SM-32 (REV. 5-78)

PLAINTIFF'S EXHIBIT

SH-2979

Shell Oil Company
Interoffice Memorandum

JULY 28, 1986

FROM: SR. INDUSTRIAL HYGIENIST, HEALTH & SAFETY, MFG. & TECH.

TO: SEE ATTACHED DISTRIBUTION LIST

SUBJECT: ASBESTOS MONITORING SUMMARY

Attached for your information is a preliminary summary of eight-hour TWA monitoring data collected at Shell locations since 1978. Generally this summary reflects data entered into the Health Surveillance System.

The purpose of reviewing the data collectively is to aid in assessing the exposure potential of generic tasks throughout Shell Manufacturing and to identify opportunities for sharing successful control strategies. This review is not intended to substitute for the "initial determination" required under the revised asbestos standard.

Please note that the following definitions were used in categorizing the monitoring data by type of exposure potential.

"Major Removal" - The objective of the job monitored was in fact asbestos removal. Examples would include demolition work and the removal of insulation on two exchangers during a turnaround. This category also includes laborers cleaning up debris.

"Incidental Exposure" - The purpose of the job monitored was other than insulation stripping and the exposure occurred as a natural consequence of the work done. Examples include working on piping immediately adjacent to exposed asbestos, an operator knocking insulation out of the way, carpenters building scaffolding next to exposed asbestos, etc.

"Other" - The employee monitored worked in the vicinity of the potential exposure, but had no known direct contact. Examples include a hole watch, an operator who is responsible for an area where a removal operation is underway, employees working downwind of removal operations, etc.

The other categories such as brake repair, inside demolition, transite cutting, and gasket handling appear to be self-explanatory.

Although this database will be updated as additional TWA data is submitted, the preliminary data does appear to suggest that differences do exist between locations, especially in the category of "major removal". Comments and suggestions on the proposed approach are welcome.

BT8620602

ABS-061196

As we become more familiar with the asbestos exposure potential for each exposure-task category, it would also be useful to better understand the underlying workpractices. Accordingly, it is requested that currently available written procedures for handling asbestos be submitted to Health & Safety, Mfg. & Tech. Either a generic procedure incorporating the best of approaches will be prepared or the most comprehensive will be shared with other locations.

Thanks again.

Phil Snyder

P. J. Snyder

PJS:bjd

Attachment

cc: A. D. Ditmar
J. D. Ransdell
J. L. Rivard

INDUSTRIAL HYGIENE REPRESENTATIVES

ANACORTES REFINERY
D. D. SMART

DEER PARK MANUFACTURING COMPLEX
A. F. SCHMIT

GEISMAR PLANT
M. T. BARCLAY

MARIETTA PLANT
M. W. HERSHMAN

MARTINEZ MANUFACTURING COMPLEX
M. B. KOVACEVICH

NORCO MANUFACTURING COMPLEX
A. K. MENARD

ODESSA REFINERY
E. N. GEE

TAFT PLANT
J. J. DELAUNE

WILMINGTON MANUFACTURING COMPLEX
S. V. SEVER

WOODBURY PLANT
R. NOCCO

WOOD RIVER MANUFACTURING COMPLEX
W. M. CUNNINGHAM

SUMMARY OF ASBESTOS MONITORING DATA ON FILE
NO. OF SAMPLES COLLECTED BY EXPOSURE RANGE

CATEGORY:MAJOR REMOVAL

LOCATION	TOTAL NUMBER	MEASUREMENT CATEGORIES IN F/CC, 8 HOUR TWA .01-.05	.06-.10	.11-.15	.16-.2	>.2	% > .1 F/CC FOR THIS LOCATION
DPMC	38	22	7	2	2	5	23.68%
NORCO	9	2	1	0	2	4	66.67%
WILMINGTON	18	8	8	2	0	0	11.11%
WOODBURY	2	1	1	0	0	0	N/A
WOODRIVER	12	0	2	1	2	7	83.33%
MARTINEZ	0						
GEISMAR	0						
TOTAL	79	33	19	5	6	16	

PERCENT EXCEEDING .05 F/CC 58.00%
PERCENT EXCEEDING .10 34.00%
PERCENT EXCEEDING .2 20.00%

CATEGORIES OF POTENTIAL EXPOSURE

A. INTERIOR DEMOLITION
DEMOLITION,STRIPPING,& CLEANUP
B. MAJOR REMOVAL
C. INCIDENTAL EXPOSURE
D. BRAKE REPAIR
E. TRANSITE CUTTING
F. TRANSITE REMOVAL & INSTALLATION
G. HANDLING OF GASKETING MATERIAL
H. OTHER

CATEGORY:OTHER

DPMC	0	0	0
NORCO	0	0	0
WILMINGTON	11	9	2
WOODBURY	0	0	0
WOODRIVER	4	3	1
MARTINEZ	5	5	0
GEISMAR	2	2	0
TOTAL	22	19	3

PERCENT EXCEEDING .05% 13.64%

CATEGORY:INCIDENTAL EXPOSURE

DPMC	0				
NORCO	0				
WILMINGTON	18	14	3	0	1
WOODBURY	0				
WOODRIVER	1	1	0	0	0
MARTINEZ	0				
GEISMAR	0				
TOTAL	19	15	3	0	1

PERCENT EXCEEDING .05 21.05%

ABS-061199

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SUMMARY OF ASBESTOS MONITORING DATA FOR SELECTED SHELL LOCATIONS - INCLUDES ONLY PERSONNEL EXPOSURE DATA

LOCATION	DATE	SMPG TIME (MIN.)	WORK ACTIVITY	EXPOSURE CATEGORY	MEASURED VALUE (F/CC)	CALC. 8HR. TWA (F/CC)	WHO DID THE WORK	WHERE
WMC = WILMINGTON		MMC = MARTINEZ			(values less than 0.01 are reported as 0.01)			
BCP = BEISMAR		MRMC = MOODRIVER						
DPMC = DEER PARK		MODB = MOODBURY						
NMC = NORCO								
WMC	1981	433	Handing transite to workers on tel roof with aid of forklift	TRANSITE HANDLING	0.02	0.02	Shell - Boilermaker -	Tankfarm
WMC	1981	434	Removed/reinstalled transite; 15min peaks of .88 and .3	TRANSITE HANDLING	0.03	0.03	Shell - Boilermaker -	Various
WMC	1981	448	Installing transite on roof of tel building. 15min peak meas. at .64 f/cc	TRANSITE HANDLING	0.07	0.07	Shell - Boilermaker -	Tankfarm
WMC	1981	442	Bolting down transite to tel roof. 15 min peaks were .29 and .69 f/cc	TRANSITE HANDLING	0.05	0.05	Shell - Boilermaker -	Tankfarm
WMC	1983	461	Cutting Thermo 12 block with handsaw during day	TRANSITE CUTTING	0.13	0.12	Contractors - Insulator -	Boilerhouse
BCP	1983	423	Routine operator work; no known asbestos exposure	OTHER	0.02	0.02	Shell - Operator -	K2
BCP	1983	415	Delivery work including disposal of a bag of asbestos waste	OTHER	0.01	0.01	Shell - Storeman	Warehouse
MMC	1984	430	Routine operator exposure. No apparent exposure.	OTHER	0.01	0.01	Shell - Operator	LOP Util
MMC	1984	420	Routine operator work, No apparent asbestos exposure.	OTHER	0.01	0.01	Shell - Operator	LOP Util
MMC	1984	429	Routine operator exposure, no apparent asbestos exposure.	OTHER	0.01	0.01	Shell - Operator -	LOP Util
MMC	1982	470	Routine operator work with transite cleanup in progress in area	OTHER	0.01	0.01	Shell - Operator -	HDP/So2
MMC	1982	467	Routine operator work with transite cleanup in area	OTHER	0.01	0.01	Shell - Operator -	HDP/So2
WMC	1985	460	Blender operator working in compounding and blending	OTHER	0.01	0.01	Shell - Operator -	Compounding
WMC	1985	455	Filling drums in compounding area	OTHER	0.02	0.02	Shell - Operator -	Compounding
WMC	1985	455	Filling drums in compounding	OTHER	0.05	0.05	Shell - Drumfiller	Compounding
WMC	1984	464	Working with heavy equipment; no apparent exposure	OTHER	0.02	0.02	Shell - Rigger -	Utilities
WMC	1984	464	Working with crane operator, no apparent exposures	OTHER	0.03	0.03	Contractors - Rigger -	Utilities
WMC	1984	450	Repair of mechanical pump seals, no apparent exposure	OTHER	0.01	0.01	Shell - Machinist -	Machine Shop
WMC	1982	433	Working around but not with insulation	OTHER	0.04	0.04	Shell - Insulator -	BI
WMC	1981	451	Working with crew handling transite and on transite	OTHER	0.07	0.07	Shell - Boilermake	Various
WMC	1981	450	Pulled check valves loose insul.underfoot (peak of .1f/cc). Other misc. wk.	OTHER	0.03	0.03	Shell - Machinist -	Hydro
WMC	1981	458	Building scaffold on column. Nearby worker breaking loose insulation.	OTHER	0.02	0.02	Shell - Carpenter -	Cat Cracker
WMC	1981	450	Pipefitter work at storm pond, change room, etc.	OTHER	0.06	0.06	Shell - Pipefitter	Various
MRMC	1983	393	Routine operator work including looking for a steam leak	OTHER	0.1	0.08	Shell - Operator -	Utilities
MRMC	1983	398	Routine operator work, 90 min outside	OTHER	0.05	0.04	Shell - Operator -	Utilities
MRMC	1983	389	Routine operator work	OTHER	0.01	0.01	Shell - Operator -	Utilities
MRMC	1981	420	Routine operator work	OTHER	0.05	0.04	Shell - Operator -	Utilities
DPMC	1985	308	Removed insulation wet from 3 inch line in piperack	MAJOR REMOVAL	0.07	0.04	Contractors	Vcm Unit
DPMC	1985	85	Asbestos removal in Resins unit using s.o.p.	MAJOR REMOVAL	0.07	0.01	Contractors	Resins
DPMC	1985	175	Asbestos removal in Resins unit using s.o.p.	MAJOR REMOVAL	0.01	0.01	Contractors	Resins
DPMC	1985	157	Rem. asbestos from exchangers, wet; exp. when metal bands rem'd	MAJOR REMOVAL	0.16	0.05	Contractors	Ea Unit
DPMC	1985	157	Removal of asbestos from exchangers at grade, everything wet	MAJOR REMOVAL	0.22	0.07	Contractors	Ea Unit
DPMC	1985	80	Asbestos removal in Resins unit using s.o.p.	MAJOR REMOVAL	0.07	0.01	Contractors	Resins
DPMC	1985	236	Removal of asbestos from exchangers at grade, everything wet	MAJOR REMOVAL	0.19	0.09	Contractors	Ea Unit
DPMC	1985	157	Removal of asbestos from exchangers at grade, everything wet	MAJOR REMOVAL	0.19	0.06	Contractors	Ea Unit
DPMC	1985	308	Removed insulation wet from 3 inch line in piperack	MAJOR REMOVAL	0.39	0.25	Contractors	Vcm Unit
DPMC	1985	333	Ground laborer cleanup work	MAJOR REMOVAL	0.03	0.02	Contractors	Vcm Unit
DPMC	1983	420	Stripping insul. off piping wet	MAJOR REMOVAL	0.21	0.18	Contractors	Thermal Cracking
DPMC	1983	451	Stripping insul. off piping wet	MAJOR REMOVAL	0.12	0.12	Contractors	Crude Unit
DPMC	1983	445	Stripping insul. off piping wet	MAJOR REMOVAL	0.15	0.15	Contractors	Crude Unit
DPMC	1983	420	Stripping insul. off piping wet	MAJOR REMOVAL	0.38	0.33	Contractors	Thermal Cracking
DPMC	1983	435	Stripping insul. off piping wet	MAJOR REMOVAL	0.1	0.1	Contractors	Crude Unit
DPMC	1983	420	Stripping insul. off piping wet	MAJOR REMOVAL	0.37	0.32	Contractors	Thermal Cracking
DPMC	1983	420	Stripping insul. off piping wet	MAJOR REMOVAL	0.65	0.57	Contractors	Thermal Cracking
DPMC	1980	180	Stripping insul. off column	MAJOR REMOVAL	0.01	0.01	Contractors	Crude Unit
DPMC	1980	115	Stripping insul. off column	MAJOR REMOVAL	0.02	0.01	Contractors	Crude Unit
DPMC	1980	150	Stripping insul. off column	MAJOR REMOVAL	0.01	0.01	Contractors	Crude Unit
DPMC	1979	19	Cutting/fabrication with transite outside	MAJOR REMOVAL	1.1	0.04	Shell	Solvents and Treat

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DFMC	1978	120	Laborers cleaning up insulation during demolition of water softeners	MAJOR REMOVAL	0.02	0.01	Contractors	Water Softeners
DFMC	1978	125	Shoveling wet insul. into bags	MAJOR REMOVAL	0.14	0.03	Contractors -	S.Recovery
DFMC	1978	123	wet insul. at 15ft and lowered to ground in lined druas	MAJOR REMOVAL	0.25	0.06	Contractors -	S.Recovery
DFMC	1978	150	Stripping insul. wet from water softeners for demolition	MAJOR REMOVAL	0.54	0.17	Contractors	Water Softeners
DFMC	1978	190	Laborers cleaning up insulation during demolition of water softeners	MAJOR REMOVAL	0.04	0.02	Contrators	Water Softeners
DFMC	1978	165	Stripping insul. wet from water softeners for demolition	MAJOR REMOVAL	0.09	0.03	Contractors	Water Softeners
DFMC	1978	200	Stripping insul. wet from water softeners for demolition	MAJOR REMOVAL	0.73	0.3	Contractors	Water Softeners
DFMC	1978	130	Shoveling wet insul. into bags	MAJOR REMOVAL	0.03	0.01	Contractors -	S.Recovery Desol.
DFMC	1978	190	Laborers laborers cleaning up insul. during demolition of water softeners	MAJOR REMOVAL	0.01	0.01	Contractors -	Water Softeners
DFMC	1978	110	Laborers cleaning up insulation during demolition of water softeners	MAJOR REMOVAL	0.04	0.01	Contractors	Utilities
DFMC	1978	132	wet insul. at 15ft and lowered to ground in lined druas	MAJOR REMOVAL	0.18	0.05	Contractors -	S.Recovery
DFMC	1978	120	removal of wet insul from compressor(s) and put into lined druas	MAJOR REMOVAL	0.14	0.03	Contractors -	S.Recovery
DFMC	1978	120	Shoveling wet insul. into bags	MAJOR REMOVAL	0.2	0.05	Contractors -	S.Recovery
DFMC	1978	125	wet insul. and lowered to ground in druas	MAJOR REMOVAL	0.39	0.1	Contractors -	S.Recovery
DFMC	1978	189	Laborers cleaning up insulation during demolition of water softeners	MAJOR REMOVAL	0.01	0.01	Contractors	Water Softeners
DFMC	1978	190	Laborers cleaning up insulation during demolition of water softeners	MAJOR REMOVAL	0.01	0.01	Contractors	Water Softeners
DFMC	1978	195	Stripping insul. wet from water softeners for demolition	MAJOR REMOVAL	0.17	0.07	Contractors	Water Softeners
MFC	1985	447	Cleanup only, removal of insul. from asphalt tk. not active	MAJOR REMOVAL	0.2	0.19	G.Nova - Contractor Laborer	Alky
MFC	1985	484	Insul.removal from asphalt tank.;picked up insul.at CCU in FM	MAJOR REMOVAL	0.02	0.02	R.Traywick - Contractor Gen. Helper	Refinery
MFC	1985	486	Insul.removal from asphalt tank.;picked up insul.at CCU in FM	MAJOR REMOVAL	0.15	0.15	D.Charles - Contractor Gen. Helper	Refinery
MFC	1985	461	Cleanup only, removal of insul. from asphalt tk. not active	MAJOR REMOVAL	0.18	0.17	M.Hawkins - Contractor Laborer	Alky
MFC	1985	466	Cleanup only, removal of insul. from asphalt tk. not active	MAJOR REMOVAL	0.07	0.07	T.Washia - Contractor Laborer	Alky
MFC	1978	252	Removing insul. from upper crude col.	MAJOR REMOVAL	--	3.8	C.St.Amant - Shell Insulator	Crude Unit
MFC	1978	252	Removing insul.from upper crude unit/others using powered steel brush	MAJOR REMOVAL	--	3.4	R.Germaine - Shell Insulator	Crude Unit
MFC	1978	487	Insul.removal from asphalt tank.;picked up insul.at CCU in FM	MAJOR REMOVAL	0.05	0.05	M.Hawkins - Contractor Gen. Helper	Refinery
MFC	1985	443	Cleanup only, removal of insul. from asphalt tk. not active	MAJOR REMOVAL	0.31	0.29	C.Riley - Contractor Laborer	Alky
MFC	1985	440	Removing sprayed on asbestos from beams	MAJOR REMOVAL	0.09	0.08	Contractors - Macias	Coke Barn
MFC	1985	461	Soae removal of new insulation	MAJOR REMOVAL	0.06	0.06	Contractors - Laborer -	Cat Cracker
MFC	1985	468	Removing insulation and filling asbestos bags; punching holes in insul.	MAJOR REMOVAL	0.12	0.12	Contractors - Insulator -	Cat Cracker
MFC	1985	440	Cleanup in coke barn, moving asbestos filled bags	MAJOR REMOVAL	0.07	0.06	Contractors - Rodriguez	Coke Barn
MFC	1985	456	Soae repair of insulation edges	MAJOR REMOVAL	0.03	0.03	Contractors - Insulator	Cat Cracker
MFC	1984	450	tear out and replacement of insulation on pipes and tower	MAJOR REMOVAL	0.15	0.14	Contractors - Insulator	BI
MFC	1984	452	Asbestos removal and repair work with old insulation	MAJOR REMOVAL	0.02	0.02	Contractors - Insulator	Cat Cracker
MFC	1984	452	Patch work on insulation in aa only	MAJOR REMOVAL	0.07	0.07	Contractors - Insulator	Alky - Hydro
MFC	1984	460	Asbestos removal on 7th floor vapor line of CCU	MAJOR REMOVAL	0.03	0.03	Contractors - Insulator	Cat Cracker
MFC	1984	451	Asbestos removal on TD column	MAJOR REMOVAL	0.02	0.02	Contractors - Insulator	Cat Cracker
MFC	1983	442	Stripping insulation	MAJOR REMOVAL	0.07	0.06	Shell - Insulator -	Alky
MFC	1983	446	Stripping insulation and replacing	MAJOR REMOVAL	0.06	0.06	Shell - Insulator -	BI
MFC	1983	458	Removed old insulation (damp) from pipeline in aa only	MAJOR REMOVAL	0.04	0.04	Shell - Insulator -	BI & SHT
MFC	1983	454	Installing JM Therao-12 and removal of old insulation	MAJOR REMOVAL	0.08	0.08	Contractors - Insulator -	Boilerhouse
MFC	1983	433	Stripping insulation	MAJOR REMOVAL	0.04	0.04	Shell - Insulator -	BI
MFC	1982	474	Stripping insulation from steam pipes taken out of service in aa.	MAJOR REMOVAL	0.02	0.02	Shell - 35541 - Hearino	Chem Plant
MFC	1982	401	Removal of old insulation and later fit new insulation to pipe	MAJOR REMOVAL	0.04	0.03	Shell - Insulator -	Carpenter shop
MFC	1985	468	Removing insulation and filling bags; punching holes in insulation	MAJOR REMOVAL	0.07	0.07	Contractors - Laborer	Cat Cracker
MOOB	1984	90	Removed wet insulation and placed in drum	MAJOR REMOVAL	0.1	0.02	Shell - Operator -	Poly
MOOB	1984	135	Removed wet insulation and placed it in druas for 135 min.	MAJOR REMOVAL	0.05	0.01	Shell - Operator - I	Poly
MFMC	1983	406	Bagging asbestos insulation on ground level off C-10 col.	MAJOR REMOVAL	0.11	0.09	Shell - Insulator -	HDP/FCU
MFMC	1983	420	Bagging insulation wet and lowered to the ground the night before	MAJOR REMOVAL	0.24	0.21	Shell - Insulator -	HDP/FCU
MFMC	1982	440	Stripping vessels wet in lay down yard	MAJOR REMOVAL	0.18	0.17	Shell - Insulator -	Salvage yard
MFMC	1982	446	Stripping vessels wet in lay down yard	MAJOR REMOVAL	0.51	0.47	Shell - Insulator -	Salvage yard
MFMC	1979	450	Stripping, cleanup and bagging wetted asbestos by boiler 814	MAJOR REMOVAL	0.29	0.27	Shell - Insulator -	Utilities
MFMC	1979	450	Cleaning up and bagging; and removing and lowering asbestos to ground	MAJOR REMOVAL	0.57	0.53	Shell - Insulator -	Utilities
MFMC	1979	450	Stripping insulation at platform level and cleanup/bagging at ground level	MAJOR REMOVAL	0.15	0.14	Shell - Insulator -	Utilities
MFMC	1979	450	Stripping insulation at platform level, cleanup and bagging on ground	MAJOR REMOVAL	0.11	0.10	Shell - Insulator -	Utilities
MFMC	1979	450	Cleaning up and bagging; and removing and lowering asbestos from 3rd level	MAJOR REMOVAL	0.61	0.57	Shell - Insulator -	Utilities
MFMC	1979	450	Stripping, cleanup and bagging wetted asbestos by Boiler 814	MAJOR REMOVAL	0.34	0.32	Shell - Insulator -	Utilities
MFMC	1979	450	Cleaning up and bagging; and removing and lowering asbestos to ground	MAJOR REMOVAL	0.18	0.17	Shell - Insulator -	Utilities
MFMC	1979	450	Stripping, cleanup and bagging wetted asbestos by boiler 814	MAJOR REMOVAL	0.26	0.24	Shell - Insulator -	Utilities
MFC	1984	450	Pipefitting work in general	INCIDENTAL EXPOS.	0.08	0.08	Shell - Pipefitter	Boilerhouse
MFC	1984	454	Pipefitting work in general	INCIDENTAL EXPOS.	0.2	0.19	Shell - Pipefitter	Boilerhouse

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ABS-061201

MMC	1984	450	Applying thermal mastic coating on insulation and reinsulating another line	INCIDENTAL EXPOS.	0.04	0.04	Contractors - Insulator -	Alky - Hydro
MMC	1984	461	Pipefitting work in general	INCIDENTAL EXPOS.	0.03	0.03	Shell - Pipefitter -	Du-5
MMC	1984	460	Pipefitting work in general	INCIDENTAL EXPOS.	0.03	0.03	Shell - Pipefitter -	Du-5
MMC	1983	437	Installed insulation at Alky pump 339. No known asbestos exposure.	INCIDENTAL EXPOS.	0.1	0.09	Shell - Insulator -	Alky
MMC	1983	442	Insulated pipeline at BI during day. No known asbestos exposure	INCIDENTAL EXPOS.	0.05	0.05	Shell - Insulator -	BI
MMC	1983	462	Applying urethane sealing mud to outside of reactor	INCIDENTAL EXPOS.	0.03	0.03	Shell - Pipefitter -	Alky?
MMC	1983	449	Installed insulation and sealing mud. No known asbestos exp. No mask worn.	INCIDENTAL EXPOS.	0.03	0.03	Shell - Insulator -	Alky
MMC	1983	456	Installed sheet metal over insulation and applied sealing mud	INCIDENTAL EXPOS.	0.01	0.01	Contractors - Insulator - Johnson	Boilerhouse
MMC	1981	353	Pipefitter work in change room.	INCIDENTAL EXPOS.	0.01	0.01	Shell - Pipefitter - Perea	Various
MMC	1981	15	Removed relief valve on catalyst line at BI; loose insulation broke off	INCIDENTAL EXPOS.	0.29	0.01	Shell - Pipefitter -	BI
MMC	1981	436	Routine fitter work including removal of bolts from valve adj. to asbestos	INCIDENTAL EXPOS.	0.06	0.05	Shell - Pipefitter -	BI
MMC	1981	15	Replaced motor valve. Loose insulation present in immediate area.	INCIDENTAL EXPOS.	0.49	0.02	Shell - Pipefitter -	Alky
MMC	1981	459	Building scaffold near column and used hammer to break away insulation	INCIDENTAL EXPOS.	0.03	0.03	Shell - Carpenter -	Cat Cracker
MMC	1981	470	Wking on a.v. with expos.insul.nearby;peak of .98 f/cc. Open bag nearby.	INCIDENTAL EXPOS.	0.06	0.06	Shell - Machinist -	Cat
MMC	1981	455	Replaced motor valve. Loose insulation present in immediate area	INCIDENTAL EXPOS.	0.04	0.04	Shell - Pipefitter -	Alky
MMC	1981	15	Cleaning out around boiler in change rm.; old insulation underfoot from boiler	INCIDENTAL EXPOS.	0.74	0.02	Shell - Pipefitter	Changeroom
MMC	1980	450	Burning on railing covered with insulation	INCIDENTAL EXPOS.	0.05	0.05	Shell - Boilermaker	Dubbs
BCP	1983	410	Filled orders; some handling of requested gasketing material	GASKETING	0.02	0.02	Shell - Storeman -	Warehouse
DMC	1985	70	Brake repair work with vacuum system; water used per sop	BRAKE REPAIR	0.11	0.02	Shell - Garage Mechanic	Garage
Norco	1985	153	Brake repair work	BRAKE REPAIR	0.02	0.01	T.Krvault - Shell Garage Mechanic	Garage

JULY 28, 1986

A. F. SCHMIT
DEER PARK MFG. COMPLEX

Al:

You'll note that the DPMC data includes considerable data that doesn't appear in the HSS. This was selectively extracted from "the books" last month when I visited. Peak data, non-TWA samples and area measurements have been excluded.

Attachment

BT8620901

P. J. SNYDER

JULY 28, 1986

A. K. MENARD
NORCO MFG. COMPLEX

Kirk:

You'll note that the Norco data includes more than in the HSS. I essentially worked off the data you sent in last month.

Attachment

BT8620901

P. J. SNYDER

ABS-061203

LAM 031417

JULY 28, 1986

S. V. SEVER
WILMINGTON MFG. COMPLEX

Sharon:

Please note that your data which was collected at random is not included since it just substantiates that workers with no foreseeable exposure aren't exposed above 0.1 f/cc. I hope I haven't left out any significant pieces of data. Under separate cover I'll be sending you a copy of the data disk. Regarding the asbestos welding blankets, seems like a bad idea.

Attachment

BT8620901

P. J. SNYDER

ABS-061204

LAM 031418