WILLIAM G. KRUMMRICH
(Thousands of Pounds)

		1991			1992			1993	
	AIR RELEASES	TRANSFERS TO POTW	TREATMENT OFF-SITE	AIR RELEASES (THOUSAND	TRANSFERS TO POTW OF POUNDS)	TREATMENT OFF-SITE	AIR RELEASES	TRANSFERS TO POTW	TREATMENT OFF-SITE
AMMONIA (NH3)	26	3,600	0	20	3,200	0	20	3	0
ANILINE	34	33	63	30	33	65	9	40	76
BENZENE	86	0	15	51	5	106	47	0	48
CHLORINE	153	5	0	148	4	0	7	0	0
CHLOROBENZENE (MCB)	44	1	60	58	2	76	48	0	77
1, 2-DICHLOROBENZENE ODCB	7	1	56	19	3	68	26	0	60
1, 3-DICHLOROBENZENE MDCB	0	0	2	1	0	0	1	0	0
1, 4-DICHLOROBENZENE PDCB	17	1	92	53	2	50	74	0	43
ETHYL BENZENE									
ETHYLENE GLYCOL	3	0	0	5	2	0	6	2	0
HYDROCHLORIC ACID	450	12,000	0	* 492	25,000	0	* 469	15,240	8
METHYL ETHYL KETONE	1	82	0	1	52	1	1	50	0
METHYL ISOBUTYL KETONE	33	38	74	31	48	79	21	35	17
NITRIC ACID HNO3	21	0	0	21	0	0	19	0	0
2-NITROPHENOL ONP	0	0	11						38
4-NITROPHENOL PNP	9	0	450	0	0	490			773
PHENOL	0	0	5						6
PHOSPHORIC ACID 4 3PO4	1	78	0	1	80	0	0	57	0
PHOSHORUS	0	0	0	0	0	34	0	0	0
SULFURIC ACID H2SO4	10	4,600	0	10	5,100	0	14	0	0
TRICHLOROBENZENE	0	0	58	0	0	51	0	0	41
XYLENE (MIXED ISOMERS)	800	140	38	540	150	40	164	215	17
TOTAL	**1,695**	**20,579**	**924**	**1,481**	**33,681**	**1,060**	**926**	**15,642**	**1,204**

DSW 135804

STLCOPCB4035778

* Includes HCl from the powerhouse.

WILLIAM G. KRUMMRICH PLANT

	1989			1987		
	AIR RELEASES (THOUSAND	TRANSFERS TO POTW OF POUNDS)	TREATMENT OFF-SITE	AIR RELEASES	TRANSFERS TO POTW	TREATMENT OFF-SITE
AMMONIA	111	3	0	81	2	0
ANILINE	92	100	6	29	890	0
BENZENE	53	410	9	54	200	0
CHLORINE	199	5	0	505	10	6
CHLOROBENZENE (MCB)	65	150	89	74	61	82
1, 2-DICHLOROBENZENE	8	13	26	290	6	6
1, 3-DICHLOROBENZENE	0	0	0	2	0	0
1, 4-DICHLOROBENZENE	854	26	78	750	80	79
ETHYL BENZENE	165	130	65	150	140	14
ETHYLENE GLY COL	5	0	0	20	0	0
HYDROCHLORIC ACID	590	15,000	0	753	21,000	0
METHYL ETHYL KETONE	0	8	0	5	10	0
METHYL ISOBUTYL KETONE	15	64	36	133	120	488
NITRIC ACID	118	0	0	141	0	0
2-NITROPHENOL	0	6	24	27	120	4
4-NITROPHENOL	7	450	0	2	92	175
PHENOL						
PHOSPHORIC ACID	2	230	0	4	210	0
PHOSHORUS	0	0	0	1	0	0
SULFURIC ACID	13	4,600	0	84	11,000	0
TRICHLOROBENZENE						
XYLENE (MIXED ISOMERS)	620	560	258	710	610	68
TOTAL	**2,917**	**21,755**	**591**	**3,815**	**34,551**	**922**

DSW 135805

STLCOPCB4035779

JOHN F. QUEENY PLANT

	1989			1987	
	AIR RELEASES (THOUSAND | TRANSFERS TO POTW OF POUNDS)	TREATMENT OFF-SITE	AIR RELEASES	TRANSFERS TO POTW	TREATMENT OFF-SITE
ACETONE	1	1	5	0	0	0
AMMONIA	28	0	0	11	0	0
AMMONIUM SULFATE	0	7,400	0	1	680	0
BIPHENYL						
BUTYL ALCOHOL (SEC)	0	2	0	0	0	0
BUTYLBENZYL PHTHALATE	2	0	5	2	1	56
CHLORINE	3	91	0	2	18	0
CHLOROACETIC ACID	6	0	0	4	0	0
CHLOROBENZENE	5	17	91	5	160	0
ETHYLENE GLYCOL	0	10	0	0	0	0
FORMALDEHYDE	31	380	6	16	81	2
HYDROCHLORIC ACID	10	0	0	7	0	0
MALEIC ANHYDRIDE	9	0	4	6	0	8
METHANOL (MEOH)	51	850	11	21	510	10
4-NITROPHENOL	0	180	0	1	90	0
PHENOL	0	0	0	0	14	3
SULFURIC ACID	8	0	0	2	0	0
TETROCHLOROETHYLENE (perchloroethylene)	338	34	35	423	22	98
TOTAL	**492**	**8,965**	**157**	**501**	**1,576**	**177**

DSM 135807

STLCOPCB4035780

CARONDELET PLANT
(Thousands of Pounds)

	1991			1992			1993	
	AIR RELEASES	TRANSFERS TO POTW	TREATMENT OFF-SITE	AIR RELEASES	TRANSFERS TO POTW	TREATMENT OFF-SITE	AIR RELEASES	TRANSFERS TO POTW	TREATMENT OFF-SITE
ARSENIC COMPOUNDS									2
HYDROCHLORIC ACID									
PHOSPHORIC ACID (H3PO4)	0	0	4	0	0	7	0	0	17
PHOSHORUS							0	0	0
SULFURIC ACID (H2SO4)	0	0	0	0	0	0	0	0	0
	0	**0**	**4**	**0**	**0**	**7**	**0**	**0**	**19**

DSM 135808

STLCOPCB4035781

CARONDELET PLANT

		1989			1987	
	AIR RELEASES (THOUSAND	TRANSFERS TO POTW OF POUNDS)	TREATMENT OFF-SITE	AIR RELEASES	TRANSFERS TO POTW	TREATMENT OFF-SITE
HYDROCHLORIC ACID	1	0	0	1	0	0
PHOSPHORIC ACID	0	0	7	0	0	2
PHOSHORUS						
SULFURIC ACID						
TOTAL	**1**	**0**	**7**	**1**	**0**	**2**

DSW 135809

STLCOPCB4035782

SARAW30 SARAWARE ENVIRONMENTAL REPORTING DATE: 06/02/94
PAGE: 1 QUALITY ASSURANCE AND CONTROL SUMMARY TIME: 9:09:21

ANY: QUEENY, MO

REPORTED IN 1 LB UNITS 1993 THRU 1993 INCLUDES: SARA=Y, FORMR=Y

YEAR	CHEMICAL	S	F	FUGITIVE AMOUNT	STACK AMOUNT	POTW AMOUNT	OFFSITE AMOUNT	TOTAL
1993	ACETONE	Y	Y	0	225 225	0	25764	25989
	AMMONIA	Y	Y	1858	4827 6685	2039626	0	2046311
	ANILINE	Y	Y	961	5 966	0	32367	33333
	BIPHENYL	Y	Y	43	6 49	0	715	764
	BUTYL BENZYL PHTHALATE	Y	Y	1367	1 1368	0	3508	4876
	HYDROCHLORIC ACID	Y	Y	0	476 476	0	1701	2177
	MALEIC ANHYDRIDE	Y	Y	2329	11399 13728	0	21738	35466
	SULFURIC ACID	Y	Y	6813	0 6813	0	271	7084
	4-NITROPHENOL	Y	Y	0	0 0	5	153302	153307
MAJOR SORT TOTAL				13371	16939	2039631	239866	2309807
TOTAL				13371	16939	2039631	239866	2309807

(AREA=$$$, CO=$$$$, DIV=$$, FAC=ANY, PRO=$$$$$$$$$, CHEM=$$$$$$$$$$)

DSW 135810

STLCOPCB4035783

SARAW30
PAGE: 1

SARAWARE ENVIRONMENTAL REPORTING
QUALITY ASSURANCE AND CONTROL SUMMARY

DATE: 06/02/94
TIME: 9.11.53

WGK: KRUMMRICH, IL

REPORTED IN 1 LB UNITS — 1993 THRU 1993 — INCLUDES: SARA=Y, FORMR=Y

YEAR	CHEMICAL	S	F	FUGITIVE AMOUNT	STACK AMOUNT		LAND AMOUNT	POTW AMOUNT	OFFSITE AMOUNT	TOTAL
1993	AMMONIA	Y	Y	16891	3388	20294	0	2724	0	23003
	ANILINE	Y	Y	7058	1735	8793	0	40137	76274	125204
	BENZENE	Y	Y	43194	4096	47290	0	306	47608	95204
	CHLORINE	Y	Y	7382	82	7464	0	0	0	7464
	CHLOROBENZENE	Y	Y	36366	11679	48045	0	85	76503	124633
	ETHYLENE GLYCOL	Y	Y	6014	13	6027	0	2400	0	8427
	HYDROCHLORIC ACID	Y	Y	13069	455868	468937	4000	15239673	4330	15716960
	METHYL ETHYL KETONE	Y	Y	100	707	807	0	49822	8	50629
	METHYL ISOBUTYL KETONE	Y	Y	8646	14125	22771	0	35314	17015	73100
	NITRIC ACID	Y	Y	19147	0	19147	0	0	0	19147
	PHOSPHORIC ACID	Y	Y	0	0	0	0	57336	0	57336
	PHOSPHORUS (YELLOW OR WHI	Y	Y	0	3	3	0	0	8	11
	SULFURIC ACID	Y	Y	14419	0	14419	0	0	0	14419
	XYLENE (MIXED ISOMERS)	Y	Y	59971	104152	164123	0	214953	17274	396350
	1,2-DICHLOROBENZENE	Y	Y	22263	4074	26337	0	274	59753	86364
	1,2,4-TRICHLOROBENZENE	Y	Y	0	1	1	0	6	40914	40921
	1,3-DICHLOROBENZENE	Y	Y	768	231	999	0	37	0	1036
	1,4-DICHLOROBENZENE	Y	Y	62267	11484	73751	0	302	42897	116950
	2-NITROPHENOL	Y	Y	0	0	0	0	125	38313	38438
	4-NITROPHENOL	Y	Y	100	0	100	0	236	773412	773748
MAJOR SORT TOTAL				315655	611638		4000	15643750	1194301	17769344
TOTAL				315655	611638		4000	15643750	1194301	17769344

957093

(AREA=$$$, CO=$$$$, DIV=$$, FAC=WGK, PRO=$$$$$$$$$, CHEM=$$$$$$$$$$)

DSW 135811

STLCOPCB4035784

SARAW30
PAGE: 1

SARAWARE ENVIRONMENTAL REPORTING
QUALITY ASSURANCE AND CONTROL SUMMARY

DATE: 06/02/94
TIME: 9.10.51

CAR: CARONDELET, MO

REPORTED IN 1 LB UNITS | 1993 THRU 1993 | INCLUDES: SARA=Y, FORMR=Y

YEAR	CHEMICAL	S	F	FUGITIVE AMOUNT	STACK AMOUNT	LAND AMOUNT	POTW AMOUNT	OFFSITE AMOUNT	TOTAL
1993	ETHYLENE GLYCOL	Y	Y	0	0	0	0	300	300
	HYDROCHLORIC ACID	Y	Y	0	0	0	0	0	0
	PHOSPHORIC ACID	Y	Y	0	0	8804	0	8482	17286
	PHOSPHORUS (YELLOW OR WHI	Y	Y	0	0	0	0	58	58
	SULFURIC ACID	Y	Y	0	0	140	0	0	140
MAJOR SORT TOTAL				0	0	8944	0	8840	17784
TOTAL				0	0	8944	0	8840	17784

(AREA=$$$, CO=$$$$, DIV=$$, FAC=CAR, PRD=$$$$$$$$$, CHEM=$$$$$$$$$$)

DSW 135812

STLCOPCB4035785

Author: KEVIN S CAHILL at DEC
Date: 11/4/94 9:52 PM
Priority: Normal
TO: DIANE B HERNDON at MONCOM01
Subject: Title III -- WGK
---------- Message Contents ----------

----- ITEM 1 -----

Should you have additional questions, please do not hesitate to inquire.

KSC

----- ITEM 2 -----

From: KWMART@HP @SSWMB @CMISSS
Author: K W MARTIN
To: CAHILL, KEVIN S. @A1 @A1STL
To: KWMART @HP @SSWMB @CMISSS
CC: KSMILL @HP @SSWMB @CMISSS
Created: 11/04/1994
Time: 06:00:00
Subject: WGK Title III Data

This is a response to your questions about changes in reported waste numbers between '92 and '93 for the Krummrich Plant.

Q. Sulfuric acid releases to the POTW dropped from 5 million pounds in 1992 to nothing in 1993. Why?

A. Sulfuric acid was released from the AC1 department which is now owned and reported under OxyChem.

Q. PNP waste sent offsite increased by about 300 Klbs from 1992 to 1993. What caused this?

A. About 40 Klbs increase was due to increased production in the 4NDPA unit. The rest is due to changes in the waste profile and improved waste steam information in the PNA Department.

Hopefully this answers all your questions. If you have more or need clarification, feel free to call me here at the plant at ext. 6495.

Kurt Martin

DSW 135813

DIANE HERNDON
Corporate Communications

Eric Brimer
Carondelet

8800 lbs spills to chat. ~~[illegible]~~ acid
1900 arsenic sludge disp
has so
6600 lbs waste mtls incinerated
offsite

some treated onsite
(spills neutralized
before sent
offsite)

Monsanto

DSW 135814

STLCOPCB4035787

1992 used
44 k lbs treated onsite
/
phos acid

92 1500 lbs landfilled
w/arsenic sludge

DSW 135815

MONSANTO

FACSIMILE TRANSMISSION

Monsanto Company
Carondelet Plant
8201 Idaho Avenue
St. Louis, Missouri 63111
Phone: (314) 577-1600
Fax: (314) 268-1815

DATE: October 27, 1994

TO: Diane Herndon

CC:

COMPANY: Monsanto Co.

CITY/STATE: St. Louis, MO

FAX PHONE: (314) 694-6572

NUMBER OF PAGES: 4 (INCLUDING COVER SHEET)

MESSAGE: Explanation of '91 '92 & '93 SARA Title III emissions data.
Note: 1993 - change to hydrochloric acid for neutralization.

FROM: Eric Brimer

Monsanto Chemical Company

PHONE: (314) 268-1845

DSW 135816

Monsanto

FROM:
(NAME - LOCATION - PHONE) [redacted] Hartmann 1720 577-1620

DATE : July 7, 1994

CC: E. S. Brimer
W. C. Marvin
A. J. Politte

SUBJECT : 1993 SARA 313 Form R Reports
Deviations from Past Years

REFERENCE :

TO : R. C. Cooley 1720
J. P. Hyland F2EB
K. S. Cahill G4WD

Last week, Carondelet Plant's 1993 Form R reports were submitted to the EPA and to the Missouri Department of Natural Resources (DNR), as required by Section 313 of SARA. Four Form Rs were submitted; the Carondelet plant has historically submitted Form Rs for these same four chemicals. The chemicals requiring Form Rs were sulfuric acid, phosphoric acid, hydrochloric acid, and phosphorus (yellow or white).

In order to compare differences between what was reported for 1993 and what has been reported in the previous year, a summary of the quantities reported are included below.

Sulfuric acid

In 1993, 140 pounds of acid were released due to spills. 190,000 pounds were treated on-site in the wastewater treatment system.

In 1992, 430 pounds were spilled, and 160,000 pounds were treated on-site.

Phosphoric acid

In 1993, 8,800 pounds of acid were released due to spills, 1,900 pounds were stabilized and landfilled as part of the arsenic sludge disposal, and 6,600 pounds were included in waste materials incinerated off-site.

In 1992, 5,100 pounds of acid were released due to spills, 1,500 pounds were stabilized and landfilled as part of the arsenic sludge disposal, and 49,000 pounds were treated on-site in the wastewater treatment system.

Hydrochloric acid

In 1993, 150,000 pounds of acid were added and treated in the on-site wastewater treatment system.

In 1992, only 94 pounds of acid were reported. Although the quantity of acid actually added to the treatment system appears to be the same in 1992 and 1993, the quantity reported has increased due to a change in interpretation of what is included in the quantity treated on-site on page 9 of the Form R.

DSW 135817

Phosphorus

In 1993, 58 pounds of phosphorus were transferred, in various contaminated materials, to Chemical Waste Management's incineration facility, in Sauget, Illinois.

In 1992, only 5 pounds of phosphorus was reported as shipped off-site for incineration in contaminated materials.

I hope this will clarify any questions you may have on Carondelet's SARA 313 Form R submittal. If you would like any additional information on Carondelet's submittal, please give me a call at 577-1620.

C. Hartmann

Catherine E. Hartmann

DSW 135818

[redacted]

Monsanto

FROM
(NAME-LOCATION-PHONE) M. Z. Press - Carondelet - 577-1645

DATE: August 25, 1992

cc: R. C. Cooley - 1720
J. P. Kaminski - 1720
A. J. Politte - 1720

SUBJECT: SARA 313 Form R Reports - 1991 Reporting Year

REF:

TO: J. P. Hyland - G4WT

Enclosed is a copy of the information that was submitted to the EPA and to the Missouri DNR as required by Section 313 of SARA and by the Pollution Prevention Act of 1990.

In summary, for the 1991 reporting year, the Carondelet Plant filed four Form R reports, concerning the following chemicals:

Chemical	Reason For Reporting	Releases
Hydrochloric acid	Otherwise used greater than 10,000 lbs in 1991.	Air: 0 lbs. To onsite treatment: 4 lbs.
Sulfuric acid	Otherwise used greater than 10,000 lbs in 1991.	Air: 0 lbs. POTW: 240 lbs. To onsite treatment: 170,000 lbs.
Phosphorus (Yellow or white)	Processed greater than 25,000 lbs in 1991.	Air: 0 lbs. Transferred in waste offsite: 0 lbs. To onsite treatment: 0 lbs.
Phosphoric acid	Manufactured greater than 25,000 lbs in 1991 and processed greater than 25,000 lbs in 1991.	Released to land onsite: 2,200 lbs. Transferred in waste offsite: 2,200 lbs. To onsite treatment: 94,000 lbs.

DSW 135819