

TO: Distribution

FROM: Frank G. Jeanson

DATE: June 5, 1992

Interoffice
Communication

SUBJ: PVC/VCM PRODUCERS SARA 313 EMISSIONS FOR 1990 AND
1989

VISTA

Attached is the SARA 313 data from 1990 and 1989 for all of the PVC/VCM producers I could find. I have sorted this data for both years by the following categories:

1. Total Company Emissions and Comparison from 1989 to 1990
2. Total Emissions
3. Fugitive Air Emissions
4. Stack Air Emissions
5. Water Emissions
6. Offsite Emissions

Unfortunately, Shintech and three of BFG's plants did not make the 1990 database. If you know of any other companies that should be included or would like to see this data in another form, please let me know.



Frank G. Jeanson
Sr. Environmental Specialist

dlj

c:RDG,THH,TGG,RRS,EJM,MCM,RWS,HDG,PEM,JEN,AAS,AJW,KGA,
JLJ,RH,JMC

UPE571954

COMPARISON EMISSIONS

1989 - 1990

COMPANY	LOCATION	1989 TOTAL PLANT	1990 TOTAL PLANT	% REDUCTION	1989 TOTAL COMPANY	1990 TOTAL COMPANY	% REDUCTION
AIR PROD	CALVERT CITY, KY		500		0	500	
BFGOODRICH	PEDRICKTOWN, NJ	72,045	88,035	-22.19%	260,483	213,837	17.91%
	DEER PARK, TX	62,750	85,097	-35.61%			
	PLAQUEMINE, LA	12,906	31,605	-144.89%			
	LOUISVILLE, KY	9,497	9,100	4.18%			
	AVON LAKE, OH	46,650	0	100.00%			
	HENRY, IL	34,680	0	100.00%			
	CALVERT CITY	18,655		100.00%			
	LAPORTE, TX	3,300	0	100.00%			
BORDEN	ILLIOPOLIS, IL	95,352	76,036	20.26%	134,241	129,492	3.54%
	GEISMAR, LA	38,889	53,456	-37.46%			
CERTEED	SULPHUR, LA	26,002	24,501	5.77%	26,002	24,501	5.77%
DOW	FREEPORT, TX	2,550	9,770	-283.14%	9,650	17,270	-78.96%
	PLAQUEMINE, LA	7,100	7,500	-5.63%			
FORMOSA	DELAWARE CITY, DE	129,909	127,533	1.83%	135,878	148,183	-9.06%
	PT. COMFORT, TX	5,969	20,650	-245.95%			
GA GULF	DELAWARE CITY, DE	44,728	35,941	19.65%	49,408	45,241	8.43%
	PLAQUEMINE, LA	4,680	9,300	-98.72%			
GOODYEAR	NIAGRA FALLS, NY	2,040	72,946	-3475.78%	2,040	72,946	-3475.78%
KEYSOR	SAUGAS, CA	760	825	-8.55%	760	825	-8.55%
OXY	POTTSTOWN, PA	165,240	139,849	15.37%	341,808	291,330	14.77%
	PASADENA, TX	67,018	76,418	-14.03%			
	BURLINGTON N, NJ	53,135	40,562	23.66%			
	ADDIS, LA	28,912	20,008	30.80%			
	BURLINGTON S, NJ	8,503	14,406	-69.42%			
	DEER PARK, TX	19,000	87	99.54%			
PAC WEST	CALVERT CITY, KY		24,970		0	24,970	
PPG	WESTLAKE, LA	17,033	10,303	39.51%	17,033	10,303	39.51%
SHINTECH	FREEPORT, TX	71,769	0	100.00%	71,769	0	100.00%
UNION CAR	TEXAS CITY, TX	4,246	1,759	58.57%	4,246	1,759	58.57%
VISTA	OKLAHOMA CITY, OK	78,521	65,712	16.31%	166,325	150,111	9.75%
	ABERDEEN, MS	76,218	64,005	16.02%			
	LAKE CHARLES, LA	11,586	20,394	-76.02%			
WESTLAKE	CALVERT CITY, KY	21,500	57,660	-168.19%	30,650	70,910	-131.35%
	PAGE, FL	9,150	13,250	-44.81%			
	LAKE CHARLES, LA	0					
TOTALS		1,250,293	1,202,178	3.85%	1,250,293	1,202,178	3.85%

VPE571955

A

1990 TOTAL VCM EMISSIONS								
COMPANY	LOCATION	AIR FUGITIVE	AIR STACK	WATER	POTW	OFFSITE	LAND	TOTAL
OXY	POTTSTOWN, PA	21,299	116,976	0	1,074	250	250	139,849
FORMOSA	DELAWARE CITY, DE	23,564	101,718	40	0	0	2,211	127,533
BFG	PEDRICKTOWN, NJ	12,000	76,000	26	0	9	0	88,035
BFG	DEER PARK, TX	510	530	0	0	84,057	0	85,097
OXY	PASADENA, TX	2,400	74,000	18	0	0	0	76,418
BORDEN	ILLIOPOLIS, IL	14,625	60,835	24	0	552	0	76,036
GOODYEAR	NIAGRA FALLS, NY	19,011	52,771	0	306	858	0	72,946
VISTA	OKLAHOMA CITY, OK	1,400	64,300	0	12	0	0	65,712
VISTA	ABERDEEN, MS	3,017	60,976	12	0	0	0	64,005
WESTLAKE	CALVERT CITY, KY	23,000	27,000	0	0	7,660	0	57,660
BORDEN	GEISMAR, LA	8,161	45,263	23	0	9	0	53,456
OXY	BURLINGTON N, NJ	3,300	37,000	7	0	255	0	40,562
GA GULF	DELAWARE CITY, DE	5,019	27,790	2	0	3,130	0	35,941
BFG	PLAQUEMINE, LA	20,000	5,000	6,600	0	5	0	31,605
PAC WEST	CALVERT CITY, KY	14,000	6,000	0	0	4,970	0	24,970
CERTEED	SULPHUR, LA	24,000	500	1	0	0	0	24,501
FORMOSA	PT. COMFORT, TX	7,800	5,700	250	0	6,900	0	20,650
VISTA	LAKE CHARLES, LA	16,588	3,788	12	0	6	0	20,394
OXY	ADDIS, LA	2,300	17,700	8	0	0	0	20,008
OXY	BURLINGTON S, NJ	10,000	4,400	6	0	0	0	14,406
WESTLAKE	PACE, FL	2,000	11,000	0	0	250	0	13,250
PPG	WESTLAKE, LA	8,042	2,257	3	0	1	0	10,303
DOW	FREEPORT, TX	7,500	270	0	0	2,000	0	9,770
GA GULF	PLAQUEMINE, LA	1,700	7,600	0	0	0	0	9,300
BFG	LOUISVILLE, KY	5,000	4,100	0	0	0	0	9,100
DOW	PLAQUEMINE, LA	5,900	1,600	0	0	0	0	7,500
UNION CAR	TEXAS CITY, TX	1,573	185	0	0	1	0	1,759
KEYSOR	SAUGAS, CA	50	770	0	5	0	0	825
AIR PROD	CALVERT CITY, KY	250	250	0	0	0	0	500
OXY	DEER PARK, TX	72	15	0	0	0	0	87
BFG	AVON LAKE, OH						0	0
BFG	LAPORTE, TX						0	0
SHINTECH	FREEPORT, TX						0	0
BFG	HENRY, IL						0	0
		264,081	816,294	7,032	1,397	110,913	2,461	1,202,178

VPE571956

1989 TOTAL VCM EMISSIONS									
COMPANY	LOCATION	AIR FUGITIVE	AIR STACK	WATER	POTW	OFFSITE	LAND	TOTAL	UND. INJECTION
OCCIDENTAL	POTTSTOWN, PA	5,860	155,400	0	2,620	0	1,360	165,240	
FORMOSA	DELAWARE CITY, DE	22,392	105,226	2	0	0	2,289	129,909	
BORDEN	ILLIOPOLIS, IL	16,500	76,900	190	0	1,762	0	95,352	
VISTA	OKLAHOMA CITY, OK	1,500	77,000	0	21	0	0	78,521	
VISTA	ABERDEEN, MS	3,016	73,196	6	0	0	0	76,218	
BFGOODRICH	PEDRICKTOWN, NJ	16,000	56,000	23	0	22	0	72,045	
SHINTECH	FREEPORT, TX	53,725	18,014	30	0	0	0	71,769	
OCCIDENTAL	PASADENA, TX	18,000	49,000	18	0	0	0	67,018	
BFGOODRICH	DEER PARK, TX	750	250	0	0	61,750	0	62,750	
OCCIDENTAL	BURLINGTON N, NJ	3,100	50,000	6	0	29	0	53,135	
BFGOODRICH	AVON LAKE, OH	15,000	25,000	0	4,200	2,450	0	46,650	
GA GULF	DELAWARE CITY, DE	6,620	36,442	1	0	1,665	0	44,728	
BORDEN	GEISMAR, LA	4,105	34,765	2	0	17	0	38,869	271
BFGOODRICH	HENRY, IL	3,670	30,300	0	0	710	0	34,680	
OCCIDENTAL	ADDIS, LA	3,900	25,000	12	0	0	0	28,912	
CERTAINTED	SULPHUR, LA	24,400	1,600	2	0	0	0	26,002	
WESTLAKE PVC	CALVERT CITY, KY	14,000	7,500	0	0	0	0	21,500	
OCCIDENTAL	DEER PARK, TX	19,000	0	0	0	0	0	19,000	
BFGOODRICH	CALVERT CITY, KY	17,049	1,505	16	0	85	0	18,655	
PPG	WESTLAKE, LA	15,000	1,900	20	0	113	0	17,033	
BFGOODRICH	PLAQUEMINE, LA	3,700	7,600	1,600	0	6	0	12,906	
VISTA	LAKE CHARLES, LA	6,449	5,127	5	0	5	0	11,586	
BFGOODRICH	LOUISVILLE, KY	4,000	4,900	0	37	560	0	9,497	
WESTLAKE PVC	PACE, FL	4,500	4,400	0	0	0	250	9,150	
OCCIDENTAL	BURLINGTON S, NJ	2,100	6,400	3	0	0	0	8,503	
DOW	PLAQUEMINE, LA	5,500	1,600	0	0	0	0	7,100	
FORMOSA	PT. COMFORT, TX	1,346	4,373	250	0	0	0	5,969	
GA GULF	PLAQUEMINE, LA	380	4,300	0	0	0	0	4,680	
UNION CARBIDE	TEXAS CITY, TX	3,945	300	0	0	1	0	4,246	
BFGOODRICH	LAPORTE, TX	1,600	1,700	0	0	0	0	3,300	
DOW	FREEPORT, TX	1,800	520	0	0	230	0	2,550	
GOODYEAR	NIAGRA FALLS, NY	0	0	0	900	1140	0	2040	
KEYSOR	SAUGAS, CA	40	580	0	140	0	0	760	
WESTLAKE PVC	LAKE CHARLES, LA							0	
		298,947	866,798	2,186	7,918	70,545	3,899	1,250,293	271

UPE571957

1990 VCM FUGITIVE AIR EMISSIONS								
COMPANY	LOCATION	AIR FUGITIVE	AIR STACK	WATER	POTW	OFFSITE	LAND	TOTAL
CERTEED	SULPHER, LA	24,000	500	1	0	0	0	24,501
FORMOSA	DELAWARE CITY, DE	23,564	101,718	40	0	0	2,211	127,533
WESTLAKE	CALVERT CITY, KY	23,000	27,000	0	0	7,660	0	57,660
OXY	POTTSTOWN, PA	21,299	116,976	0	1,074	250	250	139,849
BFG	PLAQUEMINE, LA	20,000	5,000	6,600	0	5	0	31,605
GOODYEAR	NIAGRA FALLS, NY	19,011	52,771	0	306	858	0	72,946
VISTA	LAKE CHARLES, LA	16,588	3,788	12	0	6	0	20,394
BORDEN	ILLIOPOLIS, IL	14,625	60,835	24	0	552	0	76,036
PAC WEST	CALVERT CITY, KY	14,000	6,000	0	0	4,970	0	24,970
BFG	PEDRICKTOWN, NJ	12,000	76,000	26	0	9	0	88,035
OXY	BURLINGTON S, NJ	10,000	4,400	6	0	0	0	14,406
BORDEN	GEISMAR, LA	8,161	45,263	23	0	9	0	53,456
PPG	WESTLAKE, LA	8,042	2,257	3	0	1	0	10,303
FORMOSA	PT. COMFORT, TX	7,800	5,700	250	0	6,900	0	20,650
DOW	FREEPORT, TX	7,500	270	0	0	2,000	0	9,770
DOW	PLAQUEMINE, LA	5,900	1,600	0	0	0	0	7,500
GA GULF	DELAWARE CITY, DE	5,019	27,790	2	0	3,130	0	35,941
BFG	LOUISVILLE, KY	5,000	4,100	0	0	0	0	9,100
OXY	BURLINGTON N, NJ	3,300	37,000	7	0	255	0	40,562
VISTA	ABERDEEN, MS	3,017	60,976	12	0	0	0	64,005
OXY	PASADENA, TX	2,400	74,000	18	0	0	0	76,418
OXY	ADDIS, LA	2,300	17,700	8	0	0	0	20,008
WESTLAKE	PACE, FL	2,000	11,000	0	0	250	0	13,250
GA GULF	PLAQUEMINE, LA	1,700	7,600	0	0	0	0	9,300
UNION CAR	TEXAS CITY, TX	1,573	185	0	0	1	0	1,759
VISTA	OKLAHOMA CITY, OK	1,400	64,300	0	12	0	0	65,712
BFG	DEER PARK, TX	510	530	0	0	84,057	0	85,097
AIR PROD	CALVERT CITY, KY	250	250	0	0	0	0	500
OXY	DEER PARK, TX	72	15	0	0	0	0	87
KEYSOR	SAUGAS, CA	50	770	0	5	0	0	825
SHINTECH	FREEPORT, TX						0	0
BFG	AVON LAKE, OH						0	0
BFG	LAPORTE, TX						0	0
BFG	HENRY, IL						0	0
		264,081	816,294	7,032	1,397	110,913	2,461	1,202,178

VP571958

1989 VCM FUGITIVE AIR EMISSIONS

COMPANY	LOCATION	AIR FUGITIVE	AIR STACK	WATER	POTW	OFFSITE	LAND	TOTAL	UND. INJECTION
SHINTECH	FREEPORT, TX	53,725	18,014	30	0	0	0	71,769	
CERTAINTED	SULPHUR, LA	24,400	1,600	2	0	0	0	26,002	
FORMOSA	DELAWARE CITY, DE	22,392	105,226	2	0	0	2,289	129,909	
OCCIDENTAL	DEER PARK, TX	19,000	0	0	0	0	0	19,000	
OCCIDENTAL	PASADENA, TX	18,000	49,000	18	0	0	0	67,018	
BFGOODRICH	CALVERT CITY, KY	17,049	1,505	16	0	85	0	18,655	
BORDEN	ILLIOPOLIS, IL	16,500	76,900	190	0	1,762	0	95,352	
BFGOODRICH	PEORICKTOWN, NJ	16,000	56,000	23	0	22	0	72,045	
PPG	WESTLAKE, LA	15,000	1,900	20	0	113	0	17,033	
BFGOODRICH	AVON LAKE, OH	15,000	25,000	0	4,200	2,450	0	46,650	
WESTLAKE PVC	CALVERT CITY, KY	14,000	7,500	0	0	0	0	21,500	
GA GULF	DELAWARE CITY, DE	6,620	36,442	1	0	1,665	0	44,728	
VISTA	LAKE CHARLES, LA	6,449	5,127	5	0	5	0	11,586	
OCCIDENTAL	POTTSTOWN, PA	5,860	155,400	0	2,620	0	1,360	165,240	
DOW	PLAQUEMINE, LA	5,500	1,600	0	0	0	0	7,100	
WESTLAKE PVC	PAGE, FL	4,500	4,400	0	0	0	250	9,150	
BORDEN	GEISMAR, LA	4,105	34,785	2	0	17	0	38,889	271
BFGOODRICH	LOUISVILLE, KY	4,000	4,900	0	37	560	0	9,497	
UNION CARBIDE	TEXAS CITY, TX	3,945	300	0	0	1	0	4,246	
OCCIDENTAL	ADDIS, LA	3,900	25,000	12	0	0	0	28,912	
BFGOODRICH	PLAQUEMINE, LA	3,700	7,600	1,600	0	6	0	12,906	
BFGOODRICH	HENRY, IL	3,670	30,300	0	0	710	0	34,680	
OCCIDENTAL	BURLINGTON N, NJ	3,100	50,000	6	0	29	0	53,135	
VISTA	ABERDEEN, MS	3,016	73,196	6	0	0	0	76,218	
OCCIDENTAL	BURLINGTON S, NJ	2,100	6,400	3	0	0	0	8,503	
DOW	FREEPORT, TX	1,800	520	0	0	230	0	2,550	
BFGOODRICH	LAPORTE, TX	1,600	1,700	0	0	0	0	3,300	
VISTA	OKLAHOMA CITY, OK	1,500	77,000	0	21	0	0	78,521	
FORMOSA	PT. COMFORT, TX	1,346	4,373	250	0	0	0	5,969	
BFGOODRICH	DEER PARK, TX	750	250	0	0	61,750	0	62,750	
GA GULF	PLAQUEMINE, LA	380	4,300	0	0	0	0	4,680	
KEYSOR	SAUGAS, CA	40	580	0	140	0	0	760	
GOODYEAR	NIAGRA FALLS, NY	0	0	0	900	1,140	0	2,040	
WESTLAKE PVC	LAKE CHARLES, LA							0	
		298,947	866,798	2,186	7,918	70,545	3,899	1,250,293	271

VPE571959

1990 VCM STACK AIR EMISSIONS								
COMPANY	LOCATION	AIR FUGITIVE	AIR STACK	WATER	POTW	OFFSITE	LAND	TOTAL
OXY	POTTSTOWN, PA	21,299	116,976	0	1,074	250	250	139,849
FORMOSA	DELAWARE CITY, DE	23,564	101,718	40	0	0	2,211	127,533
BFG	PEDRICKTOWN, NJ	12,000	76,000	26	0	9	0	88,035
OXY	PASADENA, TX	2,400	74,000	18	0	0	0	76,418
VISTA	OKLAHOMA CITY, OK	1,400	64,300	0	12	0	0	65,712
VISTA	ABERDEEN, MS	3,017	60,976	12	0	0	0	64,005
BORDEN	ILLIOPOLIS, IL	14,625	60,835	24	0	552	0	76,036
GOODYEAR	NIAGRA FALLS, NY	19,011	52,771	0	306	858	0	72,946
BORDEN	GEISMAR, LA	8,161	45,263	23	0	9	0	53,456
OXY	BURLINGTON N, NJ	3,300	37,000	7	0	255	0	40,562
GA GULF	DELAWARE CITY, DE	5,019	27,790	2	0	3,130	0	35,941
WESTLAKE	CALVERT CITY, KY	23,000	27,000	0	0	7,660	0	57,660
OXY	ADDIS, LA	2,300	17,700	8	0	0	0	20,008
WESTLAKE	PACE, FL	2,000	11,000	0	0	250	0	13,250
GA GULF	PLAQUEMINE, LA	1,700	7,600	0	0	0	0	9,300
PAC WEST	CALVERT CITY, KY	14,000	6,000	0	0	4,970	0	24,970
FORMOSA	PT. COMFORT, TX	7,800	5,700	250	0	6,900	0	20,650
BFG	PLAQUEMINE, LA	20,000	5,000	6,600	0	5	0	31,605
OXY	BURLINGTON S, NJ	10,000	4,400	6	0	0	0	14,406
BFG	LOUISVILLE, KY	5,000	4,100	0	0	0	0	9,100
VISTA	LAKE CHARLES, LA	16,588	3,788	12	0	6	0	20,394
PPG	WESTLAKE, LA	8,042	2,257	3	0	1	0	10,303
DOW	PLAQUEMINE, LA	5,900	1,600	0	0	0	0	7,500
KEYSOR	SAUGAS, CA	50	770	0	5	0	0	825
BFG	DEER PARK, TX	510	530	0	0	84,057	0	85,097
CERTEED	SULPHUR, LA	24,000	500	1	0	0	0	24,501
DOW	FREEPORT, TX	7,500	270	0	0	2,000	0	9,770
AIR PROD	CALVERT CITY, KY	250	250	0	0	0	0	500
UNION CAR	TEXAS CITY, TX	1,573	185	0	0	1	0	1,759
OXY	DEER PARK, TX	72	15	0	0	0	0	87
SHINTECH	FREEPORT, TX						0	0
BFG	AVON LAKE, OH						0	0
BFG	LAPORTE, TX						0	0
BFG	HENRY, IL						0	0
		264081	816294	7032	1397	110913	2461	1202178

UPE571960

A

1989 VCM STACK AIR EMISSIONS									
COMPANY	LOCATION	AIR FUGITIVE	AIR STACK	WATER	POTW	OFFSITE	LAND	TOTAL	UND. INJECTION
OCCIDENTAL	POTTSTOWN, PA	5,860	155,400	0	2,620	0	1,360	165,240	
FORMOSA	DELAWARE CITY, DE	22,392	105,226	2	0	0	2,289	129,909	
VISTA	OKLAHOMA CITY, OK	1,500	77,000	0	21	0	0	78,521	
BORDEN	ILLIOPOLIS, IL	16,500	76,900	190	0	1,762	0	95,352	
VISTA	ABERDEEN, MS	3,016	73,196	6	0	0	0	76,218	
BFGOODRICH	PEDRICKTOWN, NJ	16,000	56,000	23	0	22	0	72,045	
OCCIDENTAL	BURLINGTON N, NJ	3,100	50,000	6	0	29	0	53,135	
OCCIDENTAL	PASADENA, TX	18,000	49,000	18	0	0	0	67,018	
GA GULF	DELAWARE CITY, DE	6,620	36,442	1	0	1,665	0	44,728	
BORDEN	GEISMAR, LA	4,105	34,765	2	0	17	0	38,889	271
BFGOODRICH	HENRY, IL	3,670	30,300	0	0	710	0	34,680	
OCCIDENTAL	ADDIS, LA	3,900	25,000	12	0	0	0	28,912	
BFGOODRICH	AVON LAKE, OH	15,000	25,000	0	4,200	2,450	0	46,650	
SHINTECH	FREEPORT, TX	53,725	18,014	30	0	0	0	71,769	
BFGOODRICH	PLAQUEMINE, LA	3,700	7,600	1,600	0	6	0	12,906	
WESTLAKE PVC	CALVERT CITY, KY	14,000	7,500	0	0	0	0	21,500	
OCCIDENTAL	BURLINGTON S, NJ	2,100	6,400	3	0	0	0	8,503	
VISTA	LAKE CHARLES, LA	6,449	5,127	5	0	5	0	11,586	
BFGOODRICH	LOUISVILLE, KY	4,000	4,900	0	37	560	0	9,497	
WESTLAKE PVC	PACE, FL	4,500	4,400	0	0	0	250	9,150	
FORMOSA	PT. COMFORT, TX	1,346	4,373	250	0	0	0	5,969	
GA GULF	PLAQUEMINE, LA	380	4,300	0	0	0	0	4,680	
PPG	WESTLAKE, LA	15,000	1,900	20	0	113	0	17,033	
BFGOODRICH	LAPORTE, TX	1,600	1,700	0	0	0	0	3,300	
CERTAINTED	SULPHUR, LA	24,400	1,600	2	0	0	0	26,002	
DOW	PLAQUEMINE, LA	5,500	1,600	0	0	0	0	7,100	
BFGOODRICH	CALVERT CITY, KY	17,049	1,505	16	0	85	0	18,655	
KEYSOR	SAUGAS, CA	40	580	0	140	0	0	760	
DOW	FREEPORT, TX	1,800	520	0	0	230	0	2,550	
UNION CARBIDE	TEXAS CITY, TX	3,945	300	0	0	1	0	4,246	
BFGOODRICH	DEER PARK, TX	750	250	0	0	61,750	0	62,750	
GOODYEAR	NIAGRA FALLS, NY	0	0	0	900	1140	0	2040	
OCCIDENTAL	DEER PARK, TX	19,000	0	0	0	0	0	19,000	
WESTLAKE PVC	LAKE CHARLES, LA							0	
		298,947	866,798	2,186	7,918	70,545	3,899	1,250,293	271

UPE571961

1990 VCM WATER EMISSIONS								
COMPANY	LOCATION	AIR FUGITIVE	AIR STACK	WATER	POTW	OFFSITE	LAND	TOTAL
BFG	PLAQUEMINE, LA	20,000	5,000	6,600	0	5	0	31,605
FORMOSA	PT. COMFORT, TX	7,800	5,700	250	0	6,900	0	20,650
FORMOSA	DELAWARE CITY, DE	23,564	101,718	40	0	0	2,211	127,533
BFG	PEDRICKTOWN, NJ	12,000	76,000	26	0	9	0	88,035
BORDEN	ILLIOPOLIS, IL	14,625	60,835	24	0	552	0	76,036
BORDEN	GEISMAR, LA	8,161	45,263	23	0	9	0	53,456
OXY	PASADENA, TX	2,400	74,000	18	0	0	0	76,418
VISTA	LAKE CHARLES, LA	16,588	3,788	12	0	6	0	20,394
VISTA	ABERDEEN, MS	3,017	60,976	12	0	0	0	64,005
OXY	ADDIS, LA	2,300	17,700	8	0	0	0	20,008
OXY	BURLINGTON N, NJ	3,300	37,000	7	0	255	0	40,562
OXY	BURLINGTON S, NJ	10,000	4,400	6	0	0	0	14,406
PPG	WESTLAKE, LA	8,042	2,257	3	0	1	0	10,303
GA GULF	DELAWARE CITY, DE	5,019	27,790	2	0	3,130	0	35,941
CERTEED	SULPHUR, LA	24,000	500	1	0	0	0	24,501
UNION CAR	TEXAS CITY, TX	1,573	185	0	0	1	0	1,759
VISTA	OKLAHOMA CITY, OK	1,400	64,300	0	12	0	0	65,712
WESTLAKE	PACE, FL	2,000	11,000	0	0	250	0	13,250
OXY	DEER PARK, TX	72	15	0	0	0	0	87
WESTLAKE	CALVERT CITY, KY	23,000	27,000	0	0	7,660	0	57,660
PAC WEST	CALVERT CITY, KY	14,000	6,000	0	0	4,970	0	24,970
GOODYEAR	NIAGRA FALLS, NY	19,011	52,771	0	306	858	0	72,946
AIR PROD	CALVERT CITY, KY	250	250	0	0	0	0	500
OXY	POTTSTOWN, PA	21,299	116,976	0	1,074	250	250	139,849
BFG	LOUISVILLE, KY	5,000	4,100	0	0	0	0	9,100
DOW	FREEPORT, TX	7,500	270	0	0	2,000	0	9,770
BFG	DEER PARK, TX	510	530	0	0	84,057	0	85,097
KEYSOR	SAUGAS, CA	50	770	0	5	0	0	825
DOW	PLAQUEMINE, LA	5,900	1,600	0	0	0	0	7,500
GA GULF	PLAQUEMINE, LA	1,700	7,600	0	0	0	0	9,300
BFG	AVON LAKE, OH						0	0
BFG	LAPORTE, TX						0	0
SHINTECH	FREEPORT, TX						0	0
BFG	HENRY, IL						0	0
		264,081	816,294	7,032	1,397	110,913	2,461	1,202,178

VPF571962

1989 VCM WATER EMISSIONS

COMPANY	LOCATION	AIR FUGITIVE	AIR STACK	WATER	POTW	OFFSITE	LAND	TOTAL	UND. INJECTION
BFGOODRICH	PLAQUEMINE, LA	3,700	7,600	1,600	0	6	0	12,906	
FORMOSA	PT. COMFORT, TX	1,346	4,373	250	0	0	0	5,969	
BORDEN	ILLIOPOLIS, IL	16,500	76,900	190	0	1,762	0	95,352	
SHINTECH	FREEPORT, TX	53,725	18,014	30	0	0	0	71,769	
BFGOODRICH	PEDRICKTOWN, NJ	16,000	56,000	23	0	22	0	72,045	
PPG	WESTLAKE, LA	15,000	1,900	20	0	113	0	17,033	
OCCIDENTAL	PASADENA, TX	18,000	49,000	18	0	0	0	67,018	
BFGOODRICH	CALVERT CITY, KY	17,049	1,505	16	0	85	0	18,655	
OCCIDENTAL	ADDIS, LA	3,900	25,000	12	0	0	0	28,912	
VISTA	ABERDEEN, MS	3,016	73,196	6	0	0	0	76,218	
OCCIDENTAL	BURLINGTON N, NJ	3,100	50,000	6	0	29	0	53,135	
VISTA	LAKE CHARLES, LA	6,449	5,127	5	0	5	0	11,586	
OCCIDENTAL	BURLINGTON S, NJ	2,100	6,400	3	0	0	0	8,503	
FORMOSA	DELAWARE CITY, DE	22,392	105,226	2	0	0	2,289	129,909	
BORDEN	GEISMAR, LA	4,105	34,765	2	0	17	0	38,889	271
CERTAINTED	SULPHUR, LA	24,400	1,600	2	0	0	0	26,002	
GA GULF	DELAWARE CITY, DE	6,620	36,442	1	0	1,665	0	44,728	
UNION CARBIDE	TEXAS CITY, TX	3,945	300	0	0	1	0	4,246	
OCCIDENTAL	DEER PARK, TX	19,000	0	0	0	0	0	19,000	
OCCIDENTAL	POTTSTOWN, PA	5,860	155,400	0	2,620	0	1,360	165,240	
VISTA	OKLAHOMA CITY, OK	1,500	77,000	0	21	0	0	78,521	
WESTLAKE PVC	PAGE, FL	4,500	4,400	0	0	0	250	9,150	
BFGOODRICH	HENRY, IL	3,670	30,300	0	0	710	0	34,680	
BFGOODRICH	LOUISVILLE, KY	4,000	4,900	0	37	560	0	9,497	
DOW	FREEPORT, TX	1,800	520	0	0	230	0	2,550	
BFGOODRICH	DEER PARK, TX	750	250	0	0	61,750	0	62,750	
BFGOODRICH	LAPORTE, TX	1,600	1,700	0	0	0	0	3,300	
KEYSOR	SAUGAS, CA	40	580	0	140	0	0	760	
GOODYEAR	NIAGRA FALLS, NY	0	0	0	900	1,140	0	2,040	
DOW	PLAQUEMINE, LA	5,500	1,600	0	0	0	0	7,100	
GA GULF	PLAQUEMINE, LA	380	4,300	0	0	0	0	4,680	
BFGOODRICH	AVON LAKE, OH	15,000	25,000	0	4,200	2,450	0	46,650	
WESTLAKE PVC	CALVERT CITY, KY	14,000	7,500	0	0	0	0	21,500	
WESTLAKE PVC	LAKE CHARLES, LA							0	
		298,947	866,798	2,186	7,918	70,545	3,699	1,250,293	271

VPE571968

1990 VCM OFFSITE EMISSIONS								
COMPANY	LOCATION	AIR FUGITIVE	AIR STACK	WATER	POTW	OFFSITE	LAND	TOTAL
BFG	DEER PARK, TX	510	530	0	0	84,057	0	85,097
WESTLAKE	CALVERT CITY, KY	23,000	27,000	0	0	7,660	0	57,660
FORMOSA	PT. COMFORT, TX	7,800	5,700	250	0	6,900	0	20,650
PAC WEST	CALVERT CITY, KY	14,000	6,000	0	0	4,970	0	24,970
GA GULF	DELAWARE CITY, DE	5,019	27,790	2	0	3,130	0	35,941
DOW	FREEPORT, TX	7,500	270	0	0	2,000	0	9,770
GOODYEAR	NIAGRA FALLS, NY	19,011	52,771	0	306	858	0	72,946
BORDEN	ILLIOPOLIS, IL	14,625	60,835	24	0	552	0	76,036
OXY	BURLINGTON N, NJ	3,300	37,000	7	0	255	0	40,562
OXY	POTTSTOWN, PA	21,299	116,976	0	1,074	250	250	139,849
WESTLAKE	PACE, FL	2,000	11,000	0	0	250	0	13,250
BORDEN	GEISMAR, LA	8,161	45,263	23	0	9	0	53,456
BFG	PEDRICKTOWN, NJ	12,000	76,000	26	0	9	0	88,035
VISTA	LAKE CHARLES, LA	16,588	3,788	12	0	6	0	20,394
BFG	PLAQUEMINE, LA	20,000	5,000	6,600	0	5	0	31,605
UNION CAR	TEXAS CITY, TX	1,573	185	0	0	1	0	1,759
PPG	WESTLAKE, LA	8,042	2,257	3	0	1	0	10,303
VISTA	OKLAHOMA CITY, OK	1,400	64,300	0	12	0	0	65,712
OXY	BURLINGTON S, NJ	10,000	4,400	6	0	0	0	14,406
VISTA	ABERDEEN, MS	3,017	60,976	12	0	0	0	64,005
OXY	ADDIS, LA	2,300	17,700	8	0	0	0	20,008
KEYSOR	SAUGAS, CA	50	770	0	5	0	0	825
GA GULF	PLAQUEMINE, LA	1,700	7,600	0	0	0	0	9,300
OXY	DEER PARK, TX	72	15	0	0	0	0	87
OXY	PASADENA, TX	2,400	74,000	18	0	0	0	76,418
DOW	PLAQUEMINE, LA	5,900	1,600	0	0	0	0	7,500
CERTEED	SULPHUR, LA	24,000	500	1	0	0	0	24,501
FORMOSA	DELAWARE CITY, DE	23,564	101,718	40	0	0	2,211	127,533
BFG	LOUISVILLE, KY	5,000	4,100	0	0	0	0	9,100
AIR PROD	CALVERT CITY, KY	250	250	0	0	0	0	500
BFG	AVON LAKE, OH						0	0
BFG	LAPORTE, TX						0	0
SHINTECH	FREEPORT, TX						0	0
BFG	HENRY, IL						0	0
		264,081	816,294	7,032	1,397	110,913	2,461	1,202,178

VF571964

1989 VCM OFFSITE EMISSIONS									
COMPANY	LOCATION	AIR FUGITIVE	AIR STACK	WATER	POTW	OFFSITE	LAND	TOTAL	UND. INJECTION
BFGOODRICH	DEER PARK, TX	750	250	0	0	61,750	0	62,750	
BFGOODRICH	AVON LAKE, OH	15,000	25,000	0	4,200	2,450	0	46,650	
BORDEN	ILLIOPOLIS, IL	16,500	76,900	190	0	1,762	0	95,352	
GA GULF	DELAWARE CITY, DE	6,620	36,442	1	0	1,665	0	44,728	
GOODYEAR	NIAGRA FALLS, NY	0	0	0	900	1,140	0	2,040	
BFGOODRICH	HENRY, IL	3,670	30,300	0	0	710	0	34,680	
BFGOODRICH	LOUISVILLE, KY	4,000	4,900	0	37	560	0	9,497	
DOW	FREEPORT, TX	1,800	520	0	0	230	0	2,550	
PPG	WESTLAKE, LA	15,000	1,900	20	0	113	0	17,033	
BFGOODRICH	CALVERT CITY, KY	17,049	1,505	16	0	85	0	18,655	
OCCIDENTAL	BURLINGTON N, NJ	3,100	50,000	6	0	29	0	53,135	
BFGOODRICH	PEDRICKTOWN, NJ	16,000	56,000	23	0	22	0	72,045	
BORDEN	GEISMAR, LA	4,105	34,765	2	0	17	0	38,889	271
BFGOODRICH	PLAQUEMINE, LA	3,700	7,600	1,600	0	6	0	12,906	
VISTA	LAKE CHARLES, LA	6,449	5,127	5	0	5	0	11,586	
UNION CARBIDE	TEXAS CITY, TX	3,945	300	0	0	1	0	4,246	
WESTLAKE PVC	CALVERT CITY, KY	14,000	7,500	0	0	0	0	21,500	
GA GULF	PLAQUEMINE, LA	380	4,300	0	0	0	0	4,680	
CERTAINTED	SULPHUR, LA	24,400	1,600	2	0	0	0	26,002	
DOW	PLAQUEMINE, LA	5,500	1,600	0	0	0	0	7,100	
FORMOSA	PT. COMFORT, TX	1346	4373	250	0	0	0	5969	
FORMOSA	DELAWARE CITY, DE	22,392	105,226	2	0	0	2,289	129,909	
VISTA	ABERDEEN, MS	3,016	73,196	6	0	0	0	76,218	
BFGOODRICH	LAPORTE, TX	1,600	1,700	0	0	0	0	3,300	
OCCIDENTAL	DEER PARK, TX	19,000	0	0	0	0	0	19,000	
OCCIDENTAL	ADDIS, LA	3,900	25,000	12	0	0	0	28,912	
KEYSOR	SAUGAS, CA	40	580	0	140	0	0	760	
VISTA	OKLAHOMA CITY, OK	1,500	77,000	0	21	0	0	78,521	
SHINTECH	FREEPORT, TX	53,725	18,014	30	0	0	0	71,769	
WESTLAKE PVC	PACE, FL	4,500	4,400	0	0	0	250	9,150	
OCCIDENTAL	POTTSTOWN, PA	5,860	155,400	0	2,620	0	1,360	165,240	
OCCIDENTAL	BURLINGTON S, NJ	2,100	6,400	3	0	0	0	8,503	
OCCIDENTAL	PASADENA, TX	18,000	49,000	18	0	0	0	67,018	
WESTLAKE PVC	LAKE CHARLES, LA							0	
		298,947	866,798	2,186	7,918	70,545	3,899	1,250,293	271

VP571965