DOW CHEMICAL U.S.A.

November 5, 1981

LOUISIANA DIVISION
P. O. BOX 150
PLAQUEMINE, LOUISIANA 70764
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A. J. Seidule
Plastics Administration
Building 2306

"ENVIRONMENTAL CONTROL"

NOV 06 1981

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DUST SAMPLING PROJECT FOR THE PLASTICS DEPARTMENT
OCTOBER 20, 1981 THROUGH OCTOBER 27, 1981

The odd numbered quadrants were picked up this week. There was one collector whose contents exceeded the 20 tons/mi^2/mo limit---Collector Number 1 located on Power Road between Poly B and Goodrich.

The total amount of dustfall found in Quadrant 1 was 21.80 tons/mi^2/mo with 90% of that total being attributed to plant emissions. The 19.62 tons/mi^2/mo of dustfall that was due to plant emissions was an even mixture of PVC and HDPE powder. The source of the PVC found in Quadrant 1 as well as the small amounts found in 3 other quadrants this week could not be pinpointed as there were no spills reported or observed at Goodrich during this period of time.

The sources of the Polyethylene powder found, not just in Quadrant 1, but in various amounts in all 8 quadrants sampled this week, can be found in this week's spill log. There were two spills involving PE this week---one from the Train I airslide which was recorded in the Poly B Plant Spill Log and one from the Train IV vent filter which was observed by persons outside of Poly B. Although the amount of polyethylene in any one quadrant was not excessive, the total amount of PE in all 8 quadrants accounted for more than half of the total plant dustfall found this week.

CPE was observed in 3 quadrants this week although in none of these could the amount of CPE found be considered excessive. The CPE plant did report one CPE resin spill on October 24 while the wind was blowing out of the east which could have been the source of the CPE found in quadrants west of CPE - Quadrant Numbers 9, 11, and 13.

Attached is the dustfall data for the week of October 20th through October 27th.

Pam L. Usie

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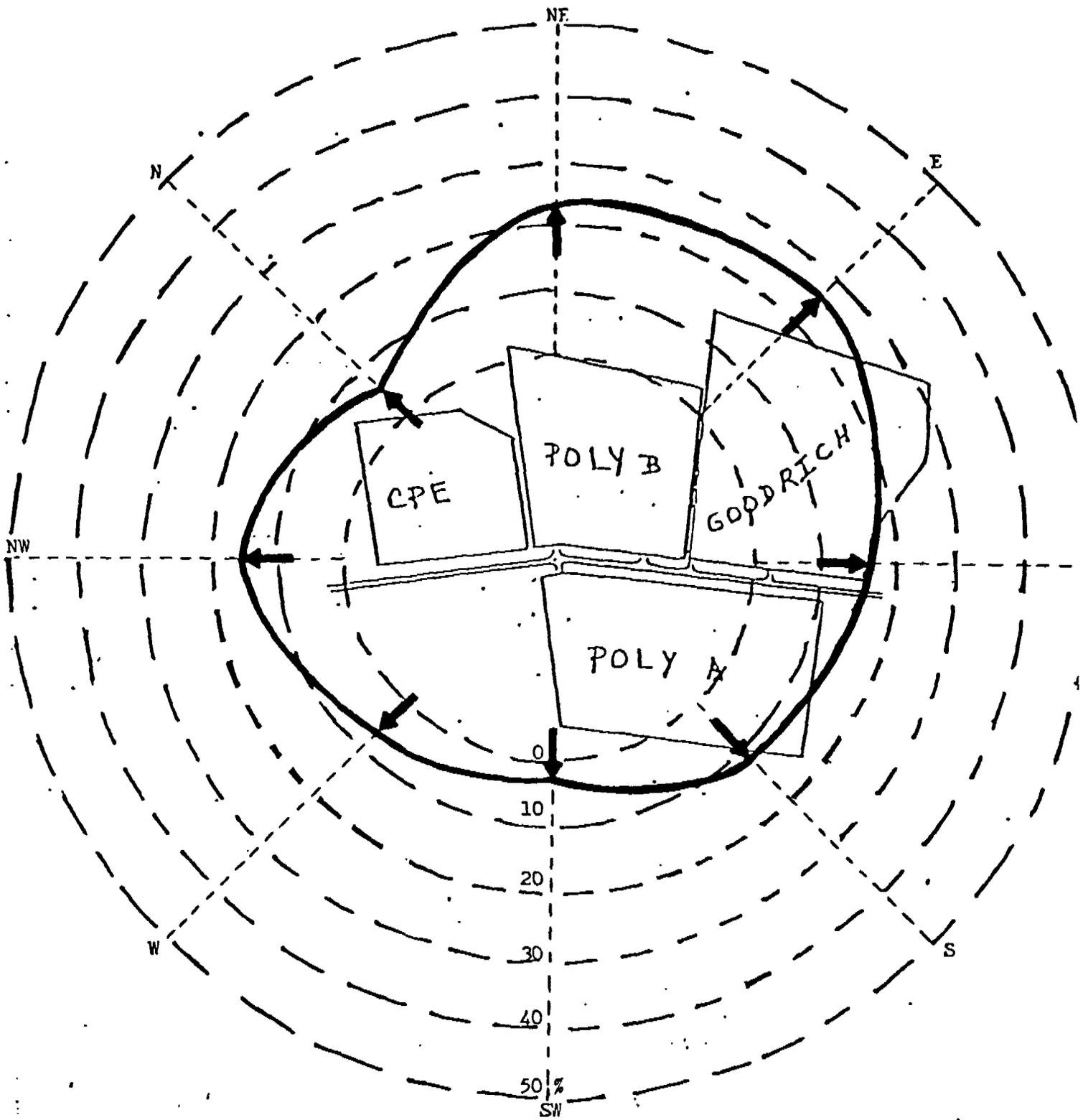
Attachments (4)

ltb

WIND DIRECTION
(Average % In Given Direction Over The W[illegible])

DATE OUT: 10-20-81 DATE IN: 10-27-81



QUADRANTS SAMPLED: ODD

DO 085019
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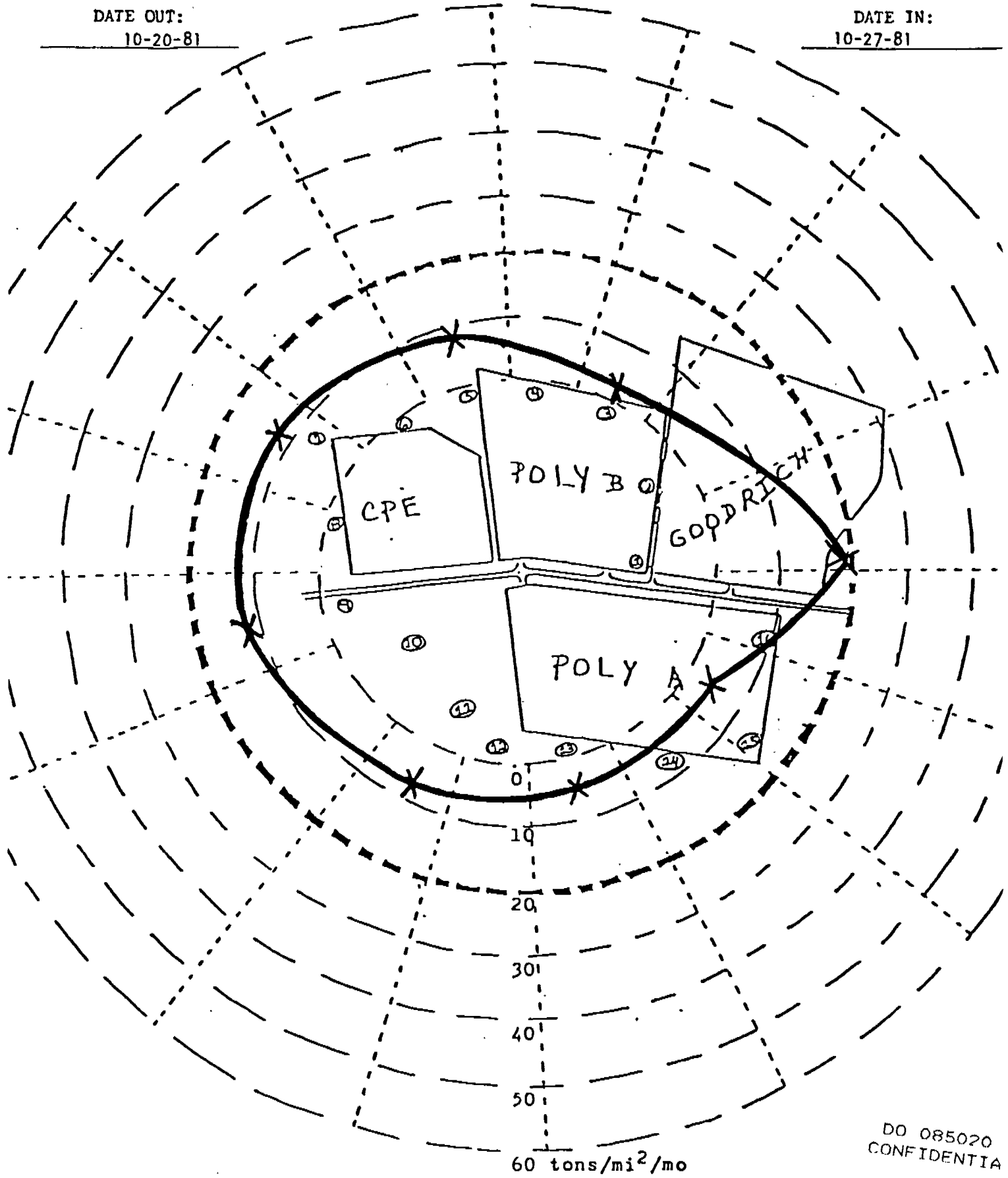
DUSTFALL DUE TO PLANT EMISSIONS

Circled Numbers Indicate Collector Locations
X's Indicate Amount Collected in That Quadrant

DATE OUT: 10-20-81

DATE IN: 10-27-81



DO 085020
CONFIDENTIA

EPA limit: 20 tons/mi²/mo

Quadrants Sampled: ODD

DUSTFALL ANALYSIS

DATE OUT: 10-20-81 DATE IN: 10-27-81

D_T Total dustfall extrapolated to Tons/mi^2/mo.

$D_{T/PE}$ That part of D_T which is due to plant emissions.

$D_{T/O}$ That part of D_T which is due to factors other than plant emissions (insect eggs, dirt, sand, etc.

QUADRANT	DUSTFALL	D_T TOTAL	$D_{T/PE}$	$D_{T/O}$	COMMENTS
1	0.0325	21.80*	19.62	2.18	MIXTURE OF PVC AND HDPE WITH 10% INSECT EGGS & REMAINS
3	0.0054	3.62	1.81	1.81	EVEN MIXTURE OF HDPE AND INSECT REMAINS
5	0.0139	9.33	0.47	8.86	TRACE HDPE POWDER, BUT MOSTLY INSECT REMAINS
7	0.0204	13.69	1.37	12.32	MOSTLY INSECT REMAINS AND DIRT, 10% PE
9	0.0246	16.50	11.00	5.50	FAIRLY EVEN MIXTURE OF CPE, HDPE, AND DIRT
11	0.0161	10.80	7.02	3.78	30% CPE, 30% PE, 5% PVC, 35% DIRT
13	0.0071	4.76	4.76	0.00	10% PVC, REST WAS A MIXTURE OF CPE AND PE
15	0.0053	3.56	3.56	0.00	50/50 MIXTURE OF PVC AND HDPE

* Excessive; above recommended limit

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11-05-81

SPILL LOG

DATE	PLANT INVOLVED	TIME OF REPORT	CHEMICAL INVOLVED	WIND DIRECTION	COMMENTS
OCT. 20	POLY B	8:30 A.M.	PE	?	POWDER WAS SEEN BLOWING OUT OF FILTER ATTACHED TO TRAIN IV VENT
	CPE	1:15 P.M.	TALC	?	200#, BLEW POP VALVE*
OCT. 24	CPE	4:00 A.M.	CPE	E	2000#, CYCLONE PLUGGED
OCT. 25	CPE	3:00 A.M.	SUPERFLEX	?	5#, B-604 POP VALVE
OCT. 26	CPE	7:45 A.M.	SUPERFLEX	N	10#, B-604 POP VALVE
OCT. 27	POLY B	3:30 A.M.	PE	N	1500#, TRAIN I AIRSLIDE PLUGGED

* REPORTED TO PLANT SECURITY.

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11-05-81

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