF CALIFORNIA	CAD008242711

Mailing Address	Street	County	Contact Name
P. O. Box 147		Los Angeles	John L. Kallok, Plant Mgr

City	Zip Code	Phone Number
Torrance, CA	90507	(213) 775-2565

Waste Stream Category (Select from attached list): 3. Acid solution containing no metals

FOR HWMB USE

Status: Existing Waste Stream XX New Waste Stream ☐ Change in Existing Waste Stream ☐

Generating Process (brief description): Manufacture of DDT

Approximate annual volume: 2000 Units: Tons XX Gallons ☐

	COMPONENTS	Concentration	Indicate Units PPM	Indicate Units %	For HWMB Use Only	Characteristics
1.	Sulfuric Acid	74-80	☐	XX		Corrosive ☒
2.	DDT & Derivatives	15-50	XX	☐		Ignitable ☐
3.	Chlorobenzene Sulfonic Acid	2-6	☐	XX		Reactive ☐
4.	Water	Balance	☐	☐		Toxic ☐
5.			☐	☐		Other ☐
6.			☐	☐		STATES
7.			☐	☐		Liquid ☒
8.			☐	☐		Gas ☐
9.			☐	☐		Sludge ☐
10.			☐	☐		Solid ☐

VERIFICATION

I hereby certify under [redacted] that this information is, to my knowledge, accurate and that the Department of Health Services will be notified of any significant changes in this waste stream.

Richard G. Wilson

Signature Richard G. Wilson Title Director of Manufacturing Date March 26, 1982

Total number of Waste Stream Information Forms submitted to HWMB 5

DHS 8046 (1/82)

BOE-C6-0177328

WASTE STREAM INFORMATION

Return to:
Hazardous Waste Management Branch
744 P Street, Sacramento, CA 95814

Instructions: If you produce more than 1,000 kg/month of hazardous wastes, you are required to complete this form for *each* hazardous waste stream your company produces. If at any time your hazardous waste stream changes significantly or you generate a hazardous waste stream for which you have not notified the Department, you are required to complete and submit this form indicating the change or addition. This information is considered confidential and will not be available to the public. Complete each field as accurately as possible (type or print) and sign and date each form before returning to the Hazardous Waste Management Branch (HWMB) at 714 P St., Sacramento, CA 95814.

Facility Name: MONTROSE CHEMICAL CORPORATION OF CALIFORNIA	EPA I.D. Number: CAD008242711
Mailing Address: P. O. Box 147 — Street — County: Los Angeles	Contact Name: John L. Kallok, Plant Mgr
City: Torrance, CA — Zip Code: 90507	Phone Number: (213) 775-2565
Waste Stream Category (Select from attached list): Alkaline solution (sludge) containing no metals	FOR HWMB USE:

Status: Existing Waste Stream ☒ New Waste Stream ☐ Change in Existing Waste Stream ☐

Generating Process (brief description): Manufacture of DDT

Approximate annual volume: 100 Units: Tons ☒ Gallons ☐

	COMPONENTS	Concentration	Indicate Units PPM	Indicate Units %	For HWMB Use Only	Characteristics
1.	Calcium Sulfate	56.5	☐	☒		Corrosive ☒
2.	Silicon Oxide	8.4	☐	☒		Ignitable ☐
3.	Sodium Sulfate	5.7	☐	☒		Reactive ☐
4.	DDT & Analogs	4.0	☐	☒		Toxic ☐
5.	Sodium Hydroxide	2.1	☐	☒		Other ☐
6.	Sodium Chloride	2.1	☐	☒		
7.	Water	Balance	☐	☐		STATES Liquid ☐
8.			☐	☐		Gas ☐
9.			☐	☐		Sludge ☒
10.			☐	☐		Solid ☐

VERIFICATION

I hereby certify under [redacted] that this information is, to my knowledge, accurate and that the Department of Health Services will be notified of any significant changes in this waste stream.

R. G. Wilson — March 26, 1982

Signature: R. G. Wilson — Title: Director of Manufacturing — Date

Total number of Waste Stream Information Forms submitted to HWMB 5

DHS 8046 (1/82)

STREAM INFORMATION

Return to:
Hazardous Waste Management Branch
714 P Street, Sacramento, CA 95814

Instructions: If you produce more than 1,000 kg/month of hazardous wastes, you are required to complete this form for *each* hazardous waste stream your company produces. If at any time your hazardous waste stream changes significantly or you generate a hazardous waste stream for which you have not notified the Department, you are required to complete and submit this form indicating the change or addition. This information is considered confidential and will not be available to the public. Complete each field as accurately as possible (type or print) and sign and date each form before returning to the Hazardous Waste Management Branch (HWMB) at 714 P St., Sacramento, CA 95814.

Facility Name: MONTROSE CHEMICAL CORPORATION OF CALIFORNIA	EPA I.D. Number: C A D 0 0 0 1 8 2 1 4 2 7
Mailing Address: P. O. Box 147 — Street — County: Los Angeles	Contact Name: John L. Kallok, Plant Mgr.
City: Torrance, CA — Zip Code: 90507	Phone Number: (213) 775-2565
Waste Stream Category (Select from attached list): Alkaline solution (sludge) containing no metals	FOR HWMB USE

Status: Existing Waste Stream ☒ New Waste Stream ☐ Change in Existing Waste Stream ☐

Generating Process (brief description): Manufacture of DDT

Approximate annual volume: 10 Units: Tons ☒ Gallons ☐

	COMPONENTS	Concentration	Indicate Units PPM	Indicate Units %	For HWMB Use Only	Characteristics
1.	Calcium Sulfate	71.4	☐	X☒		Corrosive X☒
2.	Sodium Hydroxide	10.2	☐	X☒		Ignitable ☐
3.	DDT & Analogs	8.7	☐	X☒		Reactive ☐
4.	Silicon Oxide	2.4	☐	X☒		Toxic ☐
5.	Sodium Sulfate	1.2	☐	X☒		Other ☐
6.	Water	Balance	☐	☐		STATES
7.			☐	☐		Liquid ☐
8.			☐	☐		Gas ☐
9.			☐	☐		Sludge X☒
10.			☐	☐		Solid ☐

VERIFICATION

I hereby certify under [redacted] that this information is, to my knowledge, accurate and that the Department of Health Services will be notified of any significant changes in this waste stream.

Signature: R. G. Wilson Title: Director of Manufacturing Date: March 26, 1982

Total number of Waste Stream Information Forms submitted to HWMB: 5

DHS 8046 (1/82)

BOE-C6-0177330

Kremer

DDT Plant Counters U.S. Ban With Worldwide Sales

BY JERRY BURLOW

More than half the world output of the pesticide DDT is being produced at a Centinela-South Bay area plant, the only facility in the United States that still manufactures the controversial chemical.

The use of DDT has been prohibited in the United States since 1972, but the law does not prevent its manufacture for export, and Montrose Chemical Corp. sales reflect a steady world demand for the product.

According to John L. Kallok, manager of the plant at 20301 Normandie Ave., in the strip of Los Angeles city land that connects the harbor with the downtown area, the greatest demand is for mosquito abatement in tropical countries.

Although production figures are confidential, Kallok said his company manufactures more than half of what is used worldwide, despite competition from producers in Spain, France, Italy, Mexico and Brazil.

Indonesia, India, Africa and other tropical countries are the major users, and consider the product, because of its low cost and ease of application, essential in controlling malaria mosquitos and other disease-causing pests, Kallok said.

Montrose Chemical Corp. is an affiliate of Stauffer Chemical Co., a national corporation with headquarters in Connecticut. The Centinela-South Bay plant has about 150 employees, and has been in operation since 1947, when Kallok, 58, first joined the company as a chemical engineer.

At one time, Kallok said, there were more than 30 DDT plants in the United States but the number had dwindled to less than 10 by 1972 when the government forbade use of the pesticide except in special circumstances.

It was charged that DDT had a serious effect on the ecological balance, with its residue found in birds and fish. Ingestion of the pesticide by birds was believed to cause the shells of their eggs to be more fragile, leading to a decline in the population of some species.

And certain pests were found to be developing a tolerance of the chemical, which, it was feared, would make them harder to control.

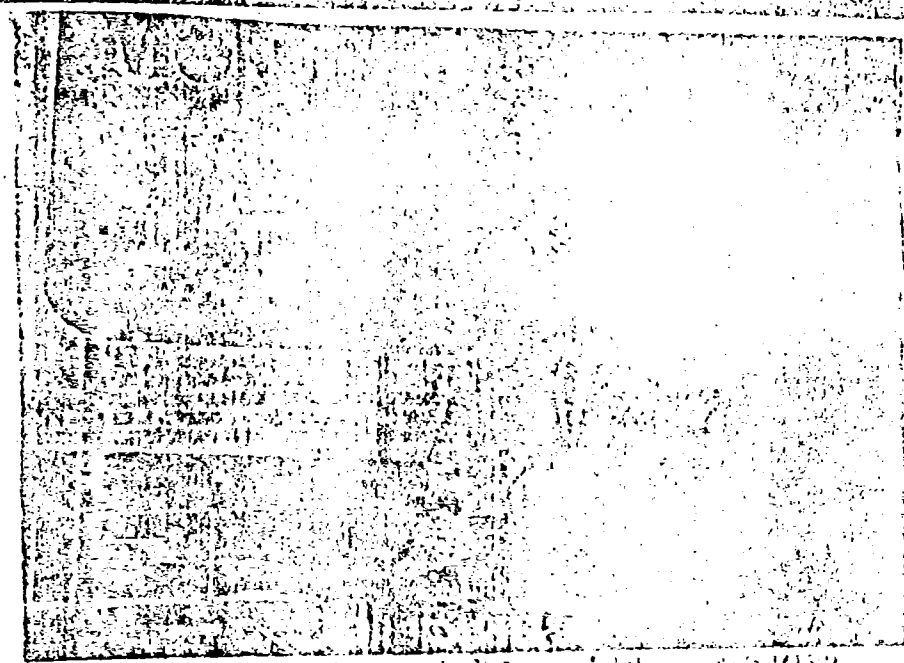
The last major DDT application in the United States, Kallok said, was in 1974 when his firm delivered 500,000 pounds to the Pacific Northwest to combat the Tussock Moth which was devasting timberlands in Washington, Oregon and Idaho.

As recently as last summer, however, 500 pounds were used in California when there was a bubonic plague scare in some of the wilderness areas of the state, he added.

Please Turn to Page 5

Los Angeles Times
Centinela South Bay
PART XII
SUNDAY, NOVEMBER 11, 1979

BOE-C6-0177331



PESTICIDE POWER—Montrose Chemical Corp. is the last U.S. firm producing controversial DDT. John L. Kaltok, plant manager, reports that more than half the world's supply of the pesticide comes from this factory near Torrance. The firm sought worldwide markets in anticipation of this country's 1972 ban on DDT. Most is shipped to countries in tropical zones.

Times photo by Harry Chase

PRODUCER OF DDT

Continued from First Page

According to Kaltok, Montrose Chemical Corp. began to more actively seek foreign markets in 1964, in a move that paid off when domestic use of the product was prohibited.

Prior to the ban in 1972, he said, the company had a "good position" in the United States, furnishing large quantities of the chemical to cotton growers and farmers.

Current production is little more than half of what it was before the ban, Kaltok said.

He said that the ban was inspired primarily by political considerations, and that DDT does far more good than it does harm.

"It saves lives," Kaltok said. "This is a well established fact, while there have never been any substantiated studies that prove it is harmful."

He said that the federal hearings that led to its being banned took nearly nine months and involved testimony from 125 scientists.

"Following those hearings, the judge said DDT should not be banned, but he was overruled by William Ruckelshaus, then administrator of the U.S. Environmental Protection Agency," Kaltok said.

The plant is subjected to strict controls and inspected by a number of environmental agencies, and has established a number of modern procedures including a unique water collection system that allows the company to recycle water used in manufacturing without discharging large amounts into the sewage system.

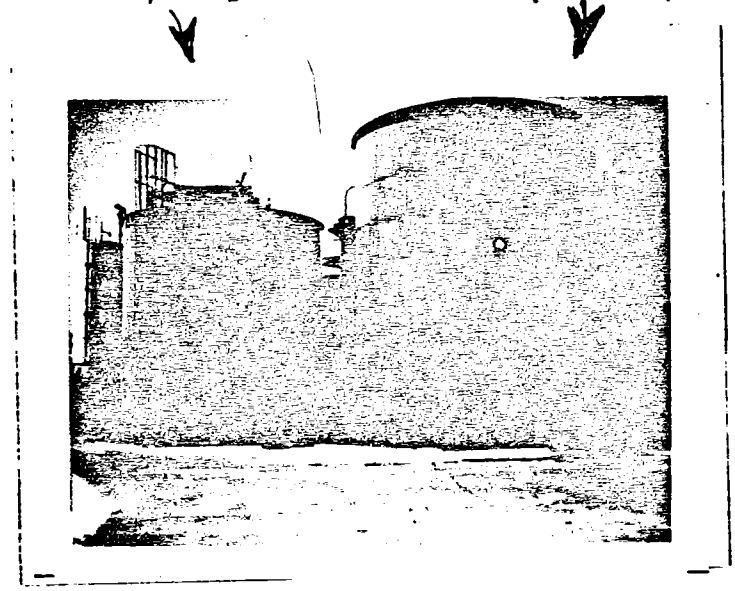
BOE-C6-0177332

MONTROSE CHEMICAL CORPORATION OF CALIFORNIA

TORRANCE FACILITY

Existing
50,000 gal. tank

New
100,000 gal. tank



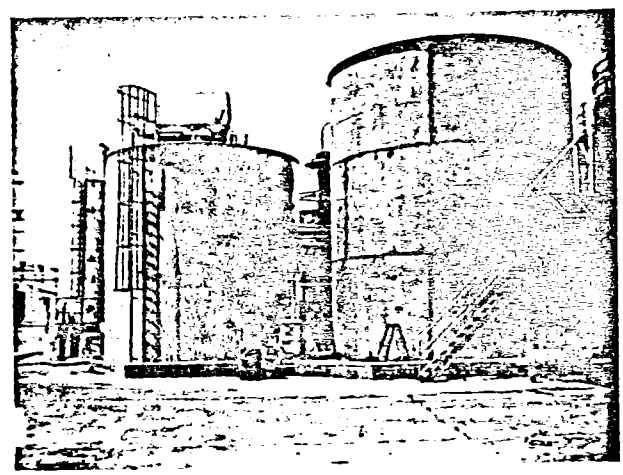
Hazardous Waste Steel Storage Tank
RCRA-D002
100,000 gallons (new addition)
Installed 8/81

RCRA ID No. CAD008242711

BOE-C6-0177333

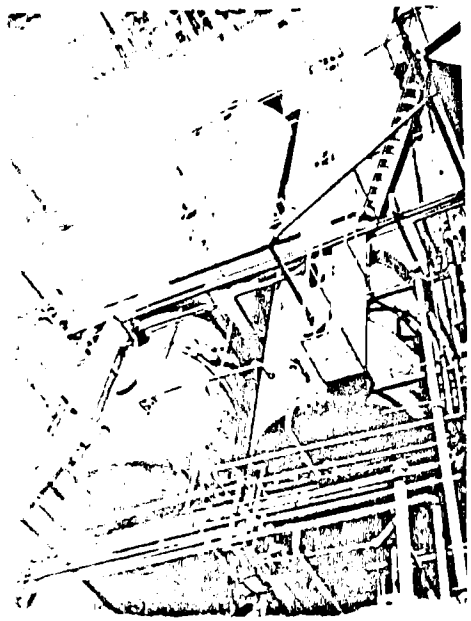
Existing
50,000 gal. tank

New
100,000 gal. tank

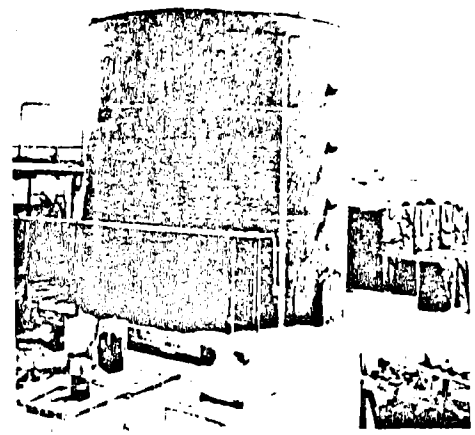


Hazardous Waste Steel Storage Tank
RCRA-D002
100,000 gallons (new addition)
Installed 8/81

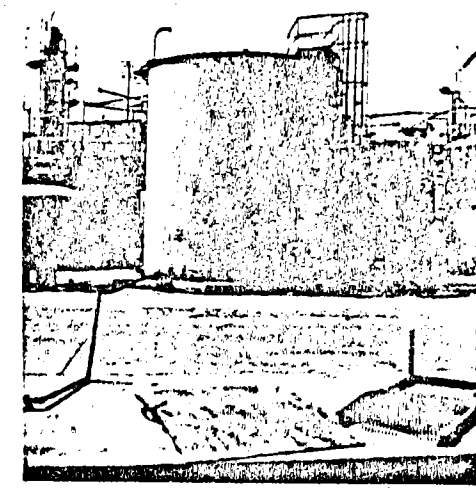
BOE-C6-0177334



Hazardous Waste Steel Storage
Tanks
RCRA-D002
50,000 gallons each



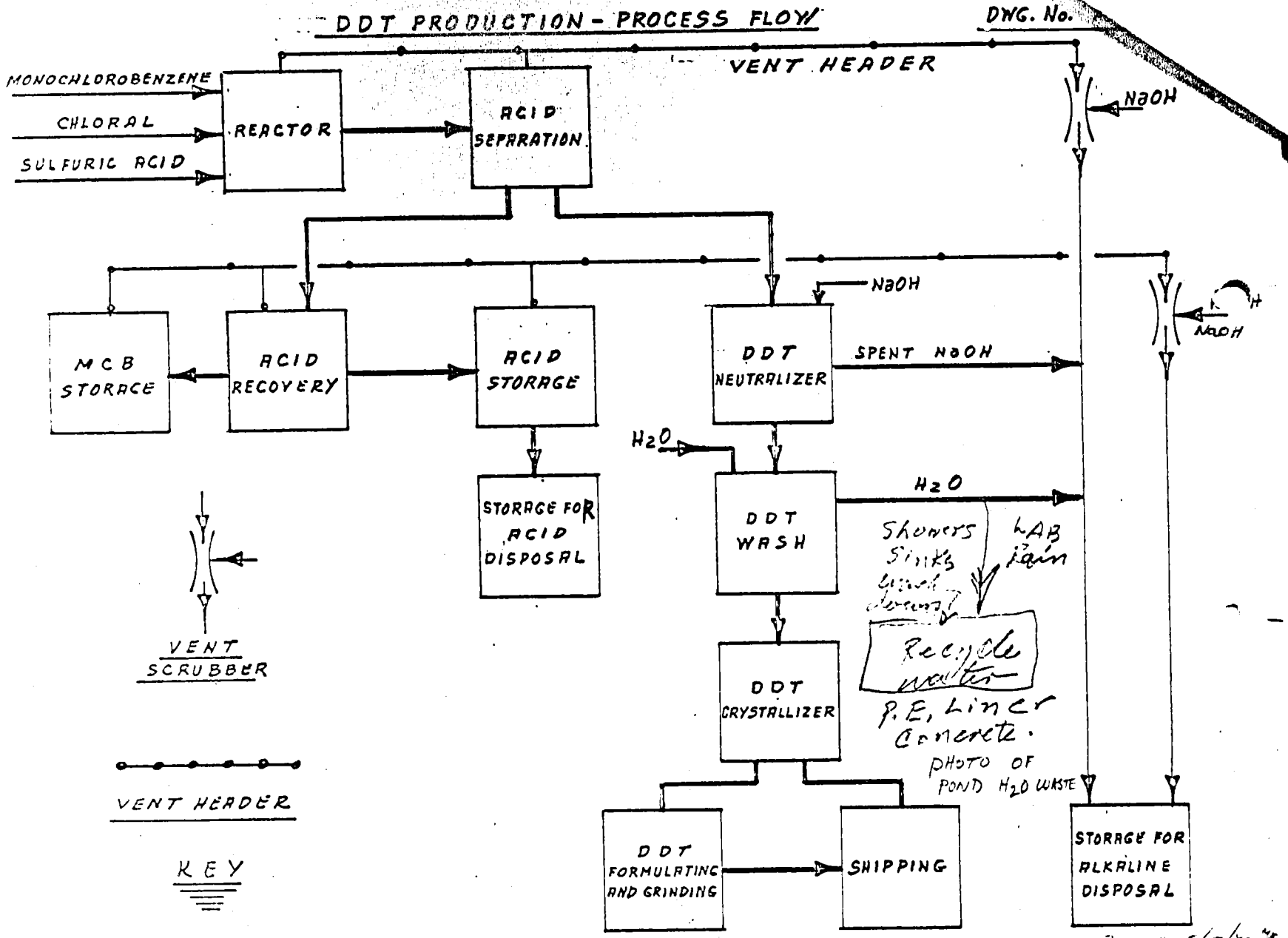
Hazardous Waste Steel Storage Tank
RCRA-D002
100,000 gallons



Hazardous Waste Steel Storage Tank
RCRA-D002
50,000 gallons

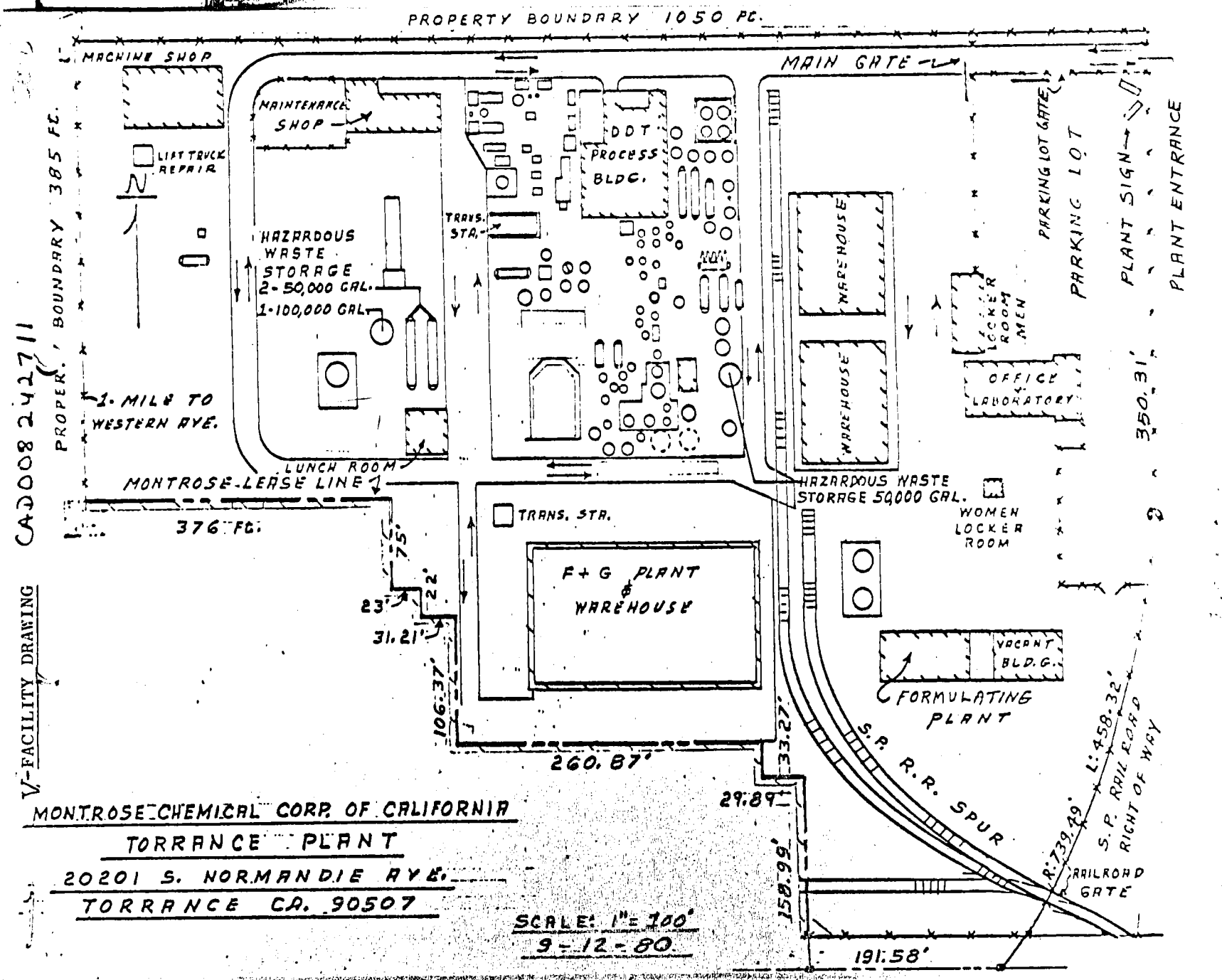
Dated: 9/12/80

BOE-C6-0177335



BOE-C6-0177336

4376



V-FACILITY DRAWING

CAD008242711

BOE-C6-0177337

Continued from page 4

Form Approved OMB No. 158-S80004

V. FACILITY DRAWING *(see page 4)*

BOE-C6-0177338

CAD008242711

ATTACHMENT B

California South Coast Air Quality MAnagement District

Air Pollution Control Permits

037945	P27732	P49423
037946	P27733	P49424
A09422	P27734	RA9422
A09423	M13585	M14315
P07724	M11502	C18317
P07845	M11504	C18318
P07846	M12203	016254
P07847	M12202	006957
P07848	P47165	15235-68
P08204	P47166	TP02058-01
P08380	P47168	P16301
P20275	P04953	P16302
P20276	P16306	P16303
M00237	P16309	P16304
M00612	P17096	P16305

SID-A

ANNUAL SUMMARY OF WASTE MONITORING

MONTROSE CHEMICAL CORPORATION OF CALIFORNIA

FILE 70-118

5688

Report to: CALIFORNIA REGIONAL WASTE CONTROL BOARD

SUMMARY REPORT FOR 1982

MONTH	GALLONS ALKALINE WASTE	GALLONS WASTE ACID	CUBIC YARDS TRASH
January	25,200	134,400	160
February	92,400	151,200	480
March	142,800	411,600	1,040
April	197,400	231,000	170
May	21,000	134,400	120
June	105,000	392,000	250
July	42,000	287,000	335
August	210,000	126,000	520
September	92,400	109,200	160
October	184,800	0	160
November	105,000	0	40
December	16,800	0	40
TOTALS	1,234,800	1,976,800	3,475

Hauled By: Chancellor & Ogden, McKay Trucking, Western Refuse

BOE-C6-0177340

c. Names and Addresses of Waste Haulers

(1) Western Refuse Hauling, Inc.
P.O. Box 214
Gardena, California 90246

(2) Chancellor and Ogden, Inc.
3031 East I Street
Wilmington, California 90744

(3) McKay Trucking
P.O. Box 1104
Coalinga, California 93210

d. Locations of Ultimate Points of Disposal of All Wastes

(1) Alkaline Waste Disposal Sites

a. BKK Co. Landfill
2210 S. Azusa Avenue
West Covina, California 91792

(2) Acid Waste Disposal Site

a. BKK Co. Landfill
2210 S. Azusa Avenue
West Covina, California 91792

b. Chemical Waste Management
Kettlemen Hills, California 93239

(3) Solid Waste Disposal Site

a. BKK Co. Landfill
2210 S. Azusa Avenue
West Covina, California 91792

Violations of Waste Discharge Requirements during this reporting period:

NONE

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 11th day of January, 1983 at Torrance, California.

John L. Kallok

John L. Kallok
Plant Manager

JLK:cg

BOE-C6-0177342

STATE OF CALIFORNIA—HEALTH AND WELFARE AGENCY

GEORGE DEUKMEJIAN, Governor

DEPARTMENT OF HEALTH SERVICES
107 SOUTH BROADWAY, ROOM 7128
LOS ANGELES, CA 90012
(213) 620-2380

March 26, 1984

Mr. Samuel Rotrosen, President
Montrose Chemical Corporation
of California
2401 Morris Avenue
P.O. Box E
Union, NJ 07083

Dear Mr. Rotrosen:

NOTICE OF VIOLATION & DIRECTIVE TO COMPLY - MONTROSE CHEMICAL, TORRANCE, CALIFORNIA

The Department has obtained evidence of contamination of the subject site by DDT and related waste chemicals. Such contaminants pose an immediate threat of off-site release of hazardous wastes.

You are directed to immediately take measures to prevent any further release of hazardous waste from the site. You are further directed to initiate the following interim corrective measures:

a. Ensure compliance with the existing orders of the U.S. Environmental Protection Agency and the California Regional Water Quality Control Board, Los Angeles Region.

b. Initiate immediate measures to maintain the site in a manner that prevents airborne release of fugitive dust potentially containing hazardous waste.

c. Provide 24-hour surveillance to assure compliance with item b.

d. Immediately obtain representative samples of on-site piles of crushed rock to determine contamination by DDT and derivatives and report results within 10 working days from your receipt of this letter.

e. Provide site access to representatives of this Department.

f. Provide notification to this Department of any on-site activities at least 10 working days prior to commencement of such activities.

g. Provide this office with a report of full compliance with items a thru f within 15 working days from your receipt of this letter.

Failure to comply with the above directives will result in this office referring this matter for appropriate legal action.

Sincerely,

Angelo J. Bellomo

Angelo Bellomo, Chief
Southern California Section
Toxic Substances Control Division

cc: Alexis Strauss
U.S. EPA - Region IX
215 Fremont Street
San Francisco, CA 94105

Bob Ghirelli
Regional Water Quality Control Board
107 South Broadway, Room 4027
Los Angeles, CA 90012

Anastacio Medina
Los Angeles County Health
2615 South Grand Avenue, 6th Floor
Los Angeles, CA 90007

Ed Camarena
South Coast Air Quality
Management District
9150 Flair Drive
El Monte, CA 91731

Gil Jensen
Program Management Section
Toxic Substances Control Division
744 P Street
Sacramento, CA 95814

David Mulliken, Esq.
Latham & Watkins
Attorneys at Law
701 B Street, Suite 2100
San Diego, CA 92101-8197

Certified Mail
(FRR)
#P438677099

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
215 Fremont Street
San Francisco, Ca. 94105

11 SEP 1984

David Mulliken, Esquire
Latham and Watkins
701 B Street, Suite 2100
San Diego, California 92101-8197

Re: Montrose Chemical

Dear Mr. Mulliken:

I wish to summarize the technical issues identified in the meetings between Montrose and EPA on July 31 and August 23, 1984, which still require a response from Montrose. I have also included a schedule for events leading to the starting date for the remedial investigation.

In the July 31 meeting between Montrose and EPA, workplan issues were identified for resolution by the technical representatives from Montrose and EPA. Eric Koglin and David Hargis met on August 23, 1984, and discussed available background information regarding the Montrose site, RI/FS guidance and structure, off-site sampling requirements, and a schedule for submittal of comments and delivery of the final RI/FS workplan. The following five workplan requirements need final resolution:

1. Location of the five ground-water monitoring wells.
2. Priority pollutant analysis of the soil boring samples.
3. Priority pollutant analysis of the crushed rock samples.
4. Off-site sediment and water sampling in the Dominguez Channel.
5. Off-site soil sampling in the neighborhoods to the southeast, southwest and north of the facility.

As agreed in the meeting, the priority pollutant analyses mentioned in items 2 and 3 above could be modified if Montrose provided accurate, clear documentation to EPA listing those chemicals and solvents used and produced at the facility during the entire period of DDT production. This list should include all chemicals and solvents used to manufacture DDT, produced in intermediate steps in the manufacturing process, used in other operations at the facility, and used in operations or processes prior to the manufacture of DDT.

The topic of scheduling of upcoming events was briefly discussed. Dr. Hargis felt that 3 to 4 weeks from the August 23 meeting would be a sufficient amount of time to prepare and submit comments regarding the above-mentioned items. Therefore, the following timetable is proposed:

September 20 - EPA receipt of Montrose's comments.

September 27 - EPA-Montrose meeting to finalize the workplan.

October 11 - Delivery of the final RI/FS workplan.

October 18 - Written response from Montrose stating its intent regarding implementation of the workplan. Begin Task 1.

Please direct any questions to Eric Koglin of my staff at (415) 974-8919 or Kenneth Ramirez of the Office of Regional Counsel at (415) 974-7451.

Sincerely yours,

Harry Seraydarian
Director
Toxics & Waste Management Division

cc: D. Hargis, Hargis and Assoc.
D. Chase, DOHS
L. Schinazi, RWQCB
E. Bonnett, AQMD
J. Steele, DF&G
J. Schumann, DWP

ROUTING AND TRANSMITTAL JP

Date 7/12/83

TO: (Name, office symbol, room number, building, Agency/Post)	Initials	Date
1. John Hinton LADOHS		
2.		
3.		
4.		
5.		

	Action		File		Note and Return
	Approval		For Clearance		Per Conversation
	As Requested		For Correction		Prepare Reply
	Circulate		For Your Information		See Me
	Comment		Investigate		Signature
	Coordination		Justify		

REMARKS

Copy of EPA Response to Montrose + Copy of Montrose proposed work plan.

MEC 7/18
JUL 15 1983
of Health ...
LOS ANGELES

DO NOT use this form as a RECORD of approvals, concurrences, disposals, clearances, and similar actions

FROM: (Name, org. symbol, Agency/Post)	Room No.—Bldg.
Tom Severino	Phone No. 974-8136

5041-102

OPTIONAL FORM 41 (Rev. 7-76)
Prescribed by GSA
FPMR (41 CFR) 101-11.206

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

12 JUL 1983

Mr. Samuel Rotrosen, President
Montrose Chemical Corporation
P.O. Box 219
2401 Morris Avenue
Union, New Jersey 07083

Re: EPA Order 83-01 (May 6, 1983)

Dear Mr. Rotrosen:

This letter acknowledges receipt of, and provides our reply to, your June 23, 1983 response to EPA Order 83-01.

In general, EPA would like to commend you for your efforts to address the specific EPA concerns which were delineated in our Order, and described in our letter of June 7, 1983. However, EPA provides the following comments for your consideration during your development and implementation of the final work plan:

I. Cease Discharge

You have indicated that the construction of a temporary earthen dike is the interim measure selected to discontinue releases of DDT in accordance with Section I of the Order. While this measure seems adequate, Montrose Chemical Corporation remains responsible for preventing DDT releases from the site after August 11, 1983 through whatever means are necessary.

II. On Site

The proposed on site sampling plan appears to be adequate in order to determine the nature and extent of contamination. However, you have indicated that the site will be paved without consideration of the on site sampling. Please be advised that, in the absence of sampling results, EPA can not approve of paving the site at this time. Measures which must be considered during the

JUL 15 1983

review of the sampling results include additional soils removal, the integrity of the asphalt/concrete cover, and a property use restriction in the deed or ownership.

III. Off Site

The purpose of the off site sampling and analysis is to determine the nature and extent of the DDT contamination south and east of the facility. You have proposed to sample at 5 locations and EPA has soils data from 9 locations. All of this data should be used to evaluate existing conditions to determine the remedial measures required.

Furthermore, the proposed work plan does not indicate the design and location of your proposed off site gunnite-lined ditch, the potential need for excavation in areas under and/or adjacent to the proposed gunnite-lined ditch, or the date when all of the off site activities will be completed.

Pursuant to Section IIB. of EPA Order 83-01, EPA approves your sampling plan subject to the following modifications:

1. Montrose shall use all 14 data points (referred to in III above), or increase the number of samples taken to include the entire stormwater drainage path and vicinity.

2. EPA shall be given sufficient notice (at least 5 working days) of the entire sampling schedule.

3. EPA and/or EPA contractors shall be given full access to your property in order to conduct observations and/or obtain additional samples.

4. After washing with water, all sampling equipment shall be hexane-rinsed between each sample obtained in order to prevent cross contamination.

5. Exhibit C, paragraph 2, of your response should refer to method 3550.

We have discussed this response to your June 23, 1983 letter with the L.A. Regional Water Quality Control Board and it is our understanding that they will be sending you a letter which responds in a consistent manner.

We look forward to your timely consideration of the above issues and early completion of all site activities so that we may resolve this matter expeditiously. If you have any questions, please contact Tom Severino of my staff at (415)974-8136 or Ken Ramirez of EPA's Office of Regional Counsel at (415)974-7451.

Sincerely,

John Wise
Acting Regional Administrator

cc: Tony Garvin, Esq.
LANDELS, RIPLEY & DIAMOND
Attorneys at Law
450 Pacific Avenue
San Francisco, CA 94133

Mr. Raymond M. Hertel
Executive Officer
California Regional Water
Quality Control Board
107 South Broadway, Ste. 4027
Los Angeles, CA 90012-4596

David Mulliken, Esq.
LATHAM & WATKINS
Attorneys at Law
701 B Street, Ste. 2100
San Diego, CA 92101-8197

Kathleen A. Keber
State Water Resources Control Board
P.O. Box 100
Sacramento, CA 95801

BOE-C6-0177350

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

CERTIFIED MAIL - RETURN RECEIPT REQUESTED 0208420

07 JUN 1983

Hazardous Materials M...
JUN 27 1983
California ... of Health ...
LOS ANGELES

Mr. Samuel Rotrosen
Montrose Chemical Corporation
2401 Morris Avenue
P.O. Box E
Union, New Jersey 07083

Subject: EPA CERCLA §106/RCRA §3013 Order 83-01

Dear Mr. Rotrosen:

I am writing to confirm agreements reached with you concerning the above referenced Order at our meeting on May 24, 1983, and to confirm telephone discussions held among counsel subsequent to our meeting. The agreements reached at the May 24 meeting are the following:

1. By June 24, 1983, Montrose will submit to EPA a proposal which will describe in detail the plans that you have implemented and intend to implement to fully comply with Section I of the Order.

2. By June 24, 1983, Montrose will also submit to EPA a Proposal to conduct a comprehensive sampling and analysis program to fully comply with Section II-A of the Order. Under EPA's Order, Montrose was to comply with Section II-A on June 10, 1983, thirty days after the effective date of the Order. This fourteen day extension of time represents the only change with respect to Section II of the Order.

The items listed above are the only items to which all parties agreed on May 24, 1983. The topics discussed below confirm discussions among counsel held subsequent to the May 24 meeting.

EPA will complete its review and provide written comments on the proposal described in number one above by July 11, 1983. Montrose shall then complete the work under its proposal by August 11, 1983.

CONCURRENCES

SYMBOL	ORC	J-4-2	T-4-2	T-4	T-1	[illegible]
NAME	[illegible]	Severino	[illegible]	[illegible]	[illegible]	[illegible]
DATE	6/7/83	6/7/83	6-7-83	6-7-83	6-7-83	6.7.83

Form 1320-1 (12-70)

OFFICIAL FILE

BOE-C6-0177351

In order to be considered adequate, the sampling program described in number two above must, at a minimum, contain the following:

On-Site Sampling

a) At our meeting, you stated that recent site excavation has removed the most highly contaminated material from unpaved areas of the site. However, this program must include a sufficient amount of on-site sampling throughout the entire site in order to confirm your representation that only low concentrations remain at the site.

Stormwater Drainage Sampling

b) The program will include off-site sampling and analysis of the area southeast of your facility along the existing stormwater drainage pathway in order to determine what additional remedial measures are required to remedy the contamination which presently exists.

c) Additional sampling will be performed in the areas adjacent to your property to support your contention that contamination is limited to your property and the stormwater ditch.

By agreeing to the items described above, neither EPA nor Montrose has waived any legal rights or remedies which may be available to either party under EPA Order 83-01.

Please be advised that, except for the agreements above, EPA's Order 83-01 remains intact. If you have any questions, please contact Tom Severino of my staff at (415) 974-8130 or Ken Ramirez of EPA's Office of Regional Counsel at (415) 974-7451.

Sincerely yours,

ORIGINAL SIGNED BY:
JOHN WISE

John Wise
Acting Regional Administrator

cc: Tony Garvin, Esq.
LANDELS, RIPLEY & DIAMOND
Attorneys at Law
450 Pacific Avenue
San Francisco, CA 94133

Mr. Raymond M. Hertel
Executive Officer
California Regional Water
Quality Control Board
107 South Broadway, Ste. 4027
Los Angeles, CA 90012-4596

David Mulliken, Esq.
LATHAM & WATKINS
Attorneys at Law
701 B Street, Ste. 2100
San Diego, CA 92101-8197

KRR#1-21/wmd/6/7/83

State of California—Health and Welfare Agency

Department of Health Services
Hazardous Waste Management Branch

MEMO OF CALL

Name: Keith Takata

Date: May 27, 1983

Firm: Superfund - EPA

Time: 4:30 p.m.

Address: Region IX

Person ~~Taking~~ or Making Call: Jim Smith

Telephone No.: (415) 974-7076

Subject: MONTROSE CHEMICAL - CLOSURE/POST-CLOSURE

Message: Mr. Takata reported the status of EPA's negotiations with Montrose Chemical.

EPA's Compliance Order directed two primary actions:

1. Abatement of off-site discharge.
2. Development of a sampling plan.

EPA is basically satisfied with the company's response to this point, although they have made a request for clarification regarding surface and subsurface site caracterization.

The Agency is concerned that there has not been completely adequate handling of the issue of Closure/Post-Closure and Mr. Takata requested the State's position with regard to this specific issue. The facility has closed.

Mr. Takata asked if we wished him to contact the Regional Office regarding the matter. I requested that he contact John Hinton directly.

I also informed him that P&RD Section and AT&PD Section were currently involved in Closure/Post-Closure issues and that I would reqest assistance from Judi Frantz and Mike Kiado.

I informed Mr. Takata that in my opinion the State had a role to play with regard to Closure/Post-Closure and that I would advise him in early June of the position of PS&ES on the matter.

EH 203 (12/81)

3-23-83.

To: R. M. Hertel

From: John Lewis

RE: Montrose Chemical Corp
(CI 5688) File No. 70-118
Order No. 71-11

Requirements for this facility were written and dated February 24, 1971.

Types of waste hauled:
Sulfuric acid
Alkaline waste
Solid waste

Disposal locations (Historic)
Rolling Hills (Palos Verdes LACSD)
West Covina (BKK)
Stringfellow Quarry
Chemical Waste Management
Kettleman Hills.

The first monitoring report was dated April 5, 1971, for the month of March 1971.

Montrose's monitoring reports show sulfuric acid was dumped at the Stringfellow site from March 1971 thru November 1972.

Attached is a list of the quantities hauled in gallons for the entire period of hauling to Stringfellow.

JLL
3/28

BOE-C6-0177356

Stringfellow Quarry (Montrose Chemical)

3-71	142,600	gals	Sulfuric	Acid	waste
4-71	173,600	"	"	"	"
5-71	226,300	"	"	"	"
6-71	179,700	"	"	"	"
7-71	303,800	"	"	"	"
8-71	238,700	"			
9-71	195,300	"			
10-71	111,600	"			
11-71	204,800	"			
12-71	122,100	"			
1-72	260,700	"			
2-72	147,600	"			
3-72	181,500	"			
4-72	254,100	"			
5-72	267,300	"			
6-72	198,000	"			
7-72	293,700	"			
8-72	273,900	"			
9-72	297,000	"			
10-72	321,000	"			
11-72	244,600	"			

BOE-C6-0177357

State of California

Department of Health Services

Memorandum

To : Miller Chambers
Los Angeles HMMS

Date : July 21, 1981

Subject: Montrose Chemical Company, 2020 South Normandie Ave.

From : Sue Stack
Sue Stack
Abandoned Site Project

Beth Tirey and I recently presented information concerning Montrose Chemical Company to Jim Stahler. Mr. Stahler shares our concern that a "slug" of DDT may be lodged somewhere in the County Sanitation District sewer lines near Montrose; he directed us to contact you so that you would in turn contact the Sanitation District.

Attached is a copy of our summary regarding this abandoned hazardous waste problem. We would appreciate your assistance resolving the question of whether contamination in the sewer line was ever cleaned up. If the Sanitation District cannot produce evidence to show the DDT slug was removed, Abandoned Site Project staff will refer the situation to the Regional Water Quality Control Board and the State Department of Fish and Game.

Thank you for your help. Please respond to either Beth Tirey or me (phone ATSS 473-6042) as soon as possible.

Attachment

Site: Montrose Chemical Company
20201 South Normandie Avenue
Torrance, Calif. 90502

Company Contact: None

Staff Members Responsible: Beth Tirey, Sue Stack

Problem: During the years 1946 (+-) through 1970, Montrose Chemical made use of an earthen-walled seepage pond on site to dry their waste water, which is contaminated with DDT.

Sanitation District inspectors report a "slug" of DDT sludge in truck sewer downstream from the plant. It may be slowly washing into the sewer waters.

Montrose is owned by Stauffer Chemical. It is one of two known locations of active DDT manufacturing in the United States.

History: We don't know the exact date when this chemical plant began to manufacture DDT, but it was probably towards the end of the 1940's or early in the 1950's. The waste water from DDT manufacture was routed through redwood "pipes" to an on site evaporation pond (75 x 50 x 15 ft.), and eventually into the County Sanitation District's sewer.

In 1970, as a result of a successful civil suit, the plant's waste water handling system was upgraded. The seepage pond was lined with concrete and pond overflow, which had been routed into the sewer, was routed through a filtration system.

The company's present handling of waste water results in very little, if any, DDT or DDE entering the sewer.

ASP Action To Date: We checked and found no current regulatory action at RWQCB, HMMS Regional Operation, Flood Control District, Secretary of State, and Department of the County Engineer. The only current regulation of this firm seems to be through the County Sanitation Districts and RCRA/EPA (Eric has a file card, but no interim document on file).

Other Comments: One of our concerns is with the soil around and under the concrete-lined pond; was all DDT-contaminated soil removed? Miller Chambers thinks traces of DDT or DDE might still be present in this soil. If so, the soil poses a hazard to the community and the work force because of its potential for becoming airborne, and also poses a hazard to wildlife because it can enter the food chain.

Our second concern is over the constant "trickling" of DDT sludge into raw sewage as the sewage flushes past the DDT "slug" in the line. Mr. Beeker of the County Sanitation District reports that the slug consists of 74,000 pounds of DDT spread within 2,300 feet of 57-inch diameter trunk line.

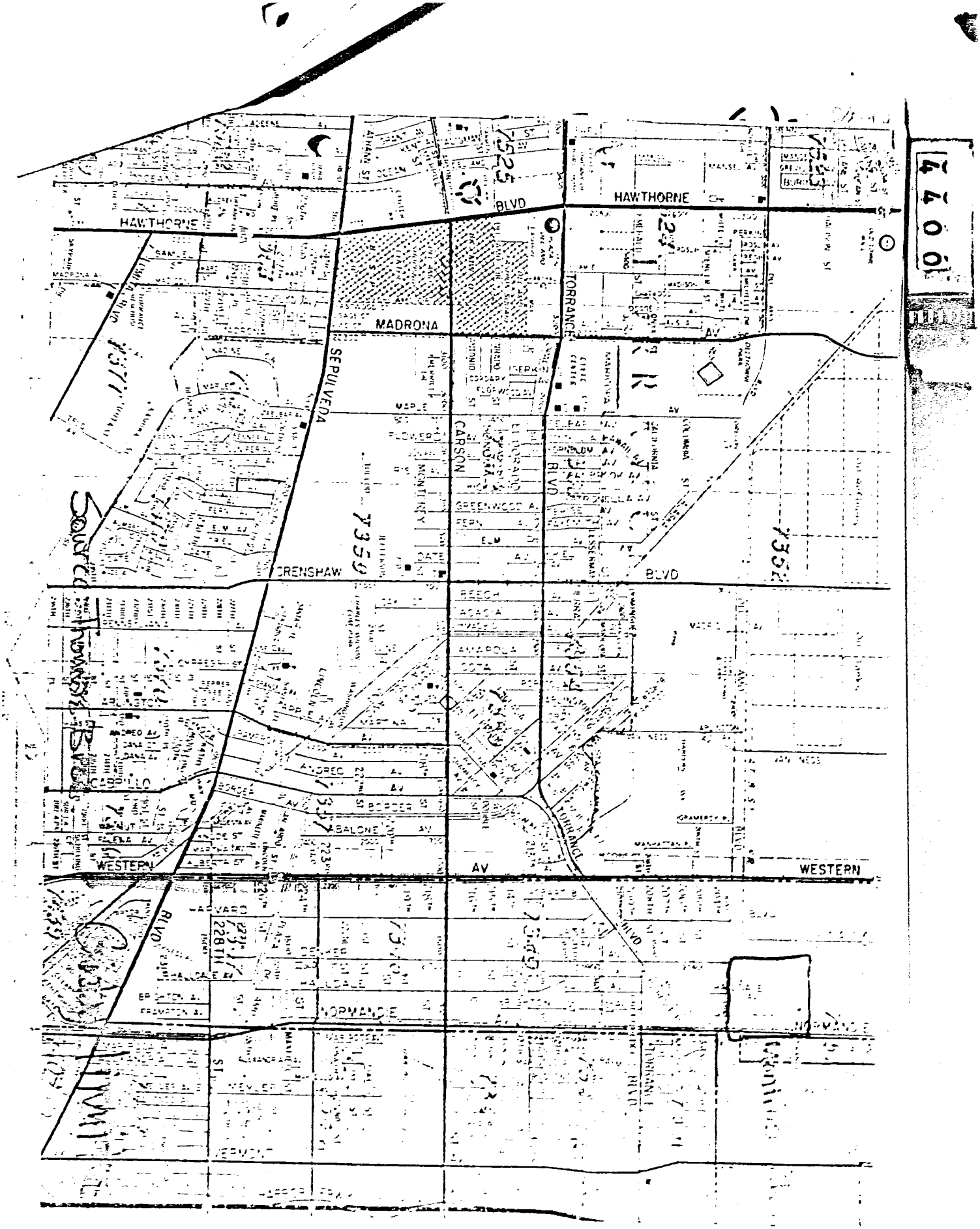
Its interesting to us that although the Montrose plant lies within the City of Los Angeles, their sewage and this DDT slug are in the county's lines.

Recommendations: Soil on site should be sampled by Regional Operations staff, and soil samples analyzed for DDT contamination. If contamination is found, Montrose should be issued a cleanup/compliance deadline.

*

The sewer contamination problem should be referred to EPA since 1) the contamination lies in the Sanitation District's line, off the Montrose property, and 2) the Sanitation District is probably financed by a clean water grant and hence, would likely respond to EPA'a "clout".

BOE-C6-0177360


HAWTHORNE
BLVD
HAWTHORNE
TORRANCE
AV
MADRONA
SEPULVEDA
CARSON
BLVD
CRENSHAW
BLVD
WESTERN
AV
WESTERN
NORMANDIE
TORRANCE
BLVD

California—Health and Welfare Agency

Department of Health Services
Hazardous Materials Management Section

MEMO OF CALL

Name: John Kallok

Date: July 8, 1981

Firm: Montrose Chemical Corp.

Time: 8:35 a.m.

Address: 20201 So. Normandie
Torrance

Person Taking or Making Call: Mary Cooper

Telephone No.: (213) 775-2565

Subject:

Message: Asked for Mr. John Kallok - he was not - but a message was for him to come today

John Kallok returned the call at 8:50 a.m. He requested that we wait for the State laboratory results - He also accepted the laboratory report submitted by ~~Jot~~ Jones Chemical as Montrose Chemical's official report to the State.

The company is on shut down until Aug 10, 1981

TSC. 14-1(81)95

LA

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

DATE: 2 [illegible] 1981

SUBJECT: RCRA Interim Status Standards Investigation of Montrose Chemical Corporation, Torrance, California

FROM: Steve Simanonok, Environmental Protection Specialist
Kenneth Yelsey, Environmental Scientist

TO: Bob Mandel, Chief, Hazardous Materials Section

I. Background

On December 22, 1980, Kenneth Yelsey and Steve Simanonok of the Surveillance and Analysis Division conducted an inspection of Montrose Chemical Corporation at 2020 S. Normandie Avenue in Torrance, California. This inspection was requested by the Water Branch of Enforcement Division to determine the facility's compliance with RCRA Interim Status Standards.

II. Investigation

The inspectors presented their credentials and were received by John Kallok, Plant Manager and Bernard Bratter, Production Superintendent. The inspectors began with an office interview and followed with an inspection of the property. Montrose Chemical Corporation is jointly owned by Stauffer Chemical Company and Chris Craft Corporation. Additionally, Montrose Chemical leases the property from Stauffer Chemical.

Montrose Chemical indicated on their notification form that their hazardous waste activity included both generation and treatment/storage/disposal. Montrose produces technical grade DDT, having discontinued their monochlorobenzene and chloral production. The wastes generated by this process include spent corrosive and alkaline solutions. Some off-specification DDT is disposed of at the BKK landfill. Mr. Kallok stated that sludges are produced from almost all processes, but removal only occurs approximately once every 10 years. Mr. Bratter and Mr. Kallok stated that the sulfuric acid is stored in 1-100,000 and 2-50,000 gallon tanks, while the alkaline waste is stored in another 50,000 gallon tank. They also stated that a series of underground collection tanks, each with a 20,000 gallon capacity, are emptied every day by pumping into the 50,000 gallon storage tanks. The liquid wastes are hauled away by tanks trucks. Montrose has disconnected their sewer line to eliminate all possiblity of discharge. All runoff is gathered in an open concrete pit and is recycled.

EPA FORM [illegible]

GENERATOR STANDARDS

Montrose Chemical Corporation utilizes the California Hazardous Waste Manifest. The inspectors reviewed completed manifests and found them to contain all the required information. No manifest exceptions were noted. Sample manifests are included in Appendix A.

All current wastes at the Montrose facility are contained in bulk storage tanks as previously discussed. Since no drums were present for inspection, the inspectors reviewed the Montrose Safety Manual Sections on packaging, labeling, marking, and placarding. The inspectors found these sections to be adequate. The index to this Safety Manual is contained in Appendix C.

INTERIM STANDARDS FOR TSD FACILITIES

General Facility Standards

Montrose Chemical performs waste analyses on-site in their "Control Lab". The methods of analysis are contained on page 3 of Appendix A. Site security is maintained by a chain link fence. The facility operates 24 hours/day with controlled access to the property. The general inspection plan is contained on page 5 of Appendix A.

Preparedness and Prevention/Contingency Plan and Emergency Procedures

Various plans have been developed by Montrose Chemical to respond to emergency situations. These plans are listed on page 6 of Appendix A. The inspectors reviewed these plans and found that they thoroughly addressed all of the requirements. The index to the Disaster Plan is Appendix B. The index to the Safety Manual is Appendix C.

Manifest System, Recordkeeping, and Reporting

The facility provided the inspectors with copies of their August 5, 1980 and November 11, 1980 notifications to EPA. These are included as Appendices D and E, respectively.

Since Montrose does not receive hazardous waste from off-site, all manifest requirements have been discussed under the Generator Standards Section of this inspection report.

III. Suspected Violations

None.

BOE-C6-0177365

Appendices:

A. RCRA Plans and Procedures
B. Disaster Plan (index)
C. Safety Manual (index)
D. August 5, 1980 Notification to EPA
E. November 11, 1980 Consolidated Permits Application
F. EPA Inspector Checklist
G. Photographs

BOE-C6-0177366

To: ~~Nestor~~ N

Subject: Montrose

From: Steve

BT

SL's comments!

N

I skimmed the RI sampling plan for the subject site, and offer the following comments:

1) The sampling plan proposed does not conform to statistically designed pattern, as recommended in numerous publications including "Samplers and Sampling Procedures for Haz. Wast Streams EPA-[illegible], 018, 1980"

2) The plan is inconsistent w/ respect to collecting duplicate samples. On p. 15, duplicates are taken next to the primary sample at the discretion of the field geologist; whereas on p. 8 duplicates are included for 10% of the samples. The [illegible] procedure is inappropriate if duplicates [illegible] be used in the QA/QC [illegible]

3) The QA/QC [illegible]

BOE-C6-0177367

w/ subjective quantitation as described p. 2 of Appendix B, external QA will be next to impossible. Thus how does one assess the validity of the data.

4) The most important deficiency with the plan is in section 8.0 of Appendix B, the Health and Safety Plan. In this section, the plan requires that "employees will be required to don half mask organic vapor respirators equipped with cartridges for organic vapors (up to 1,000 ppm)." This is completely inconsistent w/ EPA Site Safety Guidelines (1984) which recommends that choses of safety equipment based on DRI reading should be as follows

DRI reading ppm	PPE
5-50	Level C
50-500	Level B
500-1000	Level A

Walter E. Harrison
Chief Engineer and
General Manager

I.W. Permit 1497
July 24, 1979

MEMO TO: Jay G. Kremer
Head, Industrial Waste Section

THRU: Ross C. Caballero
Supervisor, Industrial Waste
Inspection and Monitoring

FROM: Kell Jensen
Industrial Waste Inspector

SUBJECT: Montrose Chemical Corp. of California
20201 S. Normandie Avenue
Torrance, CA.

This inspector visited Montrose Chemical Corp., on July 11, 1979. The purpose was to verify that no DDT contaminated wastewater was being discharged. I spoke with Mr. John Kallok, Plant Manager, who also took me through the plant.

All wastewater that has any potential of containing DDT is collected via drains into a large settling pond. All showers, sinks, and process water go to this area. The water is reused in their process. Water not reusable is stored and hauled to BKK by Chancellor and Ogden. Discharges that do enter the sewer system eminate from the urinals, water closets, boiler blow-down and recharging of water softening units. No rainwater enters the sewer. Rainwater in the process area is impounded and reused. Rainwater by the offices drain to the railroad tracks.

It appears that Montrose has pretty well eliminated their sources of DDT contamination from entering the sewerage system.

KJ:se
7-11-79
cc: E. Burr
J. Milne

70-118

STATE OF CALIFORNIA—RESOURCES AGENCY

RONALD REAGAN, Governor

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD—
LOS ANGELES REGION
107 SOUTH BROADWAY, SUITE 9026
LOS ANGELES, CALIFORNIA 90012

May 13, 1971

Mrs. Miki Bratt
3411 North Grant Avenue
Claremont, California 91711

Dear Miki:

This will answer your letters of March 29 and April 6, 1971. I regret that the press of interim plan has been so great that I could not answer before this.

Your letter of March 29 asked how DDT effluent from Montrose Chemical Company could safely be disposed of as Class I dump. The material hauled to the dump is discharged and worked into the pile of refuse right away. This would mean that the DDT would not be subject to air current and it is likely that almost no evaporation would occur. The dump is a Class I site and there are no waters of the State that could be affected, so this material coming into the dump would not affect any great waters of the State.

It is my opinion that coupled with the volatility of DDT and the manner of handling that there would be little likelihood of DDT getting into the atmosphere.

I would suspect that any DDT volatizing into the atmosphere would be more likely from spraying operations from that which may be exposed from soil surfaces. I do not, however, have the testimony of the UCR and U.S. Fish and Wildlife in which this was discussed.

Your letter of April 6 asked for some information on PCB. There is a Monsanto Chemical Company in the region. They are the only chemical company that manufactures PCB. However, they are not manufactured at the plant in this region. Recent analyses from the sewer system in the vicinity of the Monsanto plant in this region have been made and PCB's were determined not to be present.

There are a large number of firms in the area--in excess of 1,000--that do use PCB in some manner. The County Sanitation Districts of Los Angeles County are presently actively investigating discharges of chlorinated pesticides and PCB's into the sewer system. As their investigation proceeds, they will furnish us with the information that is developed. At the present time PCB's in the effluent from the Sanitation Districts' plant has been detected only on infrequent occasions. This has been on the order of 11 parts per billion (ppb).

BOE-C6-0177370

The procedure for analysis is about one-tenth of the sensitivity of the pesticide analysis and new laboratory procedures are being investigated to separate DDT compounds and PCB's before analysis. If this is successful, it may be possible to get a more sensitive measure of PCB's.

I hope that this answers at least in part your two letters.

Very truly yours,

RAYMOND M. HERTEL
Executive Officer

RMH:kt

BOE-C6-0177371

Eric Coglin / EPA David Mulliken - San Diego Lawyer

Montrose meeting - workplan not yet complete
final due end of Sept.

McDonnel Douglas / Torrance
97 buried tanks

North of Montrose

Toluene

3/27 10.0

Meeting on Montrose

Dave Chase + Sanitary Engineering — not alarming

re-sampled ← 24 ppb

Chloroform

tap water

trihalomethane — all w/in U.W. stds.

total 100

bromodichloromethane 6.5

chlorodibromomethane .5

mtg - Linnea, Joel, Angelo, Nestor, ——.

March 2, 1984 - Joel says he didn't know why she couldn't attend mtgs.

draft short note to Joel re: RP attendance

copy of proposed sampling plan to Angelo

Portable liquid storage tank rentals.

TOLL-FREE 800/922-8404

Earlier day – Dave Chase
Community meeting nite – EPA + citizens

Alexis Straus
Steve Drew
Coglin

send DDT
results

minutes
cc: Copy to EPA
Coglin
Drew

Submit plan
to State approval
before contract

~~32581 AY~~
25351 AY
or any local agency
w/ approval director

TOLL FREE (800) 922-8404

BOE-C6-0177374

REPORT ON THE EVALUATION OF THE

CASE NO. 1765Y

MONTROSE CHEMICAL COMPANY

DATA

by

DATA MANAGEMENT TEAM

LABORATORY SUPPORT SECTION

ENVIRONMENTAL SERVICES BRANCH

U.S. ENVIRONMENTAL PROTECTION AGENCY
215 Fremont Street
San Francisco, California 94105

November 8, 1985
Date

Reviewer
FTS Tel. No. 454-0923
Commercial Tel. (415) 974-0923

BOE-C6-0177375

Case No.: SAS 1765Y
Site: Montrose Chemical Co.
Lab: Hazelton
Date of this Report: 11/8/85
Reviewer: F. Schuette

p-Chlorobenzene sulfonic acid
13 Samples

I. INTRODUCTION

A. Thirteen water samples were submitted for the analysis of p-chlorobenzene sulfonic acid.

II. A. Results reported for p-chlorobenzene sulfonic acid in all samples are considered valid for all purposes

III. A. Accuracy, as measured by the recoveries of the matrix spike and matrix spike duplicate of sample YB103, is considered acceptable at 110% and 109%, respectively.

B. Precision, as measured by the following is considered acceptable:

(1) Relative percent difference between matrix spike and matrix spike duplicate equal to 0.9%.

(2) All field duplicates, except YB101 and YB104, did not contain detectable amounts of analyte. The relative percent difference between YB101 (63 ppn) YB104 (62 ppn) equals 1.6%.

(3) All laboratory duplicates contained less than detectable amounts of analyte.

C. All other quality control criteria are considered acceptable.

Case No. SAS 1765Y
Site Montrose Chemical Co
Lab Hazelton
Type of Analysis Chlorobenzene sulfonic acid
Units of Concentration ppm
Date Samples Collected 7/1 thru 7/9/85
Date Samples Rec'd at Lab 7/2, 3, 9 and 10/85
Date Data Package Rec'd at Region 9 8/8/85
Date of this Report 11/8/85
Reviewer F. Schuette

MAXIMUM HOLDING TIMES, ORGANICS	Contract
Volatile Organics, Water	7 days
Volatile Organics, Soil	10 days
ABN Extraction, Water	5 days
ABN Extraction, Soil	10 days
ABN Analysis	40 days
Pesticide Extraction, Water	5 days
Pesticide Extraction, Soil	10 days
Pesticide Analysis	40 days

Sample #	Chlorobenzene sulfonic acid
YB097	54
098 (4)	54
099 (4)	54
100	54
101 (2)	63
102	NA
103	54
104 (2)	62
105 (3)	54
106	54
107 (3)	54
108 (1)	54
109	NA

(1) = Sample YB108 is a field blank.
(2) = Samples YB101 and YB104 are field duplicates.
(3) = Samples YB105 abd YB107 are field duplicates.
(4) = Samples YB098 and YB099 are field duplicates.
U = Indicates compound was analyzed for but not detected. The number is t detection limit for the sample.
NA = No analysis; assay could not be performed due to interferences.

Actual	MAXIMUM HOLDING TIMES	INORGANICS Contract	Actual
days	Cyanide	14 days	days
days	Mercury	30 days	days
days	Other Metals	6 mos.	days
days			
days			
days			
days			
days			

VALIDITY OF DATA

No Flag - Indicates value reported is considered valid for all purposes.

R - Indicates value reported is considered invalid for all purposes

J - Indicates value reported is considered usable for limited purposes.

nimum attainable

HAZLETON LABORATORIES AMERICA, INC.
3301 KINSMAN BLVD. • P.O. BOX 7545 • MADISON, WI 53707 • (608) 241-4471 • TLX 703956 HAZRAL MDS UD

August 7, 1985

Sample Management Office
Viar and Company
300 North Lee Street
Alexandria, VA 22314

Dear Gentlemen:

Enclosed please find the analytical results and associated chromatograms for the analysis of ground waters for chlorobenzene sulfonic acid. This work was performed under the SAS Case No. 1765Y. The samples under this case were received under four shipments from Region IX with receipt dates of July 2,3,9 and 10, 1985.

All samples were analyzed by HPLC utilizing the protocol supplied with the solicitation to bid on SAS 1765Y by Sample Management Office.

Several problems occured during the analysis of these samples Primarily related to matrix problems with sample YB102 and YB109. The sequence of these problems were as follows:

- The initial analysis of all samples was performed on July 15, 1985 using an autoinjector making direct aqueous injections of 30 ul each; all standards and samples were injected in duplicate. During this run samples YB102, YB109, YB109MS and YB109MSD were all significantly off scale. The analyst performing the work thought that observed particulate in samples YB102 and YB109 may have caused this problem and decided to reanalyze these samples along with YB103 which directly followed YB102 in the run sequence.

- The second analytical run was performed on July 16, 1985. Prior to injecting the samples, YB102 and YB109 were centrifuged to remove any particulate. Again duplicate injections were made for all samples and standards. Both samples YB102 and YB109 were again off scale, indicating that the particulate was not the problem

BOE-C6-0177379

- Subsequent attempts to perform calibrations and injections of samples YB102 and YB109 at dilutions did not work as the column originally used (after extensive washing) would no longer perform. Two additional C18 columns (from different manufactures) did not provide adequate chromatography to attempt further analysis.

- Between July 22 and July 25 conversations were held with Laura Tom of Region IX and personnel of NEIC regarding our problems with this assay with no clear solutions. It should be pointed out that these two samples also produced matrix problems with the semi-volatile and pesticide analysis which were performed under Case 4534.

If you have any questions or if we may be of further service please feel free to call.

Sincerely,

David C. Hills

David C. Hills
Manager, Environmental Analysis

DCH/msw

cc: USEPA Region IX
USEPA EMSL-LV
Central File

REPORT ON THE EVALUATION OF THE

CASE NO. 4534/1765Y

MONTROSE CHEMICAL COMPANY

DATA

by

DATA MANAGEMENT TEAM

LABORATORY SUPPORT SECTION

ENVIRONMENTAL SERVICES BRANCH

U.S. ENVIRONMENTAL PROTECTION AGENCY
215 Fremont Street
San Francisco, California 94105

October 29, 1985
Date

D J Schuette
Reviewer
FTS Tel. No. 454-0923
Commercial Tel. (415) 974-0923

BOE-C6-0177381

Case No.: 4534/1765Y
Site: Montrose Chemical Co.
Lab: Rocky Mountain Analytical
Date of Report: October 29, 1985
Reviewer: F. Schuette

Inorganic Anions
13 Samples

I. INTRODUCTION

A. Thirteen water samples were submitted for analyses of inorganic anions and total dissolved solids.

II. VALIDITY

A. Results for carbonate, chloride, sulfate, fluoride, nitrate plus nitrite, and total dissolved solids are considered usable for limited purposes because of precision problems as described below in Section III. A., and are flagged "J" in accordance with the Functional Guidelines for Evaluation of Inorganic Analyses.

B. Results for all other analytes are considered valid for all purposes.

III. COMMENTS

A. Precision, as measured by the relative percent differences (RPD) of analytes in field duplicates MYA155 and MY157 is acceptable. However, for the following analytes in field duplicates MYA148 and MYA149 the relative percent differeces exceeded acceptable criteria:

Analyte	RPD
Carbonate	86
Chloride	66
Sulfate	156
Fluoride	38
Nitrate+Nitrite	NC
Total dissolved solids	63

NC = Not calculated when one or both values is less than the detection limit.

B. All other quality control criteria are met and are considered acceptable.

TABLE I
Results for DDE/DDD/DDT
(SAS 1765Y)

CAL ID	EPA ID	ug/Kg (ppb) found DDE	DDD	DDT
S6324-MB	METHOD BLANK	<20	<40	<40
S6324	1765Y-1	2500	1400	22000
S6324-MS	500 ppb spike	1100	670	4200
S6324-MSD	500 ppb spike dup.	850	550	1700
S6325	1765Y-2	33000	15000	190000
S6326	1765Y-3	22	<40	70
S6327	1765Y-4	<20	<40	<40
S6328	1765Y-5	75	<40	440
S6329	1765Y-6	190	63	920
S6330	1765Y-7	<20	<40	<40
S6331	1765Y-8	<20	<40	<40
S6332	1765Y-9	<20	<40	<40
S6333	1765Y-10	<20	<40	<40
S6334	1765Y-11	320000	160000	1600000
S6335	1765Y-13	62000	68000	1100000
S6336	1765Y-14	33000	100000	1100000
S6337	1765Y-15	1100	1700	10000
S6338	1765Y-16	4600	4000	51000
S6339	1765Y-17	11000	8400	110000
S6340	1765Y-18	350000	170000	1700000
S6341	1765Y-19	390000	290000	2700000
S6342	1765Y-20	<20	<40	<40
S6343	1765Y-21	11000	5400	56000
S6244-MB	METHOD BLANK	<20	<40	<40
S6344	1765Y-22	<20	<40	<40
S6344-MS	500 ppb spike	390	410	410
S6344-MSD	500 ppb spike dup.	370	380	390
S6345	1765Y-23	2200000	110000	1100000
S6346	1765Y-24	7000	1400	47000
S6347	1765Y-25	<20	<40	<40
S6348	1765Y-26	<20	<40	<40
S6349	1765Y-27	<20	<40	<40
S6350	1765Y-28	40000	72000	1100000
S6351	1765Y-29	170000	190000	1400000
S6352	1765Y-30	9900	10000	150000
S6353	1765Y-31	810	1200	320

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table I cont.

CAL ID	EPA ID	DDE	DDD	DDT
S6354	1765Y-32	4400	31000	400000
S6355	1765Y-33	<20	<40	<40
S6356	1765Y-34	<20	<40	<40
S6357	1765Y-35	<20	<40	<40
S6358	1765Y-36	<20	<40	<40
S6359	1765Y-37	720000	460000	7600000
S6360	1765Y-38	700000	160000	1200000
S6361	1765Y-39	67000	43000	1600000
S6362	1765Y-40	270000	260000	2100000
S6363	1765Y-41	51000	58000	660000
S6364-MB	METHOD BLANK	<20	<40	<40
S6364	1765Y-42	170000	910000	11000000
S6364-MS	500 ppb spike dup.	160000	860000	9900000
S6364-MSD	500 ppb spike	120000	650000	13000000
S6365	1765Y-43	79000	500000	4400000
S6366	1765Y-44	<20	<40	<40
S6367	1765Y-45	<20	<40	<40

Prepared by: DB

Approved by: CJS Date: 22 July 1985

BOE-C6-0177384

TABLE II
Results for Chlorobenzene
and Dichlorobenzenes
(SAS 1765Y)

		ug/g(ppm) found			
CAL ID	EPA ID	Toluene(surrog.)[a]	Chlorobenzene	Total	Dichlorobenzenes[b]
S6324-MB	METHOD BLANK	0.56	<0.05		<0.25
S6324	1765Y-1	0.43	<0.05		<0.25
S6324-D	duplicate	0.50	<0.05		<0.25
S6324-T	triplicate	0.40	<0.05		<0.25
S6325	1765Y-2	0.29	0.12		<0.25
S6326	1765Y-3	0.32	<0.05		<0.25
S6327	1765Y-4	0.32	<0.05		<0.25
S6328	1765Y-5	0.34	<0.05		<0.25
S6329	1765Y-6	0.43	<0.05		<0.25
S6330	1765Y-7	0.45	<0.05		<0.25
S6331	1765Y-8	0.45	<0.05		<0.25
S6332	1765Y-9	0.35	<0.05		<0.25
S6333	1765Y-10	0.39	<0.05		<0.25
S6334	1765Y-11	0.45	1.1		2.0
S6335	1765Y-13	0.26	1.6		1.1
S6336	1765Y-14	0.33	2.1		1.4
S6337	1765Y-15	0.37	<0.05		<0.25
S6338	1765Y-16	0.36	0.10		<0.25
S6339	1765Y-17	0.46	0.08		<0.25
S6340	1765Y-18	0.54	29		8.9
S6341	1765Y-19	0.40	13		3.9
S6342	1765Y-20	0.43	1.6		2.2
S6343	1765Y-21	0.35	<0.05		<0.25
S6344-MB	METHOD BLANK	0.51	<0.05		<0.25
S6344	1765Y-22	0.31	<0.05		<0.25
S6344-D	duplicate	0.79[d]	<0.05		<0.25
S6344-T	triplicate	0.35	<0.05		<0.25
S6345	1765Y-23	0.38	0.83		<0.25
S6346	1765Y-24	0.26	0.07		<0.25
S6347	1765Y-25	0.40	<0.05		<0.25
S6348	1765Y-26	0.23	<0.05		<0.25
S6349	1765Y-27	0.44	0.34		0.44
S6350	1765Y-28	0.42	4.0		2.2
S6351	1765Y-29	0.36	360		<25
S6352	1765Y-30	0.47	1.8		<0.25
S6353	1765Y-31	0.47	0.49		<0.25
S6354	1765Y-32	0.52	2.7		<0.25
S6355	1765Y-33	0.25	0.19		<0.25

$\bar{X} = 0.44$
RSD = 12%

$\bar{X} = 0.35$
RSD = 13

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table II cont.

CAL ID	EPA ID	Toluene(surrog.)	Chlorobenzene	Total Dichlorobenzenes
S6356	1765Y-34	0.34	0.08	<0.25
S6357	1765Y-35	0.44	0.08	<0.25
S6358	1765Y-36	0.33	0.05	<0.25
S6359	1765Y-37	0.49	0.45	<0.25
S6360	1765Y-38	0.47	2.3	<0.25
S6361	1766Y-39	D.O.[c]	910	<25
S6362	1765Y-40	0.35	3.0	<0.25
S6363	1765Y-41	0.32	540	35
S6364-MB	METHOD BLANK	0.57	<0.05	<0.25
S6364	1765Y-42	D.O.	14000	<500
S6364-D	duplicate	D.O.	12000	<500
S6364-T	triplicate	D.O.	6300	<500
S6365	1765Y-43	D.O.	9000	<500
S6366	1765Y-44	0.44	8.4	<0.25
S6367	1765Y-45	0.40	1.9	<0.25

N = 48
$\bar{X}$ = 0.395
σ_x = 0.0517
RSD = 20%

Notes: a Toluene was added at 0.50ug/g (ppm) to all samples as a surrogate.

b Sum of o,m and p-dichlorobenzenes

c D.O. = Surrogate response "diluted out" by high level of analytes.

d Sample S6344-D was double spiked with toluene (1.0ug/g).

Prepared by: DR

Approved by: SB Date: 7-22-85

TABLE III
Results of TOC
(SAS 1765Y)

CAL ID	EPA ID	Percent TOC found
S6324	1765Y-1	1.0
S6325	1765Y-2	0.66
S6326	1765Y-3	0.56
S6327	1765Y-4	0.14
S6328	1765Y-5	0.15
S6329	1765Y-6	0.70
S6330	1765Y-7	0.54
S6331	1765Y-8	0.16
S6332	1765Y-9	<0.05
S6333	1765Y-10	0.06
S6334	1765Y-11	0.71
S6335	1765Y-13	1.0
S6336	1765Y-14	0.57
S6337	1765Y-15	0.53
S6338	1765Y-16	0.64
S6339	1765Y-17	0.41
S6340	1765Y-18	0.54
S6341	1765Y-19	1.0
S6342	1765Y-20	0.52
S6343	1765Y-21	0.32
S6344	1765Y-22	<0.05
S6345	1765Y-23	0.71
S6346	1765Y-24	0.91
S6347	1765Y-25	0.18
S6348	1765Y-26	0.05
S6349	1765Y-27	<0.05
S6350	1765Y-28	0.98
S6351	1765Y-29	1.4
S6352	1765Y-30	0.40
S6353	1765Y-31	0.13
S6354	1765Y-32	0.72
S6355	1765Y-33	0.58
S6356	1765Y-34	0.41
S6357	1765Y-35	<0.05

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table III cont.

CAL ID	EPA ID	Percent TOC found
S6358	1765Y-36	0.05
S6359	1765Y-37	0.55
S6360	1765Y-38	0.73
S6361	1765Y-39	0.65
S6362	1765Y-40	0.75
S6363	1765Y-41	0.42
S6364	1765Y-42	0.14
S6365	1765Y-43	0.18
S6366-1	1765Y-44A	0.085
S6366-2	1765Y-44B	0.12
S6366-3	1765Y-44C	0.090
S6366-4	1765Y-44D	0.069
S6367-1	1765Y-45A	0.87
S6367-2	1765Y-45B	0.76
S6367-3	1765Y-45C	0.78
S6367-4	1765Y-45D	0.61

Prepared by: DB
Approved by:

Date: 22 July 1985

BOE-C6-0177388

3853

Case No. 4534/1765Y
Site Montrose Chemical Co
Lab Rocky Mtn. Analyt.
Type of Analysis Inorganic Anions
Units of Concentration mg/L
Date Samples Collected See below
Date Samples Rec'd at Lab 1 to 2 days after collection
Date Data Package Rec'd at Region 9 7/30/85
Date of this Report 10/29/85
Reviewer F. Schuette

MAXIMUM HOLDING TIMES, ORGANICS	Contract	Actual
Volatile Organics, Water	7 days	days
Volatile Organics, Soil	10 days	days
ABN Extraction, Water	5 days	days
ABN Extraction, Soil	10 days	days
ABN Analysis	40 days	days
Pesticide Extraction, Water	5 days	days
Pesticide Extraction, Soil	10 days	days
Pesticide Analysis	40 days	days

MAXIMUM HOLDING TIMES, INORGANICS	Contract	Actual
Cyanide	14 days	days
Mercury	30 days	days
Other Metals	6 mos.	days

VALIDITY OF DATA
* - Indicates value reported is considered valid for all purposes.
R * - Indicates value reported is considered invalid for all purposes.
J * - Indicates value reported is considered usable for limited purposes.

Page 1 of 1 page

Sample #	Date Collected	Carbonate	Bicarbonate	Total Alkalinity	Chloride	Sulfate	Fluoride	Nitrate + Nitrite	Total Dissolved Solids
MYA147 (3)	7/8	5U J	5U	5U	3U J	5U J	0.1U J	0.1U J	10U J
148 (1)	7/9	32	260	292	44	8.6	0.54	0.1U	430
149 (1)	7/9	80	209	289	87	70	0.80	0.14	825
150 (3)	7/9	5U	5U	5U	3U	5U	0.1U	0.1U	10
151	7/1	5U	593	593	545	835	0.22	0.1U	2960
152	7/2	5U	473	473	1910	5250	8.0	0.1U	13900
153 (3)	7/1	5U	5U	5U	3U	5U	0.1U	0.1U	10U
154	7/1	5U	615	615	587	800	0.23	0.1U	3090
155 (2)	7/8	5U	178	182	36	5U	0.30	0.1U	285
156	7/2	5U	659	659	640	93	0.27	17	2470
157 (2)	7/8	5U	189	193	33	5U	0.32	0.1U	290
158 (3)	7/2	5U	5U	5U	3U	5U	0.1U	0.1U	20
159	7/2	5U	485	485	2070	4630	7.6	0.1U	13900
Detection Limit		5	5	5	3	5	0.1	0.1	10

(1) = Samples MYA148 and MYA149 are field duplicates.
(2) = Samples MYA155 and MYA157 are field duplicates.
(3) = Samples MYA147, MYA150, MYA153, and MYA158 are field blanks.

CASE NO.: 4533/SAS 1765Y
SITE: Montrose Chemical Company
LAB: California Analytical
DATE OF THIS REPORT: August 28, 1985
REVIEWER: F. Schuette

DDT, DD, DDD
Mono- & dichlorobenzene
Total Organic Carbon
44 Samples

I. INTRODUCTION

A. Forty-four soil samples were submitted to the laboratory for the analyses of (1) DDT, DDE, and DDD, (2) monochlorobenzene and dichlorobenzenes, and (3) total organic carbon (TOC).

II. VALIDITY

A. The results for these samples are considered to be valid from the standpoint of their laboratory analysis. The variability that appears among sample replicates appears to be due to the nonhomogeneous nature of these soil samples.

III. COMMENTS

A. The following tabulates the results of field duplicates:

Sample Pairs	DDE ug/Kg	DDD ug/Kg	DDT ug/Km	Mono chloro benzene ug/gm	Di chloro benzene ug/gm	TOC %
1765Y-1	2500	1400	22000	<0.05	<0.25	1.0
1765Y-2	33000	15000	190000	0.12	<0.25	0.66
RPD	172	166	158	NC	NC	41
1765Y-18	350000	170000	1700000	29	8.9	0.54
1765Y-19	390000	290000	2700000	13	3.9	1.0
RPD	11	52	45	76	78	60
1765Y-32	4400	31000	400000	2.7	<0.25	0.72
1765Y-33	<20	<40	<40	0.19	<0.25	0.58
RPD	NC	NC	NC	173	NC	22
1765Y-38	700000	160000	1200000	2.3	<0.25	0.73
1765Y-40	270000	260000	2100000	3.0	<0.25	0.75
RPD	88	48	55	26	NC	3

RPD = Relative Percent Difference
NC = Not calculated when one or both results are less than the detection limit.

The differences between the results of field duplicates indicates that, in addition to the analytical variability as discussed below in Section III. B., there appears to be

considerable variability due to the probable nonhomogeneous nature of the field samples. This suggests that the compounds analyzed for are probably present in clumps in the soil samples.

B. In the cover letter for this package, the laboratory comments on the high levels of pesticides, in some cases obscuring the matrix spike compounds added to the samples. The letter continues that in these cases the sample result and its two matrix spike samples are essentially triplicate laboratory analyses. The laboratory further suggests that the poor replicate agreement of Sample 1765Y-1 may be due to its nonhomogeneous nature. The laboratory replicates are tabulated as follows. The laboratory precision, except for 1765Y-1, is considered acceptable.

Sample Replicates	DDE ug/Km	DDD ug/Km	DDT ug/Km	Mono chloro benzene ug/gm	Di chloro benzene ug/gm
1765Y-1	2500	1400	22000	<0.05	<0.25
MS	1100	670	4200	<0.05	<0.25
MSD	850	550	1700	<0.05	<0.25
RSD	60%	53%	119%	NC	NC
1765Y-22MS	390	410	410	<0.05	<0.25
MSD	370	380	390	<0.05	<0.25
RPD	5	8	5	NC	NC
1765Y-42	170000	910000	11000000	14000	<500
MS	160000	860000	9900000	12000	<500
MSD	120000	650000	13000000	6300	<500
RSD	18	16	14	37	NC

MS = Matrix spike.
MSD = Matrix spike duplicate.
RPD = Relative percent difference.
RSD = Relative standard deviation.
NC = Not calculated when one or both of the results are less than the detection limit.

C. The percent recovery of toluene, the surrogate compound used for the analysis of the chlorobenzenes, is considered acceptable for all samples. For Samples 1765Y-39, 1765Y-42, and 1765Y-43, the surrogate was diluted out by the high levels of analytes.

D. The precision of the TOC results, as measured by the quadruplicate analyses of Samples 1765Y-44 and 1765Y-45, is shown below and is considered acceptable:

Sample Number:	1765Y-44	1765Y-45
Results	0.085	0.87
	0.12	0.76
	0.090	0.78
	0.069	0.61
Mean	0.091	0.80
RSD	0.23	0.07

Case No. 4533/SAS 1765Y
Site Montrose Chemical Co.
Lab Cal Analytical
Type of Analysis Soils for Compounds Listed Below
Units of Concentration Given Below
Date Samples Collected 6/18-24/85
Date Samples Rec'd at Lab 6/20/85
Date Data Package Rec'd at Region 9 7/24/85
Date of this Report 8/28/85
Reviewer F. Schuette

MAXIMUM HOLDING TIMES, ORGANICS	Contract
Volatile Organics, Water	7 days
Volatile Organics, Soil	10 days
ABN Extraction, Water	5 days
ABN Extraction, Soil	10 days
ABN Analysis	40 days
Pesticide Extraction, Water	5 days
Pesticide Extraction, Soil	10 days
Pesticide Analysis	40 days

Sample #	DDE µg/Kg (ppb)	V	DDD µg/Kg	V	DDT µg/Kg	V	mono-chlorobenzene µg/g (ppm)	V	Total di-chlorobenzene µg/g	V	TOC %	V
1765Y-1 (1)	2500	V	1400	V	22000	V	<0.05	V	<0.25	V	1.0	V
-2 (1)	33000		15000		190000		0.12				0.66	
-3	22		<40		70		<0.05				0.56	
-4	<20		<40		<40						0.14	
-5	75		<40		440						0.15	
-6	190		63		920						0.70	
-7	<20		<40		<40						0.54	
-8	<20		<40		<40						0.16	
-9	<20		<40		<40						<0.05	
-10	<20		<40		<40						0.06	
-11	320000		160000		1.6×10^6		1.1		2.0		0.71	
-13	62000		68000		1.1×10^6		1.6		1.1		1.0	
-14	33000		100000		1.1×10^6		2.1		1.4		0.57	
-15	1100		1700		10000		<0.05		<0.25		0.53	
-16	4600		4000		51000		0.10				0.64	
-17	11000		8400		110000		0.08				0.41	
-18 (2)	350000		170000		1.7×10^6		29		8.9		0.54	
-19 (2)	390000		290000		2.7×10^6		13		3.9		1.0	
-20	<20		<40		<40		1.6		2.2		0.52	
-21	11000		5400		56000		<0.05		<0.25		0.32	
-22	<20		<40		<40		<0.05		<0.25		<0.05	
-23	2.2×10^6		110000		1.1×10^6		0.83				0.71	
-24	7000		1400		47000		0.07				0.91	
-25	<20		<40		<40		<0.05				0.18	
-26	<20		<40		<40		<0.05				0.05	
-27	<20		<40		<40		0.34		0.44		<0.05	
-28	40000		72000		1.1×10^6		4.0		2.2		0.98	
-29	170000		190000		1.4×10^6		360		<25		1.4	
-30	9900		10000		150000		1.8		<0.25		0.40	

Case No. 1533/SAS 1765Y
Site Montrose Chemical Co.
Lab Cal Analytical
Type of Analysis Soils for Compounds Listed Below
Units of Concentration Given below
Date Samples Collected 6/18-24/85
Date Samples Rec'd at Lab 6/20/85
Date Data Package Rec'd at Region 9 7/24/85
Date of this Report 8/28/85
Reviewer F. Schuette

MAXIMUM HOLDING TIMES, ORGANICS	Contract
Volatile Organics, Water	7 days
Volatile Organics, Soil	10 days
ABN Extraction, Water	5 days
ABN Extraction, Soil	10 days
ABN Analysis	40 days
Pesticide Extraction, Water	5 days
Pesticide Extraction, Soil	10 days
Pesticide Analysis	40 days

Sample #	DDE µg/kg		DDD µg/kg		DDT µg/kg		mono-chloro-benzene µg/g		Total di-chlorobenzene µg/g		TOC %	
1765Y-31	810	V	1200	V	320	V	0.49	V	<0.25	V	0.13	V
-32 (3)	4400	↓	31000	↓	400000	↓	2.7	↓	↓	↓	0.72	↓
-33 (3)	<20	↓	<40	↓	<40	↓	0.19	↓	↓	↓	0.58	↓
-34	↓	↓	↓	↓	↓	↓	0.08	↓	↓	↓	0.41	↓
-35	↓	↓	↓	↓	↓	↓	0.08	↓	↓	↓	<0.05	↓
-36	↓	↓	↓	↓	↓	↓	0.05	↓	↓	↓	0.05	↓
-37	720000	↓	460000	↓	7.6×10^6	↓	0.45	↓	↓	↓	0.55	↓
-38 (4)	700000	↓	160000	↓	1.2×10^6	↓	2.3	↓	↓	↓	0.73	↓
-39	67000	↓	43000	↓	1.6×10^6	↓	910	↓	<25	↓	0.65	↓
-40 (4)	270000	↓	260000	↓	2.1×10^6	↓	3.0	↓	<0.25	↓	0.75	↓
-41	51000	↓	58000	↓	660000	↓	540	↓	3.5	↓	0.42	↓
-42	170000	↓	910000	↓	11.0×10^6	↓	14000	↓	<500	↓	0.14	↓
-43	79000	↓	500000	↓	4.4×10^6	↓	9000	↓	<500	↓	0.18	↓
-44	<20	↓	<40	↓	<40	↓	8.4	↓	<0.25	↓	0.085	↓
-45 (5)	↓	↓	↓	↓	↓	↓	1.9	↓	<0.25	↓	0.87	↓

(1) = Samples 1765Y-1 and 1765Y-2 are field duplicates.
(2) = Samples 1765Y-18 and 1765Y-19 are field duplicates.
(3) = Samples 1765Y-32 and 1765Y-33 are field duplicates.
(4) = Samples 1765Y-38 and 1765Y-40 are field duplicates.
(5) = Sample 1765Y-45 is a field blank.
The "less-than" symbol is the laboratory's indication for this SAS pac was analyzed for but was not detected at the numerical quantitation li the symbol.

California Analytical Laboratories, Inc.
2544 Industrial Boulevard • West Sacramento, CA 95691 • (916) 372-1393

July 23, 1985
CAL Lab IDS: S6324-S6367
Received: 6/20/85
SAS 1765Y

Linda H. Boynton
Viar and Company
300 N. Lee Street Suite 200
Alexandria, VA 22314

Dear Linda,

Enclosed are the results of our analysis of forty-four soil samples for DDT/DDE/DDD, mono--and dichlorobenzenes and TOC. The correspondence between CAL Lab ID's and EPA ID's are given in the attached results tables.

METHODS
A. DDT/DDE/DDD. The samples were analyzed by EPA Method 8080.

B. Chlorobenzene and total dichlorobenzenes. Subsamples were combined with methanol, immediately spiked with toluene as a surrogate at 0.50 ug/g (ppm), and extracted by shaking for two hours . Aliquots were diluted with water and then analyzed by purge/trap GC-PID (EPA Methods 8020/602). Positive chlorobenzene and dichlorobenzene results were confirmed by purge/trap GC-Coulson (EPA Methods 601/8010). Since no analyte spike samples were run, selected samples were instead analyzed in triplicate.

C. TOC. Percent organic carbon was determined by the Walkley-Black Method (dichromate oxidation, ferrous sulfate titration).

Results. Results are given in Tables I, II, and III.

Comments. Most of the samples had very high levels of DDT/DDE/DDD, in some cases obscuring the spikes. In these cases the sample plus its two QA spikes are essentially triplicates,usually with good agreement (e.g. sample 1765Y-42). The exception was sample 1765Y-1 which showed poor replicate agreement, perhaps due to its nonhomogeneous nature. No other problems were encountered.

Sincerely,

Charles J. Soderquist
Vice-President

Michael J. Mille, Ph.D.
Director of GC/MS Services

REPORT ON THE EVALUATION OF THE

CASE NO.: 4533/SAS 1765Y

MONTROSE CHEMICAL CO.

DATA

by

DATA MANAGEMENT TEAM

LABORATORY SUPPORT SECTION

ENVIRONMENTAL SERVICES BRANCH

U.S. ENVIRONMENTAL PROTECTION AGENCY
215 Fremont Street
San Francisco, California 94105

August 28, 1985
Date

F. J. Schuette
Reviewer
FTS Tel. No. 454-0923
Commercial Tel. (415) 974-0923

FOR ADDITIONAL
INFORMATION
SEE EXPANSION
FOLDER

Montrose

COUNTY SANITATION DISTRICTS
OF LOS ANGELES COUNTY

955 Workman Mill Road / Whittier, California
Mailing Address / P. O. Box 4998 Whittier, California 90607
Telephone (213) 699-7411 / From Los Angeles (213) 685-5217

WALTER E. GARRISON
Chief Engineer and General Manager

Office copy

August 6, 1981

File: 31-150.10.26

Department of Health Services
107 South Broadway
Room 7012
Los Angeles, CA

Attention: Mr. Miller Chambers

Gentlemen:

DDT in Districts' Sewer Sediments

Waste Management Section
AUG 1 0 1981
California Department of Health Services
LOS ANGELES

Enclosed for your information per our telephone conversation of July 28, 1981 regarding subject DDT, is a copy of the Monitoring Section's Monthly Report for July, 1977 which provides detailed information regarding this matter. Also enclosed is a copy of the first page of the Summary of Findings of the 1979-80 Southern California Coastal Water Research Program's Biennial Report, the first paragraph of which discusses DDT levels in the ocean sediments off Palos Verdes.

Please contact me if you require additional information.

Yours very truly,

Walter E. Garrison

Roger Beeken

By Roger Beeken
Departmental Engineer

RB:kss
Enclosures

Copy received from Nestor for the Montrose file
Ed Stack 8/17/81

MONITORING SECTION

MONTHLY REPORT FOR JULY 1977

Norman Ackerman

DDT IN SEWER SEDIMENTS DOWNSTREAM OF MONTROSE CHEMICAL CO.

SUMMARY

A sampling survey showed the presence of an estimated 74,000 lb. of DDT in sediments in a 2300 ft. reach of Joint Outfall "D". This mass of DDT is essentially unchanged in quantity or composition from a previous survey in 1973. It is recommended that no attempt be made to remove these sediments. To do so would produce a substantial increase in discharge of DDT to the ocean even with secondary treatment at JWPCP. If it becomes necessary to clean this sewer, it should be done only after full secondary treatment is achieved at JWPCP and with the concurrence of the Regional Water Quality Control Board.

I. INTRODUCTION

Montrose Chemical Co. is a manufacturer of DDT located in Sanitation District 5. This firm formerly discharged process wastewater, containing DDT, to the District 5 Interceptor and to Joint Outfall "D". It stopped discharging a significant portion of these wastes in April 1970 and ceased the discharge of all process wastes by June 1, 1971. Subsequent sampling surveys showed that sewer sediments downstream of Montrose Chemical Co. were rich in DDT and it was suggested that these sediments were a major source of DDT in effluent to JWPCP. During 1970-72, the District 5 Interceptor and J.O."D" were cleaned in an attempt to eliminate this source of DDT. In a study made in 1973 it was concluded that the cleaning process resuspended much of the sediment (and DDT) and that most of this resuspended material passed through JWPCP to the ocean. As a result of this finding, it was recommended that further cleaning of these sewers be postponed until the improved solids processing facilities go into operation; it was expected that the new facilities would remove most of the resuspended DDT.

Because of the startup in late 1976 of improved solids processing facilities, it was decided to conduct another sewer survey and determine whether sufficient DDT remains in the sediments to justify another cleaning. This survey was conducted November 23, 1976. Figure 1 shows the sewers and manholes that were inspected. The depth of sediment was estimated at each manhole, samples of sediment were taken for analysis and an estimate of the quantity of DDT remaining in the sewer was made.

II. JWPCP WASTEWATERS

Discharge Limits

There are no discharge limitations for DDT at JWPCP. There are, however, limitations for total identifiable chlorinated hydrocarbons (TICH), shown in Table 1[1]. The initial compliance date for these limits, July 1, 1978, will probably be extended to July 1, 1983 because of the absence of secondary treatment.

Effluent Quality

A record of the actual discharges of DDT and TICH is shown in Table 2. The TICH is composed principally of DDT and polychlorinated biphenyls (PCBs) plus a small amount of chlorinated hydrocarbon pesticides other than DDT. The data show steady declines except for 1974 when there was an unexplained large increase in PCB levels. The TICH mass emission rate of 11.9 lbs/day for 1976 is approximately twice the limitation of 6.42 lbs/day shown in Table 1. Also, about half the TICH in 1976 was DDT.

Raw Sewage Quality

Table 3 presents data on DDT in JWPCP raw sewage. It shows a steady decline since 1971 with a leveling off in 1975 and 1976 to a mass flow of about 2000 lbs per year. Because of the ban on the use of DDT, the most likely sources of DDT are residues in sewer sediments and on farm land. Dust from the latter might, for example, enter the sewerage system via car washes.

The raw sewage was sampled as two streams; effluents from Grit Chambers 1 & 2 and from Grit Chambers 3 & 4. The area tributary to Grit Chambers 3 & 4 includes Montrose Chemical Co., Joint Outfall "D" and the District 5 Interceptor. Except for 1974 this stream had substantially higher DDT concentrations than the effluent from Grit Chambers 1 and 2. This suggests that there is more DDT in sewer sediments tributary to Grit Chambers 3 & 4 than to Grit Chambers 1 & 2.

Removal Efficiencies

Table 4 shows the record of DDT and TICH removals at JWPCP. DDT and TICH removals in primary sedimentation were fairly close, averaging 58% and 63%, respectively. There were, however, substantial differences between the two in total plant removal. In addition, the total plant removal of DDT was highly variable, and a six year average indicated a negative removal of about 9%. Several possible explanations may account for this unlikely negative removal: (1) Substantially all of the DDT which had been removed by primary sedimentation was subsequently returned in the digested sludge centrate to the final effluent. (2) A portion of the DDT removed by primary sedimentation was retained in digesters for up to three years before being returned during digester cleaning operations to the final effluent. This could have had a significant effect because the older wastes were richer in DDT than the more recent wastes. (3) The analysis for chlorinated hydrocarbons is very difficult in the "dirty" JWPCP effluents.

The unusual total plant removals noted above will have no significance when advanced primary treatment and secondary treatment are used at JWPCP because little TICH will be returned in the centrate then. Projected removal efficiencies of TICH have been estimated to be 53% with advanced primary treatment and 90% with secondary treatment [11,12]. It is assumed that projected DDT removals will be approximately the same as the TICH removals.

III. PROCEDURE FOR SAMPLING SEWER SEDIMENTS

Figure 1 shows that J.O."D" and the District 5 Interceptor are two essentially parallel sewers with one lying generally east of the other. Each (the east or west sewer) is made up of alternating [illegible] of the District 5 Interceptor and Joint Outfall "D". Several [illegible] bulkheads permit or block flows between [illegible].

The District 5 Interceptor and Joint Outfall "D" were surveyed between Montrose Chemical Co. and the region where sealed manhole covers are used, a distance of about three miles. Twenty-four manholes, shown in Figure 1, were selected with a nominal spacing of about 1/4 mile. Spacings varied because of a desire to resample locations which had been sampled earlier, because of inaccessibility of manholes and to avoid areas of turbulence at corners and junction chambers. The manhole numbering system shown in Figure 1 is from Reference 2 and is different from the system used in previous surveys.

One survey crew sampled J.O."D" and the other sampled the District 5 Interceptor. Sediment samples were taken with a cup attached to a pole. This device was also used to estimate the depth of sediment by feeling the change in resistance as the pole was lowered into the manhole. The samples were sent to the San Jose Creek Water Quality Laboratory for analysis.

IV. RESULTS

The estimated depth of sediment in each of the 24 manholes that were inspected is shown in Figure 1. Samples were obtained from seven manholes; the results of the laboratory analyses are shown in Table 1. The samples, in general, were sticky and tarry. This was also observed in earlier surveys.

Mass of DDT in Sewer Sediments

The mass diagram shown in Figure 2 was prepared from the results presented above. For each manhole from which a sample was taken, the sediment cross section area was calculated from the circular segment defined by the sediment depth and the sewer radius. The sediment mass density (mass per linear foot of sewer) for that station then is the product of the sediment cross-section and the sediment density. Based upon earlier work [1,3] the sediment was assumed to have a specific gravity of 1.5 and a density of 93.6 lb/ft^3. The mass density of DDT at that station is the product of the mass fraction of DDT and the sediment mass density. The mass densities were plotted in Figure 2 as a function of distance from Montrose Chemical Co. and were assumed to vary linearly between manholes.

Integration of the curves in Figure 2 yields a sediment mass of 407,000 lb and a DDT mass of 87,000 lb. 74,000 lb of the DDT is in a 2300 ft reach of J.O."D" downstream of the Montrose discharge.

Data from less extensive surveys conducted in 1972[3] and 1973[1], were used to construct similar mass diagrams. The results of the three surveys of the same portion of J.O."D", Section 2A are shown in Figure 3. One must be cautious in evaluating these results which were developed from only a few data points with substantial uncertainty. Only two of the eight manholes indicated in Figure 3 were sampled in all three surveys. Also, the sediment depth is rather inexact because it was measured by feel, at the bottom of a manhole, with a 20 foot long pole. Taking these qualifications into consideration, there appears to be no substantial change since the 1973 survey.

Redner[13] also suggested that a short siphon on J.O."D" unit 1E, near the intersection of Sepulveda Blvd. and Figueroa St. may contain some sediment. This siphon was not sampled in this survey.

Composition and Transformation of DDT

Technical grade DDT consists of approximately 80% pp' - DDT and 20% op' DDT[4]. Mitchell[5] presented the pathways for metabolism of DDT shown in Figure 4 and stated that many others have been reported. Dahm[4] also reported that metabolic isomerization can occur; that is, the pp' isomers can be transformed by organisms to the op' isomers and vice-versa. Although 15 compounds are shown in Figure 4, only 3 of these; DDT, DDD and DDE (each of which may exist as the pp' and op' isomers) are generally found in sewage. DDD is formed from DDT by substituting a hydrogen atom for a chlorine atom. DDE is formed from DDT by removal of a hydrogen and a chlorine atom. Thus both DDD and DDE may by considered to be partially dechlorinated or degraded DDT.

Hill and McCarty[6] showed that DDT isomers persist under aerobic conditions. They also demonstrated that DDT degrades very rapidly to DDD in thick, biologically active, anaerobic, sewage sludge. In the normal sewer environment, then, rapid metabolism of DDT to DDD in the wastewater should not be expected. It might be expected, however, in anaerobic sedimants.

The composition of total DDT in the sediments from the survey of November 23, 1976 are shown in Table 5. Total DDT as used here refers to the sum of the six isomers and metabolites of DDT that are listed in Table 5. In six of the seven samples, the two DDT isomers make up about 60% of the mass of total DDT; the degradation products, DDD and DDE, comprise the other 40%. The sample from manhole D-13, which is the furthest downstream of those sampled, consists of only about 4% DDT isomers; the other 96% of the total DDT having been dechlorinated to DDD and DDE. One inference which may be made is that the sediment at manhole D-13 contained a sufficient population of anaerobes to degrade the DDT isomers; little or no metabolism occurred in the sediments at the other manholes. Another inference is that this sediment may reflect material from upstream in the sewer that was deposited at D-13 during sewer cleaning operations.

Table 6 summarizes data on degradation of DDT in samples, associated with the Joint Outfall System, taken at various times and locations. It shows the percent of degradation products (DDD + DDE) as a function of location in the sewerage system (horizontally on the chart) and in chronological sequence (vertically). The DDT in J.O."D" sediments (with the exception of manhole D-13) remained essentially constant in composition from August 1971 to November 1976; it contained 39-46% degradation products. During this same period, the DDT in JWPCP raw sewage was substantially degraded; it consisted of 87-91% degradation products. It is considered improbable for this increase in degradation to occur metabolically during the less than three hours needed for sewage to travel from the sediment bed in J.O."D" to JWPCP. An intermediate bed of sediment containing a population of anaerobes sufficient to metabolize DDT isomers, as was postulated for manhole D-13, would be required.

V. CONCLUSIONS

There is a large mass of sediment, rich in DDT, located in a 2300 ft. reach of Joint Outfall "D", Section 2A, just south of Montrose Chemical Company between manholes D26 and D31. The sediment contains 16-44" DDT, has a tarry consistency and is less than nine inches deep. A simple calculation indicates that about 74,000 lb of DDT is present in this reach; however this should be considered only a ballpark figure because of the crudeness in estimating sediment depth at the few manholes which were sampled.

The sediments in the [illegible]h are not considered to h[illegible]en significant sources of total DDT flowing into JWPCP, at least since April 1973, because of the stability of the mass and composition of DDT in the sediment. The total DDT in this reach is essentially unchanged in quantity since the last survey in April 1973. It is also essentially unchanged in quality since August 1971, consisting of 39-45% degradation products (DDD + DDE). In addition, DDT in JWPCP raw sewage is substantially more degraded, containing 87-91% degradation products; it is considered unlikely that sediments resuspended from this reach would undergo such a substantial change in composition during the few hours of flow to JWPCP.

It has been estimated that 25% of sediment can be removed during a sewer cleaning operation, with the balance of 75% being resuspended and flowing to JWPCP[1]. It has also been estimated that advanced primary treatment at JWPCP can remove 53% of influent TICH and that secondary treatment can remove 90% of influent TICH[11,12]. Given these assumptions, one can calculate the amount of DDT that would be resuspended and pass through JWPCP to the ocean if the section of J.O."D" containing 74,000 lb of DDT is cleaned. With advanced primary treatment, 26,000 lb would flow to the ocean, and with secondary treatment 5,500 lb would flow to the ocean.

The 30-day average limit of 6.42 lb of TICH specified in the JWPCP Waste Discharge Permit[11] is equal to a rate of 2343 lb/year. Sewer cleaning would result in this limit being exceeded: 26,000 lb of DDT is 11 times the limit and 5,500 lb of DDT is 2.3 times the limit. These sewer cleaning discharges are also substantially greater than recent discharges of about 2000 lb/year of DDT.

VI. RECOMMENDATIONS

It is recommended that the 2300 ft. reach of J.O."D" below Montrose Chemical Co., which contains DDT-rich sediments, not be cleaned. If the sewer must be cleaned, it should be done only after full secondary treatment is achieved and with the concurrence of the Regional Water Quality Control Board.

Cleaning would produce a substantial increase in DDT discharged to the ocean. Cleaning after July 1, 1978, when the TICH discharge limit goes into effect, would probably result in a violation of the discharge permit. Cleaning appears to be unnecessary for sewer maintenance because the 9 inches or less of sediment have little effect on the hydraulics of the 57 inch diameter sewer. Cleaning also would be very difficult because of the tarry consistency of the sediment.

REFERENCES

1. Luthy, Richard F., and Wilson, Paul F., "Chlorinated Hydrocarbon Study Progress Report," Monitoring Section, County Sanitation Districts of Los Angeles County (LACSD) July 1973.

2. "Map Guide for District 5", LACSD

3. Anderson, Blake B., "Trace Constituents Monitoring", Technical Services Department Monthly Report, December 1972, LACSD.

4. Dahm, Paul A., "Chemistry and Metabolism of Insecticides," Chapter II of "Agricultrual Practices and Water Quality," Willrich Ted L. and George E. Smith, Editors. Iowa State University Press, Ames, Iowa, 1970.

5. Mitchell, Ralph, "Introduction to Environmental Biology" Prentice Hall, Englewood Cliffs, N.J. 1974.

6. Hill, David W. and P.L. McCarty, "The Anaerobic Degradation of Selected Hydrocarbon Pesticides, presented at the Water Pollution Control Federation meeting in Kansas City, Kansas 9/27/66.

7. Carry, Charles W. and Redner, John A. "Pesticides and Heavy Metals, Progress Report, December 1970", LACSD.

8. MacGregor, John S., "DDT and Its Metabolites in the Sediments Off Southern California", Fishery Bulletin, Vol.74 No. 1, 1976.

9. McDermott, Deirdre J., Heeson, Theadore C. and Young, David R., "DDT in Bottom Sediments Around Five Southern California Outfall Systems", Southern California Coastal Water Research Project, December 1974.

10. Redner, John and Payne, Kip, "Chlorinated Hydrocarbon Progress Report December 1971," LACSD.

11. "Waste Discharge Requirements for County Sanitation Districts of Los Angeles County (Joint Water Pollution Control Plant), NPDES Permit No. CA0053813, Board Order No. 77-99" State of California, Resources Agency, Regional Water Quality Control Board, Los Angeles Region, Adopted June 27, 1977.

12. Dryden, F.D. "Joint Water Pollution Control Plant Anticipated Pollutant Removals, "Letter from LACSD to R.H. Hertel, California Regional Water Quality Control Board, File No.: 98-9111.50.1.5, May 12, 1975.

13. Redner, John, Personal Communication, July 22, 1977.

TABLE I

TICH DISCHARGE REQUIREMENTS FOR JWPCP

Units	Discharge Limitations		
	30-Day Average	Not to be Exceeded More Than 10% of Time	Daily Maximum
ppb	2	4	6
kg/day	2.91	-	5.83
lbs/day	6.42	-	12.8

TABLE 2

ANNUAL MEAN DISCHARGE OF DDT AND TICH FROM JWPCP

Calendar Year	Concentration (ppb)		Mass Emission Rate (lbs/day)	
	DDT	TICH	DDT	TICH
1971	44.0	54.8	137	170
1972	13.4	21.5	40.5	64.8
1973	7.52	10.7	22.3	31.8
1974	3.05	15.9	8.76	44.6
1975	2.20	5.26	6.25	14.9
1976	1.82	4.06	5.35	11.9

TABLE 3

DDT IN JWPCP RAW SEWAGE

Calendar Year	Mean Concentration (parts per billion)				
	Grit Chambers 1 & 2	Grit Chambers 3 & 4	Flow Weighted Average	Mean Mass Flow Rate (lb/day)	Mean Mass Flow Rate (lb/year)
1971	10.95	55.10	34.10	106.4	38,800
1972	3.69	26.76	14.93	44.7	16,300
1973	3.73	10.26	7.63	22.8	8,300
1974	4.05	3.98	3.98	11.4	4,160
1975	0.86	2.18	1.74	4.92	1,790
1976	(0.82)[a]	(1.59)[a]	(1.26)[a] 2.05	6.07	2,150

NOTE: [a] these data are for the four month period, January-April, 1976.

BOE-C6-0177406

TABLE 4

DDT AND TICH REMOVALS AT JWPCP

Calendar Year	Mean Removals (Percent)			
	Primary Sedimentation		Total Plant	
	DDT	TICH	DDT	TICH
1971	-	-	-30	0
1972	53	59	10	14
1973	60	65	2	17
1974	67	82	24	46
1975	49	57	-27	18
1976	62	53	12	15
Mean	58	63	- 9	18

BOE-C6-0177407

TABLE 5

DDT IN SEWER SEDIMENTS DOWNSTREAM OF MONTROSE CHEMICAL CO.

NOVEMBER 23, 1976

Manhole	D-32	D-30	D-29	21C	D-26	D-18	D-13
Distance Downstream of Montrose Chemical Co.(ft)	-702 (upstream)	614	1276	2151	2323	7837	10,559
Depth of Sediment (ft)	0.2-0.5 (spotty)	0.6	0.7	0.3	0-0.1	0.1-0.3	0.1-0.3
Total DDT as a percent of sediment	0.436	44.0	30.0	16.0	19.7	3.72	4.97
Composition of Total DDT (Mass Fraction)							
pp'-DDT	.498	.577	.511	.511	.499	.489	.038
pp'-DDE	.257	.217	.242	.252	.260	.247	.437
pp'-DDD	.083	.051	.095	.093	.093	.137	.364
op'-DDT	.085	.091	.086	.066	.072	.040	.006
op'-DDE	.037	.032	.030	.031	.032	.030	.052
op'-DDD	.041	.031	.034	.046	.043	.056	.103
pp'+op'-DDT	.583	.668	.597	.577	.571	.529	.044
pp'+op'-DDE	.294	.249	.272	.283	.292	.277	.489
pp'+op'-DDD	.124	.082	.129	.139	.136	.193	.467

TABLE 6

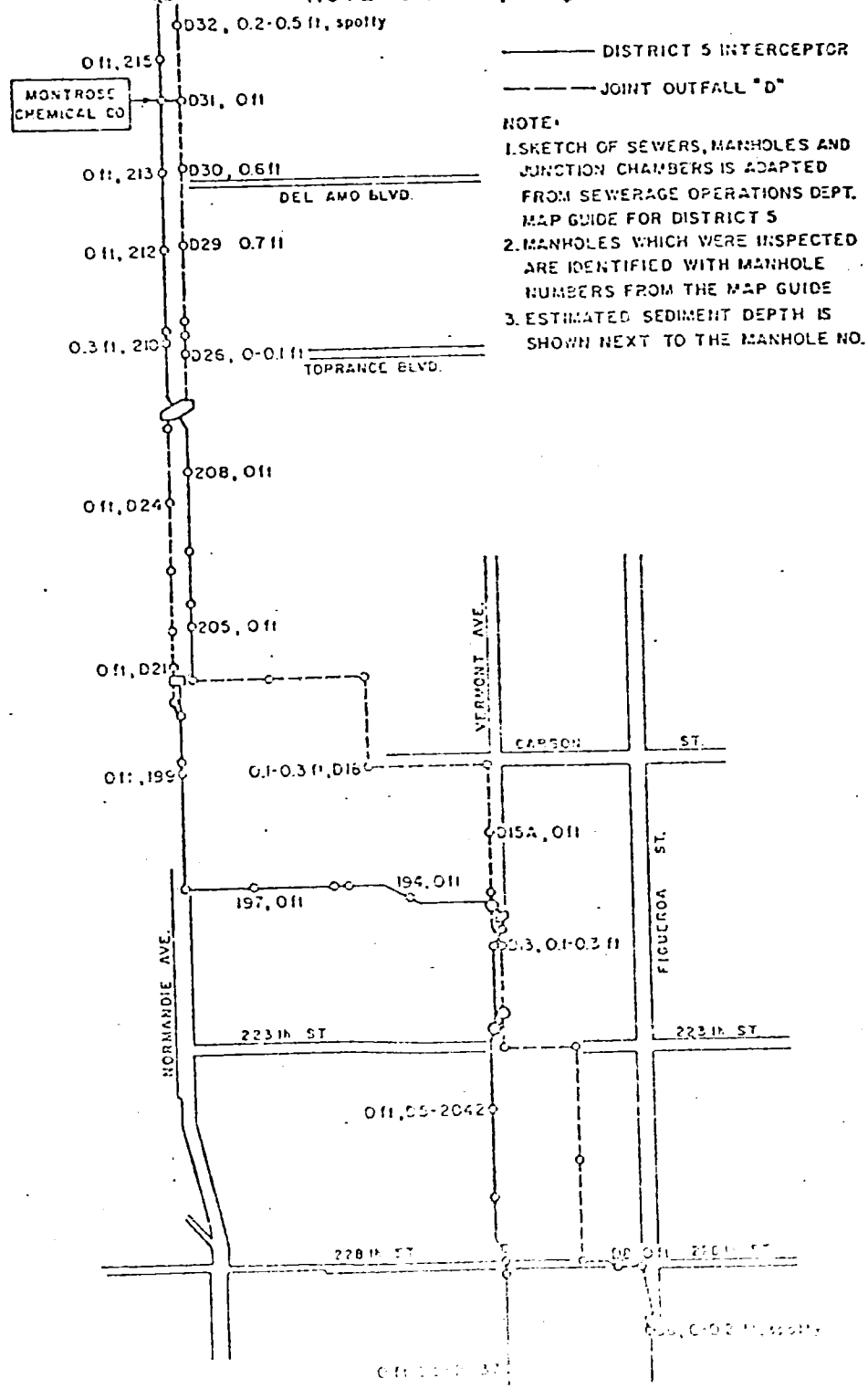
GRADATION OF DDT IN THE JOINT OUTFALL SYSTEM

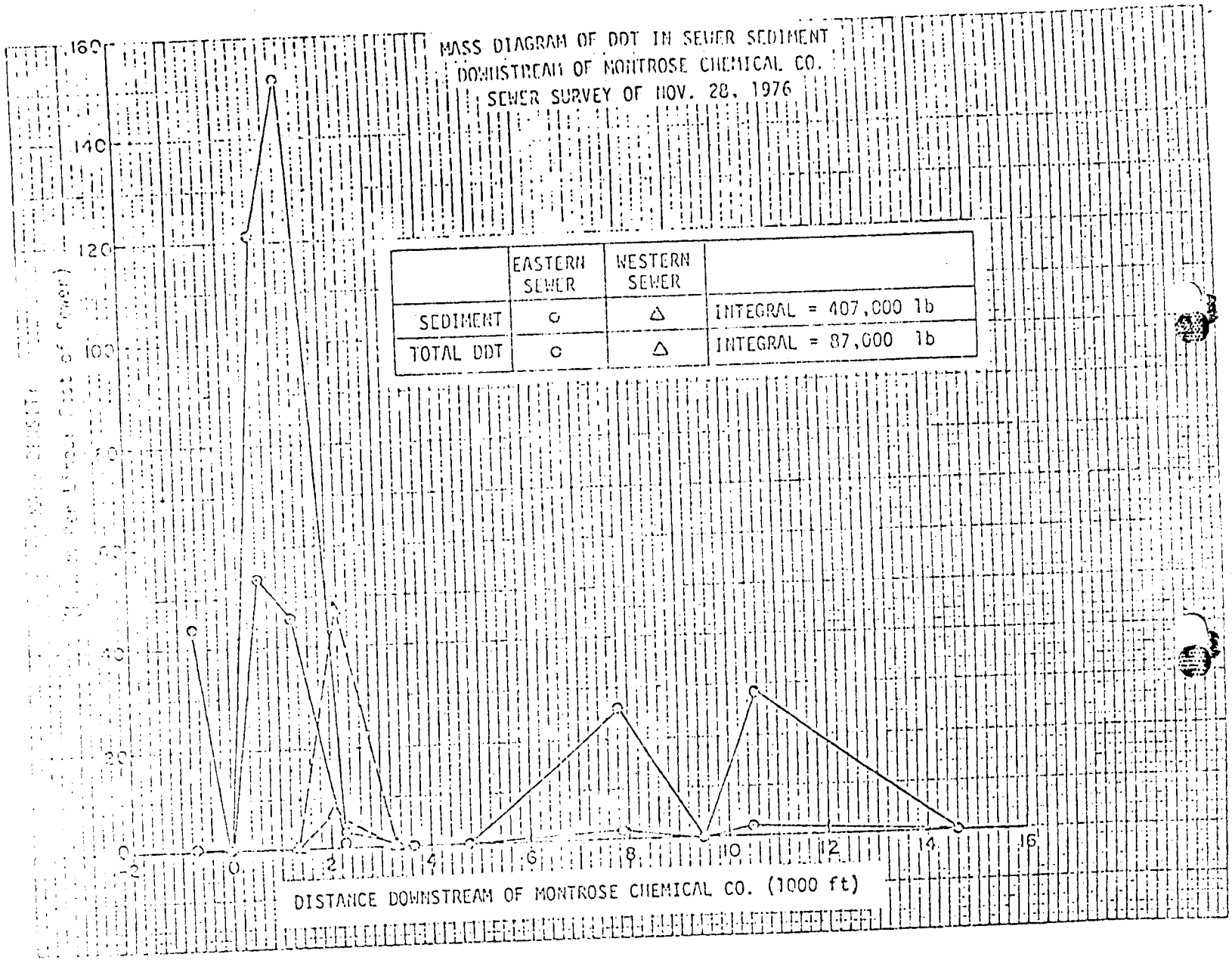
SAMPLING DATE OR PERIOD	NO. OF SAMPLES	REFERENCE[1]	PERCENT DEGRADATION PRODUCTS IN TOTAL DDT (DDD + DDE) x 100/(DDT + DDD + DDE)						
			MONTROSE EFFLUENT	WASTEWATER BELOW MONTROSE DISCHARGE	SEWER SEDIMENTS		GRIT FROM GC 3 & 4	JWPCP GRIT CHAMBER EFFLUENT	OCEAN SEDIMENTS OFF WHITE POINT
					IN 2300 FT REACH OF JO"D"	MAN-HOLE D-13			
ly 1970	1	7		27					
ug-Nov 1970	7	7	26						
an-Dec 1971	12							88	
an 11, 1971 - ar 26, 1972	28						83		
ly 15, 1971	2	1			23				
ug 6, 1971	2	1			45				
y-Aug 1971	103	8							92
an-Dec 1972	12							90	
ne 1972	19	8,9							97
ct 24, 1972	2	3			46				
ept 29, 1972 - r 30, 1973	23						88		
an-Dec 1973	12							87	
an 12, 1973	2	1			40				
r 27, 1973	3	1			46				
n-Dec 1974	12							89	
n-Dec 1975	12							91	
n-Dec 1976	12							88	
v 23, 1976	3				39	96			

NOTE: [1] Data for which no references are given were generated for this report from Monitoring Section records.

BOE-C6-0177409

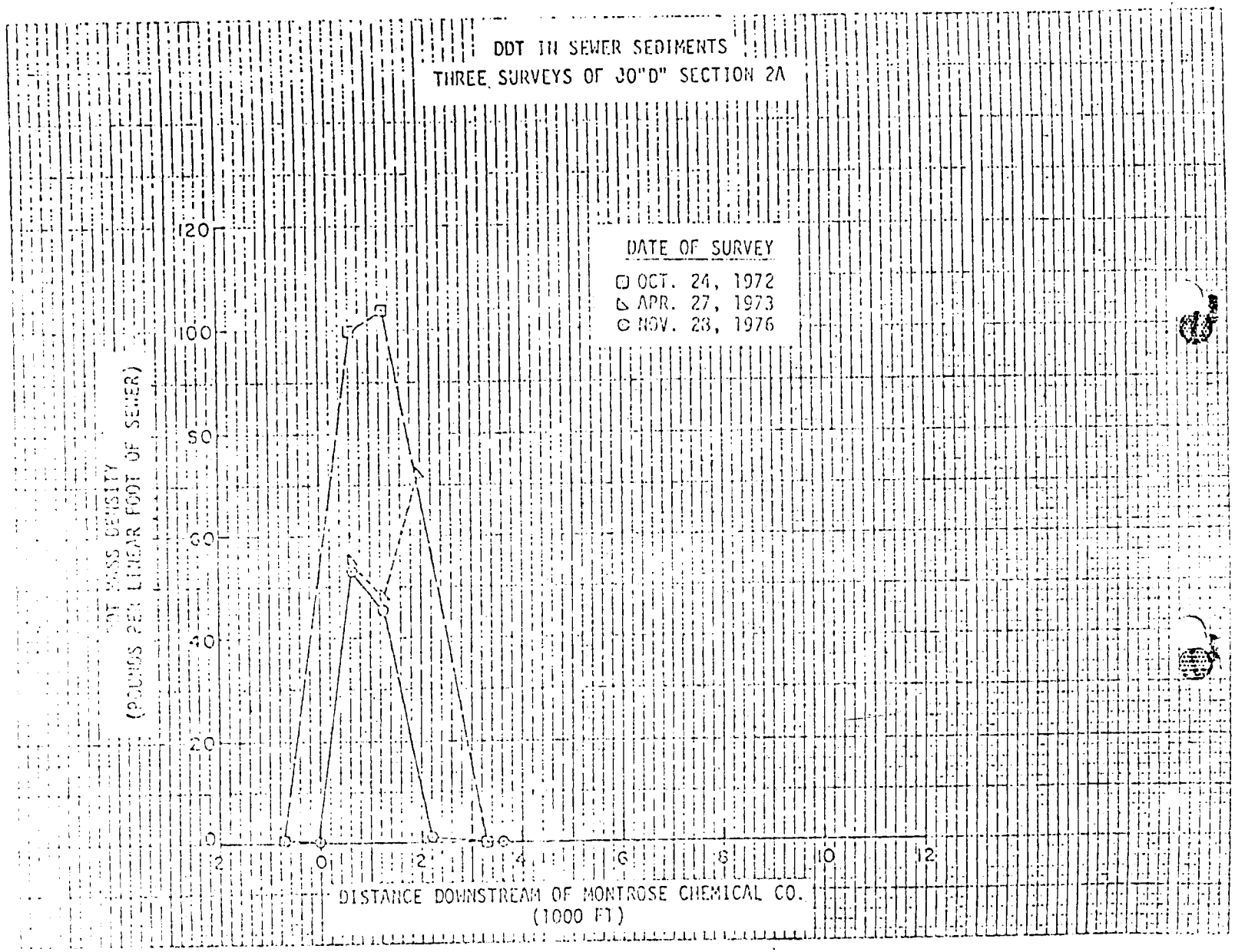
SURVEY FOR DDT IN SEWER SEDIMENTS
DOWNSTREAM OF MONTROSE CHEMICAL CO.
NOVEMBER 23,





3875

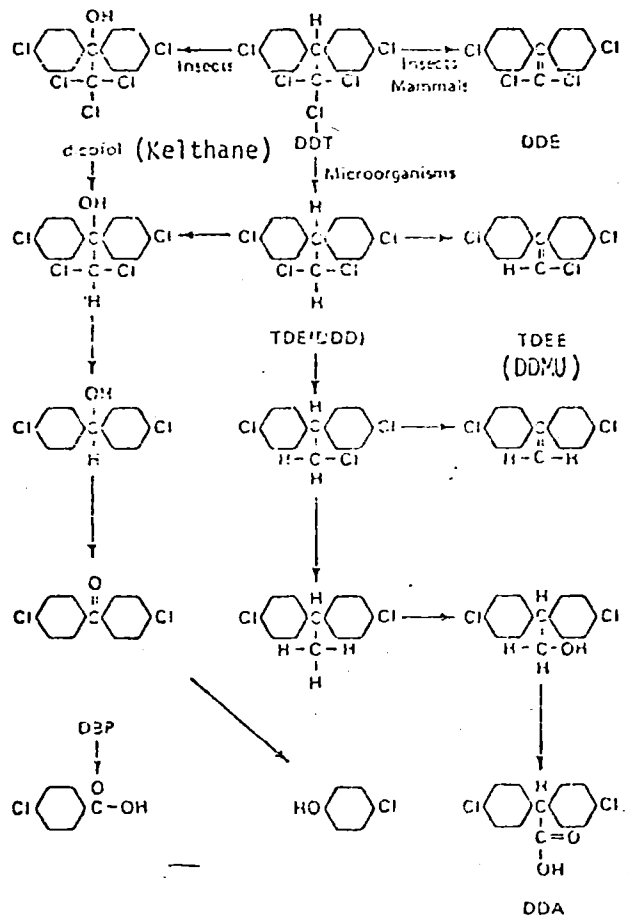
BOE-C6-0177411



3876

BOE-C6-0177412

The metabolism of DDT by microorganisms. The metabolites DDE, TDE, TDEE, and DDA are all quite recalcitrant and accumulate in higher organisms. (After F. Matsumura and G. M. Bousch in *Soil Biochemistry*, by A. D. McLaren and J. Skujins, Vol. 2, Marcel Dekker, Inc., N. Y., 1972.)



MEB

Hazardous Materials Management Section

MEMO OF CALL

Commander Larry Keister
NOAA

Date: 2/3/86

Time: 2:40 pm

Person Taking or Making Call: Bonnie Teaford

Telephone No.: 206-526-6272

EPA No.

Subject: MONTROSE

Message:

Commander Keister said his organization is about to begin a "damage assessment plan" for Montrose. The Friday, Dec. 20, 1985 Federal Register gives the step-by-step procedures for performing a damage assessment. Comm. Keister wants to know what the State will be working on this.

I told Keister that our legal staff may have an opinion on this. I explained that I'm the project officer and would appreciate being kept informed of the actions. The State may wish to become involved in the damage assessment program.

I also told Keister I would be interested in participating in the Task Force he proposed. This Task Force will plan the strategy for assessing damages.

BOE-C6-0177414

MONTROSE

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
215 Fremont Street
San Francisco, Ca. 94105

19 NOV 1985

Hazardous Materials
NOV 22 1985
California Department of Health Services
LOS ANGELES

Edward Nemecek
Hargis & Associates
2223 Avenida De La Playa
Suite 300
La Jolla, California 92037

Dear Ed:

As you requested, enclosed for your advance review is a partial package of preliminary sampling results from EPA's Part 1 Remedial Investigation. The final full set of EPA data will be included in the EPA Part 1 Remedial Investigation Report. Sample values without a qualifier are considered to be usable for all purposes. Sample values with qualifying letters are not usable for all purposes as explained in the footnotes of the data package.

I will continue to forward preliminary data packages as I receive and review them. If you have any questions regarding the data, please call me at 415-974-7465.

Sincerely,

Therese Gioia

Therese Gioia
Regional Project Manager

enclosures

cc: Samuel Rotrosen (w/out enclosures)
Karl Lytz (w/out enclosures)
Alan Chartrand (w/out enclosures)
Nestor Acedera (w/out enclosures)

Annie T. MIF A-2 NB

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
215 Fremont Street
San Francisco, Ca. 94105

Hazardous Mat.
NOV 0 6 1985

*** * * * FACT SHEET * * * ***

MONTROSE CHEMICAL CORPORATION SITE
UPDATE ON SUPERFUND ACTIVITIES
NOVEMBER 1985

INTRODUCTION

This fact sheet is intended to update you on the Remedial Investigation of the Montrose site in Los Angeles since we issued the August 1985 fact sheet. DDT was manufactured onsite from 1947 to 1982. Since significant contamination was found on and beyond the Montrose property, EPA proposed that the site be included on the National Priorities List (NPL) for hazardous waste sites in October 1984.

To accurately characterize the level and extent of site contamination, EPA designed a two part Remedial Investigation. EPA will soon finish PART I of the investigation and expects to issue a report in January 1986. The Agency will distribute the report to local information repositories and hold a community meeting to discuss its findings and to explain future site activities. EPA and the Montrose Corporation have been negotiating throughout PART I of the investigation to develop a plan for PART II and to determine how the second part will be implemented.

EPA AND MONTROSE SIGN CONSENT ORDER

On October 28, 1985, EPA signed a Consent Order with the Montrose Chemical Corporation and settled on a Remedial Investigation Work Plan whereby Montrose will conduct a major portion of the PART II investigation. EPA will carefully oversee the field work performed by Montrose to assure that sampling activities are carried out according to approved quality assurance procedures. If, at any time, EPA is not satisfied with the Montrose Corporation's work, EPA will resume the duties of directly conducting the field work. Copies of the Consent Order will be available for community review at the Carson Public Library and the Civic Center Library information repositories by November 15, 1985.

In accordance with the terms of the Consent Order, Montrose will soon submit its Offsite Soils, Sediment, and Surface Water Sampling Plan for EPA review. Once EPA approves the plan, field work for PART II of the Remedial Investigation is expected to begin in February 1986.

PRELIMINARY RESULTS

EPA soil and ground water sampling results for PART I of the Remedial Investigation are undergoing a quality assurance review and will be available later this month. However, the ground water

sampling results submitted by the Regional Water Quality Control Board (RWQCB) and the Montrose Corporation that are presented in TABLE I confirm previous soil sampling data, revealing that monochlorobenzene (MCB) and DDT are present in the shallow ground water zone not used for water supply. Please refer to the Fact Sheet issued in August 1985 for the previous soil sampling results.

TABLE I
Preliminary Ground Water Sampling Results in Parts Per Billion (ppb)

MONITORING WELLS	Chemical constituent[a]				
Onsite	Total DDT	MCB[b]	Benzene	PCE[c]	Chloroform
1. RWQCB[d]	0.024	14	4.0	0.98	2.4
Montrose[e]	0.002	12	2.10	1.00	1.5
2. RWQCB	60.6	237	0.19	0.75	9.3
Montrose	12.2	200	0.50	0.500	4.5
3. RWQCB	NA[f]	0.005	0.71	0.023	0.63
Montrose	0.006	0.007	0.001	0.05	0.44
4. RWQCB	0.052	0.085	NA	0.99	4.6
Montrose	0.046	0.30	0.025	0.025	0.68
5. RWQCB	NA	107	1.9	0.5	20
Montrose	0.002	74	1.4	0.6	18
Offsite					
1. RWQCB	ND[g]	ND	ND	ND	ND
2. RWQCB	ND	ND	ND	ND	ND

a. These five constituents are the major pollutants found consistently in all monitoring wells at the Montrose site.
b. Monochlorobenzene, also known as chlorobenzene.
c. Perchloroethylene, also known as tetrachloroethelyene.
d. Regional Water Quality Control Board results from July & August 1985.
e. Montrose sample results from August 1985.
f. Not analyzed.
g. Not detected.

COMMUNITY INFORMATION

If you have any questions, comments, or concerns contact:

Timothy Vendlinski, Community Relations Coordinator
EPA Toxics and Waste Management Division
215 Fremont Street (T-1)
San Francisco, CA 94105
(415) 974-0255

EPA is also operating a Superfund Toll-Free Information Service to provide communities with technical and non-technical information. Peter Werner operates the information service and is available Monday thru Friday between 9am and 12 pm at the following telephone number: 800-231-3075.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
215 Fremont Street
San Francisco, Ca. 94105

2 6 SEP 1985

SEP 30 1985

Samuel Rotrosen
Montrose Chemical Corporation of California
One Metro Plaza, Suite 301
505 Thornall Street
Edison, New Jersey 08837

Re: Air Sampling Summary for Montrose site, near Torrance

Dear Mr. Rotrosen:

We received bulk air sampling data from Montrose's grading and capping project on May 17, 1985 and the Air Sampling Summary on July 18, 1985. EPA and its contractors have reviewed the data and report and with this letter forward our comments.

The Montrose Health & Safety Plan, dated February 4, 1985, outlined the procedures that would be followed during the air monitoring program. However, the Air Sampling Summary does not contain detailed information on how these procedures were followed, or justification if the procedures were not followed.

Montrose should complete the Air Sampling Summary with the following additions.

1) Illustrate the locations of samplers using a map, and describe the rationale for placement.

2) Describe in detail the meteorological data that was obtained, e.g. wind speed, wind direction, humidity, etc.

3) Explain how meteorlogical data was obtained and how meterological instruments were positioned, with rationale for positioning. Describe how instruments were calibrated.

4) Filters were to be changed if wind direction shifted. Describe if filters were ever changed. Explain how a "wind shift" was defined and how often wind shifts were observed.

5) Describe how the high volume sampler was calibrated and how often calibration was performed.

6) Tabulate data from the data sheets, show sampler location for each data point. Tabulate data from HNu and charcoal tube VOC sampling.

7) Explain which samples are duplicates or blanks. Describe the quality assurance procedures followed.

8) Describe the specific procedures followed by West Coast Analytical, e.g. spiking procedures and percent recovery.

9) Explain the extraction procedures used for the 608 analyses, and the control procedures for filters, e.g. humidity and dust control. Was filter weighed until equilibrium was established and how long was filter allowed to equilibrate? Was the weight specificied on data sheet the equilibrium value?

10) Because Engineering Science did not use sorbent backup cartridges (PUF) as recommended by EPA, there is no way to verify that volatile losses were small. Therefore, as they are submitted now, the sampling results can only be used for general purposes. Engineering Science states losses are small based on theory, but there is no evidence to suggest the theory was tested, e.g. spiking a filter to prove the theory. In addition, the theory referenced used a different sampling train and is not directly applicable. The data presented is insufficient to prove that the action level was not exceeded.

As you can see, the Air Sampling Summary is lacking the detail necessary for evaluation of air impacts from the grading and capping project. Please forward all data pertaining to the steps outlined in your Health & Safety Plan, including the above.

We look forward to receiving the information at the earliest possible date. If you have any questions, please call me or Therese Gioia at 415-974-7465.

Sincerely yours,

Therese Gioia for Alexis Strauss

Alexis Strauss
Chief, Enforcement Section

cc R. Ghirelli, RWQCB
N. Acedera, DOHS
Hargis & Associates
Latham & Watkins

State of California

Department of Health Services

Memorandum

BONNIE/ THIS IS AN EXCELLENT UPDATE. THANKS, Angelo 9/10/85

To : Angelo Bellomo, Chief

Date : September 4, 1985

Subject: Montrose Chemical Corporation, Los Angeles

Via: Nestor Acedera
Ric Notini

From : Bonnie Teaford

As you know, EPA and the RWQCB are preparing to issue enforcement orders to Montrose Chemical Corporation. This memo is intended to update you on the recent activities at the site which have prompted these enforcement actions.

In October 1984, Montrose was proposed for inclusion on the NPL. By November 1984, EPA had an approved RI/FS workplan for the site. In February 1985, Montrose submitted an on-site sampling plan intended to satisfy the requirements of the RI/FS. EPA reviewed the plan and found it to be inadequate. Nevertheless, Montrose decided to implement their plan without prior approval from EPA.

In April 1985 Montrose drilled several wells and boreholes on-site. However, to ensure the proper completion of the RI/FS EPA prepared their own sampling plans.

EPA began Part I of their field work in June 1985. Three of the five on-site wells installed by Montrose and two off-site wells were sampled. Seventeen on-site soil borings were also drilled and sampled. The analytical results from EPA's sampling efforts should be available by the end of September 1985.

In the meantime, however, Montrose has submitted their own soil sample results which show about 5,000 ppm DDT at 77 feet below ground surface in the saturated zone. Although Montrose has not yet submitted their groundwater sampling results, the RWQCB's split samples show up to 60 ppm DDT in the groundwater. These high levels of contamination compel EPA to amend their original RI/FS to include a more extensive groundwater monitoring system.

On August 2, 1985 EPA sent Montrose a letter requesting them to submit a revised off-site sampling plan. Montrose responded by saying they would begin field work on August 26, 1985.

In order to prevent Montrose from beginning unapproved field work on August 26, EPA sent Montrose a strongly worded letter and draft consent agreement. The agreement order is designed to ensure that EPA maintains control of the site. A strict time schedule, requirements for prior approval of all work and a stipulation for

penalties to be levied if Montrose fails to achieve the requirements of the order are included. There are two conditions under which EPA will take over all remaining field work at the facility: (1) if Montrose does not sign the order by September 30, 1985 or (2) if Montrose signs the order, but the second draft of any required workplan is still unacceptable to EPA.

Montrose responded to the order in an August 23, 1985 letter to EPA requesting a meeting during the second week of September.

The RWQCB's order, now being drafted, will be less detailed than EPA's. The order will be similar to the Board's 1983 order, but will also include requirements for prompt reporting of results and additional groundwater investigations. The Board's order will also include penalty provisions and will be issued at the same time as EPA's.

Our Department is continuing to work with EPA and will be included by reference in their enforcement order.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
215 Fremont Street
San Francisco, Ca. 94105

9 SEP 1985

BY DHL

Samuel Rotrosen
President
Montrose Chemical Corporation of California
One Metro Plaza, Suite 301
505 Thornall Street
Edison, New Jersey 08837

SEP 11 1985

Re: Montrose site at Normandie Avenue, Los Angeles

Dear Mr. Rotrosen:

Thank you for your letter of August 23, 1985. We are pleased that Montrose reconsidered its plans to implement the Montrose offsite sampling program at this time.

EPA's position was a direct result of your decision to proceed with field work which had not been approved by EPA. Your letter of August 5, in which you stated Montrose contractors would begin field work on August 26 without an EPA approved sampling plan, clearly showed Montrose's intent to again undertake unapproved field work. As a result of your August 5 letter, I consider the previous September 16 deadline for submission of a revised offsite sampling plan to now be irrelevant. It is now necessary to have a signed agreement in place between EPA and Montrose before technical discussions regarding Montrose's Offsite Sampling Plan proceed.

We look forward to meeting with you on September 11. I must clear up an apparent misunderstanding regarding the agenda: per a telephone conversation of September 3 with David Mulliken, (and as Lisa Haage informed Karl Lytz on September 6) separate technical discussions concerning the specifics of Montrose's Offsite Sampling Plan are not warranted until a signed agreement is in place between EPA and Montrose. Of course, the broader technical issues embodied in the Order will necessarily be discussed during the meeting. Since these technical issues are part of the Order, this discussion is planned for our September 11 meeting. I do not anticipate the need for a separate technical discussion until the Consent Order is signed by Montrose.

Also, as noted in the conversation between Lisa Haage and Karl Lytz on September 6, please be advised that representatives from the Regional Water Quality Control Board have been invited to attend the meeting. We understand that unless we hear from you immediately, you have no objections to this arrangement. Please note that the time for the meeting of September 11 is 11:00.

If you have any questions, please call me or Therese Gioia at 415-974-7465. Any verbal or written correspondence from legal counsel should be directed to Lisa Haage (415-974-8043) of the Office of Regional Counsel.

Sincerely yours,

Alexis Strauss
Chief, Superfund Enforcement Section

cc Latham & Watkins
Hargis & Associates
L. Schinazi, RWQCB
N. Acedera, DOHS

Montrose Chemical Corporation of California

One Metro Plaza (Suite 301)
505 Thornall Street • Edison, New Jersey 08837 • (201) 494-7522

August 23, 1985

Ms. Alexis Strauss
Chief, Enforcement Section
United States Environmental
Protection Agency
Region IX
215 Fremont Street
San Francisco, California 94105

Re: Montrose Chemical Corporation
of California - Torrance Site

Dear Ms. Strauss:

Thank you for your letter of August 19. In view of your comment that our proposal to initiate our offsite investigatory work on August 26 is unacceptable to you, we will not do so since our intention has always been to coordinate our work with yours.

Your letter, however, raises issues which we feel are of immediate concern. One, of course, is the draft Administrative Order On Consent which accompanied it and your statement that unless we indicate our "acceptance of your conditions by August 26, 1985 EPA will complete the RI/FS as planned." This does not seem consonant with your request for us to submit a revised work plan by September 16.

One of our attorneys, Karl Lytz of Latham & Watkins, discussed these matters with Lisa Haage on August 21 and was told that your priorities had been reversed and that no meeting of our technical consultants with you to work out a revised work plan could be held until after we had signed a Consent Order. Ms. Haage indicated a deadline of September 30 for this, and November 1 for completion of the work plan.

Our principal attorney, David Mulliken, is out of the country but will be returning the first week of September. I would, of course, like him to review your proposed Order and be present when we discuss it. I would suggest therefore that promptly on his return we set a date for an early meeting.

Finally, we expect that Hargis & Associates will have

the groundwater sampling results in the next few days and these, together with the post-capping aerial photograph of the site, will be sent to you then.

Very truly yours,

MONTROSE CHEMICAL CORPORATION
OF CALIFORNIA

Samuel Rotrosen

Samuel Rotrosen

SR:ab

cc: David L. Mulliken, Esq.
Hargis & Associates, Inc.
L. Schinazi, RWQCB
N. Acedera, DOHS

Montrose Meeting Summary
August 21, 1985
EPA Region IX, San Francisco

I. Purpose

A. To discuss recent analytical results from field work performed this Spring

B. To discuss EPA's Draft Order

C. To discuss the RWQCB's draft Cleanup & Abatement Order

II. Attendees

Bonnie Seaford DHS TSCD SCS
Dr. Selimazi CRWQCB - LA
Therese Gioia EPA Region IX
Alexis Strauss " "
Lisa Hoage " "

III. Summary of Discussion

A. Recent Events

In June and July, 1985 EPA drilled and sampled 17 onsite & soil borings; sampled 3 onsite wells and 2 offsite wells. The wells were resampled in August, 1985. The results from these sampling efforts should be available by the end of September 1985.

BOE-C6-0177426

The 3 onsite wells were of 5 that Montrose installed in April, 1995. Montrose has not submitted their groundwater sampling results. However, they took saturated soil samples at 77 feet below ground surface and found 7400 ppm monochlorobenzene. 8617 ppm DDT was found in soil samples taken at 62 ft. below ground surface.

The CRWQCB sampled all five of Montrose's wells and found 60 ppm DDT in Monitoring well #2. Dr. Schnaar will send us copies of their lab reports.

Montrose had submitted their own version of an RI/FS to EPA in . EPA commented on the plan and asked Montrose to submit a revised plan. Montrose responded with a letter that stated they would begin field work on August 26, 1995 and that EPA may split samples with Montrose if they wish.

B. Planned Approach

The [illegible]

contamination at 77 ft. compels EPA to append their existing RI/FS to include a more extensive groundwater investigation.

c. EPA's Order

However, a ~~p~~ more pressing issue is Montrose's proposal to begin unauthorized field work on Aug. 26. In order to stop Montrose from performing unapproved work, EPA has drafted an administrative order pursuant to Section 106 of CERCLA (EPA will be mailing us a copy of this draft order).

The order contains the following elements:

1. A schedule of compliance (which EPA developed without negotiating with Montrose). This schedule includes:
   a. monthly reports to be submitted to EPA, DHS TSCD and CRWQCB
   b. analytical results to be reported within 45 days of sampling.
2. Requires Montrose to sign the agreement by September 30, 1985.
3. ~~Allocation for EPA to~~
3. Requires a revised sampling plan to

offsite work

4. A provision for EPA to do the work if the revision of the sampling plan also needs revising (in other words, Montrose only gets 2 chances to do it correctly).
5. Requires a sampling plan for the additional groundwater investigation

The first part of the order ensures that EPA control of the situation (ie through the use of monthly reporting, prior approval of plans, etc). The second part of the order stipulates penalties for non-compliance.

If Montrose does not sign the agreement, EPA will continue with the RI/FS as planned (with amendments for additional groundwater work, of course). EPA or Montrose, depending on the outcome of the order, will begin work on Nov 1, 1985.

DCRWQCB's Order

The Regional Board [illegible] their 1983 [illegible]

BOE-C6-0177429

main difference between the old order and this new one is that the Board will be requiring more prompt reporting.

E. Question

DHS was asked if we plan to issue an order. I said I would discuss that with Nestor and let them know if ~~[illegible]~~ we decide to do that.

We may ~~[illegible]~~ also wish to be involved in any negotiations with Montoya.

BOE-C6-0177430

M/F A 2 NOA

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
215 Fremont Street
San Francisco, Ca. 94105

19 AUG 1985

Samuel Rotrosen
President
Montrose Chemical Corporation of California
One Metro Plaza, Suite 301
505 Thornall Street
Edison, New Jersey 08837

Re: Montrose Site at Normandie Avenue, Los Angeles

Dear Mr. Rotrosen:

I received your letter of August 5 on August 12, 1985. Your proposal to initiate field work on August 26, 1985, according to the present Montrose Offsite Plan is unacceptable to EPA.

When the original scope of the Remedial Investigation/Feasibility Study (RI/FS) was negotiated between EPA and Montrose, Montrose was given the opportunity to conduct the work, and agreed to submit the required work plans for EPA review and approval. However, all plans submitted by Montrose were inadequate in scope and detail and could not be approved by EPA. The inadequate submittals by Montrose and the delay incurred in trying to improve these documents resulted in the decision by EPA to conduct the RI/FS. EPA informed Montrose of its plan to conduct the RI/FS and requested access to initiate Part 1 sampling, at which time Montrose implemented its own unapproved Onsite Sampling Plan for groundwater only. Montrose conducted the work despite EPA's warning that unapproved work may be duplicated by EPA.

In an effort to initiate a cooperative approach, EPA agreed to review the Offsite Sampling Plan submitted by Montrose, after the EPA onsite sampling was complete. Accordingly, with our August 2 letter, we submitted comments to you, requested a revised work plan by September 16, and offered to meet to discuss technical details and the arrangements under which Montrose can conduct EPA approved field work. We also informed you that recent soil boring analytical results submitted by Montrose now mandate an increase the scope of the RI/FS Work Plan to include an in-depth groundwater investigation to determine the extent of contamination.

Based on the above, two options are available for the conduct of the necessary investigations. The first option is for Montrose to submit a revised work plan for EPA review and prior approval. The arrangements for implementation of the revised plan, as well as the development and implementation of plans for any additional groundwater investigations that are necessary, will be embodied in a signed agreement (see enclosed draft agreement) between EPA and Montrose prior to the initiation of any field work. If you

BOE-C6-0177431

are unwilling to obtain prior EPA approval of RI/FS plans or are unwilling to enter into a signed agreement with EPA regarding conduct of the remedial investigation, the second option is for EPA to continue to conduct the remainder of the RI/FS according to our current schedule. If Montrose proceeds once again with unapproved field work, it does so at its own risk, as EPA will complete all of the RI/FS without further negotiations.

We appreciate the mylar map you recently submitted. We again request a copy of the postcapping aerial photograph and the name of the company that flew the site. I must again reiterate our earlier requests for your groundwater sampling results, which are significantly overdue.

Unless you indicate acceptance of our conditions by August 26, 1985, EPA will complete the RI/FS as planned. Please call me or Therese Gioia (415-974-7465) if you have any questions. Legal matters can be discussed directly with Lisa Haage (414-974-8043).

Sincerely yours,

Alexis Strauss
Chief, Enforcement Section

Enclosure

cc: Latham & Watkins
Hargis & Associates
L. Schinazi, RWQCB
N. Acedera, DOHS

United States
Environmental Protection
Agency

Regional Administrator
215 Fremont Street
San Francisco CA 94105

Region 9
Arizona, California
Hawaii, Nevada
Pacific Islands

EPA Environmental News

* * * F A C T S H E E T * * *

MONTROSE CHEMICAL SITE
UPDATE ON REMEDIAL INVESTIGATION
AUGUST 1985

Rec'd 8/26/85

INTRODUCTION

This fact sheet is intended to update you on Remedial Investigation activities at the 17-acre Montrose Chemical Corporation site in Los Angeles, California. DDT was manufactured onsite from 1947 to 1982. Since significant contamination was found on and beyond the Montrose property, EPA proposed the site for the National Priorities List (NPL) for hazardous waste sites in October 1984. This action allows EPA to spend federal Superfund dollars for site investigation.

FIELD ACTIVITIES

EPA completed the first of a two-part Remedial Investigation field sampling program in July 1985. All EPA sampling and data gathering activities were performed as described in the Remedial Investigation/ Feasibility Study (RI/FS) work plan. The activities included drilling 17 soil borings onsite, sampling 3 wells onsite, and sampling 2 wells offsite. The soil samples obtained from the borings are now being analyzed for all priority pollutants, including Monochlorobenzene (MCB) and DDT. MCB is an organic solvent that may carry DDT through the soil. Water samples from the wells are also being analyzed for all priority pollutants. EPA sampling results should be available in September 1985.

EPA planned to sample the five onsite wells installed by Montrose. However, two of the five wells had gone dry and only three wells could be sampled. Many of the offsite wells reported to exist in the area have been removed or filled. Within a 1-mile radius of the site, two wells were fit for sampling. The five on and offsite wells will be sampled again at the end of August 1985.

PRELIMINARY RESULTS

The five onsite monitoring wells were installed by Montrose Chemical Corporation in April 1985. During this activity, Montrose analyzed soil samples. Samples were also obtained from a sixth soil boring (S101) that Montrose drilled in the area of a former storage pond. The results show contamination of the soil at greater depths than previously known. Selected data from the Montrose report is provided in Tables 1 and 2. This information confirms the need for further deep soil investigations as part of the Remedial Investigation.

- more -

Sampling results indicate that DDT and MCB have been found at least 77 feet below the ground surface where the shallow groundwater is located. The shallow groundwater is not a water supply aquifer (an aquifer is defined as a water-bearing layer of permeable rock, sand, or gravel). Currently, there are no data indicating whether or not the contamination has migrated to deeper groundwater aquifers, although EPA plans to investigate further if our groundwater sampling results indicate contamination.

Table 1. Preliminary MCB Results of Soil Samples Collected Onsite[a], milligrams per kilogram (or parts per million)

Sample depth, ft	Monitoring well number 1	2	3	4	5	Boring S101
6	0.3	70	-	-	-	-
22	0.3	6	0.3	0.3	0.3	190
32	0.3	23	0.3	0.6	0.3	3400
47	0.3	96	0.3	-	-	1800
62	0.3	4100	6	-	-	-
77	0.6	7400	1	0.3	-	-

a. Hargis and Associates, Inc., Preliminary Results of On-site Groundwater Work Task, July 15, 1985.

Table 2. Preliminary DDT Results of Soil Samples Collected Onsite[a], milligrams per kilogram (or parts per million)

Sample depth, ft	Monitoring well number 1	2	3	4	5	Boring S101
6	0.6	2257	7.5	0.6	0.6	-
22	0.6	119	0.6	0.6	0.3	6131
32	0.6	1305	0.6	0.6	0.3	4176
47	0.6	802	0.6	0.6	0.6	3248
62	0.6	8617	1.5	0.6	0.6	-
77	0.6	4978	0.4	0.6	0.6	-

a. Hargis and Associates, Inc., Preliminary Results of On-site Groundwater Work Task, July 15, 1985.

PLANNED ACTION

Based on the Montrose Corporation's preliminary sampling data, EPA is developing an additional field investigation program and reviewing a Montrose proposal. Sampling plans are being prepared for offsite activities and additional groundwater investigations. Both plans will be completed by October 1985 with field work to begin shortly thereafter.

All plans and data will be made available to the public when completed. If you have any questions or comments, or would like to receive additional copies of this fact sheet, please contact:

Timothy Vendlinski, Community Relations Coordinator
EPA Toxics & Waste Management Division
215 Fremont Street (T-1)
San Francisco, CA 94105
(415) 974-0255

MEMO OF CALL

Name: Mored Robak

Date: 8-14-85

Firm: Daily Breeze

Time: 3:20 pm

Address:

Person Taking or Making Call: Bonnie Tosford

cc. NOA

Telephone No.: 540-5511

EPA No.

Subject: MONTROSE CHEMICAL

Message: I returned Mr. Robak's 8/14/85 call to Nestor Acedera. He wanted to know if the recent findings of DDT contamination at Montrose changes our position. I asked him ~~what~~ to specify the recent findings he wished to discuss. He said that EPA discovered DDT and monochlorobenzene at 77 ft below ground surface and the Regional Board found DDT in water samples taken near the same location, but that they have not released their results. He wanted to know ~~if this~~ if this raised our level of interest in the site. I told Mr. Robak that we sustain a very high interest in the site, but that EPA has the lead. He asked if we were doing any independent work out there. ~~and~~ I said no. He asked if we were considering putting the Del Amo site and Montrose together. I said that there has been a free exchange of information between the Del Amo project officer and the Montrose officer and that we are planning to assist in the EPA investigation at Montrose by providing information from our Del Amo site. Mr. Robak said he would contact me again in the future.

BOE-C6-0177435

M/F-C

STATE OF CALIFORNIA

OFFICE MEMO
STD. 100 (REV. 11-75)

DATE: 8/14/85

TO: NOA (copy to file)

ROOM NUMBER

FROM: BLTeaford

PHONE NUMBER

SUBJECT: MONTROSE

Therese Gioia, EPA, wants you to know that the Regional Board's water samples (from about 70' below ground surface) have shown total DDT at 60,000 ppb. The EPA's water samples are not in yet, but their soil samples (at 77 ft below ground surface) show 5000 ppm DDT and 7400 ppm monochlorobenzene.

The Regional Board does NOT want their results released yet.

BT

M/F A D

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
215 Fremont Street
San Francisco, Ca. 94105

2 AUG 1985

AUG 05 1985

Samuel Rotrosen
President
Montrose Chemical Corporation of California
One Metro Plaza, Suite 301
505 Thornall Street
Edison, New Jersey 08837

Re: Montrose Chemical site at Normandie Avenue, Los Angeles

Dear Mr. Rotrosen:

We recently received the report entitled "Preliminary Results on On-site Groundwater Work Task," prepared for Montrose by Hargis & Associates. We have also reviewed Montrose's Offsite Sampling Plan and prepared comments on that proposal.

I believe it is wise to start discussing the possibility of Montrose conducting the offsite field work, therefore, I enclose EPA's comments on the Montrose Offsite Sampling Plan. The Montrose Offsite Sampling Plan, although basically sound, lacks the detail and scope necessary for EPA approval. Please submit a revised Montrose Offsite Sampling Plan, which fully addresses the enclosed EPA comments, by September 16, 1985. We are willing to meet with Montrose representatives to discuss the technical requirements of an approvable plan and the arrangements for the cooperative effort between EPA and Montrose.

The EPA RI/FS Work Plan specifies that Part 1 sampling results will be used to define the analytes of concern for the Part 2 sampling plan. Although Part 1 results will not be available until September, the Part 2 plan can be drafted before then with incorporation of analytes of concern in the final version.

In light of the Montrose soil sampling results, EPA anticipates an expansion in the scope of the EPA RI/FS Work Plan for onsite and offsite groundwater and deep soils. The magnitude of this expansion will be determined after Part 1 sampling results are reviewed. However, EPA intends to proceed with Part 2 sampling as described in the present RI/FS Work Plan, and incorporate the expanded scope of work at a later date.

For your information, EPA will be sampling the onsite groundwater again during the week of August 12. The arrangements for access will be made through John Kallok. If Montrose would also like to collect groundwater samples at that time, arrangements for combining our sampling efforts can be made with Therese Gioia, the EPA project manager.

We appreciate the recent submission of the Hargis & Associates base map, the O'Malley Engineering Cut and Fill map, and the air monitoring summary report. The Hargis & Associates base map, however, would be much more useful in a mylar or sepia form and we would appreciate if such a base map would be provided to EPA. Also, EPA requests a copy of the post-capping aerial photograph of the site and the name of the company that flew the site.

EPA is still awaiting the Montrose onsite groundwater sampling results from both sampling efforts in late April and early July. Montrose should submit these results by August 16, 1985.

We look forward to your response regarding the items discussed in this letter. If you have any questions, please call me or Therese Gioia (415-974-7465). Legal matters can be discussed directly with Lisa Haage (415-974-8043).

Sincerely yours,

A. Strauss

Alexis Strauss
Chief, Enforcement Section

Enclosure

cc/with enclosure

Latham & Watkins
Hargis & Associates
L. Schinazi, CA RWQCB
N. Acedera, CA DOHS

EPA COMMENTS ON MONTROSE'S OFFSITE SAMPLING PLAN

EPA and its contractor, Metcalf & Eddy, reviewed the Montrose Offsite Sampling Plan in accordance with the requirements of the EPA Remedial Investigation/Feasibility Study (RI/FS) Work Plan. Field observations from Part 1 of the RI were considered in evaluating the Montrose Offsite Sampling Plan.

Any offsite sampling plan will not be finalized until the Part 1 sampling results are available, so the scope and analytes of interest for Part 2 can be determined. However, a plan which addresses the sampling locations and procedures can be drafted prior to receipt of the results to expedite the approval process.

PAGE 1 - INTRODUCTION

The objective of the sampling plan as stated in the Montrose sampling plan, places emphasis on determining the potential for transport of chemicals. To satisy the needs of the feasibility study, the sampling activities must address the extent of contamination at the source, along the transport pathways, and at any deposition or receptor location. This data is necessary to assess and determine the appropriate remedial measures, in accordance with the EPA Feasibility Study Guidance and National Contingency Plan (NCP).

PAGE 4 - SAMPLING OBJECTIVES

Quality assurances and specifics of the sampling effort must be known if previous sampling data are to be used as the basis for feasibility study conclusions. If sufficient information is not available to verify the quality of previously collected data, the data can only be used as general information for planning purposes.

PAGE 9 - SAMPLING AND FIELD ACTIVITIES

The sampling activities need to be expanded. The full perimeter of the site should be investigated, including the Jones Chemical perimeter and the full eastern perimeter. The residential area sampling must be expanded and the non-drainage offsite sampling areas should not be limited to residences. The offsite drainage areas to be sampled should include the Kenwood Drain, Dominguez Channel, and Consolidated Slip, as well as the Torrance Lateral.

Aerial photos indicate an old flow path through Farmers Brothers Coffee property. Soil and/or water samples should be taken in this area.

PAGE 10 - SOIL AND SEDIMENT SAMPLING

The monitoring data used to determine wind direction needs to be presented. The sampling protocol for the Del Amo neighborhood sampling must also be presented.

At a minimum, four sampling locations along the Jones Chemical property boundary should be sampled. Six additional locations within the Jones yard area are also needed to verify that early Montrose Chemical operations did not contaminate the area prior to the establishment of Jones Chemical. Two additional sample points along the eastern boundary are also warranted.

Since manholes are not representative of sediment deposition, sediment should be obtained from up- and down-stream of the opening. How will sediment volumes in the sewer be estimated?

PAGE 11 - TABLE 1

The number of neighborhood samples is low. The number should reflect samples from all directions from the site, and at two or three distances. The density of samples can vary based on wind data. Twenty-five to fifty samples may be appropriate.

Storm sewer sediment samples are not shown in the table.

PAGE 12 - SAMPLING LOCATIONS AND METHODOLOGY

Again, wind data reflecting seasonal variation should be included to substantiate the basis of neighborhood soil sampling locations.

More detail is needed on the procedures for collecting the storm sewer samples and neighborhood soil samples.

PAGE 13 - ANALYSES OF OFFSITE SOIL SAMPLES

The selection of analytes of interest must be correlated with Part 1 sampling results. Holding times for the 2, 4, and 5 foot samples should be discussed for the impact on analytes. In light of Montrose's onsite soil sampling results, deeper offsite soil borings will be necessary regardless of sampling results from the top five feet.

PAGE 14 - EQUIPMENT REQUIREMENTS

Decontamination equipment should be discussed, along with procedures for its use. Elements of an appropriate label must be outlined.

The specifics of the sampling procedures must be described in the sampling plan, including method, type of container used, and short-term storage procedures.

PAGE 15 - SURFACE WATER AND SUSPENDED SEDIMENT SAMPLING

How will flow rate in the storm sewer be estimated?

PAGE 16 - SAMPLE COLLECTION PROCEDURES

More detail is needed on how samples will be refrigerated, packed for shipment, and shipped. How will chain-of-custody be maintained? How will splits be supplied to EPA?

PAGE 17 - TABLE 3

Suspended sediment at SW-1 and SW-2 should be analyzed if present. Water samples in Torrance Lateral up- and down-stream of Kenwood Drain intersection should be included, as well as up- and down-stream of Dominguez Channel and in Consolidated Slip.

Aerial photos indicate an old flow path through Farmers Brothers Coffee property. Soil and/or water samples should be taken in this area.

PAGE 18 - SANITARY SEWER SAMPLING

Further information needs to be supplied.

PAGE 23 - TABLE 6

Chloral analysis is not shown on this table. DDT analysis is not performed using method 624.

PAGE 24 - QUALITY ASSURANCE

The plan states the QA plan will contain various items. All QA items must be disussed in the Quality Assurance Project Plan in detail, so that QA measures can be examined for approval.

PAGE 24 - SOIL AND SEDIMENT SAMPLES

The location of the remote sample must be described. The amount of duplicates and blanks required is 10% per matrix per day. Splits from the field must be made available to EPA.

PAGE 25 - SURFACE WATER SAMPLES

Certified organic free water should be used for blanks, rather than deionized water.

PAGE 27 - CHAIN-OF-CUSTODY

Forms should be developed and included in this sampling plan.

PAGE 27 - QUALITY ASSURANCE

The QA items discussed are not in error, although several items are missing. The QA discussion does not go far enough in presenting procedures.

APPENDIX B - HEALTH & SAFETY PLAN

In general the plan looks adequate for the activities proposed. Sewer sampling H&S aspects are not discussed. The plan should be more specific in how the personnel protective equipment will be used. The equipment is listed; however, how and when it is to be used is not specified. Surveillance equipment procedures also need to be described.

MISSING ITEMS

Arrangements and schedules for reporting all data to EPA, including field notes, chain-of-custody forms, original lab results, contractor summary of procedures and analytical results, and all pertinent and necessary information, must be made.

Arrangements for access to all offsite sampling areas must be discussed in detail.

Arrangements for making splits and/or duplicates available to EPA must be described in detail.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
215 Fremont Street
San Francisco, Ca. 94105

22 JUL 1985

JUL 23 1985

Nestor Acedera
Toxic Substances Control Division
Department of Health Services
107 South Broadway, Rm. 7128
Los Angeles, California 90012

Re: Montrose Site at Normandie Ave. in Los Angeles

Dear Nestor:

As was discussed between Bonnie Teaford and Therese Gioia of our respective staffs, EPA needs the assistance of DOHS in collecting data for the Montrose Remedial Investigation/Feasibility Study (RI/FS). EPA's Part 1 Sampling Plan specified the sampling of 5 offsite groundwater wells within a one-mile radius of the Montrose site. To date, EPA has only located 2 suitable offsite wells. This situation leaves a large data gap which must be filled for proper evaluation of the Montrose site in the FS.

EPA would like to use groundwater monitoring wells to be installed during the Del Amo FS to gather more data for the Montrose RI/FS. We would like to sample the wells and use our Contract Laboratory Program (CLP) for the following analyses: volatile organics, semi-volatile organics, pesticides, metals, and para-chlorobenzenesulfonic acid (CBSA).

If DOHS prefers to do the sampling and analyses specified above, it will not be necessary for EPA to duplicate the effort. Of course, EPA will need details of the well construction, well logs, sampling protocol, etc. whether DOHS or the CLP do the analyses. Please let me know which arrangement is most convenient for you. I am confident the necessary arrangements can be made, and I appreciate your willingness to assist EPA in this matter.

Sincerely yours,

Alexis Strauss
Chief
Superfund Enforcement Section

STATE OF CALIFORNIA

OFFICE MEMO
STD. 100 (REV. 11-75)

DATE 6-27-85

TO: Nestor

ROOM NUMBER

FROM: Bonnie T

PHONE NUMBER

Yes, we can do. Advise her that we will require our FS contractor to sample for the constituents. Thx

SUBJECT: Montrose - Del Amo

Therese Gioia, USEPA, cannot find enough offsite wells around Montrose to sample as part of their RI/FS. She would like her contractor to have access to the Del Amo well information. Ideally, she would like the State to analyze Del Amo water samples for DDT + monochlorobenzene ~~[illegible]~~ in addition to whatever we're already doing. If that's not possible, she'd like her contractor to be able to take samples from the wells.

What do you think?

Bonnie

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION
215 Fremont Street
San Francisco, CA

May 3, 1985

To: Community Residents, Businesses, and Agencies:

The purpose of this letter is to update you regarding the status of activities at the Montrose Chemical Corporation site in Los Angeles, California.

Montrose Chemical Corporation installed a temporary asphalt cover over the waste site in February. During installation, the South Coast Air Quality Management District observed site work to ensure that dust emissions from the site were controlled. EPA still does not regard installment of this asphalt cover as a final cleanup measure. A final remedial response will be determined only after a Remedial Investigation (RI) is completed to characterize the nature of contamination, and a Feasibility Study (FS) analyzing cleanup options receives full review by concerned agencies and community members.

In February, the Montrose Corporation submitted a plan intended to satisfy requirements of the Remedial Investigation/ Feasibility Study (RI/FS). EPA reviewed the plan and deemed it inadequate to address the full scope of site problems. Therefore, EPA chose not to distribute the Montrose plan for agency and community review.

Nevertheless, the Montrose Corporation decided to implement its plan despite knowing that EPA may not accept the results. Montrose reported that drilling of monitoring wells began April 21, 1985. According to the Montrose plan, five wells will be installed to the depth of the first groundwater aquifer (70 to 100 feet deep). Soil and water samples will be analyzed for the presence of various compounds including DDT. The Montrose Health & Safety Plan provides measures to minimize potential risk to on- or off-site workers or residents.

To ensure proper completion of the RI/FS, EPA prepared its own plans. EPA expects to begin plan implementation in June and will finish the RI portion in approximately December, 1985. EPA also expects the full RI/FS to be completed in approximately June, 1986. Copies of the final EPA plans will be placed into the community information repositories in May.

EPA also completed the draft Community Relations Plan in March based on interviews with community members. The plan is intended to promote two-way communication between EPA and the community and provide opportunities for involvement. The final plan is expected to be completed in May and will be made available at the information repositories.

-more-

Should you have any questions, please contact me at (415) 974-0255 or direct any written correspondence to my attention.

Sincerely,

Timothy John Vendlinski
Community Relations Coordinator
Toxics & Waste Management Division

Hazardous Materials Management Section
MAY 06 1985
California Department of Health Services
LOS ANGELES

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
215 Fremont Street
San Francisco, Ca. 94105

May 1, 1985

Samuel Rotrosen, President
Montrose Chemical Corporation of California
One Metro Plaza (Suite 301)
505 Thornall Street
Edison, New Jersey 08837

Re: Montrose Site at Normandie Avenue, Los Angeles

Dear Mr. Rotrosen:

On April 30, 1985, Lisa Haage, of the Office of Regional Counsel, spoke with David Mulliken regarding my letter of April 24, 1985. In that conversation, Mr. Mulliken stated that Montrose had completed its on-site work, and was starting its off-site work. Mr. Mulliken requested a meeting to discuss EPA's comments on Montrose's off-site work plan and stressed Montrose's desire to get ahead of the planned work schedule.

EPA was willing to work with Montrose to resolve the technical and procedural issues regarding Montrose's on-site work, so that the resulting data could be used and relied upon by EPA, and to avoid duplicative efforts by EPA and Montrose. EPA is dismayed that Montrose has completed its on-site work without EPA notification or approval, particularly if work was conducted in accordance with the unsatisfactory plans Montrose has submitted thus far. I understand that some of EPA's comments were made available to your field contractors and that Montrose feels the completion report will reflect which of EPA's comments were incorporated. I would like to reiterate that this approach does not satisfy EPA concerns. We need, at minimum, to have written plans which take into account our technical concerns, and advance notice of field work so we can send on-site observers to monitor the work as it is being done. Moreover, since one of the major deficiencies with the on-site plan was the absence of an adequate Quality Assurance Project Plan (QAPP), it is impossible, after the fact, for EPA to verify the validity of any data gathered by Montrose from on-site.

In light of the fact that Montrose has completed its On-site Sampling Plan, EPA does not understand the urgency with which Montrose requests a meeting. Presumably, the purpose of the meeting would be to discuss Montrose's Off-site Sampling Plan. Since the EPA RI/FS Work Plan is implemented in a phased approach, the second phase, off-site sampling, cannot be implemented until the samples from the first phase are analyzed. The analytical results from the first phase will be used to focus

the sampling efforts in the second phase. Valid first phase data is a precondition to the second phase. Since no such data is currently available, EPA will implement its own on-site sampling and proceed with the off-site sampling after review of the first phase data. EPA is willing to meet with Montrose to discuss the second phase of the RI/FS and possible participation by Montrose, after EPA begins the first phase field work.

In any event, I am again requesting written authorization for access to the site, for the implementation of EPA's sampling plan. I would appreciate receiving the written authorization by May 10, 1985. If you have any questions, please feel free to call Lisa Haage at (415) 974-8043 or Therese Gioia at (415) 974-7465.

Sincerely,

Keith Takata

Keith Takata
Chief
Superfund Branch

cc Latham & Watkins
Hargis & Associates
N. Acedera - DOHS
L. Schinazi - RWQCB

BOE-C6-0177448

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
215 Fremont Street
San Francisco, Ca. 94105

2 4 APR 1985

Hazardous Materials Mg
APR 29 1985
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of Health
LOS AN

Samuel Rotrosen, President
Montrose Chemical Corporation of California
One Metro Plaza (Suite 301)
505 Thornall Street
Edison, New Jersey 08837

RE: Montrose Site at Normandie Avenue, Los Angeles

Dear Mr. Rotrosen:

On April 22, 1985, Lisa Haage, of the Office of Regional Counsel, spoke with Karl Lytz, concerning EPA's response to your letter dated April 11, 1985. In that conversation, Karl Lytz informed Ms. Haage that Montrose had started drilling groundwater monitoring wells on April 21, 1985. Please be advised that if Montrose continues to go ahead with unapproved work which does not meet EPA standards of acceptance, EPA will have to duplicate the effort in order to obtain reliable data for the Remedial Investigation/Feasibility Study (RI/FS). As discussed in my letter of April 3, 1985, the plans for RI/FS work submitted by Montrose are, in the best judgment of EPA, inadequate to sufficiently characterize the contamination at the site. However, if Montrose will incorporate the necessary technical and procedural changes into its On-site Groundwater Sampling Plan, EPA will not have to duplicate the monitoring well installation efforts. Montrose should therefore discontinue any further drilling until the technical and procedural details can be resolved to EPA's satisfaction.

Enclosed for your review, are EPA's comments on your On-site Groundwater Sampling Plan. The plan is lacking in the necessary construction details and severely lacking in an acceptable Quality Assurance Project Plan. EPA believes the technical construction details could be worked out with Montrose, so that the monitoring wells are constructed in a manner which makes the samples taken from them acceptable for analysis. EPA suggests that Montrose incorporate EPA's Quality Assurance Project Plan (QAPP) if the samples are taken to an EPA contract laboratory, or write an acceptable plan with the same level of detail as EPA's plan if other laboratories are to be used. EPA's plan is currently under internal review and will be available in the next few weeks. Regardless of your decision on the QAPP, it is in Montrose's best interest to construct the monitoring wells to meet EPA specifications. EPA does not wish to repeat the RI/FS efforts of Montrose, but if Montrose insists on proceeding with unapproved work, that repetition may be unavoidable.

Regardless of any agreement that EPA and Montrose may reach on the construction and/or sampling of the groundwater monitoring wells, EPA intends to proceed with the remainder of the RI/FS including on-site soil sampling, off-site groundwater sampling, and off-site soil, sediment, and surface water sampling, as explained in my letter of April 3, 1985. Please be assured that the decision of EPA to perform the RI/FS at the Montrose site was an informed one. The interest of the Agency is to characterize contamination at the site as thoroughly as needed to determine the most appropriate long-term solution. Our perception of activities at Montrose over the past several months differs somewhat from yours.

In the October, 1984 meeting between EPA and Montrose, EPA understood that Montrose agreed to submit to EPA a Site Health and Safety Plan, a QAPP, and sampling plans according to the approved EPA RI/FS Work Plan, by November 20, 1984. In response Montrose submitted only an unsolicited RI/FS Work Plan and proceeded to pursue grading and capping of the site.

At the December 14, 1984 meeting, EPA did not approve of the capping plan. As your December 19, 1984 letter to Alexis Strauss pointed out, EPA's approval was not necessary for Montrose to proceed with the plan. EPA made it clear that the capping plan was not a final remedy and that the RI/FS could very well recommend a remedy that would call for removal or alteration of the cap.

EPA was particularly concerned with grading efforts at the site. It was discussed at the December 14, 1984 meeting, in January 1985, and again referenced in Lisa Haage's letter of January 9, 1985 to Montrose's attorney, Karl Lytz. While EPA has agreed to review the post-capping topographic map of the site, EPA did not agree that a comparison of topographic maps would necessarily guarantee the usability of previous on-site soil sampling data. In light of the fact that significant grading was done on-site during the capping project, EPA seriously questions the utility of the map to make such a determination. According to observations of EPA personnel and contractors during the grading and capping project, and their conversations with John Kallok, the capping project site manager, earth at the site was stockpiled and moved repeatedly. It therefore is unlikely that results from any surface soil sampling performed prior to capping will be usable now, regardless of the site contours. The only analyses that might have remained valid are those from deeper soils not affected by the grading. Montrose was fully aware of the risks involved in proceeding with the capping plan without EPA approval.

At the December 14, 1984 meeting, EPA did not agree that capping of the site would obviate the need for air monitoring during the RI/FS. It is possible that the air monitoring data collected during the capping project may be acceptable to EPA, but until that data is received and reviewed, EPA plans to conduct air monitoring during the RI/FS.

On January 8, 1985, EPA informed Torrance residents of Montrose's plans to grade and cap the site. It is our obligation ensure that the local residents are aware of any activity at the site. At no time did EPA endorse or approve Montrose's capping of the site. After EPA and Montrose held several meetings at which the capping program was discussed, a plan was finalized by Montrose. There was an attempt to incorporate some of EPA's comments in the program, as evidenced by the revised Health and Safety Plan. Other suggestions which were discussed, however, were not incorporated.

Your assumption that information on the grading and capping was shared with me by my staff is correct. However, my staff did not provide hasty assurances concerning the success or safety of the grading and capping project; these assurances can only be given after a detailed review of acceptable air monitoring data, which EPA and Montrose have not received. Without that data in hand, your assurances that airborne DDT concentrations were virtually non-existent during the grading and capping project are unfounded.

EPA has not seen any plan for sealing of off-site soils with polymer. We cannot evaluate or approve of a plan we have never seen, and obviously EPA cannot obtain permission for Montrose to carry out an action of which we have no knowledge.

EPA recently received Montrose's Off-site Sampling Plan. This plan also lacks the necessary technical and procedural details. The plan lacks a sufficient quality assurance plan and does not address all off-site areas that need to be sampled. Specific comments will be forwarded to Montrose if you agree to incorporate them into a plan that is approvable by EPA. If you proceed with off-site sampling without EPA approval, you again run the risk of duplicating the planned EPA effort.

EPA is well aware that Montrose has done work at the site. However, the validity of an investigative project implemented in phases is dependent on very thorough and accurate work during the earliest phases. Unfortunately, EPA is not confident that the work plans submitted will provide for accurate characterization of the site, nor that the field sampling program will be adequate for the priority pollutant analyses EPA must perform on its splits. In addition, Montrose is not willing to perform all

the necessary parts of a thorough investigation, as evidenced by your work plan submittals. Therefore, an implementation of your work plans would not satisfy the requirements for an RI/FS.

EPA is willing to have further discussions with Montrose only if Montrose will agree to change the sampling plans, QAPP, and Site Health and Safety Plans to meet EPA requirements, and stops drilling immediately. In your letter of April 11, 1985, you gave EPA a response date of April 30, 1985. We cannot understand why you have proceeded with drilling before that date. We await your swift response. Should you not respond before May 4, 1985, EPA will proceed as described above and in my letter of April 3, 1985.

If you have any questions, please call Lisa Haage at (415) 974-8043 or Therese Gioia at (415) 974-7465.

Sincerely,

Keith Takata

Keith Takata
Chief,
Superfund Branch

Enclosure

cc Latham and Watkins
Hargis and Associates
Acedera, DOHS
Schinazi, RWQCB

EPA COMMENTS ON MONTROSE'S ON-SITE GROUNDWATER SAMPLING PLAN

To be approved, the Montrose sampling plan needs to adhere to the requirements of the RI/FS tasks 11 and 12, and be accompanied by Health and Safety and Quality Assurance Project Plans satisfying RI/FS tasks 5 and 6. The plans submitted were therefore reviewed for their compliance with the requirements of these tasks.

Page 2-5 Historical Background

This historical discussion does not discuss the implications of site grading and capping activities (January and February, 1985) on previous soil sampling data. The excavation, stockpiling and grading will have blended the soils negating the sample data except at depths below the excavation effort. The shallow soil DDT concentration profile is likely to be substantially different making it impossible to estimate high concentration zone removal volumes in the feasibility study from previous soil sampling data.

Page 6 Sampling Objectives

The stated objective in the plan is to analyze for chemical constituents of concern used at the former Montrose facility. EPA's scope, as expressed in the original work plan, is broader than the stated objective. While investigating at a site which has had previous industrial occupants, it is prudent to analyze samples for priority pollutants and metals to confirm the absence of other chemical contamination. Should other contamination exist, EPA would then evaluate the site to determine the optimum cleanup alternative considering the total scope of contamination and would seek all responsibile parties involved. Because priority pollutants are to be analyzed all soil and water sampling and construction procedures must be compatible and prevent possible contamination which would invalidate analyses.

Page 8 Figure 2

The location of the monitoring well shown adjacent to the former waste pond should be relocated to be within the limits of the former waste pond since movement of liquids through soils tends to be vertical unless water table or low permeability strata are encountered.

Page 9 Monitoring Well Construction

More detail is required to be able to evaluate the acceptability of construction methods. What schedule PVC casing is to be used? Joints must be specified as being threaded not glued to prevent solvent contamination. Describe the auger method to be used in drilling. Hollow stem augers were specified in the RI/FS work plan. Also there is no mention of casing installation (10 to 20 ft) at the surface to prevent downward movement of contaminated soils as specified in the RI/FS work plan. All materials to come in contact with the groundwater must be specified.

Page 10 Figure 3

Cement is the recommended material rather than clean soil or pea gravel to assure tight seal throughout cased section.

Page 11 Monitoring Well Construction (continued)

The procedures for well development should be clearly described. How will the well yield be determined? How many volumes of groundwater are to be removed? What type of containers for discharge liquid will be used? How will discharge liquid be sampled? What pump materials are to be used? Bladder type pumps may be appropriate rather than submersible type pumps.

Page 11 Sample Collection Procedures

The plan is lacking detail. The following questions at a minimum must be answered. What pre- and post-sampling cleaning techniques are to be employed? What criteria will be used to establish that parameters have stabilized prior to sampling? What are bailer construction materials and bailer design? What specific collection procedures will be used? Preservation of samples must be done in the field; one cannot wait until samples reach the lab to add preservation chemicals. How will bailing water be disposed of?

One clear deviation from Task 12 requirements is that no off-site sampling of wells in a one-mile radius is included in the Montrose plan. Sample collection should also provide for splits to give to EPA.

Page 12 Frequency of Sampling

In addition to water samples water level measurements are to be taken weekly for the first four weeks and monthly thereafter. The Montrose plan calls for an extra well water sample not required by RI/FS work plan.

Page 12 Field Measurements

The frequency of calibration needs to be stated more specifically than just periodically. The use of an OVA during drilling must be described. An OVA is to be used to test sample head space and on soil samples from drilling.

Page 13 Disposal and Containment of Drill Cuttings and Discharge Waters

How will the drill cuttings and discharge waters be stored? The plan must state what provisions will be made for storing, testing, and ultimate disposal.

Page 13 Soil Sampling During Drilling of Monitoring Wells

The Montrose plan states soil samples will be collected at five-foot intervals and/or at depths where unusual conditions are observed. The RI/FS requires continuous sampling for the first thirty feet and then at five-foot intervals for the remainder of the boring. Continuous sampling of the first ten feet minimum distance is critical especially since the surface soils have been distrubed during grading operations.

Page 14 Table 2

The number of containers should be added to the table. For the common ion analysis the preservation should include refrigeration to 4°C and addition of nitric acid to a pH of 2. Filtering is specified in Table 2; however, there is no description of how the filtering is to be done or where. Filtering should be done in the field. The analytical method listed for chloral is EPA Method 624; however, this method does not list chloral as included under that method.

Page 15 Sample Collection Procedures

The method of cleaning tubes and jars must be stated. The "thorough" method for cleaning sampling devices should be described in detail. The plan states that soils from remote locations will be used as trip blanks. How this location is to be selected must be defined.

Pages 20-23 Quality Assurance

The material presented in these pages of the sampling plan do not satisfy the requirements of the QAPP per EPA guidance document QAMS-005/80, or the statement made on page 1 that "Adherence to the protocols described...will provide a basis from which confident conclusions can be drawn."

Detail is lacking on items included and other items are not mentioned at all. Chain-of-custody and other forms should be included. Specifics of packaging, securing and shipping samples must be provided. This entire section does not appear to be a serious effort to supply a QAPP satisfying Task 6 of the RI/FS.

Page 24 and Appendix B Site Safety Plan

The hazard level assessment in the safety plan is generally appropriate. However, this section also is lacking detail to demonstrate adequate preparation to conduct a safety plan. Eating or smoking on site must be explicitly forbidden. The type of boot must be rubber not leather; the plan only states boots without specifying the type. Also the plan must be specific as to the type of coverall to be used. If tyvek is used then coveralls should be disposed of daily. If cotton coveralls are used they should be washed daily. The goal is to prevent possible contamination being taken home. The method for cleaning the rig should also be described in detail.

General Comments

The Groundwater Sampling Plans submitted by Montrose have omissions and do not contain sufficient detail to be reasonably confident the work to be performed would be in compliance with the RI/FS work plan and EPA RI guidance documents.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
215 Fremont Street
San Francisco, Ca. 94105

3/15/85

Mr. Angelo Bellomo
Department of Health Services
Toxic Substances Control Division
107 South Broadway, Room 7128
Los Angeles, CA 90012

Dear Mr. Bellomo:

Please find enclosed a copy of the Draft Community Relations Plan for the Montrose Chemical site in Los Angeles, California. EPA conducted Community Relations Interviews during October 1984. to gather information regarding past and present community concerns and to identify current community issues and needs. Information gained from the interviews was used to prepare this draft plan which is designed to respond to expressed concerns and needs.

Please review this document. If you wish to comment on the plan, contact me via letter or telephone by May 1, 1985. My telephone number is (415) 974-0255.

Comments which improve the plan's accuracy and responsiveness to the community will be incorporated into the Final Community Relations Plan. EPA expects to release the final plan in June 1984. Thank you for your participation in the Community Relations process.

Sincerely,

Timothy John Vendlinski
Community Relations Coordinator

State of California—Health and Welfare Agency

Department of Health Service
Hazardous Materials Management Section

MEMO OF CALL

Name: Wendy Umino

Date: 6/6/85

Firm: Assembly Office of Research

Time: 9:24 p.m.

Address:

Person Taking or Making Call: Bonnie Teaford

Telephone No.: 8-485-1638

Subject: MONTROSE CHEMICAL CO.

Message: I returned phone calls Ms. Umino made to Nestor Acedera. Ms. Umino wanted information about Montrose. I told her I had a box ful but read her the front page of EPA's June 13, 1984 ranking package.

I also gave Ms Umino several EPA contact names for Montrose:

Lisa Haage (415)974-8043
→ Therese Gioia (415)974-7465
Timothy Vendlinski (415)974-0255

bcc. Nestor Acedera

20318 79

BOE-C6-0177458

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
215 Fremont Street
San Francisco, Ca. 94105

17 June 1985

Mr. Samuel Rotrosen
President
Montrose Chemical Co. of California
One Metro Plaza, suite 301
505 Thornall Street
Edison, NJ 08837

Re: Montrose site, Los Angeles

Dear Mr. Rotrosen:

We met with your consultants, Hargis and Associates, on May 23 to discuss the recent installation of groundwater monitor wells at the site, and the impact of the site regrading upon the 1983 Montrose soil analysis data. This meeting was most productive; as a result, I hope we can avoid any unnecessary duplication of effort. Following is a summary of our discussion, and some follow-up items for your attention.

1983 Soils data: your consultants compared site elevations from three discrete time periods (February 1983, January 1984, and March 1985) to determine which soil samples would still have consistent values, i.e. not disturbed by the 1985 site regrading. Their methodology was presented as follows: of the 1983 soils borings, if a boring was untouched by cuts into the soil, or only had fill placed on top of it and thus remained undisturbed, it could still be considered a valid result for that section of the boring. If any area was cut and filled, that section or interval was considered invalid. A half-contour error factor was used. Based upon this method, your consultants concluded that 21 data points on site have some usable data in the soil column. None of the borings remained wholly undisturbed; only several deeper intervals may remain undisturbed by site grading.

Regrettably, due to the site regrading, most of the 1983 results in the upper portions of each soil boring have been invalidated. The limited data which remains valid may be compared with the EPA soil analyses after our Phase I on-site sampling is completed. As you may recall from our December 1984 meeting, EPA forewarned Montrose that regrading of the

site would invalidate much of your 1983 data, depending upon the extent of cuts, fills, and recontouring. As the 1983 Montrose data does not adequately characterize the vertical and horizontal extent of contamination, and Montrose has consistently opposed the need to conduct the on-site soil sampling EPA considers necessary at this site, EPA is undertaking the soil sampling program specified in the RI/FS workplan.

EPA recently received a request to provide splits of our soil samples to Hargis and Associates. As I explained to Carl Lytz on June 13, EPA's soil samples will travel in sealed brass tubes directly to the laboratory. The laboratory can then forward a true split to a location of your choice, or, if you prefer, your consultants may sample the soil column immediately adjacent to the portion withdrawn in the brass tubes. Please advise us of your preference. As requested by Mr. Lytz, I enclose a copy of the EPA sampling plan and quality assurance project plan.

Groundwater monitor wells: your consultants described the field procedures followed in completing the borings and wells on the site. Upon receipt of their groundwater task report, EPA will determine whether this task has been completed in a manner consistent with the EPA workplan. If so, EPA will not need to install its own wells at the site. Given our schedule for completing this RI/FS as expediently and efficiently as possible, please forward this report to us at your earliest convenience.

As both Montrose and EPA intend to sample the five completed wells in July, we wish to arrange a mutually convenient date for water sampling. At the May 23 meeting, EPA agreed to provide guidance on whether the trace metals samples should be filtered in the field: according to our current practice, we recommend that Montrose not filter but should preserve samples for total metals. If sufficient suction can be achieved, samples for dissolved metals should be filtered and preserved; if sufficient suction cannot be achieved, the samples should not be filtered or preserved in the field.

EPA also agreed to provide available data regarding the geologic sections and water quality results from the nearby Del Amo site. Limited information from the California Department of Health Services, which has lead responsibility for this site, is enclosed. We hope to obtain a copy of the Del Amo RI report from Dames and Moore (a document too voluminous to copy) and make it available to your consultants.

Follow-up items:

1. Three questions were raised in our meeting of May 23 which remain unanswered: does the forthcoming topographic map being prepared by O'Malley predate the placement of aggregate and capping material on the site? were any on-site materials removed from the site? was any fill material brought on to the site? Your consultants confirmed that there is no documentation of materials removed from and refilled at the site, and thus, EPA hereby requests your response to these questions.

2. I must again request a copy of the topographic map and air quality summary report which Montrose has previously agreed to provide to EPA. Please forward these items, and the groundwater task report (including methodology, well-construction details, logs, and analytic results) upon completion to EPA. If we are unable to review these materials, we will have to undertake our own surveying, mapping, air monitoring, and groundwater monitoring well installation tasks.

We have previously relied upon your willingness to provide these documents voluntarily; I am distressed by the continuing delay, and ask that you provide these documents and your response to the above-stated questions no later than July 15, 1985. Until we have had a reasonable opportunity to review all the referenced materials, we are not prepared to review the off-site investigation proposals recently submitted by Montrose. I hope that upon receipt of our on-site soil sampling analyses, we can meet to discuss Montrose's willingness to conduct the Phase II program specified in the EPA RI/FS workplan. Until then, please call me or Therese Gioia (415-974-7465) if you have any questions. Legal matters may be discussed directly with Lisa Haage (415-974-8043).

Sincerely yours,

Alexis Strauss
Chief, Enforcement Section

Enclosure

cc: Latham & Watkins
Hargis & Associated
CA RWQCB
CA DOHS

United States
Environmental Protection
Agency

Regional Administrator
215 Fremont Street
San Francisco CA 94105

Region 9
Arizona, California
Hawaii, Nevada
Pacific Islands

EPA

* * * FACT SHEET * * *

JUN 14 1985
Services
ANGELES

MONTROSE CHEMICAL SITE
UPDATE ON REMEDIAL INVESTIGATION

JUNE 1985

INTRODUCTION

This fact sheet is intended to update you on Remedial Investigation activities at the 17-acre Montrose Chemical Corporation site in Los Angeles, California. DDT was manufactured onsite from 1947 to 1982. Since significant contamination was found both on and off the Montrose property, EPA proposed the site for the National Priorities List (NPL) in October 1984. This action allows EPA to spend federal Superfund dollars for site investigation.

EPA has completed the Sampling and Quality Assurance Project Plans which will be used to direct field activities. These plans were developed as part of EPA's Remedial Investigation/ Feasibility Study (RI/FS) Workplan that was approved in November 1984 and distributed for public review.

RI/FS WORKPLAN

The RI/FS Workplan describes a two part Remedial Investigation involving field sampling and data gathering. Part I sampling activities are scheduled to begin June 17, 1985 and are expected to continue through July 9, 1985. Part II sampling efforts will begin in late 1985 to characterize possible contamination in offsite drainage paths.

Data collected during the Remedial Investigation will be used to characterize the level and extent of site contamination. Based on the results of the Remedial Investigation, a Feasibility Study will be conducted to develop and evaluate cleanup alternatives. The Sampling and Quality Assurance Project Plans describe detailed activities to be carried out in accordance with the approved RI/FS Workplan.

SAMPLING PLAN

The Part I Sampling Plan describes onsite data gathering activities that EPA will begin June 17, 1985. EPA will collect water samples from five onsite wells to determine whether ground water contamination has occurred. These five wells were recently installed by the Montrose Chemical Corporation. Additional ground water samples will be taken by EPA from existing offsite wells.

-more-

The water samples will be analyzed for "priority pollutants". Priority pollutants are a group of 65 chemical compounds EPA has identified as having one or more of the following characteristics: widespread use, persistence in the environment, or significant toxicity. DDT is considered a priority pollutant primarily due to its persistence in the environment and its toxic effects on fish and wildlife.

Soil sampling will also be done according to the Part I Sampling Plan to identify contaminants in the top ten feet of onsite soils.

Results from the Part I sampling program are expected to be available in September 1985. A fact sheet will be issued at that time to summarize sampling results.

QUALITY ASSURANCE PROJECT PLAN

The Part I Quality Assurance Project Plan is a companion document to the Sampling Plan. It describes the field collection procedures and precautions that will be taken to ensure that collected data accurately represent conditions in the soil and ground water. The plan also ensures that sampling results obtained by the described methods are legally defensible.

COMMUNITY INFORMATION

The Sampling and Quality Assurance Project Plans are now available at the following information repositories:

Carson Public Library	Civic Center Library
Attn: Catherine O'Connell	Attn: Judy Harrington
151 East Carson Street	3031 Torrance Boulevard
Carson, CA 90745	Torrance, CA 90503
(213) 830-0901	(213) 618-5959

If you have any questions or comments, or would like to receive additional copies of this fact sheet, please contact:

Timothy John Vendlinski
Community Relations Coordinator
EPA Toxics & Waste Management Division
215 Fremont Street (T-1)
San Francisco, CA 94105
(415) 974-0255

M/F-C

Meeting Summary
Montrose Chemical Company
June 13, 1985

I. Purpose - Discuss recent and planned activities at the site

II. Attendees - See attached list

III. Summary of Discussion

a. Therese Gioia, EPA, summarized the site chronology since Fall 1984.

Oct - Nov 1984: EPA finalizes RI/FS workplan. Expect to receive Health & Safety Plans, OAPP plans, etc. from Montrose

Nov Dec 1984: Montrose does not supply the expected plans. Instead, Montrose submits their own RI/FS plans and grading and capping plans. These plans are not approved by EPA

March 1985: Montrose begins their own unapproved ground water monitoring plan. 5 wells are drilled into a water bearing zone at about 72'. There was no oversight by EPA or the state during drilling.

May 1985 - [illegible] meeting [illegible] Montrose [illegible] and EPA. [illegible]

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were made of from deeper, undisturbed depths.

b. Future work

EPA will begin their RI work on Monday June 17. We have been invited to observe and split samples.

Phase II of RI will begin in Nov/Dec 1985

Phase I sampling plan submitted to State for review.

c. DHS' role

Nestor Aedera explained DHS' role in Montrose. Because Montrose is so close to Del Amo information about the two sites must be shared. Ten other sites in the area have been identified and we may have to consider them a regional problem.

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Montrose Meeting

June 13, 1985

10 a.m., DHS-TSCD LA Office

Name	organization	Phone
Bonnie Teaford	DHS TSCD NCS	213 620 2380
ED BONNETT	SCAQMD	818-572-6195
PAUL LEVINE	METCALF & EDDY, Inc	415-964-7100
RON SHAK	L.A. Dept of Water & Power	213-481-3413
GEORGE MASEEH	LA Dept. of Water & Power	213/481-4017
LEWIS A. SCHINAZI	L.A. Regional Water Qual Cont. Bd.	(213) 620-5604
Therese Gioia	EPA Reg 9	415 974-7465
ALEXIS STRAUSS	US EPA: SUPERFUND	415-974-8915

BOE-C6-0177466

Montrose Meeting

June 13, 1985

10 a.m., DHS-TSCD LA Office

Name	organization	Phone
Bonnie Teaford	DHS TSCD NCS	213 620 2380
ED BONNETT	SCAQMD	818-572-6195
PAUL LEVINE	METCALF & EDDY, INC	415-964-7100
RON SHAK	L.A. Dept of Water & Power	213-481-3443
GEORGE MASEEH	LA DEPT. OF WATER & POWER	213/481-4417
LEWIS A. SCHINAZI	L.A. Regional Water Qual Cont. Bd.	(213) 620-5604
Therese Gioia	EPA Reg 9	415 974-7465
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Montrose Meeting

June 13, 1985

10 a.m., DHS-TSCD LA Office

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RON SHAK	LA. Dept of Water & Power	213-481-3413
GEORGE MASEEH	LA Dept. of Water & Power	213/481-4007
LEWIS A. SCHINAZI	L.A. Regional Water Qual Cont. Bd.	(213) 620-5604
Therese Gioia	EPA Reg 9	415 974-7465
ALEXIS STRAUSS	US EPA: SUPERFUND	415-974-8915

BOE-C6-0177468

Montrose Meeting

June 13, 1985

10 a.m., DHS-TSCD LA Office

Name	organization	Phone
Bonnie Trafford	DHS TSCD NCS	213 620 2380
ED BONNETT	SEAGRAND	818-572-6195
Paul Levine	METCALF & EDDY, Inc.	415-969-7100
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
Lewis A. Schinazi	L.A. Regional Water Quality Control Bd.	(213) 620-5604
Therese Gioia	EPA Reg 9	415 974-7465
ALEXIS STRAUSS	US EPA: SUPERFUND	415-974-8915

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
215 Fremont Street
San Francisco, Ca. 94105

March 11, 1985

Tom Brady, Environmental Advisor
Office of the Mayor
City Hall
Los Angeles, CA 90012

Re: Montrose Chemical Corporation site

Dear Mr. Brady:

Enclosed is information about the Montrose Chemical Corporation Superfund site in Los Angeles. It is located about 2500 feet west of the Del Amo site on Normandie Avenue, and also has been a source of community concern. The following is intended to familiarize you with the situation at Montrose if pertinent issues are raised at the Del Amo public meeting scheduled for later this month.

Background: The Montrose Chemical Corporation of California operated a DDT-manufacturing plant in Los Angeles County from 1947 until 1982. In November, 1982, EPA investigated the site and confirmed DDT contamination in soils onsite and in drainage pathways from the property. Samples of stormwater discharged from the site also contained DDT. As a result of these findings, EPA issued a CERCLA §106 order to Montrose in May, 1983, to eliminate the release of DDT contaminated stormwater from the site.

Montrose, in response to EPA's administrative order, constructed an earthen berm to prevent the release of contaminants by stormwater run-off. They also coated crushed concrete piles (from prior demolition activity) to prevent the spread of airborne DDT contamination. Since that time, EPA and Montrose have been in negotiation regarding further action at the site. Through the course of extensive negotiations, Montrose Chemical Corporation has been unwilling to perform an in-depth RI/FS. Montrose's RI plan, submitted in February, 1985, was unacceptable

due to its lack of detail and narrow scope. Therefore, the Agency plans to eliminate further delay by assuming responsibility for all the RI and FS tasks, thereby ending negotiations.

Montrose has recently paved the site; this "cap" was not approved by EPA. After completing the RI and feasibility study, the long term solution will be chosen by EPA following a public review and comment period.

Enclosed you will find a chronology of events at Montrose since 1982, and a description of the site excerpted from EPA's RI workplan. I hope these documents help familiarize you with the history of the site, and also give you a feeling for the direction of upcoming activities. If you have any questions, call Alexis Strauss, (415) 974-8915, or Barbara Resnick (415) 974-8587.

Sincerely,

Keith Takata

Keith Takata
Chief, Superfund Programs Branch

attachments

cc: ~~N. Acedera, DOHS~~
L. Schinazi, RWQCB

CHRONOLOGY OF EPA ACTIVITIES AT THE MONTROSE SITE

1982

November	- Montrose site investigated by EPA. On- and off-site soil and stormwater runoff samples analyzed to confirm DDT contamination.
December 23	- EPA issues a 3007/104 letter to Montrose.

1983

February	- Montrose response received.
May 6	- Administrative order (106) issued to Montrose Chemical Corporation of California. Montrose ordered to eliminate discharge of DDT from site and to investigate the previously documented on-site soil contamination.
June thru	- Montrose constructs berm to contain August stormwater. Collects on-site soil samples.
August 31	- Montrose submits complete soil sampling results and cost estimates for two remedial alternatives.
September 21	- Montrose submits capping plans.
November	- TES reviews Montrose's sampling results and capping plans. Major deficiencies in capping plans noted, along with recommended changes

1984

January 31	- EPA holds public meeting regarding the capping plans and the sampling results. Community and state/local agencies feel that capping without excavation not a suitable remedy. EPA to require further work at site to support remedy.
January	- EPA HQ sent out first drafts of RI and FS guidance documents. These documents established procedures different from those used with the Montrose site, therefore requiring Region 9 to modify some of its previous decisions.
April	- TES submits to EPA a draft RI/FS Workplan for the Montrose site.

1984 cont'd.

June	- EPA sends copies of the second draft RI/FS Workplan to state/local agencies, the Torrance community and Montrose.
July 3	- EPA meets with state/local agencies and the Torrance community, in separate meetings, to discuss the workplan.
July 31	- EPA and Montrose meet to discuss the RI/FS Workplan and Montrose's technical comments. Discussion involved EPA policy regarding proposed NPL sites and technical differences between the two parties.
August 23	- EPA and Montrose technical representatives meet to discuss the technical aspects of the workplan. TES briefly describes the RI/FS process and presents Montrose with an addendum to the workplan which includes off-site sediment, soil and water sampling requirements.
September 26	- EPA and Montrose meet to discuss Montrose's commitment to undertaking the work laid out in the workplan. Mutually agreed this was first day of RI/FS. Montrose to submit first deliverables within 6 weeks (about November 20), and EPA to deliver workplan to all interested parties by October 15. Montrose again proposes to place temporary cap over the site. EPA agrees to review Montrose's proposal.
September 28	- EPA transmits its requirements which need to be met by Montrose capping plans to receive EPA approval.
October 25	- EPA submits the final RI/FS Workplan to Montrose and all participating state and local agencies.
November 27	- EPA receives Montrose's capping plans.
November 28	- EPA and Montrose meet to discuss Montrose's capping plan. EPA reiterated its criteria and asks Montrose for a commitment to do RI/FS workplan. Instead of commitment Montrose provides EPA with its version of an RI/FS workplan for the Torrance site.

1984 cont'd.

December 11 - Teleconference between EPA and Montrose. EPA position: Montrose's RI/FS workplan is grossly deficient and the capping plans are not acceptable. Montrose requests meeting to discuss in more detail.

December 14 - EPA and Montrose meet to discuss capping plans and RI/FS. EPA informs Montrose that it can not stop it from going ahead with the cap, however, EPA will not support the plan as submitted. EPA disagrees with the amount of site preparation required to place a temporary cover over the site.

Montrose will submit to EPA information which illustrates that no significant grading has occurred on site since the June and August, 1983, sampling. This information will support Montrose's claim that these earlier pieces of data are still valid, therefore limiting the amount of additional on-site soil samples required in the RI.

Montrose is preparing the Health and Safety Plan, Sampling Plan and Quality Assurance Project Plan. No commitment on date of delivery.

December 31 - None of the deliverables discussed in the December 14 meeting were received by EPA by the end of the quarter.

1985

Mid-January	-Montrose began procedures for placement of cap
January 31	-Received topographic maps from Montrose illustrating the pre-cap regrading of site
February 4	-Phone call to remind Karl Lytz to send sampling plan, QAPP, Health & Safety Plan, and aerial photos used to make topographic maps
February 7	-Montrose submits Onsite Groundwater Sampling Plan and Health & Safety Plan for the capping procedures
February 8	-TES contractor submits Final Title Report on the Montrose site--parcels 9 and 10
February 26	-TES contractor submits formal comments on Montrose's Onsite Groundwater Sampling Plan. The plan lacks important details, is not compatible with analyses EPA must perform, and ignores the effects of regrading done during capping.

SITE DESCRIPTION
Section 1

INTRODUCTION

Work plans have been developed for a Remedial Investigation (RI) and Feasibility Study (FS) for the Montrose Chemical Company site in Torrance, California. EPA expects that Montrose Chemical will conduct the field sampling required for the RI, with EPA providing oversight by observing the sampling and collecting and analyzing duplicate samples. EPA will evaluate the sampling results and conduct the Feasibility Study to recommend the appropriate remedial action(s) to mitigate identified public health and environmental effects. The RI/FS is expected to take 14 months.

BACKGROUND

The Montrose Facility site covers approximately 13 acres on Normandie Avenue in Torrance, California (Figure 1). From 1947 to 1982, the pesticide DDT was manufactured and/or processed at this site. Due to its persistence and toxic effects on wildlife, DDT use was banned in the United States in 1972, and it is now listed as an EPA Priority Pollutant. Montrose Chemical has ceased operations and demolished the DDT manufacturing facility and has proposed to redevelop the property as a warehouse facility.

There is evidence that DDT has been released from the Montrose site into the surrounding environment. In 1982, an EPA investigation found DDT in surface water runoff and sediments leaving the Montrose property. High concentrations of DDT have been identified in sewers which received Montrose wastes prior to 1972, and also in portions of the Dominguez Channel and Los Angeles Harbor. It has been reported that grinding of DDT done at Montrose may have resulted in aerial dispersion of DDT throughout the surrounding area.

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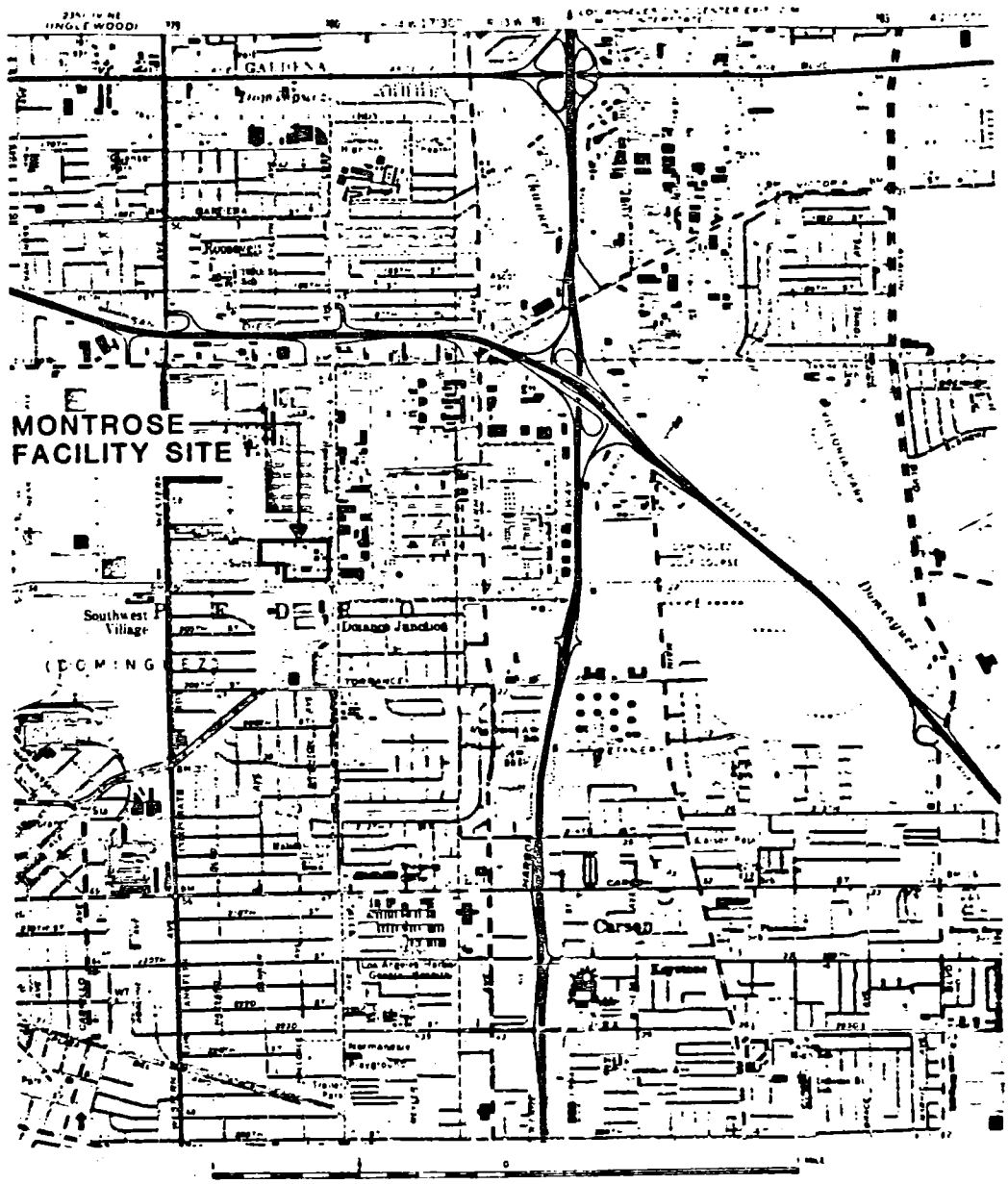

SOURCE: USGS 7.5 MINUTE TOPOGRAPHIC MAP:
TORRANCE, CALIFORNIA, 1972

FIGURE 1. VICINITY MAP - MONTROSE FACILITY SITE
TORRANCE, CALIFORNIA

BOE-C6-0177477

Montrose Chemical is presently under enforcement orders issued by both EPA and the California Regional Water Quality Control Board. The orders, issued as a result of the 1982 investigation, require (1) prevention of DDT releases from the property, (2) sampling soils and surface water, and (3) design and implementation of remedial action. In response, Montrose built a berm intended to prevent stormwater runoff from leaving the property, presented results of a soil sampling program, and submitted its property redevelopment plans, which showed pavement over most of the site. EPA reviewed these redevelopment plans, accepted comments from state and local agencies and the public, and held a public meeting.

The sampling results showed on-site soils to contain 300-400 tons of DDT, with surface soils exceeding state hazardous waste criteria by two to five orders of magnitude. These results provided a basis for EPA to re-evaluate the potential hazard posed by this site, and Montrose has now been proposed for inclusion on the National Priority List, making it eligible for federal funds ("Superfund") for investigation and selection and implementation of remedial action. Due to the extensive public comment received and its status as a proposed Superfund site, the RI/FS work plans will be implemented to ensure that remedial action(s) will be selected in accordance with federal policy as outlined in the National Contingency Plan.

BOE-C6-0177478

WORK PLAN SUMMARIES

Federal policy requires that selection of remedial actions be based on a comprehensive comparison of the possible actions based on effectiveness measures such as:

- Technical status
- Risk and effect of failure
- Level of clean-up/isolation achievable
- Ability to minimize community impacts during implementation
- Ability to meet relevant public health and environmental criteria
- Time required to achieve clean-up/isolation

These assessments are done during the Feasibility Study Phase. Site-specific information is necessary to perform the detailed assessments in the FS; this information is collected during the Remedial Investigation (RI) phase.

Remedial Investigation. A two-part field investigation will be conducted. After reviewing existing data and developing detailed sampling protocols, Part 1 samples of on-site soil and groundwater will be collected and analyzed for a wide range of chemicals to broadly characterize the type and location of contamination. Soil samples as deep as 10 feet will be analyzed, and five monitoring wells will be installed in the uppermost aquifer. Part 1 results will be evaluated by EPA and interested agencies and a list of Target Chemicals will be identified. Subsequent (Part 2) investigations into soil, water, and air quality will be limited to those compounds known to be of concern on the Montrose site.

The objective of the Part 2 sampling is to define the extent and location of contamination in sufficient detail to perform the Feasibility Study. All off-site sampling will be conducted in

BOE-C6-0177479

Part 2, as well as more detailed on-site sampling. Off-site samples will include: surface water and sediment samples along the drainage path from Montrose to the Harbor, sediment samples in the sewers between Montrose and the Water Pollution Control Plant, soil samples in identified former drainage paths from Montrose, soil samples in neighborhoods that may have been affected by aerial dispersion, and air samples from the vicinity of the site. More detailed on-site sampling will include soil samples collected on a denser grid as indicated by the Part 1 results and additional groundwater investigations if the upper aquifer appears to have been contaminated by the Montrose site. A complete RI report incorporating reviews of existing data, and results and evaluation of the Part 1 and 2 sampling programs will be prepared.

Feasibility Study. EPA will review the RI report and public comments on it. A detailed assessment of the public health and environmental risks posed by the site in its present condition (called an Endangerment Assessment) will be performed and objectives for the remedial action(s) will be identified. Several technically feasible remedial alternatives which provide different levels of risk mitigation will then be developed and assessed by the criteria specified above. The most cost-effective - not necessarily the least expensive - remedial alternative will be recommended and described in detail, along with any long-term performance monitoring requirements, in the Feasibility Study report. Final selection of the remedial action(s) will be done by EPA after considering public comments on the Feasibility Study.

BOE-C6-0177480

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
215 Fremont Street
San Francisco, Ca. 94105

3 APR 1985

Mr. Samuel Rotrosen, President
Montrose Chemical Corporation of California
One Metro Plaza (Suite 301)
505 Thornall Street
Edison, New Jersey 08837

Re: Montrose Site on South Normandie, Los Angeles

Dear Mr. Rotrosen:

Following several months of negotiation with representatives of Montrose Chemical Corporation, EPA has decided to undertake the Remedial Investigation and Feasibility Study (RI/FS) described in the EPA Workplan of October, 1984. Accordingly, pursuant to §104(e)(1) of the Comprehensive Environmental Response, Compensation and Liability Act, the Agency hereby requests access to the property at 20201 South Normandie Avenue in Los Angeles for the duration of the Remedial Investigation.

EPA and Montrose have a common interest in determining the nature and extent of contamination at the site, in order to select the final remedy. Unfortunately, the plans submitted by Montrose are, in the best judgment of EPA, inadequate to sufficiently characterize the contamination at the site. In order to satisfy the requirements of the National Contingency Plan, the Agency feels it must carry out a comprehensive investigation, as outlined in its RI/FS Workplan. On September 26, Montrose met with EPA to discuss the RI/FS Workplan being finalized by EPA, and Montrose's commitment to perform the RI/FS. At this meeting, Montrose agreed to submit sampling plans, a quality assurance project plan, and a health and safety plan by November 20, 1984.

Over four months have now elapsed since your receipt in late October of the Final Workplan, which had been substantially revised to accomodate Montrose's comments. During November and December, EPA held two meetings and one teleconference at which the Workplan and the attendant implementation plans to be submitted by Montrose were discussed. However, Montrose instead submitted an unsolicited Remedial Investigation plan intended to parallel the EPA plan. Although Montrose had already verbally committed to developing plans to implement EPA's RI/FS Workplan, the Agency

reviewed the new document, and found its scope and detail inconsistent with the EPA plan. In addition, specific components of the complete RI/FS workplan have not been submitted by Montrose. The sole supporting document submitted, the Onsite Groundwater Sampling Plan, was received at the EPA on February 7, 1985. This documentation is inadequate for us to approve Montrose's conduct of the RI/FS, due to the absence of an Onsite Soil Sampling Plan, the lack of an approvable Quality Assurance Project Plan, Health and Safety Plan, and Hydrogeologic Investigation Plan including groundwater sampling as developed in the EPA workplan.

I had been hopeful we could obtain approvable plans from Montrose, and regret we cannot support your proposals as submitted. Both Montrose and EPA have expended much effort in negotiations and development of RI/FS plans. Due to the apparent lack of consistency in our respective approaches, I believe further reiteration of the process would incur an unacceptable delay. EPA is presently completing preparations to begin on-site work in May. I would therefore appreciate receiving your written approval regarding access for EPA and its contractors no later than April 30, 1985.

EPA will continue to keep Montrose informed of its findings during the course of the RI/FS. Montrose may elect to receive splits and duplicates of field samples taken by EPA. For any further information, please call Alexis Strauss, Chief of the Enforcement Section, at (415) 974-8715, or Lisa Haage, Office of Regional Counsel, at (415) 974-8043.

Sincerely,

Keith Takata

Keith Takata
Chief
Superfund Programs Branch

cc: Latham and Watkins
Hargis and Associates
Acedera, DOHS
Schinazi, RWQCB

Nestor 11/F.4.2

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
215 Fremont Street
San Francisco, Ca. 94105

February 13, 1985

~~David Chase~~
California Department of Health Services
1449 West Temple Street
Los Angeles, CA 90012

Re: Montrose Chemical Company

Dear Mr. Chase:

Enclosed please find the On-Site Groundwater Sampling Plan and Health and Safety Plan submitted to EPA by Montrose Chemical Company. These documents are part of Montrose's response to the EPA workplan for Remedial Investigation and Feasibility Study (RI/FS) which you received.

I will be reviewing them with our contractor early next week. If you have any comments or questions, please let me know by Tuesday, February 19. If Montrose's documents are inadequate, EPA will prepare to undertake the RI/FS.

Eric Koglin, former EPA Project Officer for Montrose, recently transferred to Environmental Monitoring Systems Laboratory (EMSL). I am taking his place. My phone number is 974-8587. Please feel free to call; I am looking forward to working with you.

Sincerely,

Barbara Resnick

Barbara Resnick
Project Officer

cc: RWQCB
LA County DOHS
California DOHS
SCAQMD

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
215 Fremont Street
San Francisco, Ca. 94105

January 8, 1985

Dear Resident:

The purpose of this letter is to advise you of an imminent action to be taken by Montrose Chemical Corporation at its site in Torrance, California.

It is now apparent that Montrose will begin preparations for, and installation of a temporary asphalt cover to be laid over the site. Montrose's plans for this project include some grading of the site and the laying of a 2-3 inch thick asphalt cover over the entire 13-acre tract. The plans provide for controlling dust emissions during grading activities (which would last approximately two weeks), for conducting air monitoring during the operation to ensure that there is no significant airborne release of DDT from the site, and for ensuring that the project will not otherwise result in any significant risk to on- or off-site workers or residents. The South Coast Air Quality Management District has reviewed Montrose's plans, and the District's recommendations have been incoporated.

The asphalt cover project will commence on or about January 14. The project is expected to take approximately six weeks to complete: grading activities will be completed in approximately fourteen working days; laying the asphalt cover will require approximately seven working days; and, start-up operations and site preparatons will require approximately five working days.

Montrose has stated that the reason for this action is their desire to comply as fully as possible with the mandate of a May, 1983 administrative order which required that the company prevent the release of DDT from the site. Although Montrose constructed a retention berm on-site in 1983, there has been some concern that a major storm event during this rainy season might breach the integrity of the existing earthen retention berm, and possibly result in a significant release of DDT from the site. Furthermore, although there is no evidence indicating that the site is releasing DDT through airborne emissions, an asphalt cover would also eliminate any potential for airborne release.

Installation of the asphalt cover, however, is not regarded by EPA as a final remedial action. Montrose has been informed that the final remedial action will be determined only after the completion of the impending full remedial investigation, preparation of a feasibility study, and full public and agency review.

United States
Environmental Protection
Agency

Region 9
215 Fremont Street
San Francisco, CA 94105

Arizona
California
Nevada
Pacific Islands

EPA

Environmental News

MONTROSE CHEMICAL SITE: FINAL WORKPLAN

NOVEMBER, 1984

Attached for your review and information is a summary of the final remedial investigation/ feasibility study (RI/FS) workplan for the Montrose Chemical Site in Torrance, California.

Copies of the complete final RI/FS workplan are available for public review at the following locations:

- Carson Public Library - Reference Desk
  151 E. Carson Street
  Carson, California 90745

- Civic Center Library - Reference Desk
  3031 Torrance Boulevard
  Torrance, California 90503

Any questions you may have should be addressed to:

Steve Drew
Community Relations Coordinator
U.S. EPA
215 Fremont Street
San Francisco, CA 94105

(415) 974-8026

With respect to the impending remedial investigation activities, Montrose has informed EPA that it is now preparing the required sampling plans for the implementation of the remedial investigation. Copies of the sampling plans and health and safety plan will be reviewed by EPA and other agencies, and will be made available for full public review. It is anticipated that Montrose will begin implementing these sampling plans in February, 1985.

Copies of the remedial investigation/feasibility study final workplan are currently available for public review at the following locations:

Carson Public Library - Reference Desk
151 E. Carson Street
Carson, California 90745

Civic Center Library - Reference Desk
3031 Torrance Boulevard
Torrance, California 90503

Should you have any questions, please call me directly at (415) 974-8026, or direct any written correspondence to my attention.

Sincerely,

Steve R. Drew

Steve R. Drew
Community Relations Coordinator
Toxics & Waste Management Division

Management Section
MAY 14 1985
Services
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MONTROSE CHEMICAL CORPORATION
TORRANCE, CA
SUMMARY
REMEDIAL INVESTIGATION/FEASIBILITY STUDY WORK PLAN
NOVEMBER, 1984

INTRODUCTION

Montrose Chemical Corporation manufactured the pesticide DDT on a 17-acre site in Los Angeles, California, from 1947 to 1982. Because DDT is a contaminant in areas both on and off the Montrose property, the Environmental Protection Agency (EPA) placed this site on the proposed National Priority List Update #2 issued October 3, 1984. This action allows EPA to spend federal Superfund dollars for site investigation and cleanup.

BACKGROUND

For 35 years, the pesticide DDT was manufactured and/or processed at the Montrose plant in Los Angeles. Due to its toxic effects on wildlife and its persistence in the environment, DDT was banned in the United States in 1972, and EPA now considers it a Priority Pollutant. Montrose Chemical recently stopped producing DDT, demolished the manufacturing facility, and now proposes to redevelop the site into a warehouse. The site is located in a light-industrial/residential area with about 3,000 people living or working within a quarter mile of the property.

Evidence suggests that DDT has been released from the Montrose site into the surrounding environment. Numerous studies have found unusually high DDT concentrations in fish, shellfish, and sediments in the Los Angeles harbor and Dominguez Channel. In 1982, an EPA investigation found DDT in surface water runoff and sediments leaving the Montrose property. High concentrations of DDT have been identified in sewers which received Montrose wastes before 1972. Also, studies indicate that grinding of DDT at Montrose may have resulted in aerial dispersion of DDT throughout the surrounding area.

As a result of the 1982 investigation, both EPA and the California Regional Water Quality Control Board issued enforcement orders to Montrose Chemical requiring (1) prevention of DDT releases from the site, (2) sampling of soils and surface water, and (3) design and implementation of remedial action. In response, Montrose built a berm intended to prevent stormwater runoff from leaving the property, presented results of a soil sampling program, and submitted its property redevelopment plans showing pavement covering most of the site. EPA reviewed the redevelopment plans and accepted comments from the public, state, and local agencies.

Montrose Chemical's sampling results showed onsite soils containing 300-400 tons of DDT, with surface soils exceeding California's draft hazardous waste criteria by two to five orders of magnitude. Based on these results, EPA reevaluated the threat posed by the Montrose property and placed it on the proposed National Priority List Update #2. Due to extensive public comment and its status as a proposed Superfund site, the October 1984, Remedial Investigation/Feasibility Study Work Plan was prepared and will be implemented to ensure that remedial action is selected in accordance with federal Superfund program policies.

REMEDIAL INVESTIGATION

The purpose of remedial investigation is to characterize the type, degree, and location of chemical contamination of soil, air, surface water, and groundwater resulting from activities at the Montrose site. The investigation will consist of an information gathering phase and a two-part field sampling program and is expected to take 10 to 11 months to complete.

The Part I field program is limited to onsite soil and groundwater sampling. Soil samples will be tested for a large number of compounds to determine the nature of the contamination. Moreover, five monitoring wells will be installed and sampled to determine if contamination has reached groundwater. Following Part I, EPA and interested agencies will review the sample results and identify a list of "Target Chemicals." The Part II investigation will focus attention on these Target Chemicals known to be of concern on and off the Montrose site.

The objectives of the Part II field sampling are to provide more detailed data on Target Chemical concentrations onsite and to define the nature and location of offsite contamination. The offsite program will include:

- Surface water and soil/sediment samples along past and present drainage paths from the Montrose site to the Los Angeles Harbor.
- Sediment samples in sewers between the Montrose site and the Joint Water Pollution Control Plant located in the City of Carson.
- Soil samples in neighborhoods that may have been affected by aerial dispersion of DDT.
- Air samples from the site vicinity.

Before sampling programs begin, several written plans containing specific field and laboratory procedures will be prepared. The Health and Safety Plan will describe measures to protect sampling personnel and workers from increased chemical exposure during field investigation. A Quality Assurance Project Plan will be designed to ensure the reliability of all the environmental monitoring and measurement efforts made during the Remedial Investigation. Sampling plans for each program (soil, groundwater, air, and surface water) will detail sampling methods, define sampling locations, and discuss chemical analyses to be performed. These plans will be developed after reviewing existing sampling data from state and local agencies. Additional information relevant to offsite movement of contaminants such as aerial photographs, sewer plans, and environmental literature will also be reviewed in developing the sampling plans.

FEASIBILITY STUDY

When the Remedial Investigation has been completed, EPA will conduct a Feasibility Study to evaluate the possible cleanup options. Federal policy requires EPA to select a remedial action which is the most cost-effective (not necessarily the least expensive) cleanup option. Cleanup options are screened using effectiveness measures, including:

- Risk and effect of failure.
- Environmental impacts.
- Public health impacts.
- Ability to minimize community impacts during implementation.
- Time required to achieve cleanup.

The Feasibility Study Report is scheduled to be released for public comment in October, 1985. After considering community, state, and local agency response, EPA will select an appropriate remedial action.

MIF A-2

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
215 Fremont Street
San Francisco, Ca. 94105

11 OCT 1984

Mr. David Chase
Toxic Substances Control Division
CA DOHS
107 S. Broadway, Room 7128
Los Angeles, California 90012

Re: Montrose Chemical Company site

Dear David:

I want to give you a brief update regarding the status of the activities for the Montrose site in Torrance, California.

Since our meeting on July 3, 1984, EPA has met with Montrose on three different occasions. At the most recent meeting, on September 26, 1984, EPA was informed that Montrose will install a temporary containment measure on the site. We will forward the the Final RI/FS Workplan to Montrose, you, and all interested parties, by about October 11, 1984. In addition, we agreed that September 27, 1984, was day one of the schedule specified in the draft workplan.

A number of the tasks in the draft workplan have been modified as a result of the comments we received and the discovery of new information. We have incorporated all DOHS's comments into the final workplan, however, we felt that the permeability testing should be done during the Part 2 investigation. Should a ground-water contamination problem be detected during Part 1, then a more comprehensive evaluation of the saturated and unsaturated zones will be done in Part 2.

We anticipate that Montrose will submit its Sampling Plan to EPA, and the State and local agencies, by about November 15, 1984. EPA will be working with Montrose while it prepares the Sampling Plan in order to meet this date and begin the remedial investigation soon thereafter.

If you have any questions about other activites regarding this site please direct them to Alexis or me.

Sincerely yours,

Eric N. Koglin
Superfund Programs Branch

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
215 Fremont Street
San Francisco, Ca. 94105

October 5, 1984

Dear Citizen:

The purpose of this letter is to provide you an update on the Montrose Chemical Site in Torrance, California, and actions being taken to implement the remedial investigation.

As you know, EPA released a draft remedial investigation/ feasibility study work plan for public comment in early June, 1984. While the sampling specified in the draft plan was comprehensive, several commenters suggested expanding the scope of the off-site investigation. EPA considered these comments and held several additional meetings with Montrose representatives to discuss them. The work plan is now being finalized and is expected to be released by mid-October. The final work plan will include additional sampling in the areas requested by commenters.

Comments from community representatives and state and local agencies were both extensive and constructive. At a meeting with EPA on July 3, several community members expressed concern about the following general issues related to the Montrose site:

- control and monitoring of DDT emissions until the final remedial action is accomplished,
- potential for groundwater and drinking water contamination, and
- public exposure in several specific off-site areas.

Questions on details of the remedial investigation were answered, and several residents presented new information which EPA has found useful in defining the off-site sampling program.

Community comments have been addressed as follows. First, Montrose is presently under an enforcement order requiring it to prevent DDT releases from their property. Montrose constructed a berm to retain stormwater, and several parts of the site have already had sealants applied to prevent dust from blowing. The need for further dust control measures is now being evaluated. Second, the potential for drinking water contamination will be given special attention in the early part of the remedial investigation. Testing of all drinking water wells within a 3-mile radius of the site has already been included in the work plan. Third, the investigation has been expanded to include additional soil sampling in residential neighborhoods. Specific locations will be selected based on historical drainage pathways and meteorological conditions.

EPA also met with several state and local government agencies in July. Details of the remedial investigation were discussed and one other major addition to the work plan was suggested:

- Sediment sampling in Dominguez Channel and Consolidated Slip.

In light of new information about planned dredging activities, EPA agrees this information is needed, and it is being added to the work plan.

By mid-November, Montrose is expected to submit a final sampling plan which will be available for public inspection. This plan will specify exact sample locations as well as techniques and quality control measures. At the same time, a health and safety plan will be prepared to protect sampling personnel as well as neighboring residents and workers. All draft plans will be made available for public review at established repositories. EPA and several other agencies will review these plans to be sure they are adequate; once approved, onsite sampling is expected to begin in December.

As soon as the remedial investigation work plan is available you will hear from us again. Complete copies of the final work plan (and later, the sampling and health and safety plans) will be available for public reivew at the following locations:

Carson Public Library - Reference Desk
151 E. Carson Street
Carson, California 90745

Civic Center Library - Reference Desk
3031 Torrance Boulevard
Torrance, California 90503

Should you have any questions in the meantime, please call me at (415) 974-8026 or direct any written correspondence to my attention.

Sincerely,

Steve R. Drew

Steve R. Drew
Community Relations Coordinator
Toxics & Waste Management Division

OCT 15 1987

BOE-C6-0177492

Carry - File

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
215 Fremont Street
San Francisco, Ca. 94105

October 5, 1984

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Civic Center Library - Reference Desk
3031 Torrance Boulevard
Torrance, California 90503

Should you have any questions in the meantime, please call me at (415) 974-8026 or direct any written correspondence to my attention.

Sincerely,

Steve R. Drew

Steve R. Drew
Community Relations Coordinator
Toxics & Waste Management Division

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
215 Fremont Street
San Francisco, Ca 94105

28 SEP 1994

David Mulliken, Esquire
Latham and Watkins
701 B Street, Suite 2100
San Diego, California 92101-8197

Re: Montrose Chemical

Dear Mr. Mulliken:

At the meeting of September 26, you and your client advised EPA that Montrose may undertake additional containment measures at its Torrance facility prior to initiating the Remedial Investigation.

EPA understands that the completion of the proposed containment measure may require a substantial amount of grading. The aerial dust emissions resulting from the grading of the on-site soils may pose an unnecessary risk of exposure to DDT to workers at the site, to the surrounding community, and to the environment. Therefore, EPA requires that no on-site soils be moved from their present location. The crushed concrete is the only material which may be moved to different locations on the site. Further, three weeks prior to the initiation of any site activity, Montrose shall submit written notice to EPA regarding the expected starting date and the following items:

1. Design of the containment measure, including type of structure being considered, types of materials to be used, and all other pertinent facets of the design process.

2. A Health and Safety Plan.

3. A Grading Plan. This plan shall identify how and where all the crushed concrete is to be used, the amount of material imported for fill, and the measures to control emission of dust when the crushed concrete is moved or vehicles are driven on the site.

4. The plan shall include a topographic map, constructed with a 1-foot contour interval, indicating the topography of the site prior to implementation of the containment measure.

5. An Air Monitoring Plan. This plan shall incorporate those requirements imposed by the South Coast Air Quality Management District and those in Task 15 of the RI/FS Workplan.

6. A Stormwater Management Plan. Some containment measures may cause increased storm water runoff from the site. The increased discharge from the site may cause an unacceptable amount of scouring and transport of contaminated sediments lying in the drainageways between the southern boundary of the Montrose site and Farmers Brothers Coffee Company. Therefore, any design plans for containment measures should also include provisions for control of stormwater discharge from the site.

Within 14 days of completion of its containment measure, Montrose shall provide EPA with a brief summary of the construction activities and 2 additional maps. One map will show the actual topography of the site, with a 1-foot contour interval, after completion. The other map will show the variation in fill thickness around the site and where the crushed rock or imported fill material or both were distributed.

EPA acknowledges this containment measure to be temporary, pending completion of the RI/FS and selection of the appropriate remedial action by EPA. This may require complete removal of any temporary containment structures in order to implement the selected remedial action.

Please direct any questions to James L. Jaffe of the Office of Regional Counsel at (415) 974-8037.

Sincerely yours,

for Harry Seraydarian
Director
Toxics and Waste Management Division

cc: Chase, DOHS
Schinazi, RWQCB
Bonnett, SCAQMD
Schumann, DWP
Steele, DF&G
Hargis, Hargis and Assoc.

BOE-C6-0177496

STATE OF CALIFORNIA—HEALTH AND WELFARE AGENCY

GEORGE DEUKMEJIAN, Governor

DEPARTMENT OF HEALTH SERVICES
714/744 P STREET
SACRAMENTO, CA 95814
(916) 324-3773

July 18, 1984

Mr. Eric Koglin
Superfund Programs Branch
USEPA, Region IX
215 Fremont Street
San Francisco, CA 94105

Dear Mr. Koglin:

Enclosed are data which you requested in our recent telephone discussion regarding the Montrose and Del Amo sites. Enclosure 1 summarizes the off-site sampling program performed by the Department (including analytical results). Enclosure 2 is a copy of the hydrogeologic report prepared by E&E as part of the technical assitance provided by EPA to the Department. This report was especially helpful to me while assessing hydrogeolgic conditions at the site and potential for groundwater contamination. In addition, the recent site investigation report prepared by Dames & Moore/Radian Corporation for Cadillac Fairview contains valuable groundwater data. Your legal counsel, Bill Wick, received a copy of the report which you can obtain for review.

Additional information which relates to Del Amo will be forwarded to you as it becomes available for possible use in the Montrose investigation. Any information you can provide for the Department's investigation of Del Amo would be greatly appreciated.

Feel free to contact me at (916) 324-2437.

Sincerely,

Jan Meyer

Jan Meyer
Waste Management Specialist

Enclosures

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
215 Fremont Street
San Francisco, Ca. 94105

16 JUL 1984

Mr. Angelo Bellomo
Chief, Southern California Section
Toxic Substances Control Division
Department of Health Services
107 South Broadway, Room 7012
Los Angeles, CA 90012

Dear Mr. Bellomo:

On July 3, 1984, DOHS and EPA staff met with various state and local agencies to discuss the draft workplan for the Montrose Chemical Company RI/FS. In general, each agency endorsed the workplan, with the following modifications: off-site soil sampling will be expanded to include the Dominguez Channel/consolidated slip area, and the RI should include tests to determine the aquifer characteristics.

In the afternoon, EPA met with community representatives to discuss the workplan. The following is a summary of the main points discussed at the meeting:

1. Off-site soil sampling: More off-site soil sampling in the neighborhood was requested. The community felt that previous County/State sampling did not adequately characterize the extent of off-site soil contamination. An abandoned drainage ditch once apparently used by Montrose to dispose of liquid wastes was identified. EPA will investigate this and modify the workplan as necessary.

2. Groundwater sampling: The community requested that EPA and DOHS interact more closely when groundwater samples are collected in the Torrance area. They would like the Gage, Linwood and Silverado aquifers sampled as part of the Montrose RI. They were concerned about contaminants entering these aquifers where the impermeable zones pinch out and the aquifers converge. EPA pointed out that Task 3 of the Montrose workplan includes a well inventory, in which any wells pumping from these various zones will be identified. EPA monitoring wells installed for the RI will only penetrate the "semiperched" zone nearest the surface, unless the results of our investigation indicate the need for deeper monitor wells.

3. Dust Control: The community is still concerned about the current DDT air emissions. The community wanted some measure to control aerial emissions until the remedial action abates the problem. EPA committed to evaluating available methods for dust control and will include one in the workplan. We have also informed Montrose of the apparent inadequacies of its dust cover.

4. DDT cleanup levels: The community feels that 5 ppm DDT in soils is not an adequate clean-up level and wants a remedial action which would provide for clean-up to at least the 1 ppm level. CAM levels for DDT are unacceptable to them, as they were not intended for residential property. EPA has not established a clean-up level and will not until the FS is completed. We hope to receive your assistance in determining an appropriate level.

5. Del Amo: Much of the discussion focused on the problems regarding the Del Amo facility. They pointed out a few topics of concern:

   A. The community would like to be kept more informed on activities regarding the Del Amo facility, through improved community relations by DOHS.

   B. The community stated that following winter rains, aerial emissions of organic solvents (benzene) from Del Amo increase to intolerable levels. They feel that DOHS should monitor these emissions and provide the community with analytic results.

   C. They felt that any groundwater samples collected for either the Del Amo or Montrose investigations should be analyzed for constituents common to both sites. EPA's analytic parameters are described in the Montrose workplan.

In addition to this summary, I want to remind you of the commitment you made on behalf of DOHS at the January community meeting in Torrance to more closely examine the effects of past aerial emissions on the surrounding community. It would be most helpful to learn of any DOHS plans in this regard as we begin our remedial investigation. DOHS also committed to tap-water sampling in the neighborhood, and apparently forwarded these results to community representatives. We would appreciate receiving a copy of these results when convenient. Lastly, we are not clear regarding DOHS's posssible closure requirements for this site. In January, DOHS committed to forwarding closure plan comments to Montrose. If DOHS will impose closure requirements upon Montrose, please let us know.

I believe that we need to make a concerted effort to improve our community relations efforts at these two sites. Our community relations liaison regarding the Montrose facility is Steve Drew

(415) 974-8026 and the EPA Project Officer is Eric Koglin (415) 974-8919. Please direct any questions or comments to either Steve, Eric, Alexis or me.

Sincerely yours,

Keith Takata

Keith Takata
Chief, Superfund Programs Branch

cc: Schinazi, RWQCB
Bailey, DOHS
Meyer, DOHS
Bonnett, SCAQMD
Steele, DFG
Schumann, DWP

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
215 Fremont Street
San Francisco, Ca. 94105

16 JUL 1984

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Toxic Substances Control Division
Department of Health Services
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(415) 974-8026 and the EPA Project Officer is Eric Koglin (415) 974-8919. Please direct any questions or comments to either Steve, Eric, Alexis or me.

Sincerely yours,

Keith Takata

Keith Takata
Chief, Superfund Programs Branch

cc: Schinazi, RWQCB
Bailey, DOHS
Meyer, DOHS
Bonnett, SCAQMD
Steele, DFG
Schumann, DWP

STATE OF CALIFORNIA—HEALTH AND WELFARE AGENCY

GEORGE DEUKMEJIAN, Governor

DEPARTMENT OF HEALTH SERVICES
107 SOUTH BROADWAY, ROOM 7128
LOS ANGELES, CA 90012
(213) 620-2380

July 6, 1984

PROGRAM MANAGEMENT SECTION
JUL 11 1984
TOXIC SUBSTANCES CONTROL DIVISION

Ms. Alexis Strauss (T-4-2)
U.S. EPA - Region IX
Toxics and Waste
Management Division
215 Fremont Street
San Francisco, CA 94105

Dear Ms. Strauss:

MONTROSE, TORRANCE, CALIFORNIA REMEDIAL INVESTIGATION WORKPLAN

We have completed our review of subject workplan and have no significant comments. We find the plan to be comprehensive and addresses all areas of concern to us. The products of the activities under this workplan should provide the agencies good basis for making decisions concerning the site's mitigation.

We do make the following suggestions:

1. The scope of the off-site sampling should be expanded to identify the extent of migration for the target chemical contaminants.

2. The Hydrogeologic Investigation, Part I (p 2-15), should include permeability testing of the drilling cores.

3. The preliminary report of the hydrogeologic investigation (p 2-19) should include a water table and potentiometric map. A tabulation which provides information on aquifer properties such as hydraulic conductivity and transmissivity would also be helpful.

We thank you for giving us the opportunity to review this document.

Sincerely,

Nestor O. Acedera, Manager
Assessment & Mitigation Unit
Southern California Section
Toxic Substances Control Division

cc: See attached list

cc: Anastacio Medina
Los Angeles County Health
2615 South Grand Ave., 6th Floor
Los Angeles, CA 90007

Ed Camarena
South Coast Air Quality
Management District
9150 E. Flair Drive
El Monte, CA 91731

Bob Ghirelli
Regional Water Quality
Control Board
107 South Broadway, Rm. 4027
Los Angeles, CA 90012

Jan Meyer
Program Management Section
Toxic Substances Control Division
714/744 P Street
Sacramento, CA 95814

Jim Steele
California Department of
Fish and Game
Marine Research
245 West Broadway, Suite 350
Long Beach, CA 90802

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 9

In the Matter of MONTROSE CHEMICAL CORPORATION OF CALIFORNIA (UNION, NEW JERSEY), Respondent. Proceeding Under Section 106(a) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (42 U.S.C. §9606(a)) and Section 3013 of the Resource Conservation and Recovery Act (42 U.S.C. §6934)	)	ORDER Docket No. 83-01

'83 MAY 11 PM 12:20

JURISDICTION

The following Order is issued on this date to Montrose Chemical Corporation of California, P.O. Box E, Union, New Jersey (hereinafter referred to as Respondent), pursuant to the authority vested in the President of the United States by §106(a) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), 42 U.S.C. §9606(a), delegated to the Administrator of the United States Environmental Protection Agency (EPA) by Executive Order Number 12316 (August 20, 1981, 46 FR 42237), and redelegated to the Regional Administrator, EPA Region 9. The following Order is also issued pursuant to the authority vested in the Administrator contained in §3013 of the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. §6934, and delegated to the Regional Administrator, EPA Region 9. Notice of the issuance of this Order has heretofore been given to the State of California.

BOE-C6-0177506

FINDINGS OF FACT

1. Respondent is the current owner and operator of a facility located at 20201 South Normandie Avenue in Torrance, California.

2. Respondent has engaged in the generation, storage, and disposal of hazardous substances/waste.

3. Respondent has manufactured, formulated, ground and distributed dichloro diphenyl trichloroethane (DDT) at its facility from 1947 to 1982. Respondent has ceased operations, and is dismantling its facility.

4. Following an extensive review of the health and environmental hazards of DDT, EPA decided in 1972 to ban its further use in the United States. This decision was based in part on several well evidenced properties such as:

   A. DDT and its metabolites DDD and DDE (hereinafter referred to as DDT) are toxicants with long-term persistence in soil and water;

   B. DDT is widely dispersed by erosion, runoff and volatilization; and

   C. DDT exhibits low water solubility and high lipophilicity which results in concentrated accumulation in the fat of wildlife and humans at concentrations which may be hazardous.

5. DDT is a hazardous substance as defined by §101(14) of CERCLA, and a hazardous waste as defined by §1004(5) of RCRA.

BOE-C6-0177507

6. On August 5, 1980, Respondent notified EPA of its hazardous waste activity as required by RCRA. That notification indicated that Respondent generated, treated, stored and disposed of the following wastes:

EPA Hazardous Waste Number	Description
D002	Corrosive
U034	Chloral
U037	Chlorobenzene
U061	DDT

7. On November 11, 1980, Respondent submitted a RCRA Hazardous Waste Permit Application as part of a Consolidated Permits Program Application to EPA. Respondent's application estimated that it annually produced 50,000 tons of corrosive hazardous waste which was stored in tanks. Respondent further stated that, "There may be rain runoff discharges possibly subject to NPDES requirements. The extent to which such storm water discharges should be subject to permitting requirements is presently under discussion with EPA."

8. On December 22, 1980, EPA conducted a RCRA Interim Status Standards Investigation. During this investigation a spokesman for Respondent stated, "that a series of underground collection tanks, each with 20,000 gallon capacity, are emptied every day by pumping into 50,000 gallon storage tanks. All runoff is gathered in an open concrete pit and recycled."

9. The California State Mussel Watch (SMW) Marine Monitoring Program, in cooperation with the California State Water Resources Control Board, monitors the accumulation of trace

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metals and synthetic organic toxicants in marine mussels. The SMW Program Report for 1980-1981 shows elevated levels of DDT within the Los Angeles-Long Beach Harbor area. Late 1981 SMW data indicated that the highest levels of DDT in mussels within Los Angeles Harbor were found at the Dominguez Channel station (top of Consolidated Slip in Los Angeles Harbor). These data suggest that Dominguez Channel may be a significant source of DDT, as observed in the indicator organism Mytilis sp. (mussels).

10. Since 1977, the Los Angeles Flood Control District has routinely sampled at Torrance Lateral at Main Street, a tributary of Dominguez Channel, approximately 1.5 - 2 miles downstream of Respondent's facility. The analysis of water samples at this location shows elevated levels of DDT, particularly during periods of stormwater flow.

11. On November 23, 1981, California Department of Fish and Game took three soil and two water samples at Respondent's facility (both on-site and off-site). Analysis of these samples indicated DDT concentrations as high as 1410 parts per billion (ppb) in water and 8274 parts per million (ppm) in soil.

12. On November 9, 1982, EPA initiated a field investigation of Respondent's facility to determine whether hazardous substances/waste were being released to the environment in combination with stormwater runoff from the facility.

13. The investigation revealed that DDT is leaving Respondent's facility via stormwater runoff. This discharge enters a

BOE-C6-0177509

catchbasin at Farmers Brothers Coffee Company approximately 500 feet south of Montrose. The underground storm drain system runs for approximately 3/4 mile, where it discharges into the Torrance Lateral Flood Control Channel. This channel then runs for about 2 miles to the Dominguez Channel, a tributary of Los Angeles Harbor and San Pedro Bay, and the Pacific Ocean.

14. On November 9, 1982, water samples were collected downstream of the facility. While the analysis significantly underestimates the quantity of DDT (a portion of the insoluble fraction was not measured), concentrations of 209 to 360 ppb were found in surface waters leaving the site, and 695 ppb was found in water ponded off-site.

15. On November 10, 1982, off-site soil samples were collected. Analysis of these samples has revealed that soils off-site have been contaminated by DDT to levels as high as 1975 ppm. These contaminated soils are readily accessible to the public, as the area is unfenced and residential areas are located within 500 feet.

16. On December 23, 1982, EPA notified Respondent that it had sufficient reason to believe that a release of hazardous substances may have occurred and that there continues to exist the threat of additional releases of such substances to the environment. In addition, EPA requested that Respondent provide specific information pertaining to these releases.

17. On February 4, 1983, Respondent provided information to EPA which documents the following:

BOE-C6-0177510

A. On November 9, 1982, Respondent took three water samples downstream of the facility. Analysis of these samples by one laboratory indicated DDT concentrations as high as 3260 ppb; analysis by another laboratory showed DDT concentrations as high as 1290 ppb.

B. In January 1982, Respondent sampled stormwater runoff downstream of the facility. The total DDT concentration found was 130 ppb.

C. A January 25, 1982 environmental audit of Respondent's facility noted that the facility did not have adequate spill containment and that stormwater collected on site would be likely to drain to the city storm sewer system, [Los Angeles] harbor and the Pacific Ocean.

D. On November 23, 1981, California Department of Fish and Game took three soil and two water samples at Respondent's facility (both on-site and off-site). Duplicate samples were provided to Respondent. Respondent's analysis of these samples indicated DDT concentrations as high as 40,000 ppm in soil and 30,000 ppb in water.

E. In October 1981, Respondent took seven soil samples on the perimeter of the facility. DDT concentrations were found as high as 1940 ppm.

F. In August 1981, Respondent took 14 soil samples on-site and off-site at the facility. Two separate laboratory analyses were performed which showed DDT concentrations as high as 1883 ppm and 7500 ppm, respectively.

BOE-C6-0177511

G. In May 1981, Respondent took 37 soil samples on-site and off-site at the facility. Two separate laboratory analyses were performed which showed DDT concentrations as high as 2830 ppm and 7600 ppm, respectively. One laboratory also reported monochlorobenzene (MCB) levels as high as 720 ppm.

H. Following a MCB spill adjacent to Respondent's facility, on February 24-26, 1981, the California Department of Health Services took seven water residue samples off-site at the facility. Analysis showed DDT concentrations as high as 98 ppm and MCB levels as high as 84 percent.

18. MCB is a hazardous substance as defined by §101(14) of CERCLA, and a hazardous waste as defined by §1004(5) of RCRA.

19. Following a determination of the full extent of contamination, EPA will assess alternative remedial measures consistent with the National Contingency Plan. Following completion of the alternatives assessment, EPA will determine the remedial measures needed to remedy the contamination from DDT and MCB releases to the environment, and which are necessary to protect public health and the environment. EPA may then issue a new or revised enforcement action to implement these remedial measure(s).

DETERMINATION

Upon the basis of the foregoing Findings of Fact, the Regional Administrator has determined that there may be an imminent and substantial endangerment to the public health or welfare or the environment due to releases and threatened releases of

BOE-C6-0177512

hazardous substances from a facility located at 20201 South Normandie Avenue, Torrance, California, a facility within the meaning of §101(9) of CERCLA. The Regional Administrator has also determined that the presence of hazardous waste at the facility and release of hazardous waste from the same facility may present a substantial hazard to human health or the environment.

EPA has further determined that Respondent is a person responsible for conducting the actions ordered herein, which are necessary to protect the public health and welfare and the environment and to ascertain the nature and extent of the hazard.

ORDER

Based upon the foregoing Determinations and Findings of Fact, it is hereby ordered and directed that Respondent shall (I) cease the discharge of DDT-contaminated stormwater, and (II) submit and implement a Sampling Plan to determine the extent of DDT contamination. Specifically:

I. A. Respondent shall immediately take action in order to discontinue the releases of DDT isomers and metabolites (hereinafter referred to as DDT) which are contained in stormwater discharges leaving the facility. This must be accomplished by: use of containment barriers, diversion structures, and pumping and treatment facilities or equivalent methods. Respondent shall notify EPA of the actions taken to cease the discharge within 30 days of the effective date of this Order. However, Respondent shall notify EPA immediately upon selection of the method to be used to cease DDT releases.

BOE-C6-0177513

B. Until the actions specified in Section I above are completed, Respondent shall immediately initiate an on-site and off-site monitoring program (including sampling and analysis) of stormwater discharges resulting from each storm event and report the results in writing to EPA within 10 days of the date the samples were taken.

C. Stormwater discharges shall be contained within 30 days.

II. Respondent shall carry out monitoring, testing, analysis, and reporting designed to determine the full nature and extent of the water and soil contamination resulting from the continued release of DDT from the facility. Specifically, Respondent shall:

A. Within 30 days of the effective date of this Order, prepare and submit to EPA for approval a written Proposal to conduct a comprehensive sampling and analysis program designed to support subsequent remedial actions. This Proposal shall also identify and determine the extent to which remedial actions may be necessary to abate DDT and MCB contamination of waters, surface soils and subsurface soils, both on and off of the facility. This Proposal shall also include provisions for gaining access to and obtaining samples from adjacent properties which may have been contaminated with DDT and MCB. The Proposal shall include the following:

(1) a sufficient number of sample locations in order to define the extent of the contamination and to provide the data required to enable the proposal of remedial cleanup alternatives;

BOE-C6-0177514

(2) sampling protocols for water and soil;

(3) analytical and quality control protocols for the sampling program, including:

(a) adequate sample identification;

(b) sample preservation techniques;

(c) chain of custody;

(d) use of the analytical methods set forth in Attachments A and B, for DDT and MCB, respectively;

(e) identification of person(s) conducting the sampling and analysis;

(4) retention of, and submission to EPA upon request, splits of all samples taken pursuant to this Order; and

(5) identification and maintenance of all splits in accordance with the protocols specified (3a,3b, and 3c) above.

(6) precautions which will be taken to insure the health and welfare of the individuals associated with the field work and laboratory analyses;

(7) precautions which will be taken during sampling to insure the health and welfare of the surrounding community.

B. Upon EPA approval of the Proposal specified in II.A above, with any modifications EPA deems reasonable to ascertain the nature and extent of the hazard, immediately implement the approved Proposal.

C. Complete all work (including sample analyses) as set forth in the approved Proposal within 45 days after receipt of EPA approval of the Proposal.

D. Submit to EPA a written report describing the data collected and findings made within 60 days after receipt of EPA approval of the Proposal.

BOE-C6-0177515

EFFECTIVE DATE -- OPPORTUNITY TO CONFER

Except as otherwise provided below, this Order is effective immediately upon the date of receipt thereof by Respondent. All times for performance of response activities shall be calculated from that date.

You may request a conference to be held within fourteen (14) calendar days after receipt of this Order, to discuss Section I of the Order; its applicability to you; the correctness of any factual determinations upon which the Order is based; the appropriateness of any action which you are ordered hereby to take; and any other relevant and material issue. If you request a conference, this Order will not become effective until the expiration of the said fourteen day period. However, you are hereby placed on notice that EPA may take any action, including the actions described in Section I of this Order, which may be necessary for the protection of public health and welfare and the environment, and you may be liable under §107(a) of CERCLA for the costs of those government actions.

You are required to submit to EPA the Proposal in Section II of the Order for accomplishing the required monitoring, testing, analysis, and reporting; in accordance with §3013 of RCRA; within 30 days from the issuance of the Order. Under provisions of Act, you are entitled to request a conference with EPA. After an opportunity to confer, you are required to conduct the approved plan.

At any conferences held pursuant to your request, you may appear in person and/or you may be represented by attorney or

BOE-C6-0177516

other representatives for the purpose of presenting any objections, defenses or contentions which you may have regarding this Order. If you desire such conferences, please contact Harry Sereydarian, Director, Toxics and Waste Management Division, U.S. Environmental Protection Agency, Region 9, 215 Fremont Street, San Francisco, California 94105, (415)974-7640, within the time set forth above for requesting a conference.

PENALTIES FOR NON-COMPLIANCE

You are advised that willful violation or failure or refusal to comply with Section I of this Order, or any portion hereof, may subject you to a civil penalty of not more than $5,000.00 for each day in which violation occurs or such failure to comply continues in accordance with §106(b) OF CERCLA. Failure to comply with Section I of this Order, or any portion hereof, without sufficient cause, may also subject you to liability for punitive damages in the amount of three times the total of all costs incurred by the government as a result of your failure to take proper action in accordance with §107(c)(3) of CERCLA.

In addition, you are advised that EPA may in accordance with §3013(e) of RCRA, commence a civil action in a United States District Court, if you fail or refuse to comply with Section II of this Order. Such Court shall have jurisdiction to require compliance with Section II of this Order and to assess civil penalties not to exceed $5000.00 per day for each day that failure or refusal to comply occurs.

BOE-C6-0177517

WITNESS my hand in the City of San Francisco, State of California, as Regional Administrator of the United States Environmental Protection Agency, Region 9, on this _____ day of _____, 1983.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Original Signed by:

By: _____

SONIA F. CROW
Regional Administrator

BOE-C6-0177518

SUPERFUND
Torrance, CA
(Los Angeles Co)
Daily Breeze
(Cir D 86,954)
(Cir. Sun 102,409)

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Toxic waste cleanup hangs in balance as Congress battles

By Marcés Stern
Copley News Service

WASHINGTON — A bill to renew and expand the controversial federal Superfund program to clean up U.S. hazardous waste sites is the focus of a fierce House battle over how much freedom to give the Environmental Protection Agency in running the program.

The bill, being considered this week by the House Energy and Commerce Committee, would result in little progress toward cleaning up the nation's growing number of toxic waste dumps, said Rep. James J. Florio, D-N.J.

But supporters of the measure say tougher legislation would bind the EPA to unrealistic timetables and standards, dooming the program.

The bill would renew the five-year-old Superfund program — due to expire Sept. 30 — and increase its funding level to $10 billion, up from $1.6 billion over the past five years. A separate bill authorizing $7.5 billion awaits action on the Senate floor.

The Superfund debate will determine how fast the federal government cleans up toxic waste sites.

California's stake in the outcome is considerable, because it has the third-highest number of sites on the EPA's national priorities list.

Many of California's 60 highly toxic sites are at Santa Clara County microchip plants and on military bases around the state. But several, including Montrose Chemical Corp. in the Los Angeles city strip near Torrance and Stringfellow acid pits in Riverside County, are in Southern California.

Although the EPA has placed fewer than 800 sites on its national priorities list, the agency estimates that about 2,500 sites may require Superfund money at a cost of about $22 billion to the federal government. The congressional Office of Technology Assessment, however, puts the number of sites near 10,000 and predicts the cost will exceed $100 billion.

In the House, the reauthorization effort has been marked by internecine squabbling among key Democrats, as well as a fierce lobbying battle between environmentalists and the combined forces of the chemical and insurance industries.

At the center of the House feud is Florio, who is pushing for a tougher bill, and Rep. Dennis Eckart, D-Ohio, who is the author of the pending bill. Energy and Commerce Committee Chairman John Dingell, D-Mich., backs the Eckart bill.

Florio, whose home state of New Jersey has the nation's largest number of [illegible] toxic dumps, said the House [illegible] needed to ensure the EPA [illegible] cleanup efforts.

"The principle of accountability has to be built into the law," Florio said in an interview. "We have worked from the premise that the EPA would make a good-faith effort and that premise has not been vindicated."

Florio, one of the principal architects of the 1980 Superfund act, said the agency has cleaned up only six sites while spending $1.6 billion in the first five years of the program. Further, he said the EPA has begun work at less than 10 percent of the almost 800 sites designated by the agency as high priorities.

Close to half of the $1.6 billion was spent on administrative costs unrelated to any specific site, Florio contended.

The EPA's management of the Superfund program made headlines in 1983, when members of Congress charged EPA officials with dragging their feet in cleanup efforts and making "sweetheart deals" with companies responsible for some of the toxic dump sites.

The allegations and ensuing investigations led Anne M. Burford to resign as EPA administrator.

"My fear is that we'll be sitting here five years from now with only another six sites cleaned up and it will have cost us $10 billion," Florio said.

In particular, Florio wants the bill to include mandatory deadlines and strict cleanup standards for the EPA. He also wants to give private citizens greater rights to sue illegal dumpers, and says governments should have the authority to force manufacturers and users of toxic wastes to disclose information about potentially toxic substances in their communities.

The House Energy and Commerce Committee on Thursday reached a compromise requiring the EPA to begin cleaning up some 550 toxic sites over the next six years. The bill had included no timetables. Florio had been asking for 600 cleanups over five years.

The pending House bill would pre-empt any local ordinances from exceeding the "right to know" provision in the reauthorization bill. Florio contended the provision in the House bill is substantially [illegible] than many local ordinances.

[illegible]

Florio [illegible] wants the bill to [illegible]

[illegible]

BOE-C6-0177519

Ca

When Eckart's bill was considered last month by an Energy and Commerce subcommittee, [illegible] tempted to incorporate [illegible] into the bill.

[illegible] and Eckart [illegible] support from [illegible] Republicans and [illegible] Democrats [illegible]

[illegible]

[illegible] unlikely to [illegible]

[illegible]

Montrose Chemical Corporation of California

One Metro Plaza (Suite 301)
505 Thornall Street • Edison, New Jersey 08837 • (201) 494-7522

July 20, 1984

United States Environmental
Protection Agency
215 Fremont Street
San Francisco, California 94105

ATTN: Alexis Strauss (T-4-2)

Re: EPA Second Draft Work Plan -
Montrose Torrance Facility

Dear Ms. Strauss:

Enclosed are the detailed technical comments of Hargis & Associates, Inc., technical consultants to Montrose Chemical Corporation of California, addressing the Second Draft Work Plan for Montrose's Torrance facility, which has been prepared by EPA's contractor, Metcalf & Eddy, (the "Work Plan"). It must be noted, however, that Montrose's ability to respond fully to this Work Plan in a timely fashion has been significantly constrained in several regards: (1) the first draft Work Plan was never forwarded to Montrose, (2) the Second Draft Work Plan dated May 31, 1984 was not received by Montrose until June 13, 1984, (3) the public comments received by EPA on the Work Plan were entirely oral and were conveyed during meetings to which Montrose was not a party, and (4) EPA has denied Montrose's Freedom of Information Act ("FOIA") request to obtain documents potentially relevant to the assessment of hazards which may underly the Work Plan. When the documents sought in the FOIA request are supplied, and oral public comments conveyed to the Agency, but not to Montrose, have been analyzed by Montrose, a supplement to these comments may be appropriate.

While the Hargis & Associates comments focus exclusively on technical issues raised by the draft Work Plan, Montrose wishes to address in a summary manner several broader concerns it has regarding the policy considerations and rationale underlying the need for the Remedial Investigation/Feasibility Study (RIFS) which this Work Plan contemplates being done. First, Montrose questions the

legal justification for the RIFS in its present scope and form. Second, the RIFS Work Plan ignores the EPA-sanctioned investigative work and remedial analysis already undertaken by Montrose both on-site and off-site. Third, the Work Plan will result in unacceptable delay in implementing on-site remedial measures which uncontrovertedly will eliminate any hazards associated with on-site conditions. Finally, the Work Plan requires an investigation out of proportion to the hazards allegedly documented at the Torrance facility.

Initially, Montrose questions the legal justification for the RIFS which the draft Work Plan requires. Since May, 1983, Montrose has undertaken investigative activity and evaluation of remedial options at the Torrance facility pursuant to the requirements of administrative orders issued by EPA under Section 106 of the Comprehensive Environmental Response and Liability Act (CERCLA) and Section 3013 of the Resource Conservation and Recovery Act (RCRA), and by the Los Angeles Regional Water Quality Control Board pursuant to Section 13304 of the California Water Code (the "Administrative Orders"). Nevertheless, subsequent to the time of an EPA-sponsored public meeting concerning the Torrance facility in late January, 1984, EPA has refused to take affirmative action as contemplated in its 106/3013 Order to either approve or disapprove Montrose's proposed remedial plan which evolved from an extensive dialogue over several months' time with EPA and the Regional Water Board.

EPA's rationale for this inaction is that as a result of a rescoring of the site, it has now concluded that the site should be proposed for inclusion in the National Priorities List and therefore all investigative work, evaluation of remedial alternatives and selection among remedial options must be conducted within the formal framework of an RIFS developed pursuant to the National Contingency Plan (NCP). The Torrance facility is not presently included on the National Priorities List promulgated pursuant to Section 105 of CERCLA. Accordingly, the investigation and remediation of whatever hazards may exist at the site are not directly subject to the criteria and guidelines of the NCP promulgated pursuant to Section 105 of CERCLA. EPA's imposition of CERCLA Section 105 requirements on a non-NPL site therefore violates both the federal Administrative Procedure Act and CERCLA itself.

On a more practical level, the draft Work Plan appears to have been developed without regard for the comprehensive investigative activity and evaluation of remedial alternatives already conducted at the Torrance facility as a result of the issuance of the Administrative Orders. The draft Work Plan treats the Torrance facility as if it were an abandoned site about which EPA possessed no knowledge of historic activity, manufacturing or waste handling processes. Rather, the Plan proceeds on the assumption that nothing is known about the site, and compels a gross informational screening process for the facility. Much of the work proposed in the draft Work Plan will merely result in a duplication of information already available to EPA by virtue of data routinely supplied as part of RCRA interim status requirements, as well as information developed during the investigation required by the Administrative Orders. Section 3013 of RCRA, Sections 105 and 106 of CERCLA, as well as common sense, require that any investigative and remedial activities undertaken at the Torrance facility be related to the nature of the problem identified at the site, and require EPA to take into account what already is known to ensure that remedial investigative activity previously done is not duplicated.

The remedial investigation proposed in the draft Work Plan can only be justified if there is a possibility that the investigation would suggest another cost-effective remedial alternative for the site, or if significant data relevant to the evaluation of alternative remedial solutions is not presently available.

While Montrose agrees that some limited investigation of groundwater conditions may be warranted, no reasonable justification exists for duplicating the EPA-sanctioned investigative activity already undertaken of on-site soil conditions and off-site soil conditions in the vicinity of the stormwater drainage path. Montrose believes very strongly that the EPA-sanctioned investigation which it has previously completed provides all information necessary for a complete evaluation of both on-site and off-site surface soil remedial alternatives. Even if a more rigorous evaluation of remedial alternatives might be justified, this of itself does not necessitate additional remedial investigation.

Because EPA has not attempted to, and indeed cannot, demonstrate how the evaluation or selection of remedial alternatives might be altered by the duplication of investigative data already compiled regarding surface soil contamination, the sequential approach to investigation and evaluation of remedial alternatives as proposed in the draft Work Plan in that regard accomplishes nothing and serves merely to defer selection of the optimum remedial measure for dealing with surface soil contamination. Montrose urges instead that the Work Plan be modified to eliminate duplication of prior investigative work.

Equally important, the Work Plan should be revised to accommodate further investigative work (to the extent necessary) being done concurrently with evaluation and implementation of the surface soil remedial alternatives already recommended. Allowing these two functions to proceed in parallel not only will shorten the time within which a final remedial option can be selected and implemented, but will simultaneously eliminate the need for various investigative activities presently proposed in the Work Plan which would be unnecessary but for EPA's deferral of approval for on-site and off-site remedial measures previously proposed by Montrose. Immediate capping of the site, for example, will eliminate any risk of further contaminated stormwater runoff from the site, and obviate the need for air monitoring of the presently exposed site.

Immediate implementation of the most cost-effective remedial alternative on-site can be easily justified on the basis of presently available investigative data, would in no way interfere or be otherwise inconsistent with further investigation which may be required of groundwater conditions, and would hasten the abatement of whatever hazards may be presently associated with the facility. Indeed, EPA's failure to take affirmative action to approve the on-site cap proposed by Montrose in response to the Administrative Orders serves only to perpetuate whatever hazard presently exists at the site, and may exaggerate Montrose's potential exposure were further remedial action required off-site at some point in the future because of Montrose's inability to implement on-site remedies at the present time. In such circumstances, EPA itself may become responsible for the remedial costs associated with any such hazards resulting from its own inaction.

Montrose also feels compelled to note the serious economic prejudice resulting to its interests from the EPA's delay in finalizing approval of remedial action at the site pursuant to the terms of the Administrative Orders. Although investigative activity at the site was completed in the fall of 1983 and evaluation and refinement of remedial alternatives undertaken in conjunction with EPA and the Water Board was concluded in early January, 1984, Montrose has been unable to implement remedial actions at the site which would allow it to return the leased property to the landowner. As a result, the landowner has been deprived of any use of the property during this period of time. Furthermore, the draft Work Plan presently requires at least a 16-month delay before remedial measures would be implemented.

Finally, if the RIFS is implemented as presently proposed in the Work Plan and Montrose is required to bear all or even a significant portion of the total cost of implementation, it is clear that these investigative costs may equal or exceed the costs of actual remedial action at the site. Montrose questions whether this is a cost-effective, justifiable use of its limited resources in responding to whatever legal obligations it may have regarding the Torrance facility.

Again, Montrose urges a bifurcation of issues and a modification of the Work Plan to permit concurrent action to select and implement on-site and off-site surface soil remedial alternatives based upon known data, while simultaneously undertaking whatever legitimate investigative activity is required to aid in identification and analysis of possible supplemental remedial action at the site. Thank you for your consideration of these comments, and we look forward to discussing this matter further during our meeting scheduled for July 31, 1984.

Very truly yours,

MONTROSE CHEMICAL CORPORATION
OF CALIFORNIA

Samuel Rotrosen
President

Enclosures

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Memorandum

Date May 16, 1983

From Chief, Superfund Implementation Group, CEH

Subject Montrose Chemical Corporation, Torrance, California

To Joel D. Mulder
Public Health Advisor
EPA Region IX

At your request, the material you submitted on the above site has been reviewed by a committee of the Center for Environmental Health, Centers for Disease Control. As you are aware, this report was delayed while other data was gathered and reviewed. In addition, CDC staff has had on-going contacts with federal and state personnel, and these contacts are continuing, to better evaluate the situation at this site. Currently, CDC is awaiting the receipt of data on cancer rates for the areas involved and will review that information and present further comments as appropriate.

Conclusions

The DDT levels being found off site in soils, surface waters, air emissions, and in aquatic organisms are sufficiently high to warrant a more in-depth health effects investigation of the Montrose plant's employees, nearby residents, groups of sport fisnermen that can be identified as having eaten large amounts of the fish they catch, and certain Farmers Bros. Coffee employees, if there is reason to believe that they may have had unusual exposure to soil near the catch basin. Additional environmental sampling is warranted to determine: (1) the extent of DDT contamination onsite and in the vicinity of the Montrose plant and (2) the acceptability of past confinement and management of past Montrose DDT wastes at the Rolling Hills Landfill and the Kaserian Landfill. Since a number of references in the documentation revealed PCB contamination in the region, it may be prudent to analyze runoff from the Montrose property and drainage sediments for any other priority pollutant known to be generated or stored by Montrose.

Background

Montrose Chemical Corporation manufactured DDT at the site, located near the Dominguez Channel which flows into Los Angeles Harbor, from 1947 until the plant closed in August [illegible] (after [illegible] it was produced for export). On March [illegible], 1983, CDC was advised that Montrose Chemical is dismantling the DDT production facility.

Until 1970, the Corporation dumped DDT and other liquid wastes into the Joint Water Pollution Control Plant (JWPCP) of the Los Angeles County Sanitation Districts (LACSD). In 1970, Montrose switched its hazardous waste disposal site from JWPCP to a sanitary landfill at Rolling Hills Estates on the Palos Verdes Peninsula. This dropped the JWPCP's DDT input from 290 kg/day to 20 kg/day. Unfortunately, DDT had already accumulated in sewer sediments downstream from Montrose in sufficient quantity to cause continuing contamination of JWPCP, so that JWPCP continued to outfall the highest DDT content of any southern California wastewater treatment plant into L.A. Harbor. In 1974, the final JWPCP effluent still contained 3 ug/l DDT (California limit is 2 ug/l). As a result, sediments from the Palos Verdes shelf in an 18.5 sq. mi. area around the outfall system at Whites Point contain a 1000-fold-higher DDT concentration than a control area in California. This has resulted in DDT contamination of fish and mussels in the outfall area. About 3/4 of the present ocean sediment DDT is made up of DDE, which is only 1/8 as toxic as DDT by rat oral LD50. (Total DDT consists of 6 isomers: DDE (o,p'+p,p'), DDD (o,p'+p,p'), and true DDT (o,p'+p,p'). DDE and DDD are metabolites of true DDT.)

Laboratory Issues

An initial report was sent to EPA by CAL, Inc. on November 22, 1982. The data in this report were accepted as valid by the Office of Technical and Scientific Assistance, EPA, Region IX. However, on December 6, 1982, CAL sent EPA a second letter which instructed EPA to discard the November 22nd letter. There were no data reported in the December 5th letter and there was no explanation for the recommended action. For some unknown reason, several of the water analyses were repeated and were reported in a third letter dated December 20, 1982. The results are significantly lower than the November 22nd results. To confuse the issue even more, it appears that the summary Tables on pages 53, 54, and 55 used the November 22nd data and ignored the results in the December 20th letter. Which results are acceptable? Why were the water analyses repeated (December 20th report)? Why were the December 20th results discarded or ignored? Are these Tables missing from the December 6th report? Why were the results reported in the December 20th report lower than those reported in the November 22nd letter?

There appears to be a problem with sediment in the water analyses. This is evident in the analytical report on November 22nd, since S1664D had DDT levels approximately twice that of the S1664. The difference is attributed to different time intervals used for sediment settling. The replicate analysis of S1664-2 in the December 20th report agrees fairly well with the S1664 in the November 22nd report. Perhaps the differences in the other analyses in the December 20th and the November 22nd reports are also attributable to this problem, but it would seem simple to remove sediment by filtration or centrifugation.

Aerial Fallout

Measurements in 1974 by the National Marine Fisheries Service showed high DDT and 1254 PCB fallout on the California Bight, localized near the Montrose Corporation and Rolling Hills Estates. In 1974, aerial DDT fallout contributed almost as much DDT to the coastal ecosystem as did

municipal waste water. The Federal Air Limit for DDT is 1 mg/m^3. The two sites generated a median flux of 1400×10^{-9} $gm/m^2/day$, or a range of from 0.5 to 2 metric tons per year. Seventy percent of the atmospheric DDT is true DDT as opposed to its breakdown product, DDE. After 1972, Montrose switched dumping from Rolling Hills to a private landfill from which no significant aerial fallout has been reported.

It is unclear why 1254 PCB was present in high levels in aerial fallout from the two sites, since Montrose did not manufacture PCB. Has the possibility of another source of environmental contamination by PCB's been ruled out?

Montrose notified EPA in August 1980 that they generate and treat/store/dispose of four types of wastes: corrosive, chloral, chlorobenzene, and DDT. On March 9, 1983, Mr. Steven Simanonok, Field Inspections Section, EPA Region IX, added the information by telephone that although the Montrose Corporation is not in the hazardous waste disposal business (i.e., accepting wastes from other companies), it may have continued, for export, grinding crude imported DDT into the fine particulate that is used in pesticide sprays until the plant was closed in August 1982. However, the grinding process apparently causes more aerial dissemination of respirable particles than does the manufacture of DDT. DDT has been found on fallout plates at Gardenia, a distance of 3 miles, but there is no indication that EPA has carried out high-volume air sampling for suspended particles, formal aerial distribution modeling, or fallout sampling more recently than 1974.

DDT particulates may have contaminated residential neighborhoods but the report does not clarify whether aerial fallout continues and does not give information on residences around Rolling Hills Estates. Telephone information from Mr. Simanonok revealed that there are several thousand residents living within neighborhoods around Montrose (two neighborhoods within 500 feet), some residents having lived there 25-30 years. CDC recommends that the aerial sampling be updated, including high-volume air sampling, to check for continuing exposure. If there is evidence of continuing aerial fallout, or if the cancer rates are found to be elevated, CDC would work with the state to conduct a survey, including blood testing for DDT and metabolites, in those neighborhoods.

Aquatic Pathways to Humans

The California Mussel Watch Reports show that DDE in mussels rose during the years 1977 to 1979, then stabilized at about 1.1 to 1.5 ppm (in contrast to the FDA Action Level for total DDT for fish of 5 ppm). In 1980, only one station in the area had levels above 5 ppm. Late 1981 data indicated that the highest levels of DDT in mussels were found at the Dominguez Channel.

From 1949 to 1970, DDT levels increased in fish, and in 1972, a shift in the DDD/DDT ratio occurred, with DDD increasing, thus reflecting continued metabolism of DDT, and suggesting that replacement has not taken place. EPA has speculated that this shift may have been due to cleaning of industrial waste water.

In 1981-82, the Coastal Water Research Project measured DDT and PCB levels in sportfish from multiple L.A. Harbor sites and found increased concentrations of both near sewage outfalls. White croaker, a popular sportfish, contained the highest levels, but had improved from April 1975 levels of 39 mg/wet kg ppm total DDT and 2.8 mg/wet kg total PCB at the JWPCP outfall to 0.056-7.6 mg/wet kg DDT and 0.015-0.38 mg/wet kg PCB in 1981-1982. The 7.6 ppm was at Whites Point, the mouth of the JWPCP outfall (the worst case), and few people apparently fish there. The highest mean DDT elsewhere was 2.8 ppm. Resident fish (as opposed to migrant) and bottom dwelling fish had higher levels than other fish. The FDA Action level for PCB is 5 ppm (it was to have been lowered to 2 ppm, but this change was held, pending further hearings).

These levels can be compared to those in Triana, Alabama, in 1979, where fish from contaminated streams had an average total DDT level of 204 ppm (mostly DDD or DDE) and average PCB levels ranging from 1.08 to 4.34 ppm. Human serum DDT from this area averaged 225 ppb, or 14 times the U. S. average of 16.2 ppb (Hanes II Survey). One person who ate 16 fish meals per month had a serum DDT of 3,256 ppb. The mean serum PCB level for the community was 17.2 ppb ("normal" range is up to 20 ppb).

Persons who acquire high levels of total DDT via the food chain have mainly DDE (85%), in contrast to occupationally exposed persons who have mainly true DDT and only 35-50% DDE. No adverse health effects have been reported in workers with high serum DDT levels, and DDE is less toxic, so that one would not expect adverse health effects in the L.A. fisherman.

The University of Southern California (USC) has identified the regular fishing population in the L.A. Harbor area and surveyed 562 fishermen with high consumption patterns. Thus, a known human population exists which CDC recommends be studied by questionnaire and blood-testing for PCB and DDT.

The (USC) report raised questions of closing beaches and outfall areas to seafood gathering, and issuing fishermen's advisories to avoid heavily contaminated species from affected areas. This may not be necessary, except at Whites Point, since the most recent fish and mussel levels are below the FDA Action Level. However, fish monitoring should be continued and action considered if levels rise.

Soil and Surface Runoff

In November 1982, the EPA Technical Assistance Team (TAT), sampled storm-water runoff during a rain, because they felt that the Montrose grounds were still contaminated with DDT from previous packing and shipping operations, even though the Company had closed in August 1982. The objective of the sampling was to determine whether DDT was draining from the plant into navigable waters.

Surface soil and water samples were collected below the plant along a drainage ditch which ran into a catch basin at Farmers Bros. Coffee plant and thence to a waterway called Torrance Lateral, a tributary of the Dominguez Channel, which, in turn, runs into the L.A. Harbor. In addition,

the L.A. Flood Control District had noted high levels of DDT, DDD, and DDE in Torrance Lateral during storm-water flow. The November 1982 water samples showed 209-695 ppb total DDT in the drainage ditch to 187-483 ppb in the catch basin, and 17.3 ppb downstream of the catch basin. Surface soil above the catch basin had levels ranging from 24 to 1,975 ppb. The majority of this was true DDT (DDT concentration several-fold higher than DDD or DDE).

Since the soil between Montrose and Farmers Bros. Coffee is contaminated with DDT, that area and the catch basin should be closed to access by the public. Because of the exposure potential caused by the placement of the catch basin in the parking lot, consideration should be given to protecting employees from picking up DDT-contaminated dusts and soils on their shoes and transporting them into the coffee plant and into their cars.

Tests for other pollutants should be made around the Montrose site and the Rolling Hills area, since there is evidence that Montrose (or some other source) may have produced other hazardous by-products as shown by the presence of PCB in fish and aerial fallout.

Soil and storm water in residential neighborhoods should be tested. Blood sampling for DDT and PCB from residents of these areas should be considered if the household soil or groundwater is found to be contaminated.

Water (Groundwater and Ocean)

Drinking water sources for neighborhoods near the site are not mentioned. If it is city water, surveillance should be maintained for pollutants--particularly DDT and PCB. Private wells should be tested. The SNARL for DDT is 0.00024 ug/l (ppb). Consideration might be given to periodic testing of the waters around the JWPCP outfall to determine if there is any increase in the levels of contaminants. The saltwater aquatic life level for DDT is 0.0010 ppb as a 24 hr. average, not to exceed 1.1 ppb.

CDC will be happy to continue our involvement with this site and to review data as it is gathered.

Georgi A. Jones

11-3-81

Beth,
Didn't remember the purpose of this memo. are you going to send to L.R. w/ file?
Jim

Montrose Chemical Company Inspection:

Attending:

Rick Wilson - Montrose Director of Manufacturing
John L. Kallock - Montrose Plant Manager
James V. Wiseman - Manager Environmental Control-West, Stauffer Chemical Company
Steve Simanonok - EPA
Beth Jines - HWMB, ASP.

History of the Plant:

The property on which the Montrose Chemical Company is located in the City of Los Angeles, and was part of the Rancho San Pedro landgrant. Around 1934-35 Hughes-Mitchell bought the property and constructed a paint processing operation. (The plant processed ore into paint.) In addition, Hughes-Mitchell produced the sulfuric, muriatic and hydrochloric acids used in the paint producing process. (The Mr. Kallock was able to produce a 1937 photo of the property.) There was some sort of involvement between Hughes-Mitchell and the Sears Roebuck Company and Sears became the property owners.

During the Second World War, Sears sold the property and buildings to the Stauffer Chemical Company, (around 1944). A provision in the sale was that Stauffer would operate the sulfuric acid plant as part of the war effort. Montrose Chemical has leased the property from Stauffer since 1946. Montrose began operations at the site on May 8, 1947, with John Kallock as plant manager. The sulfuric acid plant (sulfur burning and spent acid regeneration), went out of business in 1952 and was dismantled in the 1960's.

Since 1947, only DDT has been manufactured at the site. Three grades are produced:

100% technical grade
75% dispersable powder
10% dusting powder (Most is sold to UNICEF)

From 1959 to 1960, Montrose had an acid recovery plant. In addition, a large area at the west end of the property was landfilled with debris from the demolition of a nearby electrical substation. On December 27, 1968, Jones Chemical bought the southwest corner of the Stauffer property.

In 1972, the Los Angeles City Industrial Waste Division ordered an unlined settling pond be excavated and concrete lined. The extent of the contamination was determined visually. The pond was reportedly excavated larger than the original size. The concrete lined replacement pond is still in use.

Site: Montrose Chemical Company
20201 South Normandie Avenue
Torrance, Calif. 90502

Company Contact: None

Staff Members Responsible: Beth Tirey, Sue Stack

Problem: During the years 1946 (+-) through 1970, Montrose Chemical made use of an earthen-walled seepage pond on site to dry their waste water, which is contaminated with DDT.

Sanitation District inspectors report a "slug" of DDT sludge in trunk sewer downstream from the plant. It may be slowly washing into the sewer waters.

Montrose is owned by Stauffer Chemical. It is one of two known locations of active DDT manufacturing in the United States.

History: We don't know the exact date when this chemical plant began to manufacture DDT, but it was probably towards the end of the 1940's or early in the 1950's. The waste water from DDT manufacture was routed through redwood "pipes" to an on site evaporation pond (75 x 50 x 15 ft.), and eventually into the County Sanitation District's sewer.

In 1970, as a result of a successful civil suit, the plant's waste water handling system was upgraded. The seepage pond was lined with concrete and pond overflow, which had been routed into the sewer, was routed through a filtration system.

The company's present handling of waste water results in very little, if any, DDT or DDE entering the sewer.

ASP Action To Date: We checked and found no current regulatory action at RWQCB, HMMS Regional Operation, Flood Control District, Secretary of State, and Department of the County Engineer. The only current regulation of this firm seems to be through the County Sanitation Districts and RCRA/EPA (Eric has a file card, but no interim document on file).

Other Comments: One of our concerns is with the soil around and under the concrete-lined pond; was all DDT-contaminated soil removed? Miller Chambers thinks traces of DDT or DDE might still be present in this soil. If so, the soil poses a hazard to the community and the work force because of its potential for becoming airborne, and also poses a hazard to wildlife because it can enter the food chain.

Our second concern is over the constant "trickling" of DDT sludge into raw sewage as the sewage flushes past the DDT "slug" in the line. Mr. Beeker of the County Sanitation District reports that the slug consists of 74,000 pounds of DDT spread within 2,300 feet of 57-inch diameter trunk line.

Its interesting to us that although the Montrose plant lies within the City of Los Angeles, their sewage and this DDT slug are in the county's lines.

Recommendations: Soil on site should be sampled by Regional Operations staff, and soil samples analyzed for DDT contamination. If contamination is found, Montrose should be issued a cleanup/compliance deadline.

The Montrose Chemical Company did not have the facilities to grind DDT on-site until 1967. Prior to the grinding mill construction, much of Montrose's DDT was ground at the Stauffer Chemical Company's Dominguez Plant at 20720 South Wilmington Avenue. EPA and HWMB are currently investigating this plant for burial of "off spec" DDT on a portion of their property. According to the Mr. Wiseman, Stauffer "has no reason to believe" DDT was ever disposed on Montrose's plant property. Mr. Kallock stated that there is no "off spec" product from the grinding process and that Montrose recycles their waste or takes it to a Class I landfill.

Problems:

1. Contrary to Mr. Wiseman's contention, there is "no reason to believe" that Montrose did not bury off spec DDT in the landfill portion of their plant property.

2. While conducting a RCRA inspection at the Montrose facility last year, Mr. Simanonok observed a large aerial photo on the wall of Mr. Kallock's office. The photo showed a large stained area next to a storage shed. The plant officials denied that the photo ever existed. As we left the main office, Mr. Kallock's secretary asked Mr. Kallock what she should do with the photo from his office wall.

3. Jim Steele of the Department of Fish and Game has been picking up fresh DDT in mussels located in the Harbor. Montrose no longer disposes of DDT to the sewer and has no direct route to the ocean.

4. Mr. Wiseman refused to allow us to take photographs without permission from Stauffer's main office or a warrant.

Further Action:

1. On 11-10-81, ASP sent a registered letter to Montrose requesting a list of the facilities which did Montrose's DDT grinding between 1947 and 1967.

2. EPA is researching the possibility of storm runoff causing the contamination in the harbor. Jones Chemical Company has a ditch with visible contamination which runs into the Dominguez Channel and into the ocean.

3. There were over 1,000 bags of DDT product sitting on pallets in an unbermed area of the plant property. The bags are paper with double walled polyeurethane liners. The bags were partially uncovered. Do we have any enforcement standards for this type of storage?

4. While touring the facility, three piles of dark-tarry-looking substance were seen in the landfill area. We did not take samples.

The sewer contamination problem should be referred to EPA since 1) the contamination lies in the Sanitation District's line, off the Montrose property, and 2) the Sanitation District is probably financed by a clean water grant and hence, would likely respond to EPA'a "clout".

BOE-C6-0177534

L.A. Times 3/18/71

DDT Firm Agrees to End Flow of Poison Effluent Into Sewers

BY JOHN BREYFUSS
Times Staff Writer

Montrose Chemical Co. of Torrance, long under fire for dumping DDT waste into county sewers, will disconnect all its possible sources of DDT effluent from the sewers by mid-June, a company vice president said Wednesday.

Montrose, the world's largest DDT manufacturer and the only one in this country, agreed to the action in the court of U.S. Dist. Judge Albert Lee Stephens Jr.

The company is being sued by the Environmental Defense Fund, a private group including many attorneys, for allegedly polluting the ocean with DDT.

By June 14 the only Montrose drains leading to county sewers will be from tanks and boilers which do not come into contact with DDT, said Max Soleiman, Montrose vice president.

Soleiman emphasized that efforts under way long before the EDF suit had resulted in only "about an ounce a day" of DDT entering county sewer lines from Montrose. He said the total had never exceeded 20 pounds.

County sewer officials said their instruments were not sensitive enough to measure in ounces, but said Montrose DDT effluent was "down to a pound a day or less."

They said, however, that between [illegible] pounds of DDT are entering county sewers daily, and they are trying to find the source.

Last summer county spokesmen estimated as much as 600 pounds of DDT might be entering the sewers from Montrose. The figure now seems highly inflated, in view of the amount of DDT in the sewers, even with only a pound or less coming from Montrose.

'Prudent Thing'

Soleiman said his company agreed to disconnect DDT sources from county sewers in court earlier this week because [illegible] seemed the prudent thing to do to satisfy the general public.

[illegible]

BOE-C6-0177535

DDT Stopped, Suit Dropped

The Environmental Defense Fund (EDF) has dropped the lawsuit alleging that Montrose Chemical Corporation of California, the world's largest manufacturer of DDT, had discharged massive quantities of DDT into the Los Angeles sewage system, which connects to Santa Monica Bay and the Pacific Ocean. The suit, filed against Montrose in October 1970, was dismissed after Montrose installed equipment to prevent the discharge and disconnected its DDT manufacturing operations from the sewer lines.

The EDF's lawsuit came after scientists had noticed, for several years, a disparity between the DDT concentration in marine wildlife off Southern California and that found in other marine environments. Livers of fish from Santa Monica Bay were found to contain DDT concentrations of more than 1000 parts per million (ppm), while typically DDT concentrates in the livers of similar fish at a level of a few parts per million or less. In December 1969, Star-Kist Foods, Inc., voluntarily removed 4000 cases of its canned mackerel from the market after it was discovered that the fish contained DDT concentrations above the federal tolerance limit of 5 ppm. In December 1970, the Food and Drug Administration seized 8000 pounds of kingfish with DDT concentrations of 19 ppm. Earlier that year, an attempt to impound 1260 pounds of both kingfish and queenfish with a DDT content of 14 ppm failed when the fish were sold before the federal authorities could act.

The Fate of the Brown Pelican

The EDF believes that Montrose is also responsible for the plight of the brown pelican. Although still a common sight in Southern California, the fish-eating brown pelican is facing extinction as a result of DDT contamination, EDF claims. Because of DDT-tainted tissues, the birds lay eggs with shells so thin that they break prematurely and therefore produce no young. Robert Risebrough, a pesticide specialist at the University of California, Berkeley, reports that in 1969 on Anacapa Island, the pelicans' nesting grounds, fewer than four pelicans were born out of 1000 nesting attempts. The nesting attempts were cut in half in 1970, producing only one young that survived. Risebrough hopes that the pelicans will resume reproduction when the discharge of DDT from Montrose has completely stopped.

Although it acknowledges that other businesses in the Los Angeles area could be the cause of DDT effluents in the waters, EDF says that these businesses—food packaging companies, food processors, and others—could not account for such an overwhelming amount of DDT. The County Sanitation District, also named as a defendant in the suit, recently removed 0.5 million pounds of sediment containing 5000 pounds of DDT from the sewage lines below the Montrose plant. Montrose asserts that it had begun to halt the discharge of DDT long before the EDF lawsuit, and that DDT effluents from the plant itself were down to less than 1 pound per day.

EDF Satisfied with Compliance

On June 1, Montrose allowed EDF attorney Norman Rudman to inspect its plant. Rudman was satisfied that Montrose had complied with EDF's demands, and EDF then recommended the suit's dismissal.

Meanwhile, Montrose has developed a method of "recycling streams," where DDT, salt, and water wastes from its manufacturing processes can be made useful again. In addition, an EDF lawyer told *Science* that Montrose may prompt "a whole new lawsuit" by loading tank trucks with DDT that cannot be recycled and dumping it directly into landfills that are said to be situated on impregnable rocks, thereby preventing leakage. The question EDF and others are asking is how many years might elapse before erosion begins and the DDT escapes.

—EDWARD P. JONES

[illegible] area to be rehired if the accelerator should resume operations, and another notes that almost every day someone returns just for a visit.

Since 1 July 1969, a total of 253 have departed, leaving a staff of only 42. Thirty of those who have left held administrative posts, 21 were maintenance staff, and the remaining 202 were operations personnel. Of the latter, 9 were physicists, 32 engineers, and the rest technicians. Except for two who recently underwent major surgery, none of the engineers are now unemployed, although a few experienced considerable delays in finding work. Six of the engineers have gone to other universities, 7 now have permanent positions at Princeton, and 17 have gone into private industry. Seven of the physicists have gone to other universities, and the other two are employed in industry. Three of the technicians, dismissed in March, are still unemployed.

R. J. Woodrow, associate treasurer at Princeton University, observed that it is difficult for a university to cut back on such service operations as grounds maintenance, purchasing, the cafeteria, and so forth, but he said that Princeton was able to absorb most of the administrative and clerical personnel. He stressed that the bigger the operation associated with a university, the more important that it stand apart on its own financial feet. He appeared unperturbed by the impact of the PPA closing on Princeton's finances, but others felt that the loss, at such a time, of a program with $5 million annual operating costs could only hurt the university.

Some of the equipment useful at other facilities has already been shipped away, but the accelerator itself and its building remain behind, now the property of Princeton University. The storage area will be used by the university's plasma physics research group, but it is difficult to imagine what use could be made of the big machine itself if the current fund-raising campaign proves fruitless.

The impact of the closing on the physics department has been much less tangible. White speaks of a "very sharp downturn in graduate student and [illegible] faculty [illegible]." But Marvin L. Goldberger, the department chairman, feels that the principal loss to Princeton will be in its ability to recruit young faculty in high energy physics. Even here he believes that the closing of PPA

BOE-C6-0177536

4001

BOE-C6-0177537

Department of Health Services
HAZARDOUS WASTE MANAGEMENT BRANCH
107 South Broadway, Room 7128
Los Angeles, CA 90012

Jan Meyer
Program Management Section
Toxic Substances Control Division
714/744 P Street
Sacramento, CA 95814

FOR ADDITIONAL
INFORMATION
SEE EXPANSION
FOLDER

Montrose

BOE-C6-0177538

3606

RECORDING REQUESTED BY

TITLE INSURANCE & TRUST

AND WHEN RECORDED MAIL TO

RECORDED IN OFFICIAL RECORDS OF LOS ANGELES COUNTY, CALIF.
43 Min. Past 4 P.M. DEC 27 1968
RAY E. LEE, County Recorder

MAIL TAX STATEMENTS TO

FEE $4.40 4 R

DOCUMENTARY TRANSFER TAX $ 140.80
Title Insurance and Trust Company
SIGNATURE OF AGENT FIRM NAME

CORPORATION GRANT DEED

FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged, STAUFFER CHEMICAL COMPANY, a corporation organized under the laws of the State of Delaware, hereby GRANTS to JONES CHEMICALS, INC., WESTERN DIVISION, a corporation organized under the laws of the State of California, the following described real property in the City of Los Angeles, County of Los Angeles, State of California:

That certain parcel of land in the City of Los Angeles, County of Los Angeles, State of California, being a portion of that certain 639.07 acre tract of land allotted to Guadalupe Marcelina Dominguez by final decree of partition of a part of Rancho San Pedro had in Case No. 3284 of the Superior Court, described as a whole as follows:

MAIL TAX STATEMENTS AS DIRECTED ABOVE.

3606

Beginning at the Northeast corner of land described in deed recorded as Instrument No. 40 on January 28, 1943, in Book 19848, Page 22 of Official Records of said county; thence along the Northerly line of said land North 89° 59' 59" West 1050.00 feet; thence South 0° 03' 00" East 385.00 feet; to the true point of beginning of this description; thence North 89° 57' 00" East 376.00 feet; thence South 0° 03' 00" East 75.00 feet; thence North 89° 57' 00" East 23.00 feet; thence South 0° 03' 00" East 22.00 feet; thence North 89° 57' 00" East 31.21 feet; thence South 0° 03' 00" East 106.37 feet; thence North 89° 57' 00" East 260.87 feet; thence South 0° 03' 00" East 33.27 feet; thence North 89° 57' 00" East 29.89 feet; thence South 0° 03' 00" East 128.99 feet to a line that is parallel with and distant Northerly 30.00 feet, measured at right angles, from the Northerly line of Tract No. 4983 as per map recorded in Book 58, Page 34 of Maps in the office of the County Recorder of said county; thence along said parallel line North 89° 59' 59" West 720.95 feet to the Westerly line of said land described in deed recorded as Instrument No. 40 on January 28, 1943, in Book 19848, Page 22 of Official Records of said county; thence along said Westerly line North 0° 03' 00" West 365.00 feet to the true point of beginning of this description.

RESERVING to Grantor, and its successors and assigns, a permanent easement for pipelines, mains, and related equipment for purposes of transporting and conveying water over that certain parcel of land in the City of Los Angeles, County of Los Angeles, State of California, being a portion of that certain 639.07 acre tract of land allotted to Guadalupe Marcelina Dominguez by final decree of partition of a part of Rancho San Pedro had in Case No. 3284 of the Superior Court described as follows:

Parcel I: Beginning at the intersection of the Westerly line of the land described as parcel number one in deed recorded as Instrument No. 40 on January 28, 1943, in Book 19848, Page 22 of Official Records of said county with the Northerly line of Tract No. 4983 as per Map recorded in Book 58, Pages 80 to 85 of Maps in the office of the County Recorder of said county; thence along said Westerly line North 0° 03' 00" West 81.81 feet; thence at right angles North 89° 57' 00" East 4.64 feet to a point designated as "Point A"; thence continuing North 89° 57' 00" East 5.36 feet; thence at right angles South 0° 03' 00" East 81.82 feet to the Northerly line of said Tract No. 4983; thence along said northerly line South 89° 59' 59" West 10.00 feet to the point of beginning.

Parcel II: An easement 5 feet in width, the center line of which is described as follows:

Beginning at the hereinbefore designated "Point A"; thence North 25° 04' 12" East 281.78 feet; thence North 89° 43' 40" East 190.91 feet; thence North 0° 09' 50" West 62.32 feet to a point in a line that bears North 89° 57' 00" East from a point in the Westerly line of the aforesaid land described in said deed recorded in Book 19848, Page 22 of Official Records distant thereon South 0° 03' 00" East 385.00 feet from the Northwesterly corner of said land.

The side lines of said Parcel II at the Northerly extremity are to be lengthened or shortened so as to terminate in the aforesaid line having a bearing of North 89° 57' 00" East and at the Southerly extremity of said Parcel II are to be lengthened or shortened so as to terminate in the Northerly line of Parcel I.

Said easement carries with it the right to construct, reconstruct, maintain, operate, repair, renew, enlarge, and replace pipelines, mains, and related equipment for transporting and conveying water, together with all necessary or convenient means of surface ingress to and egress from said pipelines, mains, and related equipment for the purpose of exercising all the rights herein reserved.

No buildings or other structures of any kind shall be erected, placed, or maintained on the easement above described.

ALSO RESERVING to Grantor, and its successors and assigns, any and all minerals, mineral interests, oil, gas, and hydrocarbon substances within and underlying the first described real property, together with the right of Grantor, and its successors and assigns, at any and all times, to enter below a depth of five hundred (500) feet from the surface of the first described real property for the purpose of exploiting, exploring, and operating all of such rights to minerals, mineral interests, oil, gas, and hydrocarbon substances.

ALSO RESERVING to Grantor, and its successors and assigns, any and all water rights pertaining to or connected with the first described real property, including, but not limited to, those rights, titles, and interests, prescriptive or otherwise, in and to the waters of the West Coast Basin within the County of Los Angeles, State of California, which Basin is more particularly described in the report of Referee on file in Case No. 506806 of the Superior Court of the State of California for the County of Los Angeles, entitled "California Water Service Company, et al., vs. City of Compton, et al."

IN WITNESS WHEREOF, said STAUFFER CHEMICAL COMPANY has caused

BOE-C6-0177541

its corporate name and seal to be affixed hereto and this instrument to be executed by its Senior Vice President and _____ Secretary thereunto duly authorized.

Dated: December 23, 1968.

STAUFFER CHEMICAL COMPANY

By _____
Its Senior Vice President

[Corporate Seal]

By _____
Its Secretary

STATE OF NEW YORK)
) ss.
COUNTY OF NEW YORK)

On December 23, 1968, before me, the undersigned, a Notary Public in and for said County and State, personally appeared J. W. Kettle, known to me to be the Senior Vice President, and Albert J. Steiss, known to me to be _____ Secretary of the corporation that executed the within instrument, known to me to be the persons who executed the within instrument on behalf of the corporation therein named, and acknowledged to me that such corporation executed the within instrument pursuant to its bylaws or a resolution of its board of directors.

WITNESS my hand and official seal.

_____
Notary Public in and for said County and State.

ARTHUR G. TEBBENS
NOTARY PUBLIC, State of New York
No. 03-3314775
Qualified in Westchester County
My Commission Expires March 30, 1969

3606

BOE-C6-0177542

Montrose Chemical Corporation of California

P.O. Box 147

20201 South Normandie Avenue • Torrance, California 90507 • (213) 775-2565 • 328-5462

December 2, 1981

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Hazardous Materials Mgmt.
DEC 07 1981

State of California
Department of Health Services
714/744 P Street
Sacramento, California 95814

ATTN: Ms. Beth Jines, Project Assistant
Hazardous Waste Management Branch

Gentlemen:

In response to your letter of November 10, 1981, we wish to advise that we contracted with the following companies in California for grinding of our DDT:

Depester Western, Inc., Fresno, CA
(1961-1965)

Stauffer CHemical Co., Dominguez, CA
(1958-1969)

United Heckathorn Co., Richmond, CA (1958-1960)
later know as United Chemetrics Co. (1961-1963)
later known as Chemwest, Inc. (1963-1965)

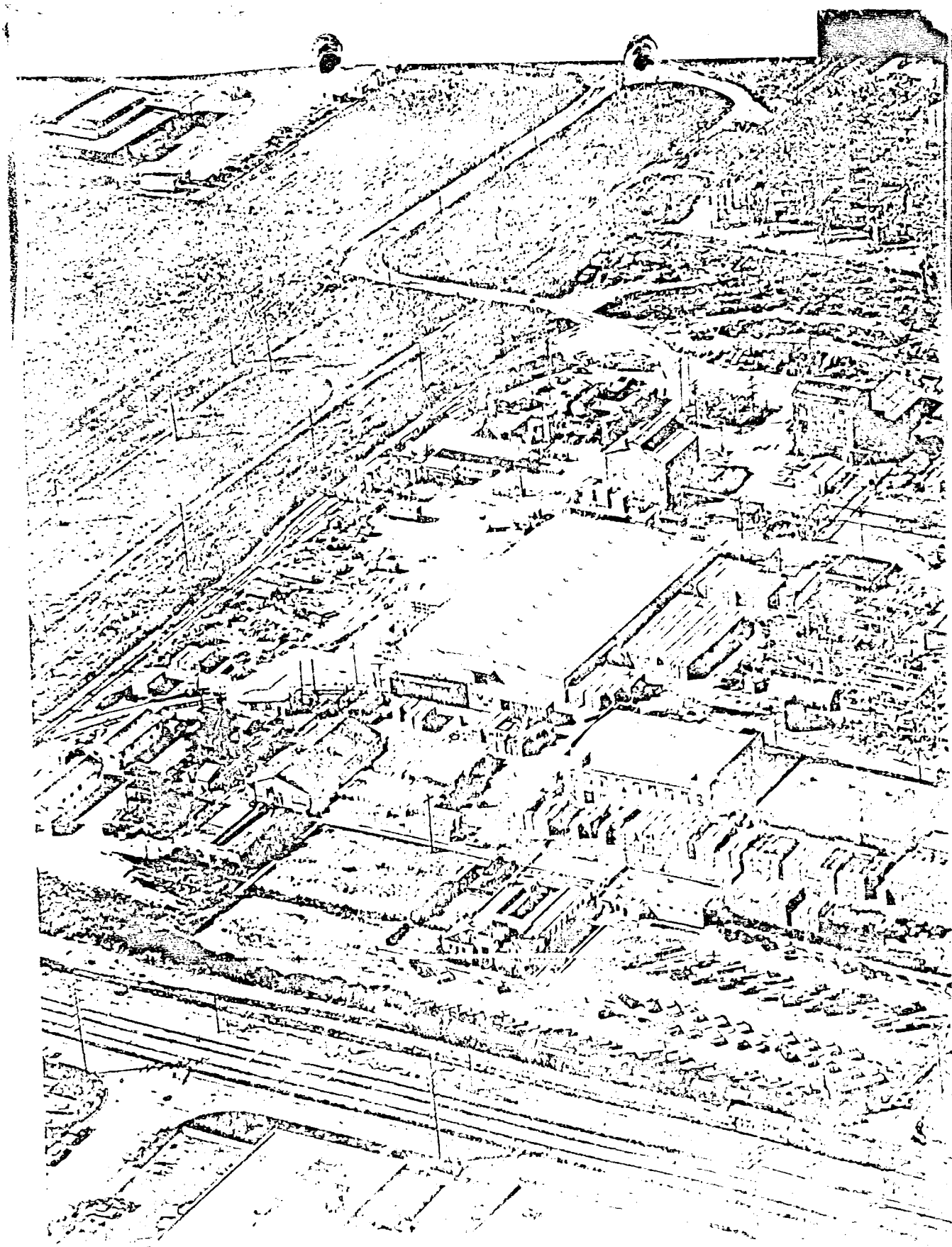
Our records do not go back prior to 1958; however, the same companies would have been the ones we would have used in earlier years.

Very truly yours,

John L. Kallok

John L. Kallok
Plant Manager

JLK:dgm



The [illegible], LA County Sanitation District

[illegible] Chemical [illegible]

[illegible]

[illegible] - [illegible] DDT [illegible]

[illegible] - [illegible] DDT [illegible]

[illegible] DDT [illegible]

[illegible] - The [illegible] DDT [illegible]

[illegible] DDT [illegible]

1973 - The LA County Sanitation District [illegible]

[illegible] DDT [illegible]

[illegible]

1974 The DDT [illegible]

[illegible] DDT [illegible]

1976 - The Sanitation [illegible]

[illegible] DDT [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

BOE-C6-0177546

Marcha Kuninger - 29431

Montrose Chemical -

The suit was filed at the end of July, 1990, in New York Federal Court, Southern Dist
Subject - securities - Chrisscraft has been buying 20th Century Stock.
Counsel: Twentieth Century Fox - Handelman
or Stan Pottinger of Troy, Allen & Pottinger.

L.A. County engineers Carl Sjoberg told me he called him asking about Montrose
I called Kuninger to find out why
He said we had to speak to her clients first.

Marcha Cuninger - 2-9431
Called Marcha Cuninger to relay info -

Attending

1. Rich Wilson - Montrose Director of [illegible] Factory.
2. John L. Kalloch - Plant Manager
3. James V. Wiseman - Manager Environ. [illegible] West Stuart Commercial Co.
4. Steve Simanonek - EPA
5. Beth Tracy - [illegible] -

11-3-81
[illegible] p.m.

Plant History:

1. Originally part of Rancho San Pedro. Land Grant - ([illegible]) [illegible]
   Guadalupe Mauricio Dominguez [illegible]
   Originally in the City of L.A. corridor.

2. Hughes-Mitchell Inc. (1934-35)
   Print Operation → [illegible] processed into print.
   Was an integrated plant - produced sulfuric muriatic [illegible]
   Includes some present buildings.
   Montrose photo of 1937 Hughes-Mitchell [illegible] company.
   Was 38 mc involvement b/ Hughes [illegible]

3. During [illegible] [illegible] to [illegible] [illegible] operate the [illegible] [illegible] began [illegible] 1947 - [illegible]
   [illegible]
   [illegible]

(12)

[illegible]

[illegible] to present → [illegible] DDT [illegible]

1. 75% [illegible]
2. 100% [illegible]
3. 10% [illegible]

Had an [illegible] 1951-1960.
Landfilled [illegible] w/fill from [illegible] 1967 [illegible] photo.

Jones bought property from Stauffer [illegible] (Dec [illegible])
City Industrial Waste [illegible] of pond [illegible]
excavation was [illegible]
Miller Chamber was [illegible] w/ [illegible]

7. "Have no reason to believe DDT was ever disposed [illegible]"
Yet was disposed at Stauffer plant on Wilmington Ave.
Contracted w/ S. Wilmington plant to grind DDT [illegible]
Should be no waste associated w/ [illegible]
Why is "off spec" buried at Stauffer [illegible]

(5)

[illegible]

Ten

[illegible] Fla 93274

2-27-67 photographed

7K-246

> no points of DDT [illegible] At least half was [illegible] ([illegible])

4014

Long Beach Area
Abandoned Site Project
Site Investigation Status

Site Name Jones Chemical
Location 1401 W. Del Amo Blvd
City Torrance
Contact (Mr. Dirchick -- Gen. Manager and/or President)
Staff Person MKP/CJ

Problem - History leaking chemicals!

ASP Action to date: Jones chem. had a sewer line w/ L.A. City which collapsed. It then contracted with Montrose chemical (next door) to route its industrial sewage out on Normandie (evenly). L.A. Co. Flood control was doing work on its culvert by the railroad tracks (runs passed the facility) and cut off the sewer on Normandie.

Jones chemical allowed rainwater to drain into the ditch by the tracks and it ponded up. In Feb. (approx) an incident occurred where an animal became sick and/or died.

Mary Cooper (HAMS - [illegible]) said testing was done & the problem was caused by release of tank rinse water to the ditch. Further testing was done & this is no longer the case.

Now Jones collects wastewater in a sump and pumps it up a hill to another sump where it is diverted into two treatment tanks (acid - alkaline neutralizing). From these it pumped into a 30 ft deep dry well (also sanitary [illegible] are collected -- this system is [illegible] [illegible] [illegible]

ASP proposed action An Ind. Waste Permit for this dry well is pending w/ LA City

BOE-C6-0177551

LONG BEACH AREA
[illegible]ndoned Site Project
[illegible] Investigation Status

9-17-81

E NAME Jones Chemical Co.

ATION 1300 Block of Del Amo on N. side between Western + Normandie

L.A. (not County)

NTACT

taff person

oblem- History

Action To Date County Engineers and County Sanitation have no files
Mr. Ken Terry, Chief Industrial Waste Inspector, City of L.A.
Industrial Waste Control said they are "a big chemical
supplier". He arranged for staff to access files in San
Pedro on 9-18-81

Proposed Action See L.A. files in San Pedro City Hall

P25 8760199

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL
(See Reverse)

SENT TO
John L. Kallock
STREET AND NO.
20201 So Normandie
CITY, STATE AND ZIP CODE
Torrance, CA 90502

POSTAGE $

CERTIFIED FEE ¢

SPECIAL DELIVERY ¢

RESTRICTED DELIVERY ¢

SHOW TO WHOM AND DATE DELIVERED ¢

SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY ¢

SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED ¢

RECEIPT SERVICE

TIONAL SERVICES

JLT POSTMASTER FOR FEES

SENDER: Complete items 1, 2, and 3. Add your address in the "RETURN TO" space on reverse.

1. The following service is requested (check one.)
- ☑ Show to whom and date delivered..... ¢
- ☐ Show to whom, date and address of delivery..... ¢
- ☐ RESTRICTED DELIVERY
  Show to whom and date delivered..... ¢
- ☐ RESTRICTED DELIVERY.
  Show to whom, date, and address of delivery.$ ____

(CONSULT POSTMASTER FOR FEES)

2. ARTICLE ADDRESSED TO:
John L. Kallock
20201 So. Normandie
Torrance, CA 90502

3. ARTICLE DESCRIPTION:

REGISTERED NO.	CERTIFIED NO.	INSURED NO.
	P25 8760199	

(Always obtain signature of addressee or agent)

I have received the article described above.
SIGNATURE ☐ Addressee ☐ Authorized agent

4. DATE OF DELIVERY 11-16 | POSTMARK

5. ADDRESS (Complete only if requested)

6. UNABLE TO DELIVER BECAUSE: | CLERK'S INITIALS

☆GPO : 1979 300 469

RETURN RECEIPT, REGISTERED, INSURED AND CERTIFIED MAIL

...ENCY

SERVICES

EDMUND G. BROWN JR., Governor

November 10, 1981

lock

...l Corp of California

...02

...n of your plant by Beth Jines of the State
...t Branch and Steve Simanonok of the Environ-
... you indicated that prior to the construction
...se contracted with several companies for
...f DDT. Please provide a list of the names,
... for the companies Montrose contracted with
...k you for your cooperation.

Sincerely,

Beth Jines

Beth Jines
Project Assistant
Hazardous Waste Management Branch

BOE-C6-0177553

STATE OF CALIFORNIA—HEALTH AND WELFARE AGENCY

EDMUND G. BROWN JR., Governor

DEPARTMENT OF HEALTH SERVICES
714,744 P STREET
SACRAMENTO, CA 95814
(916) 323-6043

November 10, 1981

Mr. John L. Kallock
Plant Manager
Montrose Chemical Corp of California
20201 South Normandie
Torrance, California 90502

Dear Mr. Kallock:

During a recent inspection of your plant by Beth Jines of the State Hazardous Waste Management Branch and Steve Simanonok of the Environmental Protection Agency, you indicated that prior to the construction of Montrose's mill, Montrose contracted with several companies for the grinding and milling of DDT. Please provide a list of the names, addresses and dates of use for the companies Montrose contracted with for product milling. Thank you for your cooperation.

Sincerely,

Beth Jines

Beth Jines
Project Assistant
Hazardous Waste Management Branch

cc: Judy Henley
H.W.M.B.

John Hinton
H.W.M.B.

ROUTING SLIP

TO	CO	RW	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10

	NAME TITLE	CORRES SYMBOL	RECEIVED INITIAL	RECEIVED DATE
1	Sue Stack -			
2				
3	Re civil - 70-2389			
4				
5				

	Necessary Action		Recommendation		As Requested
	For Signature		Comment		See Me
	Concurrence		Initial and Return		Your Information
	Approval		Per Conversation		Other (Specify below)

REPLY OR INTERIM REPLY	DUE ▶	FOR SIGNATURE OF

REMARKS

There is not an "OPINION" in this file - Attached is a copy of the Dismissal —

FROM	CO	RW	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10

NAME/TITLE	CORRES. SYMBOL	BUILDING, ROOM NO.
Daphne Jordan	TELEPHONE NO. 714	DATE 7-13-81

GENERAL SERVICES ADMINISTRATION 831-4220 GSA FORM 14 (REV. 9-80)

BOE-C6-0177555

SLAFF, NOSK & RUDMAN
6290 Sunset Boulevard Suite 1801
Hollywood, California 90028
Phone: 213-466-5191

EDWARD LEE ROGERS
162 Old Town Road
East Setauket, New York 11733
Phone: 516-751-5191

WILLIAM H. RODGERS, JR.
School of Law, University of Washington
Seattle, Washington 98105
Phone: 206-543-6084

Attorneys for Plaintiff

FILED
JUN 14 1971
CLERK U.S. DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA
BY
DEPUTY

ENTERED
JUN 1 1971
CLERK, U.S. DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA
BY
DEPUTY

UNITED STATES DISTRICT COURT

CENTRAL DISTRICT OF CALIFORNIA

ENVIRONMENTAL DEFENSE FUND, individually and on behalf of all the People of the United States of America, Plaintiff, vs MONTROSE CHEMICAL CORPORATION OF CALIFORNIA, a corporation, and COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY, Defendants.	CIVIL NO. 70-2389-AWS DISMISSAL PURSUANT TO RULE 41(a)(1)FRCP

It appearing to plaintiff ENVIRONMENTAL DEFENSE FUND that defendant MONTROSE CHEMICAL CORPORATION OF CALIFORNIA has disconnected its former sewer lines and has connected new sewer lines in such manner that effluent from MONTROSE CHEMICAL CORPORATION OF CALIFORNIA's DDT manufacturing and processing operations no longer is discharged directly or indirectly into any sewer line operated or maintained by defendant COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY, and accordingly that the issues tendered by the complaint have been rendered moot, the complaint is accordingly dismissed by plaintiff pursuant to Rule 41(a)(1)FRCP.

DATED: This 14th day of June, 1971.

SLAFF, NOSK & RUDMAN
EDWARD LEE ROGERS
WILLIAM H. RODGERS, JR.

LAW OFFICES
SLAFF, NOSK &
RUDMAN
6290 SUNSET BLVD
HOLLYWOOD
CALIFORNIA 90028
HOLLYWOOD 6-0191

BOE-C6-0177556

1. Montrose

CAD008242711

has filed EPA

part A

STATE OF CALIFORNIA—HEALTH AND WELFARE AGENCY

EDMUND G. BROWN JR., Governor

DEPARTMENT OF HEALTH SERVICES
714 744 P STREET
SACRAMENTO, CA 95814
(916) 323-6042

September 25, 1981

Mr. Rolf Mall
State Department of Fish and Game
350 Golden Shore
Long Beach, CA. 90802

Dear Mr. Mall:

Staff of the Hazardous Materials Management Section's Abandoned Site Project have become aware of a situation which may cause marine pollution and endangerment of wildlife. The problem is a deposit of sediment, which is 40% DDT, in a Los Angeles County Sanitation District sewer line.

You will find enclosed with this letter a Sanitation District report which verifies the existence of the sediment problem. Our concern, and the reason we're writing to you, is that increased use of the sewer line could result in a flushing of the DDT through the treatment plant and into the ocean. We feel it is appropriate the Department of Fish and Game be made aware of the situation and be included in any discussions about remedying the problem.

You may contact Beth Jines at (916) 323-6042 or (ATSS) 473-6042 to discuss this investigation. Thank you for your attention.

Sincerely,

Mark N. White

Mark N. White, P.E., Manager
Abandoned Site Project
Hazardous Materials Management Section

Enclosure
cc: Earl Margitan
Los Angeles
Hazardous Materials Management Section
107 South Broadway
Los Angeles, CA. 90012

BOE-C6-0177558

COUNTY SANITATION DISTRICTS
OF LOS ANGELES COUNTY

955 Workman Mill Road / Whittier, California
Mailing Address: / P. O. Box 4998 Whittier, California 90607
Telephone (213) 699-7411 / From Los Angeles (213) 685-5217

WALTER E. GARRISON
Chief Engineer and General Manager

Office Copy

August 6, 1981

File: 31-150.10.26

Department of Health Services
107 South Broadway
Room 7012
Los Angeles, CA

Attention: Mr. Miller Chambers

Hazardous Materials Management Section
AUG 1 0 1981
California Department of Health Services
LOS ANGELES

Gentlemen:

DDT in Districts' Sewer Sediments

Enclosed for your information per our telephone conversation of July 28, 1981 regarding subject DDT, is a copy of the Monitoring Section's Monthly Report for July, 1977 which provides detailed information regarding this matter. Also enclosed is a copy of the first page of the Summary of Findings of the 1979-80 Southern California Coastal Water Research Program's Biennial Report, the first paragraph of which discusses DDT levels in the ocean sediments off Palos Verdes.

Please contact me if you require additional information.

Yours very truly,

Walter E. Garrison

Roger Beeken

By Roger Beeken
Departmental Engineer

RB:kss
Enclosures

Copy received from Dastor for the Montrose file
Eric Stack 8/17/81

BOE-C6-0177559

MONITORING SECTION

MONTHLY REPORT FOR JULY 1977

Norman Ackerman

DDT IN SEWER SEDIMENTS DOWNSTREAM OF MONTROSE CHEMICAL CO.

SUMMARY

A sampling survey showed the presence of an estimated 74,000 lb. of DDT in sediments in a 2300 ft. reach of Joint Outfall "D". This mass of DDT is essentially unchanged in quantity or composition from a previous survey in 1973. It is recommended that no attempt be made to remove these sediments. To do so would produce a substantial increase in discharge of DDT to the ocean even with secondary treatment at JWPCP. If it becomes necessary to clean this sewer, it should be done only after full secondary treatment is achieved at JWPCP and with the concurrence of the Regional Water Quality Control Board.

I. INTRODUCTION

Montrose Chemical Co. is a manufacturer of DDT located in Sanitation District 5. This firm formerly discharged process wastewater, containing DDT, to the District 5 Interceptor and to Joint Outfall "D". It stopped discharging a significant portion of these wastes in April 1970 and ceased the discharge of all process wastes by June 1, 1971. Subsequent sampling surveys showed that sewer sediments downstream of Montrose Chemical Co. were rich in DDT and it was suggested that these sediments were a major source of DDT influent to JWPCP. During 1970-72, the District 5 Interceptor and J.O."D" were cleaned in an attempt to eliminate this source of DDT. In a study made in 1973[1] it was concluded that the cleaning process resuspended much of the sediment (and DDT) and that most of this resuspended material passed through JWPCP to the ocean. As a result of this finding, it was recommended that further cleaning of these sewers be postponed until the improved solids processing facilities go into operation; it was expected that the new facilities would remove most of the resuspended DDT.

Because of the startup in late 1976 of improved solids processing facilities, it was decided to conduct another sewer survey and determine whether sufficient DDT remains in the sediments to justify another cleaning. This survey was conducted November 23, 1976. Figure 1 shows the sewers and manholes that were inspected. The depth of sediment was estimated at each manhole, samples of sediment were taken for analysis and an estimate of the quantity of DDT remaining in the sewer was made.

II. JWPCP WASTEWATERS

Discharge Limits

There are no discharge limitations for DDT at JWPCP. There are, however, limitations for total identifiable chlorinated hydrocarbons (TICH), shown in Table 1[1]. The initial compliance date for these limits, July 1, 1978, will probably be extended to July 1, 1983 because of the absence of secondary treatment.

Effluent Quality

A record of the actual discharges of DDT and TICH is shown in Table 2. The TICH is composed principally of DDT and polychlorinated biphenyls (PCBs) plus a small amount of chlorinated hydrocarbon pesticides other than DDT. The data show steady declines except for 1974 when there was an unexplained large increase in PCB levels. The TICH mass emission rate of 11.9 lbs/day for 1976 is approximately twice the limitation of 6.42 lbs/day shown in Table 1. Also, about half the TICH in 1976 was DDT.

Raw Sewage Quality

Table 3 presents data on DDT in JWPCP raw sewage. It shows a steady decline since 1971 with a leveling off in 1975 and 1976 to a mass flow of about 2000 lbs per year. Because of the ban on the use of DDT, the most likely sources of DDT are residues in sewer sediments and on farm land. Dust from the latter might, for example, enter the sewerage system via car washes.

The raw sewage was sampled as two streams; effluents from Grit Chambers 1 & 2 and from Grit Chambers 3 & 4. The area tributary to Grit Chambers 3 & 4 includes Montrose Chemical Co., Joint Outfall "D" and the District 5 Interceptor. Except for 1974 this stream had substantially higher DDT concentrations than the effluent from Grit Chambers 1 and 2. This suggests that there is more DDT in sewer sediments tributary to Grit Chambers 3 & 4 than to Grit Chambers 1 & 2.

Removal Efficiencies

Table 4 shows the record of DDT and TICH removals at JWPCP. DDT and TICH removals in primary sedimentation were fairly close, averaging 58% and 63%, respectively. There were, however, substantial differences between the two in total plant removal. In addition, the total plant removal of DDT was highly variable, and a six year average indicated a negative removal of about 9%. Several possible explanations may account for this unlikely negative removal: (1) Substantially all of the DDT which had been removed by primary sedimentation was subsequently returned in the digested sludge centrate to the final effluent. (2) A portion of the DDT removed by primary sedimentation was retained in digesters for up to three years before being returned during digester cleaning operations to the final effluent. This could have had a significant effect because the older wastes were richer in DDT than the more recent wastes. (3) The analysis for chlorinated hydrocarbons is very difficult in the "dirty" JWPCP effluents.

The unusual total plant removals noted above will have no significance when advanced primary treatment and secondary treatment are used at JWPCP because little TICH will be returned in the centrate then. Projected removal efficiencies of TICH have been estimated to be 53% with advanced primary treatment and 90% with secondary treatment [11,12]. It is assumed that projected DDT removals will be approximately the same as the TICH removals.

III. PROCEDURE FOR SAMPLING SEWER SEDIMENTS

Figure 1 shows that J.O. "D" and the District 5 Interceptor are two essentially parallel sewers with one lying generally east of the other. Each (the east or west sewer) is made up of alternating sections of the District 5 Interceptor and Joint Outfall "D". Several junction chambers, cross connections and bulkheads permit or block flows between the two sewers.

The District 5 Interceptor and Joint Outfall "D" were surveyed between Montrose Chemical Co. and the region where sealed manhole covers are used, a distance of about three miles. Twenty-four manholes, shown in Figure 1, were selected with a nominal spacing of about 1/4 mile. Spacings varied because of a desire to resample locations which had been sampled earlier, because of inaccessibility of manholes and to avoid areas of turbulence at corners and junction chambers. The manhole numbering system shown in Figure 1 is from Reference 2 and is different from the system used in previous surveys.

One survey crew sampled J.O."D" and the other sampled the District 5 Interceptor. Sediment samples were taken with a cup attached to a pole. This device was also used to estimate the depth of sediment by feeling the change in resistance as the pole was lowered into the manhole. The samples were sent to the San Jose Creek Water Quality Laboratory for analysis.

IV. RESULTS

The estimated depth of sediment in each of the 24 manholes that were inspected is shown in Figure 1. Samples were obtained from seven manholes; the results of the laboratory analyses are shown in Table 1. The samples, in general, were sticky and tarry. This was also observed in earlier surveys.

Mass of DDT in Sewer Sediments

The mass diagram shown in Figure 2 was prepared from the results presented above. For each manhole from which a sample was taken, the sediment cross section area was calculated from the circular segment defined by the sediment depth and the sewer radius. The sediment mass density (mass per linear foot of sewer) for that station then is the product of the sediment cross-section and the sediment density. Based upon earlier work [1,3] the sediment was assumed to have a specific gravity of 1.5 and a density of 93.6 lb/ft^3. The mass density of DDT at that station is the product of the mass fraction of DDT and the sediment mass density. The mass densities were plotted in Figure 2 as a function of distance from Montrose Chemical Co. and were assumed to vary linearly between manholes.

Integration of the curves in Figure 2 yields a sediment mass of 407,000 lb and a DDT mass of 87,000 lb. 74,000 lb of the DDT is in a 2300 ft reach of J.O."D" downstream of the Montrose discharge.

Data from less extensive surveys conducted in 1972[3] and 1973[1], were used to construct similar mass diagrams. The results of the three surveys of the same portion of J.O."D", Section 2A are shown in Figure 3. One must be cautious in evaluating these results which were developed from only a few data points with substantial uncertainty. Only two of the eight manholes indicated in Figure 3 were sampled in all three surveys. Also, the sediment depth is rather inexact because it was measured by feel, at the bottom of a manhole, with a 20 foot long pole. Taking these qualifications into consideration, there appears to be no substantial change since the 1973 survey.

Redner[13] also suggested that a short siphon on J.O."D" unit 1E, near the intersection of Sepulveda Blvd. and Figueroa St. may contain some sediment. This siphon was not sampled in this survey.

Composition and Transformation of DDT

Technical grade DDT consists of approximately 80% pp' - DDT and 20% op' DDT[4]. Mitchell[5] presented the pathways for metabolism of DDT shown in Figure 4 and stated that many others have been reported. Dahm[4] also reported that metabolic isomerization can occur; that is, the pp' isomers can be transformed by organisms to the op' isomers and vice-versa. Although 15 compounds are shown in Figure 4, only 3 of these; DDT, DDD and DDE (each of which may exist as the pp' and op' isomers) are generally found in sewage. DDD is formed from DDT by substituting a hydrogen atom for a chlorine atom. DDE is formed from DDT by removal of a hydrogen and a chlorine atom. Thus both DDD and DDE may by considered to be partially dechlorinated or degraded DDT.

Hill and McCarty[6] showed that DDT isomers persist under aerobic conditions. They also demonstrated that DDT degrades very rapidly to DDD in thick, biologically active, anaerobic, sewage sludge. In the normal sewer environment, then, rapid metabolism of DDT to DDD in the wastewater should not be expected. It might be expected, however, in anaerobic sedimants.

The composition of total DDT in the sediments from the survey of November 23, 1976 are shown in Table 5. Total DDT as used here refers to the sum of the six isomers and metabolites of DDT that are listed in Table 5. In six of the seven samples, the two DDT isomers make up about 60% of the mass of total DDT; the degradation products, DDD and DDE, comprise the other 40%. The sample from manhole D-13, which is the furthest downstream of those sampled, consists of only about 4% DDT isomers; the other 96% of the total DDT having been dechlorinated to DDD and DDE. One inference which may be made is that the sediment at manhole D-13 contained a sufficient population of anaerobes to degrade the DDT isomers; little or nometabolism occurred in the sediments at the other manholes. Another inference is that this sediment may reflect material from upstream in the sewer that was deposited at D-13 during sewer cleaning operations.

Table 6 summarizes data on degradation of DDT in samples, associated with the Joint Outfall System, taken at various times and locations. It shows the percent of degradation products (DDD + DDE) as a function of location in the sewerage system (horizontally on the chart) and in chronological sequence (vertically). The DDT in J.O."D" sediments (with the exception of manhole D-13) remained essentially constant in composition from August 1971 to November 1976; it contained 39-46% degradation products. During this same period, the DDT in JWPCP raw sewage was substantially degraded; it consisted of 87-91% degradation products. It is considered improbable for this increase in degradation to occur metabolically during the less than three hours needed for sewage to travel from the sediment bed in J.O."D" to JWPCP. An intermediate bed of sediment containing a population of anaerobes sufficient to metabolize DDT isomers, as was postulated for manhole D-13, would be required.

V. CONCLUSIONS

There is a large mass of sediment, rich in DDT, located in a 2300 ft. reach of Joint Outfall "D", Section 2A, just south of Montrose Chemical Company between manholes D26 and D31. The sediment contains 16-44" DDT, has a tarry consistency and is less than nine inches deep. A simple calculation indicates that about 74,000 lb of DDT is present in this reach; however this should be considered only a ballpark figure because of the crudeness in estimating sediment depth and the few manholes which were sampled.

The sediments in the reach are not considered to have been significant sources of total DDT flowing into JWPCP, at least since April 1973, because of the stability of the mass and composition of DDT in the sediment. The total DDT in this reach is essentially unchanged in quantity since the last survey in April 1973. It is also essentially unchanged in quality since August 1971, consisting of 39-46% degradation products (DDD + DDE). In addition, DDT in JWPCP raw sewage is substantially more degraded, containing 87-91% degradation products; it is considered unlikely that sediments resuspended from this reach would undergo such a substantial change in composition during the few hours of flow to JWPCP.

It has been estimated that 25% of sediment can be removed during a sewer cleaning operation, with the balance of 75% being resuspended and flowing to JWPCP[1]. It has also been estimated that advanced primary treatment at JWPCP can remove 52% of influent TICH and that secondary treatment can remove 90% of influent TICH[11,12]. Given these assumptions, one can calculate the amount of DDT that would be resuspended and pass through JWPCP to the ocean if the section of J.O."D" containing 74,000 lb of DDT is cleaned. With advanced primary treatment, 26,000 lb would flow to the ocean, and with secondary treatment 5,500 lb would flow to the ocean.

The 30-day average limit of 6.42 lb of TICH specified in the JWPCP Waste Discharge Permit[11] is equal to a rate of 2343 lb/year. Sewer cleaning would result in this limit being exceeded: 26,000 lb of DDT is 11 times the limit and 5,500 lb of DDT is 2.3 times the limit. These sewer cleaning discharges are also substantially greater than recent discharges of about 2000 lb/year of DDT.

VI. RECOMMENDATIONS

It is recommended that the 2300 ft. reach of J.O."D" below Montrose Chemical Co., which contains DDT-rich sediments, not be cleaned. If the sewer must be cleaned, it should be done only after full secondary treatment is achieved and with the concurrence of the Regional Water Quality Control Board.

Cleaning would produce a substantial increase in DDT discharged to the ocean. Cleaning after July 1, 1978, when the TICH discharge limit goes into effect, would probably result in a violation of the discharge permit. Cleaning appears to be unnecessary for sewer maintenance because the 9 inches or less of sediment have little effect on the hydraulics of the 57 inch diameter sewer. Cleaning also would be very difficult because of the tarry consistency of the sediment.

REFERENCES

1. Luthy, Richard F., and Wilson, Paul F., "Chlorinated Hydrocarbon Study Progress Report," Monitoring Section, County Sanitation Districts of Los Angeles County (LACSD) July 1973.

2. "Map Guide for District 5", LACSD

3. Anderson, Blake B., "Trace Constituents Monitoring", Technical Services Department Monthly Report, December 1972, LACSD.

4. Dahm, Paul A., "Chemistry and Metabolism of Insecticides," Chapter II of "Agricultrual Practices and Water Quality," Willrich Ted L. and George E. Smith, Editors. Iowa State University Press, Ames, Iowa, 1970.

5. Mitchell, Ralph, "Introduction to Environmental Biology" Prentice Hall, Englewood Cliffs, N.J. 1974.

6. Hill, David W. and P.L. McCarty, "The Anaerobic Degradation of Selected Hydrocarbon Pesticides, presented at the Water Pollution Control Federation meeting in Kansas City, Kansas 9/27/66.

7. Carry, Charles W. and Redner, John A. "Pesticides and Heavy Metals, Progress Report, December 1970", LACSD.

8. MacGregor, John S., "DDT and Its Metabolites in the Sediments Off Southern California", Fishery Bulletin, Vol.74 No. 1, 1976.

9. McDermott, Deirdre J., Heeson, Theadore C. and Young, David R., "DDT in Bottom Sediments Around Five Southern California Outfall Systems", Southern California Coastal Water Research Project, December 1974.

10. Redner, John and Payne, Kip, "Chlorinated Hydrocarbon Progress Report December 1971," LACSD.

11. "Waste Discharge Requirements for County Sanitation Districts of Los Angeles County (Joint Water Pollution Control Plant), NPDES Permit No. CA0053813, Board Order No. 77-99" State of California, Resources Agency, Regional Water Quality Control Board, Los Angeles Region, Adopted June 27, 1977.

12. Dryden, F.D. "Joint Water Pollution Control Plant Anticipated Pollutant Removals, "Letter from LACSD to R.M. Hertel, California Regional Water Quality Control Board, File No.: 98-9111.50.1.5, May 12, 1975.

13. Redner, John, Personal Communication, July 22, 1977.

TABLE I

TICH DISCHARGE REQUIREMENTS FOR JWPCP

Units	Discharge Limitations		
	30-Day Average	Not to be Exceeded More Than 10% of Time	Daily Maximum
ppb	2	4	6
kg/day	2.91	-	5.83
lbs/day	6.42	-	12.8

TABLE 2

ANNUAL MEAN DISCHARGE OF DDT AND TICH FROM JWPCP

Calendar Year	Concentration (ppb)		Mass Emission Rate (lbs/day)	
	DDT	TICH	DDT	TICH
1971	44.0	54.8	137	170
1972	13.4	21.5	40.5	64.8
1973	7.52	10.7	22.3	31.8
1974	3.05	15.9	8.76	44.6
1975	2.20	5.26	6.25	14.9
1976	1.82	4.06	5.35	11.9

TABLE 3

DDT IN JWPCP RAW SEWAGE

Calendar Year	Mean Concentration (parts per billion)				
	Grit Chambers 1 & 2	Grit Chambers 3 & 4	Flow Weighted Average	Mean Mass Flow Rate (lb/day)	Mean Mass Flow Rate (lb/year)
1971	10.96	55.10	34.10	105.4	38,800
1972	3.69	26.76	14.93	44.7	16,300
1973	3.73	10.26	7.63	22.8	8,300
1974	4.05	3.98	3.98	11.4	4,160
1975	0.86	2.18	1.74	4.92	1,790
1976	(0.82)[a]	(1.59)[a]	(1.26)[a] 2.05	6.07	2,150

NOTE: [a] these data are for the four month period, January-April, 1976.

TABLE 4

DDT AND TICH REMOVALS AT JWPCP

Calendar Year	Mean Removals (Percent)			
	Primary Sedimentation		Total Plant	
	DDT	TICH	DDT	TICH
1971	-	-	-30	0
1972	53	59	10	14
1973	60	65	2	17
1974	67	82	24	46
1975	49	57	-27	18
1976	62	53	12	15
Mean	58	63	- 9	18

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TABLE 5

DDT IN SEWER SEDIMENTS DOWNSTREAM OF MONTROSE CHEMICAL CO.

NOVEMBER 23, 1976

Manhole	D-32	D-30	D-29	21C	D-26	D-18	D-13
Distance Downstream of Montrose Chemical Co.(ft)	-702 (upstream)	614	1276	2151	2323	7837	10,559
Depth of Sediment (ft)	0.2-0.5 (spotty)	0.6	0.7	0.3	0-0.1	0.1-0.3	0.1-0.3
Total DDT as a percent of sediment	0.436	44.0	30.0	16.0	19.7	3.72	4.97
Composition of Total DDT (Mass Fraction)							
pp'-DDT	.498	.577	.511	.511	.499	.489	.038
pp'-DDE	.257	.217	.242	.252	.260	.247	.437
pp'-DDD	.083	.051	.095	.093	.093	.137	.364
op'-DDT	.035	.091	.036	.066	.072	.040	.006
op'-DDE	.037	.032	.030	.031	.032	.030	.052
op'-DDD	.041	.031	.034	.046	.043	.056	.103
pp'+op'-DDT	.583	.668	.597	.577	.571	.529	.044
pp'+op'-DDE	.294	.249	.272	.283	.292	.277	.489
pp'+op'-DDD	.124	.082	.129	.139	.136	.193	.467

TABLE 6

GRADATION OF DDT IN THE JOINT OUTFALL SYSTEM

SAMPLING DATE OR PERIOD	NO. OF SAMPLES	REFERENCE[1]	PERCENT DEGRADATION PRODUCTS IN TOTAL DDT (DDD + DDE) x 100/(DDT + DDD + DDE)						
			MONTROSE EFFLUENT	WASTEWATER BELOW MONTROSE DISCHARGE	SEWER SEDIMENTS		GRIT FROM GC 3 & 4	JWPCP GRIT CHAMBER EFFLUENT	OCEAN SEDIMENTS OFF WHITE POINT
					IN 2300 FT REACH OF JO"D"	MAN-HOLE D-13			
July 1970	1	7		27					
Aug-Nov 1970	7	7	26						
Jan-Dec 1971	12							88	
Jan 11, 1971 - Mar 26, 1972	28						83		
July 15, 1971	2	1			23				
Aug 6, 1971	2	1			45				
July-Aug 1971	103	8							92
Jan-Dec 1972	12							90	
June 1972	19	8,9							97
Oct 24, 1972	2	3			46				
Sept 29, 1972 - Mar 30, 1973	23						88		
Jan-Dec 1973	12							87	
Jan 12, 1973	2	1			40				
Apr 27, 1973	3	1			46				
Jan-Dec 1974	12							89	
Jan-Dec 1975	12							91	
Jan-Dec 1976	12							83	
Nov 23, 1976	3				39	96			

NOTE: [1] Data for which no references are given were generated for this report from Monitoring Section records.

SURVEY FOR DDT IN SEWER SEDIMENTS
DOWNSTREAM OF MONTROSE CHEMICAL CO.
NOVEMBER 23, 197

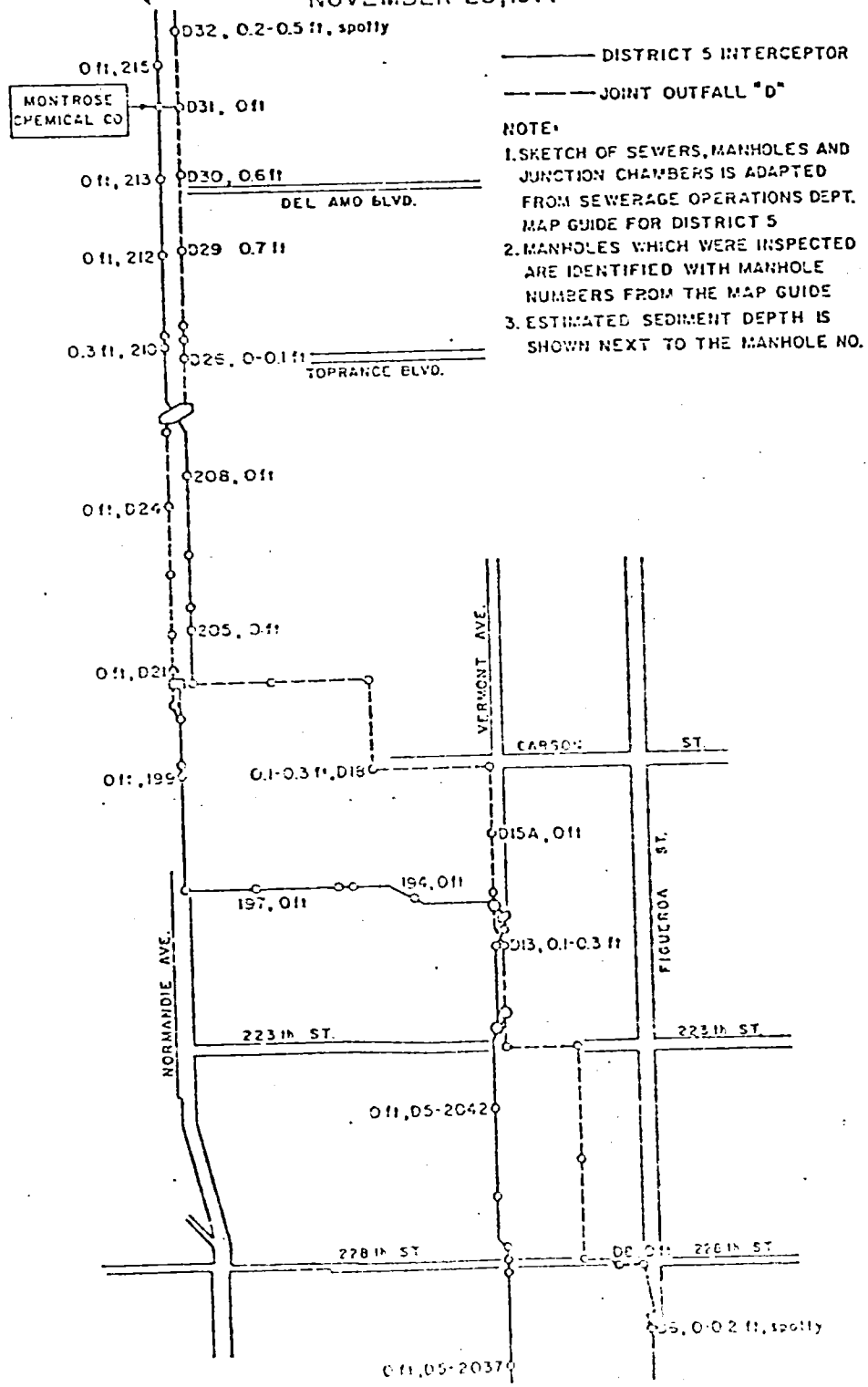


FIGURE 1

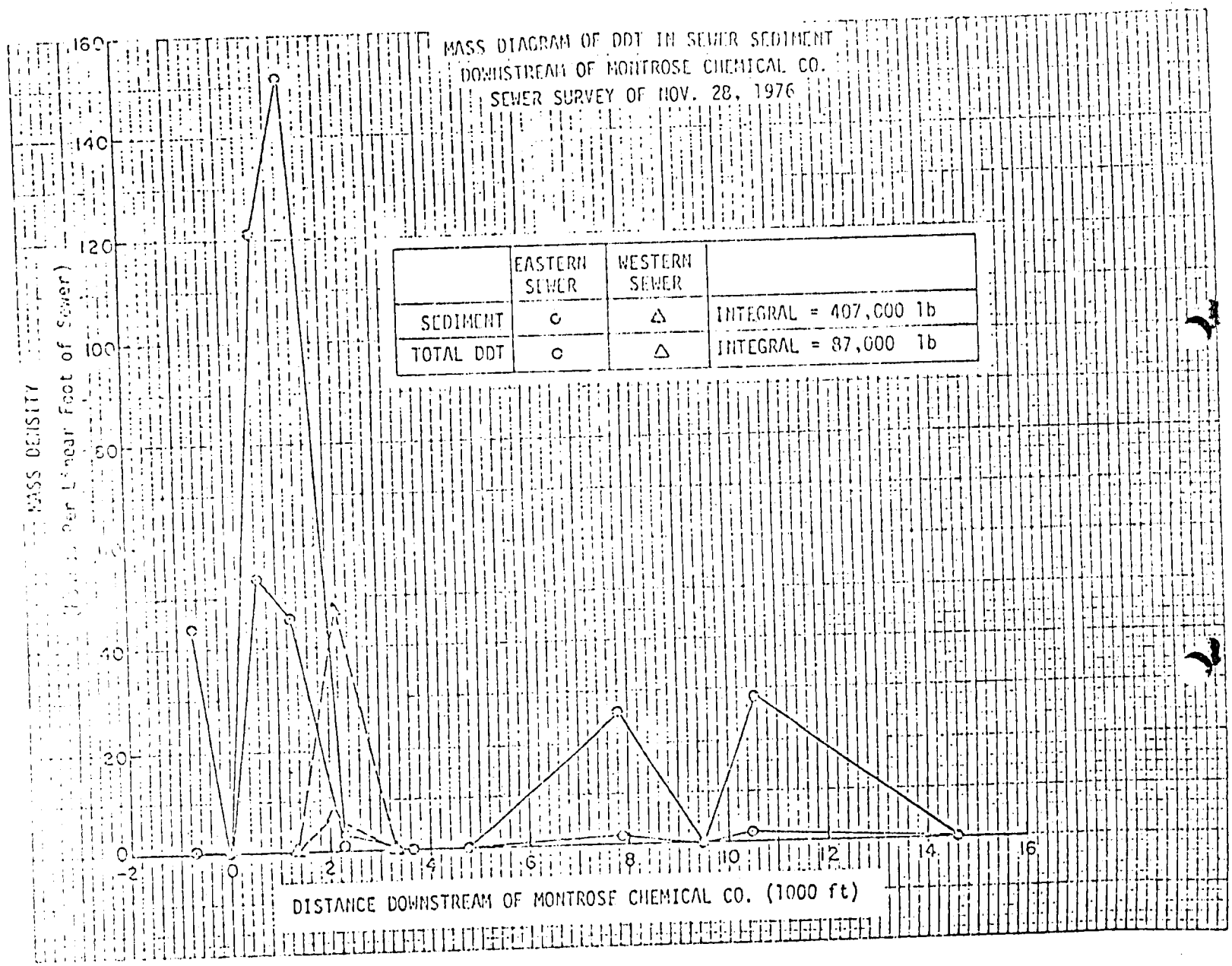
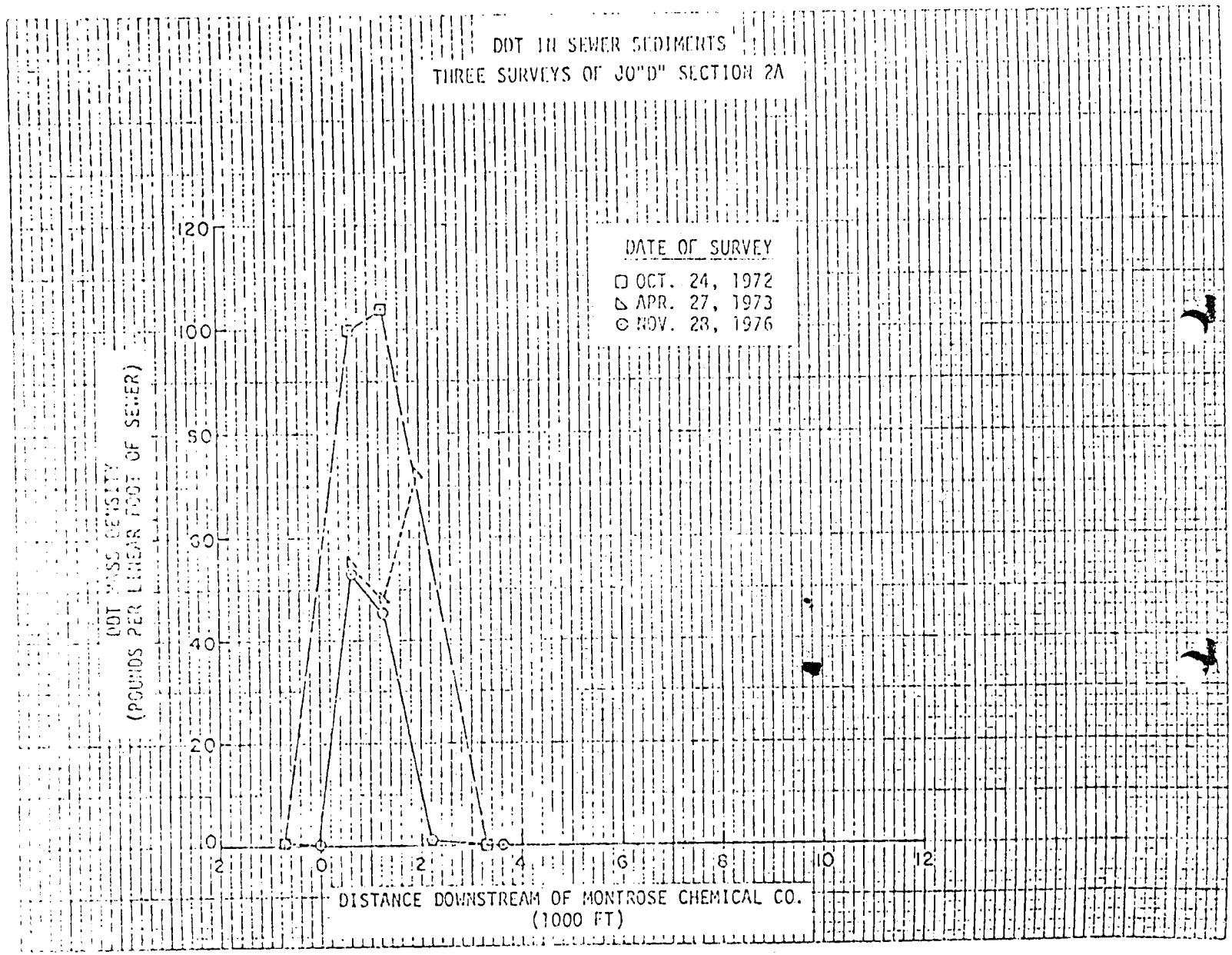


Figure 2

BOE-C6-0177572



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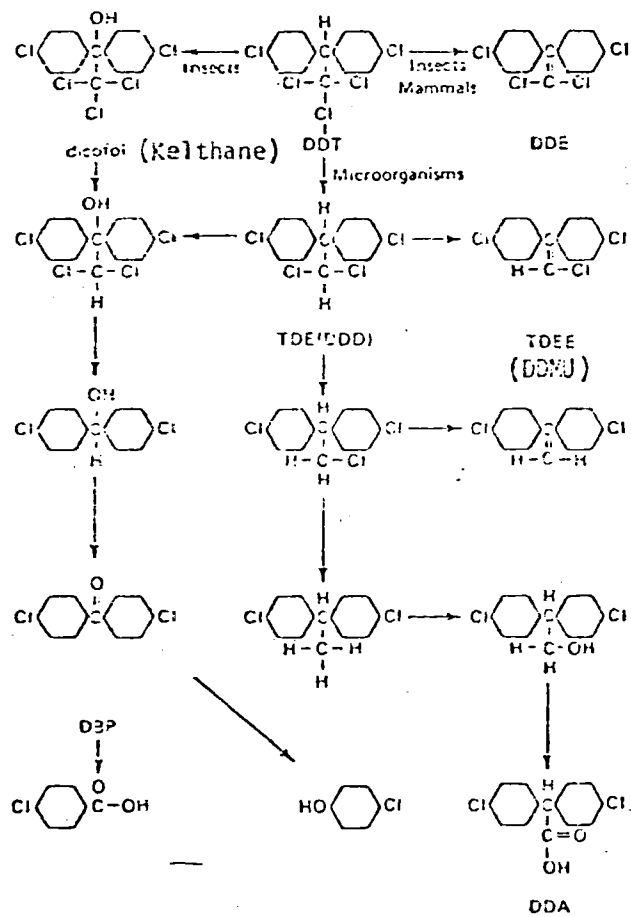
The metabolism of DDT by microorganisms. The metabolites DDE, TDE, TDEE, and DDA are all quite recalcitrant and accumulate in higher organisms. (After F. Matsumura and G. M. Bousch in *Soil Biochemistry*, by A. D. McLaren and J. Skujins, Vol. 2, Marcel Dekker, Inc., N. Y., 1972.)



COASTAL WATER RESEARCH PROJECT

Biennial Report for the years 1979 - 1980

edited by
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