

JANUARY 1984

ROUTINE MONITORING SCHEDULES

<u>PROGRAM</u>	<u>DESCRIPTION OF SAMPLING COVERAGE</u>
Schedule #1	Five consecutive 8 hr. measurements collected on Shift #2 <u>semi-annually</u> .
Schedule #2	Five consecutive 8 hr. measurements collected on Shift #2 <u>quarterly</u> .
Schedule #3	Schedule #2 plus additional monitoring to provide coverage for 7 consecutive days on Shift #1, (#2) and #3 annually.
Schedule #4	One 8 hr. sample collected on Shift #2 quarterly (minimum).
Schedule #5	Five consecutive 8 hr. measurements collected on Shift #2 semiannually for <u>all</u> personnel working craft in areas having > 1% benzene.
Schedule #6	Semi-annual measurement(s) collected.
Schedule #7	<u>Each</u> employee monitored once per quarter.
Schedule #8	Annual monitoring.

LAM 000454

DPMC-16165

SPECIAL EXPOSURE STUDIES
1984

Asbestos	Pipefitter, Insulators and other maintenance personnel.
Metals, Dusts	Bulldozer Driver Environmental North
Vacuum Truck Drivers	Most significant exposures
TEL/EDB	Audit/review of exposures
Hydrazine Followup	Levels produced from dilute concentrations.
O ₃ /NO _x	Gas Welding Processes
Low Lead Paint	Spray Painting Exposure Potential
Analytical Lab North	To Be Determined
Carbon Monoxide	LRDF
Hydrogen Sulfide	Gas Recovery
Total Hydrocarbons	Development of a test method for establishing respirator requirements when odors are present.

LAM 000455

DPMC-16166

UTILITIES SOUTH

	Operations Foreman	09310	
	Boiler Inside Operator	09510	
	Boiler Outside Operator	09511	<u>Schedule #6</u> Hydrazine
	East Utilities Operator	09512	
	General Utility Oper.	09513	
G OPERATIONS	Chlorine Unloading Operator	07514	
	Utility Operator	07517	
	LTH Operator	07515	<u>Schedule #1</u> AC, D-D, ECH
	100 Operator	07510	AC, D-D
	Operations Foreman	07310	AC, D-D
	C Unit Operator	04534	AC, ECH, TCP
	300 Chlorinator Oper.	07513	AC, D-D, ECH, TCP
	200 Fract-ionator Oper.	07511	AC, D-D
	200 Reactor Operator	07512	AC, D-D
C (MS & H)	Utility Oper.	07561	<u>Schedule #8</u> DMK, MIBC, MIBK, MO, SBA, DAA, HG
	M Plant Oper.	07565	DMK, MIBC, MIBK, MO, DAA

LAM 000456

RESINS DISTRIBUTION

SOLIDS OIS - LRDF DISTRIBUTION	Foreman ER2/6	5331	
	Foreman LRDF	5330	
	LRDF Drumming Operator	5530	Schedule #6- Product Components*
	Solids OIS ER 2/6 Palletizer Operator	5537	
	LRDF Small Package Oper.	5531	Product Components*
	LRDF Bulk Operator	5534	Product Components* (all spots)
	Solids OIS Shipping & Receiving Oper.	5532	
	Solids OIS ER 2/6 Bulk Loading Oper.	5535	Schedule #6 BPA (Hopper Car Loading)
	Solids OIS ER 2/6 Bagging Operator	5536	Total Dust (Bagging BPA and Resins)
	LRDF Warehouse Shipping and Receiving Oper.	5533	

*To Include Glycidyl Ethers, Ethyl and Methol Oxitol and MDA.

LAM 000457

DPMC-16168

MAJOR RESINSLIQUID RESINS
AND
SOLID RESINSFinishing 4520
OperatorSchedule #4
DMK, ECHOperations 4340
Foreman

DMK, ECH

Liquids 4521
Reaction
Operator

DMK, ECH

Utility 4540
Operator

Belt Oper. 4541

ECH, MIBK

Solids 4543
Reaction
Operator

ECH, MIBK

RESIN SOLUTIONS

EPON III 4551
Kettle
OperatorSchedule #4
ECH, MIBK,
Ethyl and Methyl
OxitolFlaker 4552
Charge
OperatorUtility 4553
Operator

ECH, MIBK

Operating 4350
ForemanAuxiliary 4557
OperatorEthyl and Methyl
Oxitol

LAM 000458

DPMC-16169

LIGHT OLEFINS

Auxiliary Operator	1550	<u>Schedule #1</u> Benzene	
Compression Operator	1551	Benzene	
Operations Foreman	1350	Benzene	
Fractionator Operator	1552	Benzene	
Refrigeration Operator	1553	Benzene	
Treaters Operator	1554	Benzene	<u>Schedule #6</u> Hydrazine
Utility Operator	1555	Benzene	

SBA

No Chemical Monitoring

BPA

BPA 1/Rec. Operator	4510	No Chemical Monitoring
BPA 2 Oper.	4511	
Operations Foreman	4310	
Recovery/Utility Entry	4514	
3C Operator	4513	
3R Operator	4512	

OP III PYROLYSIS III

E. Kerosene Operator	1540	<u>Schedule #1</u> Benzene	
Ethane Furnace Operator	1541	Benzene	<u>Schedule #6</u> Hydrazine
Fractionation Operator	1542	Benzene	-
Gas Oil Operator	1543	Benzene	
South Tank Farm	1545	Benzene	<u>Schedule #6</u> DCPD T.T. Loading
West Kerosene Operator	1544	Benzene	
Operations Foreman	1340	Benzene	
Firewatch	1546	-	

OP III BUTADIENE/
HYDROTREATER

BD-III 100 Operator	1532	<u>Schedule #6</u> ACN, BD
BD-III 200/ 300/400 Oper.	1533	BD
HT-II Fract- ionator Operator	1534	<u>Schedule #1</u> Benzene
HT-II Reactor Operator	1535	Benzene
HT-III Operator	1536	Benzene
Operations Foreman BD/ HT-II/III	1330	Benzene
HT III North Tank Farm	1537	Benzene

LAM 000460

DISTRIBUTION
OLEFINS, INTER.
AND SOLVENTS

Site III	Facilities Operator	05527	<u>Schedule #4</u> VCM	
	Foreman Site III/ West Rack	05321	VCM	
	Tank Car Operator	05526	5X/Month for 1st half 1984 then 1X/Month per job.	
	Tank Truck Operator	05525		<u>Schedule #6</u> Butadiene
	Denaturing Plant Oper.	05521		
	Assigned Shell Maint.		<u>Schedule #4</u> VCM	
West Rack	Drumming Operator	05524		<u>Schedule #6</u> AC, ECH, DD
	Tank Truck Operator	05523		ECH, AC, Acetone, MIBK, IPA, MEK
	Tank Car Operator	05522		ECH, AC, Acetone, MIBK, IPA, MEK
	Operations Foreman	05320		

LAM 000461

VINYL CHLORIDE

EDC-100 Operator	07530	<u>Schedule #2</u> EDC, VCM	
HCIN-II/III Operator	07532		<u>Schedule #4</u> EDC, VCM
Operating Supervisor VCM Unit	07231		EDC, VCM
Oxychlorin- ation 150 Operator	07533		EDC, VCM
Operations Foreman (VCM)	07330	<u>Schedule #2</u> EDC, VCM	
Utility Operator	07534	EDC, VCM	
VCM 200 Oper.	07535	EDC, VCM	
Assigned Shell Maintenance			<u>Schedule #4</u> EDC, VCM

VCM CONTRACTOR MAINTENANCE

B&R Boilermaker	99539	<u>Schedule #4</u> EDC, VCM
B&R Foreman	99301	EDC, VCM
B&R General Mechanic	99543	EDC, VCM
B&R Pipefitter	99542	EDC, VCM

LAM 000462

TECHNICAL - SOUTH
QUALITY CONTROL
LAB OP II/III

Lab Tech 40464
Olefins

Schedule #4
Benzene

TECHNICAL - SOUTH
QUALITY CONTROL
LAB SOLVENTS/
INTERMEDIATES

Lab Tech 40455
Solvents

DMK, IPA,
MEK, MIBK

Lab Tech 40456
Intermediates

VCM, AC, D-D, ECH

Lab Tech 40474
Resins

ECH, MEK, MIBK,
Methyl Oxitol

A OPERATIONS

Chemico 07540
Operator

DPS-LPG-SBA 07541
Operator

Furnace 07542
Operator

Schedule #8
DMK, IPA

IPA Reactor 07543
Operator

IPA 07544
Stripper
Operator

IPA

Operations 07340
Foreman

A Distillation 07562
Operator

Schedule #8
DMK

B Distillation 07563
Operator

DMK, MIBC,
MIBK, MO
SBA

A Gauger 07560
Operator

DMK, MEK,
IPA, MO,
MIBK, MIBC

Operations 07360
Foreman

LAM 000463

ENVIRONMENTAL SOUTH

	Rover Opr.	52510	<u>Schedule 8</u> Benzene
	Effluent Treater Operator	52512	
	Filter Press Incinerator Operator	52511	
BA/SR	BA Finishing Operator	07550	<u>Schedule #4</u> 2EH, NBA, IBA
	BA Reactor Operator	07551	2EH, NBA, IBA
	HBAX Operator	07554	2EH, NBA, IBA
	LPG Operator	07555	
	Operations Foreman	07350	2EH, NBA, IBA
	(EP) Girbitol Operator	07556	<u>Schedule #4</u> Benzene
	(EP) EA Weigh Room Operator	07558	
	(EP) Sulfur Recovery Operator	07557	
	Utility Operator	07559	
	Gas EHA Operator	07553	

LAM 000464

		<u>Monitoring Coverage*</u>		
<u>R Area - Maintenance South</u>		<u>Epon V</u>	<u>Solutions</u>	
Boilermaker	22501			
Electrician	22503	ECH, DMK	ECH, MIBK	
Instrument	22504			
Machinist	22507			
Pipefitter	22601			
<u>Olefins Area - Maintenance South</u>		<u>PY</u>	<u>LO</u>	<u>BD</u>
Boilermaker	25501	BZ	BZ, N ₂ H ₂	BD, Acetonitrile
Electrician	25503			
Instrument	25504			
		<u>HT II/III</u>	<u>ISOPRENE</u>	
Machinist	25501	BZ	BZ	
Pipefitter	25601		DCPD	
<u>A Area - Maintenance South</u>		<u>G 100/200</u>	<u>G 300</u>	
Boilermaker	28511	AC DD	AC, DD	
Electrician	28513		ECH, TCP	
Instrument	28514	<u>M & H</u>	<u>A</u>	<u>C</u>
Machinist	28517	MO	IPA	AC
		MIBK	DMK	ECH
Pipefitter	28611	MIBC	(MIBC)	TCP
		DMK	(MIBK)	
			(MO)	
<u>E Area - Maintenance South</u>		<u>BA</u>	<u>VCM</u>	<u>SITE III</u>
Boilermaker	28531	NBA	VCM	VCM
Electrician	28533	EHA	EDC	
		IBA		
Machinist	28534			
Instrument	28537			
Pipefitter	28631			

LAM 000465

* Monitoring will approximately be semiannually; data to be collected along with operations surveys

SOUTH - MAINTENANCE SOUTH

Boilermaker	31511
Carpenter	31512
Electrician	31513
Instrument	31514
Machinist	31517
Painter	31519
Pipefitter	31611
Tinner	31613
Welder	31614

LAM 000466

MAINTENANCE WEST - MAINTENANCE NORTH

Boilermaker - Tank Farm	36500	Schedule #5
Boilermaker - West Operations	36502	Schedule #5
Pipefitters - West Operations	36526	Schedule #5
Machinist - West Operations	37540	Schedule #5

CENTRAL MAINTENANCE - MAINTENANCE NORTH

Shop Painters	35512	Study needed on exposure to paint containing low Pb levels.
Painters Plannable	35513	
Truck Drivers (Gasoline)	36522	Total HC, BTX, (Noise) 5 day survey required
Garage Mechanic	36516	Asbestos Sx during brake change semiannual
Shop Carpenters	35507	Study required on pentachlorophenol treated wood
Shop Welders	35540	Study required on O ₃ NO _x Exposure from TIG/MIG

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SOUTHEAST MAINTENANCE

Boilermaker	35502	Schedule #5: Benzene
Carpenter	35508	
Pipefitter CCU, Hydro.	35521	
Pipefitter Gas Rec.,Arom.	35522	Schedule #5: Benzene
Electrician Gas Rec.,Arom.	37500	
Electrician CCU, Hydro.	37504	
Instrument Mechanic Arom.,Gas Rec.	37521	
Instrument Mechanic CCU, Hydro.	37523	
Machinist CCU, Hydro.	37541	
Machinist Arom.,Gas Rec.	38500	Schedule #5: Benzene

NORTHEAST MAINTENANCE - MAINTENANCE NORTH

		<u>Lube</u> <u>MEK/Toluene</u>	<u>Phenol</u> <u>Benzene,Cumene,Toluene</u>
Boilermaker Lube/P.A.	35503		
Instrument Mechanic	35509		
Pipefitter, Lube A,B,C	35523		
Pipefitter P.A.	35524		Schedule #2 All others schedule #4
Insulator	36510		
Electrician, Lube/PA	37505		
Machinist, Lube/PA	37542		

LAM 000468

CATALYTIC CRACKING

Compressor Operator 10530

Control Board Operator 10531

Fractionator Operator 10532

Operations Foreman 10330

Reactor-Regen. Operator 10533

General Operator 10534

PHENOL A

Cleavage Oper. 16510 Schedule #2 (20 Sx/Yr/Job)
Benzene, Cumene,
Toluene

Cumene Operator 16511 Benzene, Cumene,
Toluene

Operations Foreman 16310 Benzene, Cumene,
Toluene

Oxidation Operator 16512 Benzene, Cumene,
Toluene

PHENOL B

Acetone Oper. 16520 Schedule #4 (4 Sx/Yr/Job)
Benzene, Cumene,
Toluene

Effluent Oper. 16523 Schedule #2
Benzene, Cumene,
Toluene

Phenol Fractionator Oper. 16521 Schedule #4
Benzene

Recovery Oper. 16522 Benzene, AMS

LAM 000469

DISTILLING

DU-3 Operator 13532

DU-1 Primary Operator 13534

Secondary DU-1 Operator 13535

DU-2 Crude Operator 13530

Schedule #1 (10 Sx/Job/Yr)

DU-2 Auxiliary Operator 13531 Benzene & Toluene

Naphtha Hydro-treater Oper. 13533 Benzene & Toluene

Operations Foreman 13330 Benzene & Toluene

DU-2 Vacuum Flash Operator 13536

ENVIRONMENTAL NORTH

Rover Operator 52501

Effluent Treater Oper. 52502

Oil Recovery Operator 52503 Schedule #2 (20 Sx/Job/Yr)
Benzene, Toluene, Xylene

Shift Foreman Treaters 52301

THERMAL CRACKING

Dubbs Pumphouse Operator 13540 Schedule #1
Benzene & Toluene

Flashers #1 13541

Flashers #2 13542

Operations Foreman 13340 Benzene & Toluene

Primary Cracking Operator 13543 Benzene & Toluene

Secondary Cracking Oper. 13544 Benzene & Toluene

LAM 000470

SOLVENTS AND TREATING

LOFU-A Operator	13521	<u>Schedule #1</u> (10 Sx/Job/Yr) Benzene
LOFU-C Operator	13522	Benzene
Operations Foreman	13320	Benzene
Treater Operator	13520	Benzene

NORTH LAB

Bottlewasher	43710	<u>Schedule #1</u> Benzene, Cumene, Toluene, Xylene
Gasoline Distilling Tester	43522	Benzene
GLC Sample Shipping Special Tester	43510	Benzene
Gas Oil Distillation Tester	43521	Benzene
Misc./Motor Lab Special Tester	43511	
Motor Lab Special Tester	43512	<u>Schedule #2</u> 20 Sx/Job/Yr Benzene
Catalyst Tester	43520	
RA Special Tester	43513	
RI Special Tester	43514	Benzene
RVP Special Tester	43515	Benzene
Sample Carrier	43610	Benzene
Stability Special Tester	43516	Benzene
UVA Special Tester	43517	Benzene
Viscosity Special Tester	43518	
Wax Special Tester	43519	

LAM 000471

DISPATCHING TANK FARM

Blender Operator 13551

Board Operator 13550

Operations Foreman 13350

Schedule #1 (10 Sx/Job/Yr)
Benzene

Solvents Racks Operator 13554

Total Hydrocarbon, BTX

Pumper Gauger 13552

Schedule #1
Benzene

Tank Car Loading Rack Operator 13553

Railroad Foreman 13351

Railroad Operator 13655

Railroad T.C. Repairman 13656

No.1 Switchman 13657

No.2 Switchman 13658

CENTRAL POWER STATION

B.T.G. Operator 19530

Station Operator 19533

Operations Foreman 19330

Systems Operator 19531

Schedule #6 2 Sx/Job/Yr.(Min.)
Hydrazine

Water Treater Operator 19532

UTILITIES DISTRIBUTION

Operations Foreman 19340

UCC #1/UCC #2 Operator 19540

Utility Operator 19541

CW System Oper. 19542

East Operator 19523

LAM 000472

UTILITIES NORTH

Operations Foreman PP #2	19321
650 2B Operator	19527
650 #2-A-Operator	19526
Surface Water Clarifier Operator	19528
I.W.T. Operator	19529

CAT REFORMING

Auxiliary Operator	10540	<u>Schedule #2 (20 Sx/Job/Yr)</u> Benzene, Toluene, Xylene
CR-3 Reactor Oper.	10541	Benzene, Toluene, Xylene
CR-3 Regen. Oper.	10542	Benzene, Toluene, Xylene
Offsite Operator	10543	Benzene, Toluene, Xylene
Operations Foreman	10340	Benzene, Toluene, Xylene
Sats Gas Plant Oper.	10544	Benzene, Toluene, Xylene
Orthoxylene Oper. Aromatics East	10513	<u>Schedule #1 (10 Sx/Job/Yr)</u> Ethyl Benzene, Xylene

GAS RECOVERY

CFH Operator	10550
DHT Operator	10551
Fractionator Oper.	10552
Mol Sieve Oper.	10553
Operations Foreman	10350
Treaters Operator	10554

LAM 000473

HYDROPROCESSING

HP-1 Operator Hydrogen Plant	10560	
Board Operator Olefin Feed Hydrotreater	10561	<u>Schedule #1</u> (10 Sx/Job/Yr) Benzene
Utility Oper. Olefin Feed Hydrotreater	10562	Benzene
Operations Foreman	10360	Benzene
Board Oper. SR5/SCOT	10563	
Utility Oper. SR5/SCOT	10564	

LUBE A

DA Operator	16530
HVI Operator	16531
LVI Operator	16532
Operations Foreman	16330
Phenol Extract- ion Unit No. 1 Operator	16533
Phenol Entry Operator	16534

LUBE B

Control Board Operator	16540	
DO Filter Oper.	16541	Schedule #1 (10 Sx/Job/Yr) MEK & Toluene
LHT Operator No.2	16544	
DW Filter Oper.	16542	MEK & Toluene
Operations Foreman	16341	MEK & Toluene
LHT Operator No.1	16543	
Entry Operator	16547	
Operations Foreman LHT 2	16340	
Recovery Operator	16545	
Refrigeration Operator	16546	MEK & Toluene

LUBE C

FPPH Operator	16550
Greer Operator	16551
Operations Foreman	16350
Perc Operator	16552
Rackman Operator	16554
ABC Pumpers	16553
Wax Pumper/ Utility Operator	16555
Christenson Wax Helper	99501

LAM 000475

AROMATICS WEST

BEU Operator	10520	Schedule #3 (36 Sx/Job/Yr) Benzene, Hexane, Toluene, Xylene
East ACU Oper.	10521	Benzene, Hexane, Toluene, Xylene
Gauger	10522	Benzene, Hexane, Toluene, Xylene
Operations Foreman	10320	Benzene, Hexane, Toluene, Xylene
ABC/B Column Operator	10523	Benzene, Hexane, Toluene, Xylene
West ACU Oper.	10524	Benzene, Hexane, Toluene, Xylene
HDU #1 Operator	10512	
Platformer #2 Operator	10514	

ALKYLATION

Compressor Oper.	13510
Fractionator Operator	13511
Operations Foreman	13310
Reactor Operator	13512
Refrigeration Operator	13513

LAM 000476

DPMC-16187

DISPATCHING DOCKS

Cargo Inspector 13560

Construction/
Maint. Dockman 13561

Dockman Operator 13562

Operations Foreman 13361

Pumper Gauger 13563

Special study required
for benzene exposure on
all jobs. 2nd half
'84. Remainder of '84
to follow Schedule #2 for
benzene, ECH, EDC, MTBE,
Toluene and Xylene.

PJS06/01
1-18-84

LAM 000477

DPMC-16188

I-4 OPERATIONS
PROCEDURES
1984 720.1

LAM 000453

DPMC 16164.1