

Seq T Name	AREA	Dept PRODUCTION	Contaminant	Asbestos / CEF 37mm .8u	/P&CAM 239 R=A
0001 A Soc Sec		Locn GENERAL	TUA	8.700000 F/CC	
Date	01/27/1977	Proc	Pel/Exp Limit	OSHA PEL = 2 F/CC	
Shift	1ST	Job AREA SAMPLE	Product		
Shift	8 HOUR				

Equip	Samp	Start	Stop	Min	LPM	Analysis-F/CC	Conc-F/CC	ST	Exp Limit	Respirator	Comments
1.	001	08:00	08:25	25	0.0000	8.6800/	0.0	8.7000			FIBER ROOM-LOAD FIBER R CONVEYOR #2 FIBER ROOM

Seq T Name	SMITH, DONALD	Dept PRODUCTION	Contaminant	Asbestos / CEF 37mm .8u	/P&CAM 239 R=A
0002 P Soc Sec	498-26-7563	Locn GENERAL	TUA	5.300000 F/CC	
Date	01/27/1977	Proc	Pel/Exp Limit	OSHA PEL = 2 F/CC	
Shift	1ST	Job LABORER	Product		
Shift	8 HOUR				

Equip	Samp	Start	Stop	Min	LPM	Analysis-F/CC	Conc-F/CC	ST	Exp Limit	Respirator	Comments
1.	002	10:36	10:53	17	0.0000	5.2737/	0.0	5.3000		N	FIBER ROOM-DUMPING FIBER

Seq T Name	WOLFF, VERNON H.	Dept PRODUCTION	Contaminant	Asbestos / CEF 37mm .8u	/P&CAM 239 R=A
0003 P Soc Sec	498-09-2825	Locn PIPE MACHINE	TUA	11.300000 F/CC	
Date	01/27/1977	Proc	Pel/Exp Limit	OSHA PEL = 2 F/CC	
Shift	1ST	Job TENDER	Product		
Shift	8 HOUR				

Equip	Samp	Start	Stop	Min	LPM	Analysis-F/CC	Conc-F/CC	ST	Exp Limit	Respirator	Comments
1.	003	11:05	11:15	10	0.0000	11.3200/	0.0	11.3000		N	CHECK TRAILINGS-CHEC K CYL.

Seq T Name	MELTON, DONALD R.	Dept PRODUCTION	Contaminant	Asbestos / CEF 37mm .8u	/P&CAM 239 R=A
0004 P Soc Sec	487-46-0711	Locn COUPLING SAW	TUA	1.400000 F/CC	
Date	01/27/1977	Proc	Pel/Exp Limit	OSHA PEL = 2 F/CC	
Shift	1ST	Job OPERATOR	Product		
Shift	8 HOUR				

Equip	Samp	Start	Stop	Min	LPM	Analysis-F/CC	Conc-F/CC	ST	Exp Limit	Respirator	Comments
1.	004	11:28	11:35	7	0.0000	1.3500/	0.0	1.4000		N	COUPLING STOCK WET-C COUPLING SAW-CUTTING 12" COUP

Seq T Name	PLAIR, AARON	Dept PRODUCTION	Contaminant	Asbestos / CEF 37mm .8u	/P&CAM 239 R=A
0005 P Soc Sec	427-82-2896	Locn BORING MILL	TUA	0.000000 F/CC	
Date	01/27/1977	Proc	Pel/Exp Limit	OSHA PEL = 2 F/CC	
Shift	1ST	Job OPERATOR	Product	6" 150 CPLG	
Shift	8 HOUR				

Equip	Samp	Start	Stop	Min	LPM	Analysis-F/CC	Conc-F/CC	ST	Exp Limit	Respirator	Comments
1.	005	11:38	11:48	10	0.0000	0.0000/	0.0	0.0000		N	NO INFORMATION

CTD018324

Seq T Name AREA
0007 A Soc Sec
Date 02/22/1977
Shift 1ST 8 HOUR

Dept PRODUCTION
Locn GENERAL
Proc
Job AREA SAMPLE

Contaminant Asbestos / CEF 37mm .8u /P&CAM 239 R=A
TWA 5.300000 F/CC
Pel/Exp Limit OSHA PEL = 2 F/CC
Product

ST Exp Limit Respirator
Conc-F/CC 0.0 5.3000
Analysis-F/CC 5.2928/

Comments
FIBER ROOM

Seq T Name WATSON, WILLIE
0008 P Soc Sec 430-34-9361
Date 02/22/1977
Shift 1ST 8 HOUR

Dept PRODUCTION
Locn GENERAL
Proc
Job RELIEF

Contaminant Asbestos / CEF 37mm .8u /P&CAM 239 R=A
TWA 0.860000 F/CC
Pel/Exp Limit OSHA PEL = 2 F/CC
Product

ST Exp Limit Respirator
Conc-F/CC 0.0 0.8600
Analysis-F/CC 0.8600/

Comments
FURNISH NO 17 MIXER OP

Seq T Name AREA
0009 A Soc Sec
Date 02/22/1977
Shift 1ST 8 HOUR

Dept PRODUCTION
Locn GENERAL
Proc
Job AREA SAMPLE

Contaminant Asbestos / CEF 37mm .8u /P&CAM 239 R=A
TWA 1.080000 F/CC
Pel/Exp Limit OSHA PEL = 2 F/CC
Product

ST Exp Limit Respirator
Conc-F/CC 0.0 1.0800
Analysis-F/CC 1.0773/

Comments
FURNISH #18 MADE 6 D LMPs

Seq T Name HATCHARD, GARY
0010 P Soc Sec 499-54-5960
Date 02/22/1977
Shift 1ST 8 HOUR

Dept PRODUCTION
Locn GENERAL
Proc
Job LABORER

Contaminant Asbestos / CEF 37mm .8u /P&CAM 239 R=A
TWA 13.000000 F/CC
Pel/Exp Limit OSHA PEL = 2 F/CC
Product

ST Exp Limit Respirator
Conc-F/CC 0.0 13.0000
Analysis-F/CC 12.9762/

Comments
FIBER CONVEYOR-SETTLE NG UP CONVEYOR W/#18

Seq T Name LAWRENCE, RONNIE E.
0011 P Soc Sec 487-56-6139
Date 03/17/1977
Shift 1ST 8 HOUR

Dept PRODUCTION
Locn MIXER
Proc
Job OPERATOR

Contaminant Asbestos / CEF 37mm .8u /P&CAM 239 R=A
TWA 0.890000 F/CC
Pel/Exp Limit OSHA PEL = 2 F/CC
Product

ST Exp Limit Respirator
Conc-F/CC 0.0 0.8900
Analysis-F/CC 0.8900/

Comments
BLEND #178

CTD018325

Seq T Name PALAZZOLA, JAMES J. Dept PRODUCTION Contaminant Asbestos / CEF 37mm .8u /P&CAM 239 R=A
 0012 P Soc Sec 489-48-3108 Locn MANDREL TWA 0.000800 F/CC
 Date 03/18/1977 Pel/Exp Limit OSHA PEL = 2 F/CC
 Shift 1ST 8 HOUR Product 12" 150 & 12" 200

Equip Sump Start Stop Min LPM Analysis-F/CC Conc-F/CC ST Exp Limit Respirator Comments
 1. 011 14:45 18:20 215 0.0000 0.0008/ 0.0 0.0008 N CLEANING STRIPPING A REA

Seq T Name PEIFFER, DONALD C. Dept PRODUCTION Contaminant Asbestos / CEF 37mm .8u /P&CAM 239 R=A
 0013 P Soc Sec 496-48-2810 Locn COUPLING SAW TWA 0.120000 F/CC
 Date 04/05/1977 Pel/Exp Limit OSHA PEL = 2 F/CC
 Shift 1ST 8 HOUR Job OPERATOR Product 14" T-25C

Equip Sump Start Stop Min LPM Analysis-F/CC Conc-F/CC ST Exp Limit Respirator Comments
 1. 012 11:40 14:30 170 0.0000 0.1170/ 0.0 0.1200 N FURNISHED NO 20 COUP WET

Seq T Name AREA Dept PRODUCTION Contaminant Asbestos / CEF 37mm .8u /P&CAM 239 R=A
 0015 A Soc Sec Locn BORING MILL TWA 0.530000 F/CC
 Date 04/06/1977 Pel/Exp Limit OSHA PEL = 2 F/CC
 Shift 1ST 8 HOUR Job AREA SAMPLE Product 14" COUPLING

Equip Sump Start Stop Min LPM Analysis-F/CC Conc-F/CC ST Exp Limit Respirator Comments
 1. 013 09:45 11:45 120 0.0000 0.5344/ 0.0 0.5300

Seq T Name BURNS, ROBERT Dept PRODUCTION Contaminant Asbestos / CEF 37mm .8u /P&CAM 239 R=A
 0016 P Soc Sec 493-44-3172 Locn BORING MILL TWA 0.040000 F/CC
 Date 04/06/1977 Pel/Exp Limit OSHA PEL = 2 F/CC
 Shift 1ST 8 HOUR Job OPERATOR Product

Equip Sump Start Stop Min LPM Analysis-F/CC Conc-F/CC ST Exp Limit Respirator Comments
 1. 014 11:50 12:55 65 0.0000 0.0400/ 0.0 0.0400 N

Seq T Name BERRA, STEVEN C. Dept PRODUCTION Contaminant Asbestos / CEF 37mm .8u /P&CAM 239 R=A
 0017 P Soc Sec 493-52-8278 Locn GENERAL TWA 1.700000 F/CC
 Date 04/14/1977 Pel/Exp Limit OSHA PEL = 2 F/CC
 Shift 1ST 8 HOUR Job LABORER Product

Equip Sump Start Stop Min LPM Analysis-F/CC Conc-F/CC ST Exp Limit Respirator Comments
 1. 015 08:15 11:05 170 0.0000 1.7300/ 0.0 1.7000 Y OTHER
 FORK TRUCK DRIVER-BC AT UNLOADING FROM CA

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Seq T Name THIES, OLIN K.
0018 P Soc Sec 360-16-5661
Date 04/21/1977
Shift 1ST 8 HOUR

Dept PRODUCTION
Locn LATHE LINE
Proc LINE 3
Job OPERATOR

Contaminant Asbestos / CEF 37mm .8u /P&CAM 239 R=A
TWA 0.390000 F/CC
Pel/Exp Limit OSHA PEL = 2 F/CC
Product 16" WC

1. Equip Samp 016 Start 11:10 Stop 13:00 Min 0.0000 LPM Analysis-F/CC 0.3900/ 0.0 Conc-F/CC 0.3900 ST Exp Limit Respirator N Comments FURNISH #22

Seq T Name BUDAY, LOUIS
0019 P Soc Sec 492-10-4794
Date 04/26/1977
Shift 1ST 8 HOUR

Dept PRODUCTION
Locn GENERAL
Proc
Job OPERATOR

Contaminant Asbestos / CEF 37mm .8u /P&CAM 239 R=A
TWA 0.390000 F/CC
Pel/Exp Limit OSHA PEL = 2 F/CC
Product

1. Equip Samp 017 Start 13:50 Stop 15:00 Min 0.0000 LPM Analysis-F/CC 0.3920/ 0.0 Conc-F/CC 0.3900 ST Exp Limit Respirator N Comments CRUSHER OPER-TAKES P IPE OFF THE LINE-DRIES FORKLIFT

Seq T Name HAEFFNER, GARRY
0020 P Soc Sec 498-70-8297
Date 04/26/1977
Shift 1ST 8 HOUR

Dept PRODUCTION
Locn LATHE LINE
Proc LINE 3
Job OPERATOR

Contaminant Asbestos / CEF 37mm .8u /P&CAM 239 R=A
TWA 0.370000 F/CC
Pel/Exp Limit OSHA PEL = 2 F/CC
Product 12" IRREG T-25

1. Equip Samp 018 Start 13:10 Stop 16:45 Min 0.0000 LPM Analysis-F/CC 0.3699/ 0.0 Conc-F/CC 0.3700 ST Exp Limit Respirator N Comments INSPECTOR

Seq T Name AREA
0021 A Soc Sec
Date 04/26/1977
Shift 1ST 8 HOUR

Dept PRODUCTION
Locn MACHINE
Proc
Job AREA SAMPLE

Contaminant Asbestos / CEF 37mm .8u /P&CAM 239 R=A
TWA 0.340000 F/CC
Pel/Exp Limit OSHA PEL = 2 F/CC
Product

1. Equip Samp 019 Start 07:11 Stop 10:11 Min 0.0000 LPM Analysis-F/CC 0.3410/ 0.0 Conc-F/CC 0.3400 ST Exp Limit Respirator N Comments MACHINE TENDER

Seq T Name WRIGHT, JOHN
0022 P Soc Sec 431-16-3553
Date 04/29/1977
Shift 1ST 8 HOUR

Dept PRODUCTION
Locn LATHE LINE
Proc
Job OPERATOR

Contaminant Asbestos / CEF 37mm .8u /P&CAM 239 R=A
TWA 0.130000 F/CC
Pel/Exp Limit OSHA PEL = 2 F/CC
Product 8" 200

1. Equip Samp 021 Start 11:20 Stop 14:15 Min 0.0000 LPM Analysis-F/CC 0.1303/ 0.0 Conc-F/CC 0.1300 ST Exp Limit Respirator N Comments FM

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R1H01

Industrial Hygiene Survey: 77P111 PIPE & PLASTICS-EPG ST LOUIS

IH AIR Sequence

07/06/1993 13:36:21 Page: 5

Seq T Name AREA
0023 A Soc Sec

Date 04/29/1977

Shift 1ST 8 HOUR

Dept PRODUCTION
Locn MACHINE
Proc
Job AREA SAMPLE

Contaminant Asbestos / CEF 37mm .8u /P&CAM 239 R=A
TWA 0.250000 F/CC
Pel/Exp Limit OSHA PEL = 2 F/CC
Product

Equip	Samp	Start	Stop	Min	LPM	Analysis-F/CC	Conc-F/CC	ST Exp Limit	Respirator	Comments
1.	022	16:05	18:58	173	0.0000	0.2471/	0.0	0.2500		BATTERY ON AIR PUMP WAS LOW

Seq T Name AREA
0024 A Soc Sec

Date 06/08/1977

Shift 1ST 8 HOUR

Dept PRODUCTION
Locn MACHINE
Proc
Job AREA SAMPLE

Contaminant Asbestos / CEF 37mm .8u /P&CAM 239 R=A
TWA 0.410000 F/CC
Pel/Exp Limit OSHA PEL = 2 F/CC
Product

Equip	Samp	Start	Stop	Min	LPM	Analysis-F/CC	Conc-F/CC	ST Exp Limit	Respirator	Comments
1.	026	15:05	19:12	247	0.0000	0.4100/	0.0	0.4100		MACHINE TENDER

Seq T Name AREA
0025 A Soc Sec

Date 06/08/1977

Shift 1ST 8 HOUR

Dept PRODUCTION
Locn GENERAL
Proc
Job AREA SAMPLE

Contaminant Asbestos / CEF 37mm .8u /P&CAM 239 R=A
TWA 0.760000 F/CC
Pel/Exp Limit OSHA PEL = 2 F/CC
Product

Equip	Samp	Start	Stop	Min	LPM	Analysis-F/CC	Conc-F/CC	ST Exp Limit	Respirator	Comments
1.	027	07:13	10:15	182	0.0000	0.7600/	0.0	0.7600		FIBER STAGE

Seq T Name AREA
0026 A Soc Sec

Date 06/10/1977

Shift 1ST 8 HOUR

Dept PRODUCTION
Locn GENERAL
Proc
Job AREA SAMPLE

Contaminant Asbestos / CEF 37mm .8u /P&CAM 239 R=A
TWA 0.910000 F/CC
Pel/Exp Limit OSHA PEL = 2 F/CC
Product

Equip	Samp	Start	Stop	Min	LPM	Analysis-F/CC	Conc-F/CC	ST Exp Limit	Respirator	Comments
1.	028	07:26	09:10	104	0.0000	0.9100/	0.0	0.9100		FIBER WAREHOUSE

Seq T Name AREA
0027 A Soc Sec

Date 06/10/1977

Shift 1ST 8 HOUR

Dept PRODUCTION
Locn GENERAL
Proc
Job AREA SAMPLE

Contaminant Asbestos / CEF 37mm .8u /P&CAM 239 R=A
TWA 1.700000 F/CC
Pel/Exp Limit OSHA PEL = 2 F/CC
Product

Equip	Samp	Start	Stop	Min	LPM	Analysis-F/CC	Conc-F/CC	ST Exp Limit	Respirator	Comments
1.	029	09:12	09:42	30	0.0000	1.7300/	0.0	1.7000		BAGS SHAKING P/C DUM PING

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Seq T Name	AREA	Dept PRODUCTION	Contaminant	Asbestos / CEF 37mm .8u	ST Exp Limit	Respirator	Comments
0028 A Soc Sec		Locn GENERAL	TWA	1.100000 F/CC			FIBER STAGE-SETTING UP FIBER W/ TRUCK
Date	06/10/1977	Proc	Pel/Exp Limit	OSHA PEL = 2 F/CC			
Shift	1ST	Job AREA SAMPLE	Product				
Equip	Samp	LPM	Conc-F/CC	0.0000	1.1000		
1.	031	10:05 15:05 300	0.0				
Seq T Name	AREA	Dept PRODUCTION	Contaminant	Asbestos / CEF 37mm .8u	ST Exp Limit	Respirator	Comments
0029 A Soc Sec		Locn GENERAL	TWA	0.560000 F/CC			FIBER STAGE-SETTING UP FIBER W/ TRUCK
Date	06/10/1977	Proc	Pel/Exp Limit	OSHA PEL = 2 F/CC			
Shift	1ST	Job AREA SAMPLE	Product				
Equip	Samp	LPM	Conc-F/CC	0.0000	1.1000		
1.	032	15:08 18:08 180	0.0				
Seq T Name	AREA	Dept PRODUCTION	Contaminant	Asbestos / CEF 37mm .8u	ST Exp Limit	Respirator	Comments
0030 A Soc Sec		Locn GENERAL	TWA	2.060000 F/CC			WILLOW MILL-FIBER SC ALE
Date	06/22/1977	Proc	Pel/Exp Limit	OSHA PEL = 2 F/CC			
Shift	1ST	Job AREA SAMPLE	Product				
Equip	Samp	LPM	Conc-F/CC	0.0000	2.0600		
1.	035	13:51 14:09 18	0.0				
Seq T Name	AREA	Dept PRODUCTION	Contaminant	Asbestos / CEF 37mm .8u	ST Exp Limit	Respirator	Comments
0031 A Soc Sec		Locn REMORK SAW	TWA	0.610000 F/CC			#1 DUST HOUSE
Date	06/27/1977	Proc	Pel/Exp Limit	OSHA PEL = 2 F/CC			
Shift	1ST	Job AREA SAMPLE	Product	16" 150			
Equip	Samp	LPM	Conc-F/CC	0.0000	0.6100		
1.	038	10:08 11:38 90	0.0				
Seq T Name	AREA	Dept PRODUCTION	Contaminant	Asbestos / CEF 37mm .8u	ST Exp Limit	Respirator	Comments
0032 A Soc Sec		Locn SMALL REMORK SAW	TWA	0.870000 F/CC			REWORK SAW AREA OF C ONTROL BOX
Date	06/29/1977	Proc	Pel/Exp Limit	OSHA PEL = 2 F/CC			
Shift	1ST	Job AREA SAMPLE	Product				
Equip	Samp	LPM	Conc-F/CC	0.0000	0.8700		
1.	040	12:18 14:45 147	0.0				

CTD018329

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Seq T Name	MELTON, DONALD R.	Dept	PRODUCTION	Contaminant	Asbestos / CEF 37mm .8u	/PECAM 239 R=A			
0034 P Soc Sec	487-46-0711	Locn	COUPLING SAM	TUA	0.680000 F/CC				
Date	07/20/1977	Proc		Pel/Exp Limit	OSHA PEL = 2 F/CC				
Shift	1ST	Job	OPERATOR	Product	6" 3300				

Eqp	Samp	Start	Stop	Min	LPM	Analysis-F/CC	Conc-F/CC	ST Exp Limit	Respirator
1.	042	11:11	14:47	216	0.0000	0.6760/	0.0	0.6800	Comments
=====									
Seq T Name	MELTON, DONALD R.	Dept	PRODUCTION	Contaminant	Asbestos / CEF 37mm .8u	/PECAM 239 R=A			
0035 P Soc Sec	487-46-0711	Locn	COUPLING SAM	TUA	0.150000 F/CC				
Date	07/22/1977	Proc		Pel/Exp Limit	OSHA PEL = 2 F/CC				
Shift	1ST	Job	OPERATOR	Product	16" 150 CPLG				

Eqp	Samp	Start	Stop	Min	LPM	Analysis-F/CC	Conc-F/CC	ST Exp Limit	Respirator
1.	043	06:49	10:30	221	0.0000	0.1515/	0.0	0.1500	Comments
=====									
Seq T Name	PLAIR, AARON	Dept	PRODUCTION	Contaminant	Asbestos / CEF 37mm .8u	/PECAM 239 R=A			
0036 P Soc Sec	427-82-2896	Locn	GENERAL	TUA	0.280000 F/CC				
Date	07/22/1977	Proc		Pel/Exp Limit	OSHA PEL = 2 F/CC				
Shift	1ST	Job	OPERATOR	Product	16" CPLG				

Eqp	Samp	Start	Stop	Min	LPM	Analysis-F/CC	Conc-F/CC	ST Exp Limit	Respirator
1.	044	11:56	16:20	264	0.0000	0.2816/	0.0	0.2800	Comments
=====									
Seq T Name	JOHNSON, GERALD	Dept	PRODUCTION	Contaminant	Asbestos / CEF 37mm .8u	/PECAM 239 R=A			
0037 P Soc Sec	999-99-2946	Locn	GENERAL	TUA	3.500000 F/CC				
Date	08/08/1977	Proc		Pel/Exp Limit	OSHA PEL = 2 F/CC				
Shift	1ST	Job	LABORER	Product					

Eqp	Samp	Start	Stop	Min	LPM	Analysis-F/CC	Conc-F/CC	ST Exp Limit	Respirator
1.	045	12:45	14:30	105	0.0000	3.5320/	0.0	3.5000	Comments
=====									
Seq T Name	AREA	Dept	PRODUCTION	Contaminant	Asbestos / CEF 37mm .8u	/PECAM 239 R=A			
0038 A Soc Sec		Locn	GENERAL	TUA	0.099000 F/CC				
Date	08/31/1977	Proc		Pel/Exp Limit	OSHA PEL = 2 F/CC				
Shift	1ST	Job	AREA SAMPLE	Product					

Eqp	Samp	Start	Stop	Min	LPM	Analysis-F/CC	Conc-F/CC	ST Exp Limit	Respirator
1.	047	12:25	15:25	180	0.0000	0.0990/	0.0	0.0990	Comments
=====									

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2ND FLOOR BY ELEVATOR

CTD018330

2ND FLOOR BY ELEVATOR

Seq T Name EDWARDS, JOHN L. Dept BATCH/FORMING Contaminant Asbestos / CEF 37mm .8u /PECAN 239 R=A
0039 P Soc Sec 499-60-3696 Locn MIXER TWA 1.200000 F/CC
Date 10/11/1977 Pel/Exp Limit OSHA PEL = 2 F/CC
Shift 1ST 8 HOUR Job OPERATOR Product

1. Equip Smp 050 Start 06:37 10:21 224 LPM 0.0000 Analysis-F/CC 1.2017/ 0.0 Conc-F/CC 1.2000 ST Exp Limit Respirator Y OTHER
Comments

Seq T Name AREA Contaminant Asbestos / CEF 37mm .8u /PECAN 239 R=A
0040 A Soc Sec Locn GENERAL TWA 1.300000 F/CC
Date 10/11/1977 Pel/Exp Limit OSHA PEL = 2 F/CC
Shift 1ST 8 HOUR Job AREA SAMPLE Product

1. Equip Smp 051 Start 10:35 12:35 120 LPM 0.0000 Analysis-F/CC 1.3047/ 0.0 Conc-F/CC 1.3000 ST Exp Limit Respirator
Comments FIBER CAR UNLOAD

Seq T Name AREA Contaminant Asbestos / CEF 37mm .8u /PECAN 239 R=A
0041 A Soc Sec Locn MIXER TWA 0.800000 F/CC
Date 10/11/1977 Pel/Exp Limit OSHA PEL = 2 F/CC
Shift 1ST 8 HOUR Job AREA SAMPLE Product

1. Equip Smp 053 Start 09:11 14:38 327 LPM 0.0000 Analysis-F/CC 0.8028/ 0.0 Conc-F/CC 0.8000 ST Exp Limit Respirator
Comments MIXING AREA BY POST

Seq T Name BERRA, STEVEN C. Contaminant Asbestos / CEF 37mm .8u /PECAN 239 R=A
0042 P Soc Sec 493-52-8278 Locn SHEEPER TWA 1.200000 F/CC
Date 10/14/1977 Pel/Exp Limit OSHA PEL = 2 F/CC
Shift 1ST 8 HOUR Job OPERATOR Product

1. Equip Smp 054 Start 12:45 14:13 88 LPM 0.0000 Analysis-F/CC 1.1609/ 0.0 Conc-F/CC 1.2000 ST Exp Limit Respirator
Comments FIBER STAGING-STAGIN G WAREHOUSE SWEEPER OPERATOR

Seq T Name LAWRENCE, RONNIE E. Contaminant Asbestos / CEF 37mm .8u /PECAN 239 R=A
0043 P Soc Sec 487-56-6139 Locn MIXER TWA 0.630000 F/CC
Date 10/15/1977 Pel/Exp Limit OSHA PEL = 2 F/CC
Shift 1ST 8 HOUR Job OPERATOR Product 8" & 10" 150

1. Equip Smp 055 Start 09:21 09:26 5 LPM 0.0000 Analysis-F/CC 0.6250/ 0.0 Conc-F/CC 0.6300 ST Exp Limit Respirator N
Comments SCALE AREA

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Seq T Name HATCHARD, GARY
0044 P Soc Sec 499-54-5960

Date 10/18/1977

Shift 1ST 8 HOUR

Dept PRODUCTION
Locn GENERAL
Proc
Job LABORER

Contaminant Asbestos / CEF 37mm .8u /P&CAM 239 R=A
TWA 1.200000 F/CC
Pel/Exp Limit OSHA PEL = 2 F/CC
Product

Equip	Samp	Start	Stop	Min	LPM	Analysis-F/CC	Conc-F/CC	ST Exp Limit	Respirator	Comments
1.	056	12:32	14:10	98	0.0000	1.1678/	0.0	1.2000		STAGING FIBER

Seq T Name AREA
0045 A Soc Sec

Date 11/03/1977

Shift 1ST 8 HOUR

Dept PRODUCTION
Locn GENERAL
Proc
Job AREA SAMPLE

Contaminant Asbestos / CEF 37mm .8u /P&CAM 239 R=A
TWA 3.800000 F/CC
Pel/Exp Limit OSHA PEL = 2 F/CC
Product

Equip	Samp	Start	Stop	Min	LPM	Analysis-F/CC	Conc-F/CC	ST Exp Limit	Respirator	Comments
1.	057	12:28	14:28	120	0.0000	3.8296/	0.0	3.8000		#2 WETTING

Seq T Name BURNS, ROBERT
0046 P Soc Sec 493-44-3172

Date 02/24/1977

Shift 1ST 8 HOUR

Dept PRODUCTION
Locn COUPLING SAW
Proc
Job OPERATOR

Contaminant Asbestos / CEF 37mm .8u /P&CAM 239 R=A
TWA 0.470000 F/CC
Pel/Exp Limit OSHA PEL = 2 F/CC
Product

Equip	Samp	Start	Stop	Min	LPM	Analysis-F/CC	Conc-F/CC	ST Exp Limit	Respirator	Comments
1.	681	06:50	08:10	80	2.0000	0.1100/	0.0	0.1100		Y DISPOSABLE SINGLE USE OPERATING NORTH SAW
2.	578	08:10	08:25	15	2.0000	1.2500/	0.0	1.3000		OPERATING NORTH SAW
3.	551	09:00	10:25	85	2.0000	0.7600/	0.0	0.7600		OPERATING FITTING SA W WET DRILLING AND TAPPING
4.	897	10:50	12:20	90	2.0000	0.2500/	0.0	0.2500		WET DRILLING AND TAP PING
5.	873	13:45	14:40	55	2.0000	0.7500/	0.0	0.7500		OPERATING FITTINGS S AW
6.	861	14:40	14:55	15	2.0000	0.2300/	0.0	0.2300		CEILING CONCENT. SAM PLE

Seq T Name PLAIR, AARON
0047 P Soc Sec 427-82-2896

Date 02/24/1977

Shift 1ST 8 HOUR

Dept PRODUCTION
Locn BORING MILL
Proc
Job OPERATOR

Contaminant Asbestos / CEF 37mm .8u /P&CAM 239 R=A
TWA 0.360000 F/CC
Pel/Exp Limit OSHA PEL = 2 F/CC
Product

Equip	Samp	Start	Stop	Min	LPM	Analysis-F/CC	Conc-F/CC	ST Exp Limit	Respirator	Comments
1.	626	06:45	08:10	85	2.0000	0.2200/	0.0	0.2200		BORING MILL #2
2.	500	08:10	08:25	15	2.0000	0.2300/	0.0	0.2300		CEILING CONCENT. SAMP LE
3.	589	09:00	10:30	90	2.0000	0.6800/	0.0	0.6800		BORING MILL #2

CTD018332

4. 565 10:50 12:30 100 2.0000 0.2900/ 0.0 0.2900 BORING MILL #2
 5. 872 13:10 14:35 85 2.0000 0.2200/ 0.0 0.2200 BORING MILL #2
 6. 863 14:35 14:50 15 2.0000 0.5700/ 0.0 0.5700 CEILING CONCEN SAMPL E

Seq T Name SMITH, DONALD Contaminant Asbestos / CEF 37mm .8u /P&CAM 239 R-A
 0048 P Soc Sec 498-26-7563 TWA 0.840000 F/CC
 Date 02/24/1977 Pel/Exp Limit OSHA PEL = 2 F/CC
 Shift 1st 8 HOUR Product

Eqp	Samp	Start	Stop	Min	LPM	Analysis-F/CC	Conc-F/CC	ST Exp Limit	Respirator	Comments
1.	627	06:35	07:50	75	2.0000	2.0100/	0.0	2.0100	Y DISPOSABLE	SINGLE USE DUMPING ASBESTOS BAG S
2.	666	07:50	08:00	10	2.0000	0.8600/	0.0	0.8600		CEILING CONCEN SAMPL E
3.	689	08:30	11:20	170	2.0000	0.6400/	0.0	0.6400		DUMPING BAGS AND OTH ER
4.	813	12:15	13:00	45	2.0000	0.4200/	0.0	0.4200		DUMPING ASBESTOS BAG S
5.	874	13:00	13:13	13	2.0000	0.6600/	0.0	0.6600		CEILING CONCEN SAMPL E
6.	806	13:15	14:10	55	2.0000	0.2200/	0.0	0.2200		NORMAL WORK DUTIES

Seq T Name DEBERRY, HARVEY J. Contaminant Asbestos / CEF 37mm .8u /P&CAM 239 R-A
 0049 P Soc Sec 497-01-6191 TWA 0.660000 F/CC
 Date 02/25/1977 Pel/Exp Limit OSHA PEL = 2 F/CC
 Shift 1st 8 HOUR Product

Eqp	Samp	Start	Stop	Min	LPM	Analysis-F/CC	Conc-F/CC	ST Exp Limit	Respirator	Comments
1.	852	07:00	08:10	70	2.0000	0.8600/	0.0	0.8600		WORKING 16" CASING P IPE
2.	865	08:10	08:25	15	2.0000	0.4600/	0.0	0.4600		WORKING 16" CASING P IPE
3.	838	08:47	10:30	103	2.0000	0.4300/	0.0	0.4300		WORKING 16" CASING P IPE
4.	632	10:47	12:30	103	2.0000	0.5300/	0.0	0.5300		WORKING 16" CASING P IPE
5.	645	13:05	14:45	100	2.0000	0.7000/	0.0	0.7000		WORKING 16" CASING P IPE
6.	722	14:45	15:00	15	2.0000	2.0500/	0.0	2.0500		WORKING 16" CASING P IPE

Seq T Name FAULSTICH, JUNIOR C. Contaminant Asbestos / CEF 37mm .8u /P&CAM 239 R-A
 0050 P Soc Sec 338-20-2932 TWA 0.210000 F/CC
 Date 02/25/1977 Pel/Exp Limit OSHA PEL = 2 F/CC
 Shift 1st 8 HOUR Product

Eqp	Samp	Start	Stop	Min	LPM	Analysis-F/CC	Conc-F/CC	ST Exp Limit	Respirator	Comments
1.	866	07:05	08:30	85	2.0000	0.3400/	0.0	0.3400	N	OPERATING TRUCK
2.	851	08:44	10:30	106	2.0000	0.2900/	0.0	0.2900		OPERATING TRUCK
3.	718	10:40	12:25	105	2.0000	0.0300/	0.0	0.0300		OPERATING TRUCK

CTD018333

Seq T Name MELTON, DONALD R.
0051 P Soc Sec 487-46-0711
Date 02/25/1977
Shift 1ST 8 HOUR

Dept PRODUCTION
Locn TRUCK
Proc
Job OPERATOR

Contaminant Asbestos / CEF 37mm .8u /P&CAM 239 R-A
TWA 0.660000 F/CC
Pel/Exp Limit OSHA PEL = 2 F/CC
Product

Equip	Samp	Start	Stop	Min	LPM	Analysis-F/CC	Conc-F/CC	ST Exp Limit	Respirator	Comments
1.	867	09:00	10:30	90	2.0000	0.4200/	0.0	0.4200	Y DISPOSABLE SINGLE USE	UNLOADING ASBESTOS C ABS
2.	811	10:55	11:02	7	2.0000	10.3000/	0.0	10.3000		PUTTING LOOSE FIBERS IN A PLASTIC BAG
3.	672	11:03	12:21	78	2.0000	0.4600/	0.0	0.4600		
4.	728	13:13	14:45	92	2.0000	0.3200/	0.0	0.3200		OPERATING DRIVING TRUCK

Seq T Name RAGAN, JOE
0052 P Soc Sec 413-56-6539
Date 02/25/1977
Shift 1ST 8 HOUR

Dept PRODUCTION
Locn GENERAL
Proc
Job OPERATOR

Contaminant Asbestos / CEF 37mm .8u /P&CAM 239 R-A
TWA 0.820000 F/CC
Pel/Exp Limit OSHA PEL = 2 F/CC
Product

Equip	Samp	Start	Stop	Min	LPM	Analysis-F/CC	Conc-F/CC	ST Exp Limit	Respirator	Comments
1.	850	07:05	08:30	85	2.0000	0.5200/	0.0	0.5200	N	USING MECHANICAL SWEEPER FINISH AREA
2.	837	08:45	09:00	15	2.0000	1.4800/	0.0	1.5000		SCALE AREA
3.	805	09:00	10:30	90	2.0000	0.7800/	0.0	0.7800		BLDG 3
4.	727	10:46	12:30	104	2.0000	0.8700/	0.0	0.8700		SWEEEPING BY BROOM IN BLDG
5.	671	13:05	14:40	95	2.0000	0.6700/	0.0	0.6700		HAND SWEEEPING IN FINISHING AREA
6.	742	14:40	14:55	15	2.0000	2.6200/	0.0	2.6000		HAND SWEEEPING IN FINISHING AREA

Seq T Name PEBLE, ROSIE
0053 P Soc Sec 999-99-2981
Date 02/24/1977
Shift 1ST 8 HOUR

Dept PRODUCTION
Locn FITTINGS
Proc
Job OPERATOR

Contaminant Asbestos / CEF 37mm .8u /P&CAM 239 R-A
TWA 0.360000 F/CC
Pel/Exp Limit OSHA PEL = 2 F/CC
Product

Equip	Samp	Start	Stop	Min	LPM	Analysis-F/CC	Conc-F/CC	ST Exp Limit	Respirator	Comments
1.	631	06:45	08:10	85	2.0000	0.0000/	0.0	0.0000		WORKING ON CPLG SAW SOUTH
2.	575	08:10	08:25	15	2.0000	0.8000/	0.0	0.8000	Y DISPOSABLE SINGLE USE	WORKING ON FITTINGS SAW
3.	687	09:00	10:25	85	2.0000	0.3400/	0.0	0.3400		WET DRILLING & TAPPI NG
4.	587	10:50	12:20	90	2.0000	0.2300/	0.0	0.2300		WET DRILLING & TAPPI NG
5.	877	13:45	14:40	55	2.0000	0.3400/	0.0	0.3400		OPERATING FITTING SAW
6.	860	14:40	14:55	15	2.0000	0.8000/	0.0	0.8000		CEILING CONCEN SAMPLE (OPERATING FITTING SAW)

CTD018334

ASBESTOS MONITORING
CERTAIN-TEED PRODUCTS COMPANY
600 St. Cyr Road
St. Louis, Missouri

Prepared By
Dave Bhatia
Sr. Engineering Consultant
The Travelers Ins. Co.
7th & Washington St.
St. Louis, Mo. 63101

Date Surveyed
February 22, 24 & 25th, 1977

THE TRAVELERS COMPANIES
ENGINEERING DIVISION



Certain-Tec Products Corporation
 600 St. Cyr Road, St. Louis, Missouri 63137
 DATE OF SURVEY 2/24/77

INSTRUMENT	MANUFACTURER	MODEL	SERIAL NUMBER	TIC NO.
Permissible Air Sampling Pump	Bendix	C115	434	30-72

A. SAMPLING MEDIUM
 0.8 micron AA filter - Open face
 D. REASON FOR SURVEY
 Evaluate Asbestos Exposure

B. MATERIAL SAMPLED
 Asbestos fibers from Coupling Saw, Fittings Saw & Drilling & Tapping Operation
 C. ANALYSIS REQUIRED
 Asbestos

SAMPLE DATA									
SAMPLE NUMBER	SAMPLING LOCATION	SAMPLE TIME		SAMPLING DURATION	FLOW RATE	SAMPLER POSITION	NUMBER OF PERSONS EXPOSED	TYPE OF CONTROLS	COMMENTS
		Start	End						
581E	Coupling Saw Operator	6:50	8:10	80	2.0	PS	1	Coupling Saw Op.	operating North Saw
578E	Coupling Saw Operator	8:10	8:25	15	2.0	PS	1	Resp./Exhst.	operating North Saw
551E	Coupling Saw Operator	9:00	10:25	85	2.0	PS	1	Operating Fittings Saw	Wet Drilling & Tapping
897E	Coupling Saw Operator	10:50	12:20	90	2.0	PS	1	Wet Drilling & Tapping	Wet Drilling & Tapping
873E	Coupling Saw Operator	1:45	2:40	55	2.0	PS	1	operating fittings Saw	operating fittings Saw
851E	Coupling Saw Operator	2:40	2:55	15	2.0	PS	1	Ceiling Concent. Sample	Ceiling Concent. Sample
10	Pull Sample of Asbestos fibers								
287E	AA filter								

ENGINEER
 St. Louis
 SIGNATURE
 DATE SIGNED 2/28/77

AL HYGIENE ANALYSIS REPORT

(52-64)	CUSTOMER Certain-Teed Products Corp.	ADDRESS St. Louis, Missouri
DATE RECEIVED 3-4-77	DATE REPORTED 3-9-77	ANALYST CMP; MM

Asbestos Filters; Bulk Samples

TEST NUMBER	LOCATION	TEST RESULTS	THRESHOLD LIMIT VALUE (TLV)
101E	Coupling Saw Operator	Asbestos 0.11 fibers/cc	Asbestos* 2 fibers/cc
102E	Coupling Saw Operator	Asbestos 1.25 fibers/cc	
103E	Coupling Saw Operator	Asbestos 0.76 fibers/cc	
104E	Coupling Saw Operator	Asbestos 0.25 fibers/cc	
105E	Coupling Saw Operator	Asbestos 0.75 fibers/cc	
106E	Coupling Saw Operator	Asbestos 0.23 fibers/cc	
107	Bulk Sample of Asbestos Fibers	Asbestos Fibers Present Quartz** 8.5%	

TEST METHOD

Microscopy
X-Ray Diffraction

*OSHA Limit

** Quartz was determined to be present in all bulk samples. #10 Bulk was chosen to be representative of the other bulk in quartz concentration.

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THE TRAVELERS INSURANCE COMPANIES
HARTFORD, CONNECTICUT 06115

INSURED	Certain-Tec Products Corporation	LOCATION	600 St. Cyr Road, St. Louis, Missouri 63137	DATE OF SURVEY	2/24/77
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INSTRUMENT	MANUFACTURER	INSTRUMENTATION USED			TIC NO.
		MODEL	SERIAL NUMBER		
Permissible Air Sampling	Bendix	CL15	372		1-72
Pump					

A. SAMPLING MEDIUM	D. REASON FOR SURVEY
O.8 micron AA Filter - Open Face	Evaluate Asbestos Exposure
B. MATERIAL SAMPLED	
Asbestos fibers from Boring Mill operation.	
C. ANALYSIS REQUIRED	
Asbestos	

SAMPLE NUMBER	SAMPLING LOCATION	SAMPLE TIME		SAMPLING DURATION	FLOW RATE	SAMPLER POSITION	NUMBER OF PERSONS EXPOSED	EXPOSURE TIME	TYPE OF CONTROLS	COMMENTS
		Start	End							
626E	Boring Mill Operator	6:45	8:10	85	2.0	PS	2	12	Boring Mill Op. #1	Boring Mill #2
500E	Boring Mill Operator	8:10	8:25	15	2.0	PS	2	12	L.Exhst.	Ceiling Concen. Sample
589E	Boring Mill Operator	9:00	10:30	90	2.0	PS	2	12		Boring Mill #2
555E	Boring Mill Operator	10:50	12:30	100	2.0	PS	2	12		Boring Mill #2
872E	Boring Mill Operator	1:10	2:35	85	2.0	PS	2	12		Boring Mill #2
863E	Boring Mill Operator	2:35	2:50	15	2.0	PS	2	12		Ceiling Concen. Sample
20	Full Sample of Asbestos fibers									
683E	Blank Filter									
ENGINEER: Gurn/Ebata SIGNATURE: <i>[Signature]</i> DATE SIGNED: 2/28/77										

INDUSTRIAL HYGIENE ANALYSIS REPORT

PRODUCT EVALUATION UNIT

NO. -77 (50-64)	CUSTOMER Certain-Teed Products Corp.	ADDRESS St. Louis, Missouri	
SENT BY /Bhatia	DATE RECEIVED 3-4-77	DATE REPORTED 3-9-77	ANALYST CMP; MM

ANALYZED
Millipore Filters; Bulk Samples

AMPLE NUMBER	LOCATION	TEST RESULTS	THRESHOLD LIMIT VALUE (TLV)
626E	Boring Mill Operator	Asbestos 0.22 fibers/cc	
500E	Boring Mill Operator	Asbestos 0.23 fibers/cc	
589E	Boring Mill Operator	Asbestos 0.68 fibers/cc	
565E	Boring Mill Operator	Asbestos 0.29 fibers/cc	
872E	Boring Mill Operator	Asbestos 0.22 fibers/cc	
863E	Boring Mill Operator	Asbestos 0.57 fibers/cc	
20	Bulk Samples of Asbestos Fibers	Asbestos Fibers Present	

ANALYTICAL METHOD

Microscopy
X-Ray Diffraction

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THE TRAVELERS INSURANCE COMPANY
HARTFORD, CONNECTICUT 06115

INSURED		LOCATION		DATE OF SURVEY	
Certain-Teel Products Corporation		600 St. Cyr Road, St. Louis, Mo. 63137		2/24/77	
INSTRUMENT		MANUFACTURER		TIC NO.	
Permissible Air Sampling Pump		Bendix		26-72	
INSTRUMENTATION USED		MODEL		SERIAL NUMBER	
		C115		431	

A. SAMPLING MEDIUM
0.8 micron AA Filter - Open face

B. MATERIAL SAMPLED
Asbestos fibers from Coupling Saw, Fittings Saw and Drilling and Tapping Operations

C. ANALYSIS REQUIRED
Asbestos

D. REASON FOR SURVEY
Evaluate Asbestos Exposure

SAMPLE NUMBER	SAMPLING LOCATION	SAMPLE TIME		SAMPLING DURATION	FLOW RATE	SAMPLER POSITION	NUMBER OF PERSONS EXPOSED	EXPOSURE TIME	TYPE OF CONTROLS	COMMENTS
		Start	End							
631E	Fitting Machine Op.	6:45	8:10	85	2.0	PS	1	12	Fitting Machine L.Exhst/Resp.	Operator: working on Coupling
575E	Fitting Machine Op.	8:10	8:25	15	2.0	PS	1	12	Resp./L.Exhst.	working on Fittings S
687E	Fitting Machine Op.	9:00	10:25	85	2.0	PS	1	12	Wet Drilling & Tapping	Wet Drilling & Tapping
587E	Fitting Machine Op.	10:50	12:20	90	2.0	PS	1	12	Operating Fitting Sa	Operating Fitting Sa
877E	Fitting Machine Op.	1:45	2:40	55	2.0	PS	1	12	Ceiling Concen.Sampl	Ceiling Concen.Sampl
860E	Fitting Machine Op.	2:40	2:55	15	2.0	PS	1	12	(Operating Fitting Sa	(Operating Fitting Sa
30	Brk Sample of Asbestos fibers									
683E	Brk filter									

ENGINEER
St. Louis

ENGINEER
Gunn/Pastor

SIGNATURE
Gunn/Pastor

DATE SIGNED
2/28/77

TRIAL HYGIENE ANALYSIS REPORT

PRODUCT EVALUATION UNIT

77 (50-64)	CUSTOMER Certain-Teed Products Corp.	ADDRESS St. Louis, Missouri	
ANALYZED BY Bhatia	DATE RECEIVED 3-4-77	DATE REPORTED 3-9-77	ANALYST CMP; MDM

Asbestopore Filters; Bulk Samples

SAMPLE NUMBER	LOCATION	TEST RESULTS	THRESHOLD LIMIT VALUE (TLV)
531E	Fitting Machine Op.	Asbestos*** Fibers Present	
575E	Fitting Machine Op.	Asbestos 0.80 fibers/cc	
637E	Fitting Machine Op.	Asbestos 0.34 fibers/cc	
587E	Fitting Machine Op.	Asbestos 0.23 fibers/cc	
877E	Fitting Machine Op.	Asbestos 0.34 fibers/cc	
860E	Fitting Machine Op.	Asbestos 0.80 fibers/cc	
30	Bulk Sample of Asbestos Fibers	Asbestos Fibers Present	

ANALYTICAL METHOD

Microscopy
X-Ray Diffraction

***Filter overloaded - cannot do
quantitative determination.

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DATE OF SURVEY
2/24/77

INSURANCE		LOCATION		DATE OF SURVEY						
Certain-Teed Products Corporation		600 St. Cyr Road, St. Louis, Missouri 63137		2/24/77						
INSTRUMENT		MANUFACTURER		TIC NO.						
Permissible Air Sampling Pump		Bendix		86-76						
INSTRUMENTATION USED		MODEL		SERIAL NUMBER						
		C115		2413						
A. SAMPLING MEDIUM		D. REASON FOR SURVEY								
O.8 micron AA filter - open face		Evaluate Asbestos Exposure								
B. MATERIAL SAMPLED										
Asbestos fibers in Manufacturing Area at Fiber Dump Station										
C. ANALYSIS REQUIRED										
Asbestos										
SAMPLE DATA										
SAMPLE NUMBER	SAMPLING LOCATION	SAMPLE TIME		SAMPLING DURATION	FLOW RATE	SAMPLER POSITION	NUMBER OF PERSONS EXPOSED	EXPOSURE TIME	TYPE OF CONTROLS	COMMENTS
		Start	End							
627E	Mixer Operator	6:35	7:50	75	2.0	PS	12	12	Mixer Operator:	Dumping Asbestos Bag 5
666E	Mixer Operator	7:50	8:00	10	2.0	PS	12	12	Resp./L. Exht.	Ceiling Concent. Samp
689E	Mixer Operator	8:30	11:20	170	2.0	PS	12	12		Dumping bags & other
813E	Mixer Operator	12:15	1:00	45	2.0	PS	12	12		Dumping Asbestos Bags
874E	Mixer Operator	1:00	1:13	13	2.0	PS	12	12		Ceiling Concent. Samp
806E	Mixer Operator	1:15	2:10	55	2.0	PS	12	12		Normal Work Duties
L0	Bulk Sample of Asbestos Fibers									
683E	Blank Filter									
OFFICE		ENGINEER		SIGNATURE		DATE SIGNED				
St. Louis		Gunn/Bhatia		<i>[Signature]</i>		2/28/77				

INDUSTRIAL HYGIENE ANALYSIS REPORT

PRODUCT EVALUATION UNIT

TEST NO.	CUSTOMER	ADDRESS	
115-77 (50-64)	Certain-Teed Products Corp.	St. Louis, Missouri	
FILE SENT BY	DATE RECEIVED	DATE REPORTED	ANALYST
Gunn/Phatia	3-4-77	3-9-77	CMP; MIM
MATERIAL ANALYZED			

AA Millipore Filters; Bulk Samples

SAMPLE NUMBER	LOCATION	TEST RESULTS	THRESHOLD LIMIT VALUE (TLV)
627E	Mixer Operator	Asbestos 2.01 fibers/cc	
666E	Mixer Operator	Asbestos 0.86 fibers/cc	
689E	Mixer Operator	Asbestos 0.64 fibers/cc	
813E	Mixer Operator	Asbestos 0.42 fibers/cc	
874E	Mixer Operator	Asbestos 0.66 fibers/cc	
806E	Mixer Operator	Asbestos 0.22 fibers/cc	
40	Bulk Sample of Asbestos Fibers	Asbestos Fibers Present	

ANALYTICAL METHOD

Microscopy
X-Ray Diffraction

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CTD018343

THE TRAVELERS INSURANCE COMPANIES
HARTFORD, CONNECTICUT 06115

INSURED		LOCATION	DATE OF SURVEY							
Certain-Teed Products Corporation		600 St. Cyr Road, St. Louis, Missouri 63137	2/25/77							
INSTRUMENT	MANUFACTURER	INSTRUMENTATION USED	SERIAL NUMBER	TIC NO.						
Permissible Air Sampling	Bendix	C115	2413	86-76						
Pump										
D. REASON FOR SURVEY										
Evaluate Asbestos Exposure										
A. SAMPLING MEDIUM										
O.8 micron AA filter - Open face										
B. MATERIAL SAMPLED										
Asbestos fibers from machining of Pipes at Lathe #3										
C. ANALYSIS REQUIRED										
Asbestos										
SAMPLE DATA										
SAMPLE NUMBER	SAMPLING LOCATION	SAMPLE TIME		SAMPLING DURATION	FLOW RATE	SAMPLER POSITION	NUMBER OF PERSONS EXPOSED	EXPOSURE TIME	TYPE OF CONTROLS	COMMENTS
		Start	End							
852E	Lathe Line #3 Op.	7:00	8:10	70	2.0	PS 46	2	8	Lathe Line #3 L. Exhst.	Op. Working 16" Casing P
865 E	Lathe Line #3 Op.	8:10	8:25	15	2.0	PS 46	2	8		working 16" Casing
838E	Lathe Line #3 Op.	8:47	10:30	103	2.0	PS 43	2	8		working 16" Casing
632E	Lathe Line #3 Op.	10:47	12:30	103	2.0	PS 53	2	8		working 16" Casing
645E	Lathe Line #3 Op.	1:05	2:45	100	2.0	PS 7	2	8		working 16" Casing
722E	Lathe Line #3 Op.	2:45	3:00	15	2.0	PS 20	2	8		working 16" Casing
50	Bulk Sample of Asbestos fibers									
771E	Blank filter									
OFFICE							ENGINEER		DATE SIGNED	
St. Louis							Cunn/Bhntin		2/28/77	

CTD018344

INDUSTRIAL HYGIENE ANALYSIS REPORT

PRODUCT EVALUATION UNIT

TEST NO. 15-77 (50-64)	CUSTOMER Certain-Teed Products Corp.	ADDRESS St. Louis, Missouri	
FILE SENT BY unil/Rhatia	DATE RECEIVED 3-4-77	DATE REPORTED 3-9-77	ANALYST CMP; MM

TRIAL ANALYZED

A Millipore Filters; Bulk Samples

SAMPLE NUMBER	LOCATION	TEST RESULTS	THRESHOLD LIMIT VALUE (TLV)
852E	Lathe Line #3 Op.	Asbestos 0.86 fibers/cc	
865E	Lathe Line #3 Op.	Asbestos 0.46 fibers/cc	
838E	Lathe Line #3 Op.	Asbestos 0.43 fibers/cc	
632E	Lathe Line #3 Op.	Asbestos 0.53 fibers/cc	
645E	Lathe Line #3 Op.	Asbestos 0.70 fibers/cc	
722 E	Lathe Line #3 Op.	Asbestos 2.05 fibers/cc	
50	Bulk Sample of Asbestos Fibers	Asbestos Fibers Present	

ANALYTICAL METHOD

Microscopy
X-Ray Diffraction

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**THE TRAVELERS INSURANCE COMPANIES
HARTFORD, CONNECTICUT 06115**

C-15826 REV. 5-73 PRINTED IN U.S.A.

PRODUCT EVALUATION UNIT

2. Millipore Filters; Bulk Samples

CRITICAL METHOD

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CTD018347

INSURED	LOCATION	DATE OF SURVEY
Certain-Teed Products Corporation	600 St. Cyr Road, St. Louis, Missouri	6/25/77

INSTRUMENTATION USED				
INSTRUMENT	MANUFACTURER	MODEL	SERIAL NUMBER	TIC NO.
Permissible Air Sampling Pump	Bendix	C115	372	1-72

A. SAMPLING MEDIUM
0.8 micron AA filter - Open face

B. MATERIAL SAMPLED	Asbestos fibers from unloading Dock & Storage Area
C. ANALYSIS REQUIRED	Asbestos

[illegible]

GEORGE	ENGINEER	SIGNATURE	DATE SIGNED
S. J. Louts	Gunn/Bhatia	<i>[Signature]</i>	2/28/77

INDUSTRIAL HYGIENE ANALYSIS REPORT

CHEMICAL, ENVIRONMENTAL &
PRODUCT EVALUATION UNIT

ANALYSIS NO.	CUSTOMER	ADDRESS
115-77 (50-64)	Certain-Teed Products Corp.	St. Louis, Missouri
SAMPLE SENT BY	DATE RECEIVED	DATE REPORTED
Gunn/Bhatia	3-4-77	3-9-77
ANALYST	CMP; MTM	

MATERIAL ANALYZED

AA Millipore Filters; Bulk Samples

SAMPLE NUMBER	LOCATION	TEST RESULTS	THRESHOLD LIMIT VALUE (TLV)
867E	Truck Operator Helper	Asbestos 0.42 fibers/cc	
811E	Truck Operator Helper	Asbestos 10.3 fibers/cc	
672E	Truck Operator Helper	Asbestos 0.46 fibers/cc	
728E	Truck Operator Helper	Asbestos 0.32 fibers/cc	
70	Bulk Sample of Asbestos Fiber	Asbestos Fibers Present	

ANALYTICAL METHOD

Microscopy
X-Ray Diffraction

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CTD018349

INS-400	LOCATION	DATE OF SURVEY
Certain-Feed Products Corporation	600 St. Cyr Road, St. Louis, Missouri 63137	2/25/77

INSTRUMENT	MANUFACTURER	MODEL	SERIAL NUMBER	TIC NO.
Permissible Air Sampling	Bendix	CL15	434	30-72
Pump				

A. SAMPLING METHOD
O.8 micron AA filter - Open face

B. MATERIAL SAMPLED
Asbestos during floor sweeping indoor and outdoor activities

C. ANALYSIS REQUIRED
Asbestos

SAMPLE DATA									
SAMPLE NUMBER	SAMPLING LOCATION	SAMPLE TIME		SAMPLING DURATION	FLOW RATE	SAMPLER POSITION	NUMBER OF PERSONS EXPOSED	TYPE OF CONTROLS	COMMENTS
		Start	End						
850E	Sweeper Operator	7:05	8:30	85	2.0	PS	1.52	Sweeper Op.: Jde Ragan NONE	using mechanical sweep Finish Are
837E	Sweeper Operator	8:45	9:00	15	2.0	PS	1.44		Scale Area
805E	Sweeper Operator	9:00	10:30	90	2.0	PS	1.71		Bldg. 3
727E	Sweeper Operator	10:46	12:30	104	2.0	PS	1.87		Sweeping by Broom in Bldg.
671E	Sweeper Operator	1:05	2:40	95	2.0	PS	1.67		Hand Sweeping in
742E	Sweeper Operator	2:40	2:55	15	2.0	PS	1.22		Finishing Area
80	Bulk Sample of Asbestos from Work Area								
771E	Blank Filter								

OFFICE	ENGINEER	SIGNATURE	DATE SIGNED
St. Louis	Gunn/Dhatia	<i>Rue</i>	2/28/77

ANALYSIS NO.		CUSTOMER		ADDRESS	
5-77 (50-64)		Certain-Teed Products Corp.		St. Louis, Missouri	
FILE SENT BY		DATE RECEIVED	DATE REPORTED	ANALYST	
nn/Bhati		3-4-77	3-9-77	CMP; MIM	
SPECIAL ANALYZED					

Millipore Filters: Bulk Samples

SAMPLE NUMBER	LOCATION	TEST RESULTS	THRESHOLD LIMIT VALUE (TLV)
850E	Sweeper Operator	Asbestos 0.52 fibers/cc	
837E	Sweeper Operator	Asbestos 1.48 fibers/cc	
805E	Sweeper Operator	Asbestos 0.78 fibers/cc	
727E	Sweeper Operator	Asbestos 0.87 fibers/cc	
671E	Sweeper Operator	Asbestos 0.67 fibers/cc	
742E	Sweeper Operator	Asbestos 2.62 fibers/cc	
80	Bulk Sample from Work Area	Asbestos Fibers Present	

ANALYTICAL METHOD

Microscopy
X-Ray Diffraction

Page 8

1. Use a separate sheet for each material sampled.
2. Instrument used — Specify the sampling attachment used with pump (e.g. — C115 pump with respirable sampler and AA millipore filter.)
3. SPECIFY:
 - A. Sampling medium — For example, 0.6N acetic acid when sampling for TDI
 - B. Material sampled — For example, lead, asbestos
 - C. Analysis required — In the laboratory, for example — percent of free silica
 - D. Reason for survey — Customer request, routine service, unusual exposure (Explain).
4. Include the following information under "Sample Data":
 - A. Sample number — Use serial numbers of filter or collecting tube where applicable
 - B. Sampling location — Plant area, machine number, etc.
 - C. Sample starting and ending time — (eg: 9:00 a.m. to 11:00 a.m.)
 - D. Sampling duration — Total time of sampling period (minutes)
 - E. Flow rate — Air flow rate of sampling instrument in LPM, CFM, etc.
 - F. Sampler position — Use the following abbreviations:
 - BZ — Breathing Zone — A sample at vicinity of worker, but taken at breathing zone height.
 - GA — General Area — A sample to test contaminant concentration in general plant area.
 - PS — Personal Sample — Sampling unit and pump attached to worker.
 - G. Number of persons exposed to contaminant tested.
 - H. Exposure time — Total time employees are exposed to contaminant sampled during the working day. Specify minutes or hours.
 - I. Type of controls — Local ventilation, respirators, etc.
 - J. Comments — Information which will further assist in evaluating exposure.

#1-77

AIR SAMPLING DATA SHEET

CERTAIN-TEED PRODUCTS

59 901 Enviro Fiberroom 1/27/77
Plant Dept. Type Location Date TimeBill Smith
Employee

Instrument	Manufacturer	Model	Serial Number	Calibrated	Flow Rate
Air Sample Pump	Budin	C115	1003		1.51

Sampling Medium	Manufacturer	Part Number	Batch Number	Pore Size	Area
Filter	Millipore				

Weather Conditions ; _____ Time Log _____ Min.

Ventilation Controls; Dust Collector inside Fiber Room

Operating Conditions; _____

Personal Protection ; _____

Comments; Load Fiber Conveyor #2 Fiber RoomPump set at 1.6Samplers; JonesArea Total Sampling Time 25 min

ANALYSIS

Instrument	Manufacturer	Model	Serial Number	Calibrated	Field Area
Microscope	Nikon	Sukt			

Blank Medium;
Fibers; _____ counted _____ Fields counted _____ Average _____Sampling Medium;
Fibers; _____ counted _____ Fields counted _____ Average _____Concentration = $\frac{(\text{Average Fiber Count-Sampling Medium} - \text{Average Fiber Count Blank Medium}) \times (\text{Sampling Medium Area})}{(\text{Field Area}) \times (\text{Flow Rate} \times \text{Sampling Time}) \times (1000)}$ ORC. = $\frac{(\text{AFCSM} - \text{AFCEM}) (\text{SMA})}{(\text{FA}) (\text{FR} \times \text{ST}) (1000)}$ $\frac{3,156 (855)}{(23) (1.51) (25) 1000} = 2698.38$ Concentration = 32 20 1/2CONCENTRATION = 23.82 67 Fibers _____ Slide Number _____Analysts; 88 20 1/2

Microscopist; _____

CTD018353

1-27-71

6

En

Env

/

Fiber Rm 12 1/2

10.10 @ 1.6

Low Converter

10.15

10.15 0.5
10.15 0.5

10.15

10 Fiber

60 min

20

#2-77

AIR SAMPLING DATA SHEET

CERTAIN-TEED PRODUCTS

59 Pers. Eberroom 1/27/77 D. Smith
 Plant Dept. Type Location Date Time Employee

Instrument Manufacturer Model Serial Number Calibrated Flow Rate
 Air Sampling Pump Bendix CH5 1003 1.51

Sampling Medium Manufacturer Part Number Batch Number Pore Size Area

Filter - 5 Millipore

Weather Conditions ; Time Log Min.

Ventilation Controls;

Operating Conditions;

Personal Protection ;

Comments;

Sampler; L. Jones Area Total Sampling Time 17 min.

ANALYSIS

Instrument Manufacturer Model Serial Number Calibrated Field Area

Microscope Nikon Suhl

Blank Medium;
 Fibers; counted Fields counted Average

Sampling Medium;
 Fibers; counted Fields counted Average

Concentration = (Average Fiber Count-Sampling Medium - Average Fiber Count Blank Medium) X
 (Sampling Medium Area) + (Field Area) X (Flow Rate X Sampling Time) X
 (1000) OR

C. = (AFCSM-AFCBM)(SMA) 475 (855) 406.13
 (FA)(FR)(ST)(1000) (1003)(1.51)(17)(1000) 77.01

Concentration = 100 75/2

CONCENTRATION = 5.2737 Fibers Slide Number

Analyst; Microscopist;

CTD018355

~~1051~~

1

Don't forget

1051 Fin. H.

1055 Fin. H.

#3-77

AIR SAMPLING DATA SHEET

CERTAIN-TEED PRODUCTS

59 921 P Machine Tools 12/27/77 vol/cf
Plant Dept. Type Location Date Time Employee

Instrument Manufacturer Model Serial Number Calibrated Flow Rate
Air Sample Pump Baxter CH15 1003 1.51

Sampling Medium Manufacturer Part Number Batch Number Pore Size Area
Filter - 5 Millipore

Weather Conditions ; Time Log Min.

Ventilation Controls;

Operating Conditions;

Personal Protection ;

Comments;

Sampler; J. Janis Area Total Sampling Time 10 min.

ANALYSIS

Instrument Manufacturer Model Serial Number Calibrated Field Area
Microscope Nikon Sub CTD018357

Blank Medium;
Fibers; counted ; Fields counted ; Average

Sampling Medium;
Fibers; counted 60 ; Fields counted 150 ; Average 160

Concentration = (Average Fiber Count-Sampling Medium - Average Fiber Count Blank Medium) X
(Sampling Medium Area) + (Field Area) X (Flow Rate X Sampling Time) X
(1000) OR
C. = (AFCSM-AFCBM)(SMA) 1.60 (855mm²)
(FA)(FRxST)(1000) (0030)(1.51x10) 1000

Concentration =

CONCENTRATION = 11.32 * Fibers Slide Number 32

Analysts; Microscopist; J. Woodson

* Check instrument calibration and sign post it

7/3 11:25

11/15
Ck. Telling

Ck Cyl.

VERNON WOLFF

CTD018358

35-77

$$\begin{array}{r} 60 \\ \hline 100 \end{array}$$

$$\begin{array}{r} 11.32 \\ \hline 5130 \\ 45.3 \end{array}$$

AIR SAMPLING DATA SHEET

CERTAIN-TEED PRODUCTS

59 Plant Dept. Type Location Date Time 12/7/77 Employee D. Melton

Instrument Manufacturer Model Serial Number Calibrated Flow Rate

Air Sample Pump Brady C115 1003 1.51

Sampling Medium Manufacturer Part Number Batch Number Pore Size Area

Filter 5 Millipore

Weather Conditions ; Time Log Min.

Ventilation Controls;

Operating Conditions;

Personal Protection ;

Comments;

Sampler; G. Jones Area Total Sampling Time 7 min.

ANALYSIS

Instrument Manufacturer Model Serial Number Calibrated Field Area

Microscope Nikon Sekt

Blank Medium; Fibers; counted ; Fields counted ; Average

Sampling Medium; Fibers; counted 5 ; Fields counted 100 ; Average .05

Concentration = (Average Fiber Count - Sampling Medium - Average Fiber Count Blank Medium) X (Sampling Medium Area) + (Field Area) X (Flow Rate X Sampling Time) X (1000) OR

C. = (AFCSM - AFCEM) (SMA) (.05) (855 mm²) (FA) (FRST) (1000) (.0030) (154 X 75) 1000

Concentration =

CONCENTRATION = 1.35 Fibers Slide Number 4

Analysts; Microscopist; G. Jones

CTD018360

42.75
~~0.02771~~
31.71

5/
100

16.7 A

1-2

#4

11:20 to 11:35
run stock wet
201p 50

at time 12:00

Resp 31

#5-77

AIR SAMPLING DATA SHEET

CERTAIN-TEED PRODUCTS

59 ^{#2} Pers. Bring Mill #6777 Plant Dept. Type Location Date Time ^{Plin} Employee

Instrument Manufacturer Model Serial Number Calibrated Flow Rate

Air Sample Pump Bendix CMS 1003 1.51

Sampling Medium Manufacturer Part Number Batch Number Pore Size Area

Filter-S Millipore

Weather Conditions ; Time Log Min.

Ventilation Controls;

Operating Conditions;

Personal Protection ;

Comments;

Sampler; S. Jones Area Total Sampling Time 10 min

ANALYSIS

Instrument Manufacturer Model Serial Number Calibrated Field Area

Microscope Nikon Solt

Blank Medium;
Fibers; counted ; Fields counted ; Average

Sampling Medium;
Fibers; counted ; Fields counted ; Average

Concentration = $\frac{(\text{Average Fiber Count-Sampling Medium} - \text{Average Fiber Count Blank Medium}) \times (\text{Sampling Medium Area})}{(1000) \text{ OR } (1000) \text{ OR } (\text{Field Area}) \times (\text{Flow Rate} \times \text{Sampling Time}) \times 1.51}$

$$C = \frac{(AFCSM - AFCEM)(SMA)}{(FA)(FR \times ST)(1000)}$$

Concentration =

CONCENTRATION = Fibers Slide Number

Analysts; Microscopist;

CTD018363

#5 Blis

Brins N.1

11:38 to 11:41

11:38 to 11:41

6"-150C

#6-77

AIR SAMPLING DATA SHEET

CERTAIN-TEED PRODUCTS

59 901 Envir Fiberroom 7/27/77 11:10 (Smith)
Plant Dept. Type Location Date Time Employee

Instrument Manufacturer Model Serial Number Calibrated Flow Rate
Air Sample Pump Buddix C115 1003 1.40

Sampling Medium Manufacturer Part Number Batch Number Pore Size Area
Filter-P Millipore

Weather Conditions ; Sunny & Clear Time Log Min.

Ventilation Controls;

Operating Conditions;

Personal Protection ;

Comments;

Sampler; J Jones Area Total Sampling Time 15 min

ANALYSIS

Instrument Manufacturer Model Serial Number Calibrated Field Area
Microscope Nikon Sukt

Blank Medium;
Fibers; counted Fields counted Average

Sampling Medium;
Fibers; counted Fields counted Average

Concentration = (Average Fiber Count-Sampling Medium - Average Fiber Count Blank Medium) X
(Sampling Medium Area) + (Field Area) X (Flow Rate X Sampling Time) X
(1000) OR

C. = (AFCSM-AFCBM)(SMA) 39 (835) 333.5
(FA)(FRXST)(1000) 63
Concentration = 100 78 1/2

CONCENTRATION = 5.2928 Fibers Slide Number

Analysts; Microscopist;

CTD018365

2/22

#6 Filter Room Environmental

11.10 - 11.25

Weather Sunny Clear

AIR SAMPLING DATA SHEET

CERTAIN-TEED PRODUCTS

59 901 Pers. Miner Oper. 7/22/77 11:27 11:42 William Watson #45
Plant Dept. Type Location Date Time Employee

Instrument	Manufacturer	Model	Serial Number	Calibrated	Flow Rate
Air Sample Pump Bendix C115			1003		2.0

Sampling Medium	Manufacturer	Part Number	Batch Number	Pore Size	Area
Filter - 5	Millipore				

Weather Conditions ; _____ Time Log _____ Min.

Ventilation Controls; _____

Operating Conditions; _____

Personal Protection ; Protective Clothing

Comments; Furnish #17 Relief Man

Microscope Not in Complete Adjustment

Sampler; G. Jones Area Total Sampling Time 15 MIN.

ANALYSIS

Instrument	Manufacturer	Model	Serial Number	Calibrated	Field Area
Microscope	Nikon	Suht			

Blank Medium;
Fibers; _____ counted _____ Fields counted 100 Average _____

Sampling Medium;
Fibers; _____ counted 7 Fields counted 100 Average 07

Concentration = $\frac{(\text{Average Fiber Count Sampling Medium} - \text{Average Fiber Count Blank Medium}) \times (\text{Sampling Medium Area})}{(\text{Field Area}) \times (\text{Flow Rate}) \times (\text{Sampling Time}) \times (1000)}$ OR

C. = $\frac{(\text{AFCSM} - \text{AFCEM}) (\text{SMA})}{(\text{FA}) (\text{FRST}) (1000)}$ = $\frac{(07-0) (855 \text{ mm}^2)}{(10030) (2.0 \times 15.0) (1000)}$ = 5985

Concentration = _____

CONCENTRATION = 880 Fibers Slide Number _____

Analysts; _____ Microscopist; G. Jones

CTD018367

2/22

#7⁽¹²⁾

11:27 - 11:42

Little Note: #45 Miss Monitor
Turned No. 17 Relief Men

Wearing protective clothing

100/7

(17)(

$$\frac{(07-0)(855)}{(1030)(2.0 \times 900)(1000)}$$

$$\frac{59.85}{(1030)(1800.00)(1,000)}$$

$$\frac{59.85}{5400.00}$$

$$= .01108333$$

$$\frac{(07-0)(855)}{(1030)(2.0 \times 15.0)(1000)}$$

$$\frac{59.85}{(1030)(30.00)(1000)}$$

$$\frac{59.85}{90.00}$$

$$.6650$$

$$\frac{59.85}{90.00}$$

AIR SAMPLING DATA SHEET

CERTAIN-TEED PRODUCTS

59 901 ENV Fiberoom 7/22/77 5:15 9:15 Gary Hatchard
Plant Dept. Type Location Date Time Employee

Instrument Manufacturer Model Serial Number Calibrated Flow Rate
Air Sample Pump Bendix C115 1003 1.51

Sampling Medium Manufacturer Part Number Batch Number Pore Size Area
Filter - 5 Millipore

Weather Conditions ; clear Time Log Min.

Ventilation Controls; Dust Collector properly working

Operating Conditions;

Personal Protection ; Respirator and protective clothing

Comments; Furnish #18 Made 6 dumps

Sampler; G. Jones Area Total Sampling Time 240

ANALYSIS

Instrument Manufacturer Model Serial Number Calibrated Field Area
Microscope Nikon Subt.

Blank Medium;
Fibers; counted Fields counted Average

Sampling Medium;
Fibers; > 5mm counted 100 Fields counted 73 Average 1.3699

Concentration = (Average Fiber Count - Sampling Medium - Average Fiber Count Blank Medium) X
(Sampling Medium Area) + (Field Area) X (Flow Rate X Sampling Time) X
(1000) OR

C. = (AFCSM - AFCBM) (SMA) (1.3699 - 0) (855 mm²)
(FA) (FR) (ST) (1000) (.0030) (240) (1.51)

Concentration = .6508 > < 9760

CONCENTRATION = 0.8134 Fibers > 5mm Slide Number 8277
1.0773

Analysts; Microscopist; Woodman

CTD018370

2-22-7-

1

5:15

Stop 9:15

Made 6 dumps:

Turn #18

#9-77

AIR SAMPLING DATA SHEET

CERTAIN-TEED PRODUCTS

59 901 8 Fiber conveyor 2/22/77 920 Hatchard
 Plant Dept. Type Location Date Time Employee

Instrument	Manufacturer	Model	Serial Number	Calibrated	Flow Rate
Air Sample Pump	Bendix	CH5	1003		1.51

Sampling Medium	Manufacturer	Part Number	Batch Number	Pore Size	Area
Filter - 5	Millipore				

Weather Conditions ; _____ Time Log _____ Min.

Ventilation Controls; _____

Operating Conditions; _____

Personal Protection ; _____

Comments; Setting up conveyor w/ #18

Sampler; S. Jones Area Total Sampling Time 4 min

ANALYSIS

Instrument	Manufacturer	Model	Serial Number	Calibrated	Field Area
Microscope	Nikon	Subt.			

Blank Medium; Fibers; _____ counted _____; Fields counted _____; Average _____

Sampling Medium; Fibers; _____ counted _____; Fields counted _____; Average _____

Concentration = $\frac{(\text{Average Fiber Count} - \text{Sampling Medium} - \text{Average Fiber Count Blank Medium}) \times (\text{Sampling Medium Area})}{(1000) \text{ OR } (\text{Field Area}) \times (\text{Flow Rate} \times \text{Sampling Time}) \times (1000)}$

C. = $\frac{(\text{AFCSM} - \text{AFCEM}) (\text{SMA})}{(\text{FA}) (\text{FR} \times \text{ST}) (1000)}$ 275 (855) 23.13
100 5/2 (1.003) (1.51) (-) / 1000 19.12

CONCENTRATION = 12.9762 Fibers _____ Slide Number _____

Analysts; _____ Microscopist; _____

CTD018372

8
9 2-22-77
Start 9:23
Stop 9:24
Helicoid section of
Fiber number 1/11

CTD018373

AIR SAMPLING DATA SHEET

CERTAIN-TEED PRODUCTS

59 Pers. Mixer Oper 3/7/77 7:10 3:50 Ronnie Lawrence #61
Plant Dept. Type Location Date Time Employee

Instrument	Manufacturer	Model	Serial Number	Calibrated	Flow Rate
Air Sample Pump	Bendix	CU15	1003		1.51

Sampling Medium	Manufacturer	Part Number	Batch Number	Pore Size	Area
Filter-S	Millipore				

Weather Conditions ; Cloudy, Finished Rain Storm & sleeting Time Log Min.

Ventilation Controls;

Operating Conditions;

Personal Protection ;

Comments; 10" & 12" T-25 Blend #17B

Sampler; H. Jones Area Total Sampling Time 184 min

ANALYSIS

Instrument	Manufacturer	Model	Serial Number	Calibrated	Field Area
Microscope	Nikon	Suitt			

Blank Medium;
Fibers; N/A counted - Fields counted - Average -

Sampling Medium;
Fibers; > 5µm counted 87 Fields counted 100 Average .87

Concentration = (Average Fiber Count-Sampling Medium - Average Fiber Count Blank Medium) X
(Sampling Medium Area) + (Field Area) X (Flow Rate X Sampling Time) X
(1000) OR

C. = (AFCSM-AFCBM)(SMA) .87 X 855mm²
(FA)(FR)(ST)(1000) (10030)(1.51)(184) 1000

Concentration =

CONCENTRATION = .89 Fibers > 5µm Slide Number 10A

Analysts; Microscopist; H. Jones

CTD018374

3-17-73
#10 start 3:51
Kennis La
1.6

10' - 12' 7.5
~~Am~~ d'11/4

Back 4:37



SLIGO

DIVISION MID-CONTINENT SUPPLY COMPANY



6th & O'Fallon - - - P. O. Box 171 - - - St. Louis, Mo. 63166

#1
P. 15 min

3-17-77

More spin for #61 F. barrow

End 4:17, 12412-125

Cloudy just finish barrow in station

5:50 start

35 min

4:25 Relief

4:30 P. 15 min from 1/2

4:39 to 5:00 this

149 min

7:60 went home

184 min

231-3050

STEEL • INDUSTRIAL SUPPLIES • TOOLS

CTD018376

#11-77

AIR SAMPLING DATA SHEET

CERTAIN-TEED PRODUCTS

59 901 Pers. Mandrel Pallet 3/18/77
Plant Dept. Type Location Date TimePa/2220/2
Employee

Instrument	Manufacturer	Model	Serial Number	Calibrated	Flow Rate
Air Sample Pump	Bendix	C115	1003		1.51

Sampling Medium	Manufacturer	Part Number	Batch Number	Pore Size	Area
Filter-S	Millipore				

Weather Conditions ; _____ Time Log _____ Min.

Ventilation Controls; _____

Operating Conditions; _____

Personal Protection ; _____

Comments; 12" 150 & 12" 200, cleaning stripping Area.

Sampler; G. Jones

Area Total Sampling Time 215 min.

ANALYSIS

Instrument	Manufacturer	Model	Serial Number	Calibrated	Field Area
Microscope	Nikon	Sukt			

Blank Medium;
Fibers; _____ counted _____; Fields counted _____; Average _____Sampling Medium;
Fibers; _____ counted 9; Fields counted 100; Average .09Concentration = $\frac{(\text{Average Fiber Count-Sampling Medium} - \text{Average Fiber Count Blank Medium}) \times (\text{Sampling Medium Area})}{(\text{Field Area}) \times (\text{Flow Rate} \times \text{Sampling Time}) \times (1000)}$ OR

$$C = \frac{(AFCSM - AFCEM)(SMA)}{(FA)(FR)(ST)(1000)} = \frac{(609)(855 \text{ mm}^2)}{(10030)(1.51 \times 215)(1000)}$$

Concentration = $\frac{76.95}{973.95} = .07900$

CONCENTRATION = .0008 Fibers Slide Number 116

Analysts; _____ Microscopist; J. Woodson

CTD018377

.0008

116-77

100/
2

76.95
-97395



SLIGO
DIVISION MID-CONTINENT SUPPLY COMPANY



6th & O'Fallon - - - P. O. Box 171 - - - St. Louis, Mo. 63166

526-4332

11

3-18-75

Mentor Puller R/G 22016

Start 2:11

Stop 6:42

Reli. 4:27

Back 5:27

12"-1504 12"-210

180
37
93
215

231-3050

STEEL • INDUSTRIAL SUPPLIES • TOOLS

CTD018379

#12

AIR SAMPLING DATA SHEET

#12-77
start 11:40 A.M.
stop 12:50 P.M.

CERTAIN-TEED PRODUCTS

59 915 P. Thompson
Plant Dept. Type Location Date Time 4-05-77Peiffer
Employee

Instrument	Manufacturer	Model	Serial Number	Calibrated	Flow Rate
Air Sampler Pump Bender		C115	1003	4/5	2.0

Sampling Medium	Manufacturer	Part Number	Batch Number	Pore Size	Area
Filter Screen Millipore					

Weather Conditions ; C115 4/5

Time Log

Min.

Ventilation Controls;

start 11:40 - 12:50 - 1.18 '8

Operating Conditions;

1:27 - 3:00 9.2

Personal Protection ;

170

Comments; Sevin, 14" T75C FURN. NO 20 Cup. wet

just ripant dust collector

Sampler; S. Jones

Area Total Sampling Time 170 Min

ANALYSIS

Instrument	Manufacturer	Model	Serial Number	Calibrated	Field Area
Microscope Nikon Sukt					

Blank Medium;

Fibers; counted Fields counted Average

Sampling Medium;

Fibers; counted 14 Fields counted 100 Average 4

Concentration = $\frac{(\text{Average Fiber Count-Sampling Medium} - \text{Average Fiber Count Blank Medium}) \times (\text{Sampling Medium Area})}{(\text{Field Area}) \times (\text{Flow Rate} \times \text{Sampling Time}) \times (1000)}$ OR

C. = $\frac{(\text{AFCSM} - \text{AFCEM}) (\text{SMA})}{(\text{FA}) (\text{FRST}) (1000)}$ = $\frac{(14) (855 \text{ mm}^2)}{(10030) (2.0 \times 170) (1000)}$

Concentration =

CONCENTRATION =

117

Fibers

Slide Number

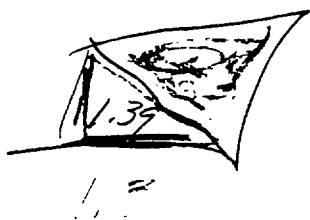
122

Analysts;

Microscopist;

J. Woodson

CTD018380



CTD018381

12 A 77

1173
100
14

1197
1080

AIR SAMPLING DATA SHEET

CERTAIN-TEED PRODUCTS

59 E. Bringham 4/6/77 11:45 P. Giv
Plant Dept. Type Location Date Time Employee

Instrument Manufacturer Model Serial Number Calibrated Flow Rate
Air Sample Pump Model 415 1003 4/5 2.00

Sampling Medium Manufacturer Part Number Batch Number Pore Size Area

Filter Screen Millipore

Weather Conditions ; Time Log Min.

Ventilation Controls;

Operating Conditions;

Personal Protection ;

Comments; Green 14" couplers

Sampler; G. Jones Area Total Sampling Time 120 min

ANALYSIS

Instrument Manufacturer Model Serial Number Calibrated Field Area
Microscope Nikon Sekt.

Blank Medium;
Fibers; counted ; Fields counted ; Average

Sampling Medium;
Fibers; counted 45 ; Fields counted 100 ; Average .45

Concentration = (Average Fiber Count-Sampling Medium - Average Fiber Count Blank Medium) X
(Sampling Medium Area) + (Field Area) X (Flow Rate X Sampling Time) X
(1000) OR

C. = (AFCSM-AFCBM)(SMA) / ((FA)(FR)(ST)(1000)) = (.45)(855 mm²) / (1.00 30) (2.00 x 120) (1000)

Concentration =

CONCENTRATION = .5344 Fibers Slide Number 132
5849

Analysts; Microscopist;

CTD018383

4-06-77

Bringing mill #1
Environmental
#13 slit 9:45

slip 11:45
Green 14" Coua



139 - 77

100 Fields
/ 45 Fibers

384.75

~~000000~~
720.00

.5344

~~89953750~~

✓ #14-77

AIR SAMPLING DATA SHEET

CERTAIN-TEED PRODUCTS

51 P. Boinghill 4/6/77 Burns
Plant Dept. Type Location Date Time Employee

Instrument Manufacturer Model Serial Number Calibrated Flow Rate
Air Sample Pump Bendix C115 1003 4/5 2.00

Sampling Medium Manufacturer Part Number Batch Number Pore Size Area
Filter Screen Millipore

Weather Conditions ; _____ Time Log _____ Min.
Ventilation Controls; _____
Operating Conditions; _____
Personal Protection ; _____
Comments; _____

Sampler; George Jones Area Total Sampling Time 5 Min.

ANALYSIS

Instrument Manufacturer Model Serial Number Calibrated Field Area
Microscope Nikon Sekt

Blank Medium;
Fibers; _____ counted _____; Fields counted _____; Average _____

Sampling Medium;
Fibers; _____ counted 2; Fields counted 100; Average .02

Concentration = (Average Fiber Count-Sampling Medium - Average Fiber Count Blank Medium) X
(Sampling Medium Area) ÷ (Field Area) X (Flow Rate X Sampling Time) X
(1000) OR

C. = (AFCSM-AFCBM)(SMA) / (FA)(FRxST)(1000) = (.02)(855mm²) / (.0030)(2.00 x 5)(1000)

Concentration = 1710 390.00 104 reported

CONCENTRATION = .04 Fibers _____ Slide Number 14

Analysts; _____ Microscopist; _____

4-06-77
#3
Boring mill boring
14

Start 1:55
Return - 1:00
Bore
Stop



CTD018387

14-77

100/
2

#15-77

AIR SAMPLING DATA SHEET

815-955
1:15-2:25

CERTAIN-TEED PRODUCTS

59 P Fiber Unloading
Plant Dept. Type Location Date Time Employee
4/14/77 Steve Berra #65

Instrument	Manufacturer	Model	Serial Number	Calibrated	Flow Rate
Air Sample Pump Bendix	C115	1003	4/5	2.0	

Sampling Medium	Manufacturer	Part Number	Batch Number	Pore Size	Area
Screen					

Weather Conditions : warm sunny Time Log Min.

Ventilation Controls; _____

Operating Conditions; _____

Personal Protection : respirator (hava beard)

Comments: Fork truck driver BC-4T unloading from car

Sampler: J. Hodson / M. Saleem Area Total Sampling Time 170 min

ANALYSIS

Instrument	Manufacturer	Model	Serial Number	Calibrated	Field Area
Microscope Nikon	Sukt				

Blank Medium; Fibers; _____ counted _____; Fields counted _____; Average _____

Sampling Medium; Fibers; _____ counted _____; Fields counted _____; Average _____

Concentration = $\frac{(\text{Average Fiber Count-Sampling Medium} - \text{Average Fiber Count Blank Medium}) \times (\text{Sampling Medium Area})}{(\text{Field Area}) \times (\text{Flow Rate} \times \text{Sampling Time}) \times (1000)}$

C. = $\frac{(\text{AFCSM} - \text{AFCEM})(\text{SMA})}{(\text{FA})(\text{FR} \times \text{ST})(1000)}$ $\frac{2.0 \times 855}{.003 \times 1.2 \times 1000} = 1710$

Concentration = _____

CONCENTRATION = 1.73 Fibers Slide Number _____

Analysts; _____ Microscopist; _____

#15

Fiber car unloading

Steve Serra 65
fork truck driver 8:15 }
9:55 }

10:00 goes ~~on~~ to sandblasting
BC-4T

Calibrated
1.8

51:15
2:25

60
40
70
170

#16-77

AIR SAMPLING DATA SHEET

4/24/77 11:10-1200

CERTAIN-TEED PRODUCTS

59 902 P #3 Blatte separator Air Shive #15
Plant Dept. Type Location Date Time Employee

Instrument Manufacturer Model Serial Number Calibrated Flow Rate
Air Sample Pump Bendix C115 1003 4/5 2.0

Sampling Medium Manufacturer Part Number Batch Number Pore Size Area
Filter - Screen Millipore

Weather Conditions ; Rainy - humid Time Log Min.

Ventilation Controls;

Operating Conditions;

Personal Protection ; no respirator (not required)

Comments; 16" W.C. Furnish #22

Sampler; L Jones Area Total Sampling Time 1:10

ANALYSIS

Instrument Manufacturer Model Serial Number Calibrated Field Area
Microscope Nikon Subt.

Blank Medium;
Fibers; counted Fields counted Average

Sampling Medium;
Fibers; counted Fields counted Average

Concentration = (Average Fiber Count - Sampling Medium - Average Fiber Count Blank Medium) X
(Sampling Medium Area) + (Field Area) X (Flow Rate X Sampling Time) X
(1000) OR

C. = (AFCSM - AFCEM) (SMA) .30 855 256.5
(FA) (FR) (ST) (1000) .003 X 2.0 X 1000 X 110 660

Concentration = 3886

CONCENTRATION = .39 Fibers Slide Number

Analysts; Microscopist;

#14 ~~Geo. Channel~~ 4-21-77

OK-15 ~~easy~~ Olin Thies Start 11:10

#3 1st operator

Start 11:10

Mch. 16" W.C. Ford #22

weather conditions Rain m/s ty

Protective not wearing Resp. not reg.

OFF 1:00 P.M.

60
40
110 min

39

#17-77

AIR SAMPLING DATA SHEET

CERTAIN-TEED PRODUCTS

59 Personal Crusher
Plant Dept. Type Location Date Time

4/26/77 156-300

Buday
Employee

Instrument	Manufacturer	Model	Serial Number	Calibrated	Flow Rate
Air Sample Pump	Buday	C115	1003	4/5	2.0

Sampling Medium	Manufacturer	Part Number	Batch Number	Pore Size	Area
Filter Screen	Millipore				

Weather Conditions; Sunny - Cool

Time Log

Min.

Ventilation Controls;

Operating Conditions;

Personal Protection; No respirator

Comments; Running Crusher - Takes Pipe off the line
- drives fork lift

Sampler;

Area Total Sampling Time

ANALYSIS

Instrument	Manufacturer	Model	Serial Number	Calibrated	Field Area
Microscope	Nikon	Sukt			

Blank Medium;

Fibers; counted Fields counted Average

Sampling Medium;

Fibers; counted Fields counted Average

Concentration = $\frac{\text{Average Fiber Count-Sampling Medium} - \text{Average Fiber Count Blank Medium}}{(\text{Sampling Medium Area}) + (\text{Field Area}) \times (\text{Flow Rate} \times \text{Sampling Time}) \times (1000)}$ OR

$$C = \frac{(AFCSM - AFCEM)(SMA)}{(FA)(FR)(ST)(1000)} = \frac{.19 \times 955}{.003 \times 2.9 \times 1000 \times 72.69} = 162.45$$

Concentration =

CONCENTRATION =

.392

Fibers

Slide Number

Analyst;

Microscopist;

CTD018393

4/26/77
~~Job~~ #17 Crusher Operator
& Truck Driver
Buday

start 1:50 3:00
Leaves at 3:00
beginning crusher
takes sign off line
Revers truck

CERTAIN-TEED PRODUCTS

AIR SAMPLING DATA SHEET

4/26/77 3:10-7:00
 54 902 P Lathe #3 15 min
Inspector Heffner
 Plant Dept. Type Location Date Time Employee

Instrument Manufacturer Model Serial Number Calibrated Flow Rate
Air Sampler Pump Bendix CI15 1003 4/5 20

Sampling Medium Manufacturer Part Number Batch Number Pore Size Area

Filter Screen Mellipore

Weather Conditions ; Sunny Cool

Time Log 3 hrs 35 min Min.

Ventilation Controls;

3 hrs 50 min

Operating Conditions; Finishing 12" Drig. T25 04779162A 04779163C } Furnished

Personal Protection ; No respirator

Comments; Heffner has long hair & beard

Sampler; George

Area Total Sampling Time 215 min

ANALYSIS

Instrument Manufacturer Model Serial Number Calibrated Field Area
Microscope Nikon Sukt

Blank Medium;
 Fibers; _____ counted _____ Fields counted _____ Average _____

Sampling Medium;
 Fibers; _____ counted 52 Fields counted 58 Average _____

Concentration = (Average Fiber Count-Sampling Medium - Average Fiber Count Blank Medium) X
 (Sampling Medium Area) + (Field Area) X (Flow Rate X Sampling Time) X
 (1000) OR

C. = $\frac{(AFCSM - AFCBM)(SMA)}{(FA)(FR \times ST)(1000)}$

Concentration = 615 (855) 525.825 1.3698877
(1003306) (2.0) (215) 1000 1421.59

CONCENTRATION = _____ Fibers _____ Slide Number 18C

Analysts; _____ Microscopist; _____

CTD018395

4/26/77
#18 Inspector #3/athe 1.8 Calif
E

Huffman - 3:10
~~no mark~~

break at 5:00

stop 7:00
12" Orii T25

Sunny-Cool
no respirator
long hair & beard

4-28-77

18 C - 77

58 Fields
/ 52 Fibers

$$\frac{(.90)(855\text{m}^2)}{.0030(1.30 \times 215) / 1000}$$

$$\frac{769.50}{1160.00} \quad .66$$

Made
04-7-77

Furnish 16
Shift 2A

4-7-77 - furnish
16 Shift 3C

#18
to be finished
4/24/77

#19-77

AIR SAMPLING DATA SHEET 4/26/77 7:11-10:11

CERTAIN-TEED PRODUCTS

59 E Machine Tender Area
Plant Dept. Type Location Date Time Employee

Instrument Manufacturer Model Serial Number Calibrated Flow Rate
Air Sample Pump Bendix CMS 1003 4/5 2.0

Sampling Medium Manufacturer Part Number Batch Number Pore Size Area
Filter Screen Millipore

Weather Conditions ; Am Cool Time Log Min.

Ventilation Controls;

Operating Conditions;

Personal Protection ;

Comments;

Sampler; George Area Total Sampling Time 180 Min.

ANALYSIS

Instrument Manufacturer Model Serial Number Calibrated Field Area
Microscope Nikon Subt

Blank Medium;
Fibers; counted Fields counted Average

Sampling Medium;
Fibers; counted Fields counted Average

Concentration = $\frac{(\text{Average Fiber Count-Sampling Medium} - \text{Average Fiber Count Blank Medium}) \times (\text{Sampling Medium Area})}{(\text{Field Area}) \times (\text{Flow Rate} \times \text{Sampling Time}) \times (1000)}$ OR
C. = $\frac{(\text{AFCSM} - \text{AFCEM})(\text{SMA})}{(\text{FA})(\text{FR} \times \text{ST})(1000)}$

Concentration =

CONCENTRATION = 341 Fibers Slide Number

Analysts; Microscopist;

Environmental 4-25-77

Mar. 6. T-10. A114

#19

5-21-77 AM

stop 10:11

CERTAIN-TEED PRODUCTS

NO 7
11-4-77
AIR SAMPLING DATA SHEET

X *#20-77*

59 *Fiber* *10:04* *12:04*
Plant Dept. Type Location Date Time Employee

Instrument	Manufacturer	Model	Serial Number	Calibrated	Flow Rate
<i>Air Sampling Pump Bender</i>	<i>C115</i>	<i>1003</i>	<i>4/5</i>	<i>1.8</i>	

Sampling Medium	Manufacturer	Part Number	Batch Number	Pore Size	Area
<i>Filter-Pad</i>	<i>Mullipore</i>				

Weather Conditions ; _____ Time Log _____ Min.

Ventilation Controls; _____

Operating Conditions; _____

Personal Protection ; _____

Comments; _____

Sampler; *George Jones* Area Total Sampling Time *2 hrs*

ANALYSIS

Instrument	Manufacturer	Model	Serial Number	Calibrated	Field Area
<i>Microscope</i>	<i>Nikon</i>	<i>3kt</i>			

Blank Medium;
Fibers; _____ counted _____ Fields counted _____ Average _____

Sampling Medium;
Fibers; _____ counted _____ Fields counted _____ Average _____

Concentration = $\frac{\text{Average Fiber Count-Sampling Medium} - \text{Average Fiber Count Blank Medium}}{(\text{Sampling Medium Area}) + (\text{Field Area}) \times (\text{Flow Rate} \times \text{Sampling Time}) \times (1000)}$ OR

$$C = \frac{(AFCSM - AFCEM)(SMA)}{(FA)(FR \times ST)(1000)}$$

Concentration = *Slide was too dusty*

CONCENTRATION = *Not Countable* Fibers _____ Slide Number _____

Analysts; _____ Microscopist; _____

CTD018401

20

uncontable

4-21-77

AIR SAMPLING DATA SHEET

CERTAIN-TEED PRODUCTS

59 Im 4/29 11:20-2:15 Knight
Plant Dept. Type Location Date Time Employee

Instrument	Manufacturer	Model	Serial Number	Calibrated	Flow Rate
Air Sample Pump	Bentley	C115	1003	4/6	2.0

Sampling Medium	Manufacturer	Part Number	Batch Number	Pore Size	Area
Filter	Green Millipore				

Weather Conditions ; _____ Time Log _____ Min. _____

Ventilation Controls; _____

Operating Conditions; _____

Personal Protection ; _____

Comments; Making 8" 300

Sampler; George Jones Area Total Sampling Time 175 min 2 hr 55 min

ANALYSIS

Instrument	Manufacturer	Model	Serial Number	Calibrated	Field Area
Microscope	Nikon	Suht			

Blank Medium;
Fibers; _____ counted _____ Fields counted _____ Average _____

Sampling Medium;
Fibers; _____ counted 116 Fields counted 100 Average .16

Concentration = $\frac{(\text{Average Fiber Count-Sampling Medium} - \text{Average Fiber Count Blank Medium}) \times (\text{Sampling Medium Area})}{(\text{Field Area}) \times (\text{Flow Rate} \times \text{Sampling Time}) \times (1000)}$ OR

C. = $\frac{(\text{AFCSM} - \text{AFCEM})(\text{SMA})}{(\text{FA})(\text{FR} \times \text{ST})(1000)}$ $\frac{(.16)(855 \text{ mm}^2)}{(1.0030)(2.0 \times 175)1000}$

Concentration = 134.86
1050.00

CONCENTRATION = 13286 Fibers Slide Number _____

Analysts; _____ Microscopist; _____

4-29-77

H21 start 11:20
stop 2:15
wright F.M. 8:200

16/10

7 fiber
100 fields

22-77

AIR SAMPLING DATA SHEET

CERTAIN-TEED PRODUCTS

59 Machine 4/ 405
E Under Area 29 623
Plant Dept. Type Location Date Time Employee

Instrument Manufacturer Model Serial Number Calibrated Flow Rate
Air Sample Pump Bendix C115 1003 4/5 1.79 m/8

Sampling Medium Manufacturer Part Number Batch Number Pore Size Area
Filter-Pad Millipore

Weather Conditions ; Time Log Min.

Ventilation Controls;

Operating Conditions;

Personal Protection ;

Comments; Battery and Air Pump was Low

Sampler; Area Total Sampling Time -- 173 min

ANALYSIS

Instrument Manufacturer Model Serial Number Calibrated Field Area
Microscope Nikon Sukt

Blank Medium;
Fibers; counted ; Fields counted ; Average

Sampling Medium;
Fibers; counted 27 ; Fields counted 100 ; Average .27

Concentration = (Average Fiber Count-Sampling Medium - Average Fiber Count Blank Medium) X
(Sampling Medium Area) + (Field Area) X (Flow Rate X Sampling Time) X
(1000) OR

C. = (AFCSM-AFCBM) (SMA) (.27) (855 mm²)
(FA) (FR x ST) (1000) (.0030) (1.8 x 173) 1000

Concentration = 230.85
934.20

CONCENTRATION = 247110 Fibers Slide Number

Analysts; Microscopist;

CTD018405

4-27

ENVIV

#22

Mr. G. Foster, Pres.

ST-1 + 4:05

6:27

12-4 1.2

21/100

AIR SAMPLING DATA SHEET

CERTAIN-TEED PRODUCTS

59 E 6/6 12:35 7:15
Plant Dept. Type Location Date Time Employee

Instrument	Manufacturer	Model	Serial Number	Calibrated	Flow Rate
Air Sampler Pump	Borden	CU15	1003	9/6	200

Sampling Medium	Manufacturer	Part Number	Batch Number	Pore Size	Area
Filter	Sarsin	Millipore			

Weather Conditions ; _____ Time Log _____ Min.

Ventilation Controls; _____

Operating Conditions; _____

Personal Protection ; _____

Comments; Pump Stopped - Don't know when

Sampler; _____ Area Total Sampling Time -----

ANALYSIS

Instrument	Manufacturer	Model	Serial Number	Calibrated	Field Area
Microscope	Nikon	Sub			

Blank Medium;
Fibers; _____ counted _____ Fields counted _____ Average _____

Sampling Medium;
Fibers; _____ counted _____ Fields counted _____ Average _____

Concentration = $\frac{(\text{Average Fiber Count-Sampling Medium} - \text{Average Fiber Count Blank Medium}) \times (\text{Sampling Medium Area})}{(\text{Field Area}) \times (\text{Flow Rate} \times \text{Sampling Time}) \times (1000)}$ OR

C. = $\frac{(\text{AFCSM} - \text{AFCRM}) (\text{SMA})}{(\text{FA}) (\text{FR} \times \text{ST}) (1000)}$

Concentration = _____

CONCENTRATION = To ducty Fibers _____ Slide Number _____

Analysts; _____ Microscopist; _____

CTD018407

6:00

Environmental, Fiber stage
#23

7:15
Found pump stopped

Fiber
39 / 100 fields

CERTAIN-TEED PRODUCTS

AIR SAMPLING DATA SHEET

#24-77

Used as a sample for Calibrating Pump
Plant Dept. Type Location Date Time Employee

Instrument	Manufacturer	Model	Serial Number	Calibrated	Flow Rate
				5/6 Screen	2.00
				5/6 Pad	1.79

Sampling Medium	Manufacturer	Part Number	Batch Number	Pore Size	Area

Weather Conditions ; _____ Time Log _____ Min.

Ventilation Controls; _____

Operating Conditions; _____

Personal Protection ; _____

Comments; _____

Sampler; _____ Area Total Sampling Time _____

ANALYSIS

Instrument	Manufacturer	Model	Serial Number	Calibrated	Field Area

Blank Medium;
Fibers; _____ counted _____; Fields counted _____; Average _____

Sampling Medium;
Fibers; _____ counted _____; Fields counted _____; Average _____

Concentration = $\frac{(\text{Average Fiber Count-Sampling Medium} - \text{Average Fiber Count Blank Medium}) \times (\text{Sampling Medium Area}) + (\text{Field Area}) \times (\text{Flow Rate} \times \text{Sampling Time}) \times (1000)}{\text{OR}}$

$$C = \frac{(AFCSM - AFCEM)(SMA)}{(FA)(FR \times ST)(1000)}$$

Concentration = _____

CONCENTRATION = _____ Fibers _____ Slide Number _____

Analysts; _____ Microscopist; _____

CTD018409

#25-77

AIR SAMPLING DATA SHEET

CERTAIN-TEED PRODUCTS

Plant	Dept.	Type	Location	Date	Time	Employee
Instrument	Manufacturer	Model	Serial Number	Calibrated	Flow Rate	
Sampling Medium	Manufacturer	Part Number	Batch Number	Pore Size	Area	
<i>Rad</i>						
Weather Conditions ;			Time Log		Min.	
Ventilation Controls;						
Operating Conditions;						
Personal Protection ;						
Comments;						
Sampler;			Area Total Sampling Time -----			

ANALYSIS

Instrument	Manufacturer	Model	Serial Number	Calibrated	Field Area
Blank Medium; Fibers; _____ counted _____; Fields counted _____; Average _____					
Sampling Medium; Fibers; _____ counted _____; Fields counted _____; Average _____					
Concentration = $\frac{(\text{Average Fiber Count-Sampling Medium} - \text{Average Fiber Count Blank Medium}) \times (\text{Sampling Medium Area})}{(1000) \text{ OR } (\text{Field Area}) \times (\text{Flow Rate} \times \text{Sampling Time}) \times (1000)}$					
C. = $\frac{(\text{AFCSM} - \text{AFCEM})(\text{SMA})}{(\text{FA})(\text{FR} \times \text{ST})(1000)}$					
Concentration = <i>1.1 x 10^6</i>					
CONCENTRATION =		Fibers		Slide Number	
Analysts;			Microscopist;		

CTD018410

#25

in front of

2577

6-07-77

Fiber Huddle

Water & clear, windy
wind blowing N to S

209

Not ~~wearing~~ wearing Resp., said he
didn't see that much dust, no white suit

Fiber Car unloading
only one door.

40 Fiber Bundles of 25

Car No. CPAA 85976

start - 11:16

stop - 11:48 pump stopped
units unloaded 1

26-77

AIR SAMPLING DATA SHEET

CERTAIN-TEED PRODUCTS

Plant	Dept.	Type	Location	Date	Time	Employee
Instrument	Manufacturer	Model	Serial Number	Calibrated	Flow Rate	
Sampling Medium	Manufacturer	Part Number	Batch Number	Pore Size	Area	
<i>Pid</i>						
Weather Conditions ;			Time Log		Min.	
Ventilation Controls;						
Operating Conditions;						
Personal Protection ;						
Comments;						
Sampler;			Area Total Sampling Time -----			

ANALYSIS

Instrument	Manufacturer	Model	Serial Number	Calibrated	Field Area
Blank Medium;					
Fibers;	counted		Fields counted		Average
Sampling Medium;					
Fibers;	counted		Fields counted		Average
Concentration = $\frac{(\text{Average Fiber Count Sampling Medium} - \text{Average Fiber Count Blank Medium}) \times (\text{Sampling Medium Area}) + (\text{Field Area}) \times (\text{Flow Rate} \times \text{Sampling Time}) \times (1000)}{(\text{FA})(\text{FR} \times \text{ST})(1000)}$					
OR					
C. = $\frac{(\text{AFCSM} - \text{AFCEM})(\text{SMA})}{(\text{FA})(\text{FR} \times \text{ST})(1000)}$					
Concentration =					
CONCENTRATION = <i>41</i> Fibers Slide Number					
Analysts; Microscopist;					

CTD018413

26

35 Fibers

100 Fich

6-28-77
Mention To 1st Ave.
20

Start 3:05

stop 7:12
Again

27 Fibers stop Ave

start 7:13

stop 10:15

#21-77

AIR SAMPLING DATA SHEET

CERTAIN-TEED PRODUCTS

Plant Dept. Type Location Date Time Employee
F Fiberglass 6-02-77 7:13
Instrument Manufacturer Model Serial Number Calibrated Flow Rate
2.0
Sampling Medium Manufacturer Part Number Batch Number Pore Size Area
Pad
Weather Conditions ; Cloudy Time Log Min.
Ventilation Controls; start 7:13
Operating Conditions; stop 10:15
Personal Protection ;
Comments;
Sampler; Area Total Sampling Time -----

ANALYSIS

Instrument Manufacturer Model Serial Number Calibrated Field Area
Blank Medium;
Fibers; counted ; Fields counted ; Average
Sampling Medium;
Fibers; counted ; Fields counted ; Average
Concentration = (Average Fiber Count-Sampling Medium - Average Fiber Count Blank Medium) X
(Sampling Medium Area) + (Field Area) X (Flow Rate X Sampling Time) X
(1000) OR
C. = (AFCSM-AFCBM)(SMA)
(FA)(FR)(ST)(1000)
Concentration = 49 (555) 45.75 3-8
(1003200)(20)(182)(1000) 1203.39
CONCENTRATION = 176 Fibers Slide Number

Analysts; Microscopist; 4/18/80

977.34

#27

49 Fibers
100 Folds

28-77

AIR SAMPLING DATA SHEET

CERTAIN-TEED PRODUCTS

Plant	Dept.	Type	Location	Date	Time	Employee
Instrument	Manufacturer	Model	Serial Number	Calibrated	Flow Rate	
Sampling Medium	Manufacturer	Part Number	Batch Number	Pore Size	Area	
Screen						
Weather Conditions ;				Time Log		Min.
Ventilation Controls;						
Operating Conditions;						
Personal Protection ;						
Comments;						
Sampler;			Area Total Sampling Time -----			

ANALYSIS

Instrument	Manufacturer	Model	Serial Number	Calibrated	Field Area
Blank Medium;					
Fibers;		counted	Fields counted	Average	
Sampling Medium;					
Fibers;		counted	Fields counted	Average	
Concentration = $\frac{(\text{Average Fiber Count-Sampling Medium} - \text{Average Fiber Count Blank Medium}) \times (\text{Sampling Medium Area})}{(\text{Field Area}) \times (\text{Flow Rate} \times \text{Sampling Time}) \times (1000)}$ OR $C = \frac{(AFCSM-AFCBM)(SMA)}{(FA)(FR \times ST)(1000)}$					
Concentration =					
CONCENTRATION = 9/ Fibers Slide Number					
Analysts; Microscopist;					

CTD018417

5-10-77
Cos/. Am.

61

28

from machine

start 7:12 AM 104 min

stop 9:10 AM

62

2 of 3 Discharge dumpings

1-12

stop - 9:42 30 min.

19 Feb-78

100

#29-77

AIR SAMPLING DATA SHEET

CERTAIN-TEED PRODUCTS

Plant Dept. Type Location Date Time Employee

Instrument Manufacturer Model Serial Number Calibrated Flow Rate

Sampling Medium Manufacturer Part Number Batch Number Pore Size Area

Weather Conditions ; 30/7 Humid Time Log Min.

Ventilation Controls; start 7:18

Operating Conditions; stop 9:42

Personal Protection ;

Comments; Bags shaken. R/C Dipping

Sampler; Area Total Sampling Time -----

ANALYSIS

Instrument Manufacturer Model Serial Number Calibrated Field Area

Blank Medium;
Fibers; _____ counted _____ Fields counted _____ Average _____

Sampling Medium;
Fibers; _____ counted _____ Fields counted _____ Average _____

Concentration = $\frac{(\text{Average Fiber Count-Sampling Medium} - \text{Average Fiber Count Blank Medium}) \times (\text{Sampling Medium Area}) + (\text{Field Area}) \times (\text{Flow Rate} \times \text{Sampling Time}) \times (1000)}{(1000)}$ OR

$C = \frac{(AFCSM - AFCBM)(SMA)}{(FA)(FR \times ST)(1000)}$ 36

Concentration = _____

CONCENTRATION = 1.73 Fibers Slide Number _____

Analysts; _____ Microscopist; _____

CTD018419

#30

423

Some ribiv
mostly com + dist
Pug stopped

2.1.100
100

#30-77

AIR SAMPLING DATA SHEET

CERTAIN-TEED PRODUCTS

Plant	Dept.	Type	Location	Date	Time	Employee
Instrument	Manufacturer	Model	Serial Number	Calibrated	Flow Rate	
Sampling Medium	Manufacturer	Part Number	Batch Number	Pore Size	Area	
Pad						
Weather Conditions ;			Time Log		Min.	
Ventilation Controls;						
Operating Conditions;						
Personal Protection ;						
Comments;						
Sampler;			Area Total Sampling Time -----			

ANALYSIS

Instrument	Manufacturer	Model	Serial Number	Calibrated	Field Area
Blank Medium;					
Fibers;	counted		Fields counted		Average
Sampling Medium;					
Fibers;	counted		Fields counted		Average
$\text{Concentration} = \frac{(\text{Average Fiber Count-Sampling Medium} - \text{Average Fiber Count Blank Medium}) \times (\text{Sampling Medium Area})}{(\text{Field Area}) \times (\text{Flow Rate} \times \text{Sampling Time}) \times (1000)} \text{ OR}$					
$C = \frac{(AFCSM - AFCEM)(SMA)}{(FA)(FR \times ST)(1000)}$					
Concentration = Pump Stopped					
CONCENTRATION = Fibers Slides Number					
Analysts; Microscopist;					

CTD018421

6-10-77

Coal

#30

#2 Mixing System Control.

start - 9:44 2nd's stops

stop - 10:04 #29C

start - 6:00

stop - 8:10, pump stopped

16 - W.C. Fours, No 09

O/C working out.

CTD018422

31-77

AIR SAMPLING DATA SHEET

CERTAIN-TEED PRODUCTS

Plant	Dept.	Type	Location	Date	Time	Employee
Instrument	Manufacturer	Model	Serial Number	Calibrated	Flow Rate	
Sampling Medium Manufacturer Part Number Batch Number Pore Size Area						
Weather Conditions ; _____ Time Log _____ Min.						
Ventilation Controls; _____						
Operating Conditions; _____						
Personal Protection ; _____						
Comments; _____						
Sampler; _____ Area Total Sampling Time _____						

ANALYSIS

Instrument	Manufacturer	Model	Serial Number	Calibrated	Field Area
Blank Medium; Fibers; _____ counted _____ Fields counted _____ Average _____					
Sampling Medium; Fibers; _____ counted _____ Fields counted _____ Average _____					
$\text{Concentration} = \frac{(\text{Average Fiber Count-Sampling Medium} - \text{Average Fiber Count Blank Medium}) \times (\text{Sampling Medium Area})}{(\text{Field Area}) \times (\text{Flow Rate} \times \text{Sampling Time}) \times (1000)} \text{ OR } \text{C.} = \frac{(\text{AFCSM} - \text{AFCEM})(\text{SMA})}{(\text{FA})(\text{FR} \times \text{ST})(1000)}$					
Concentration = _____					
CONCENTRATION = _____ Fibers _____ Slide Number _____					
Analysts; _____ Microscopist; _____					

CTD018423

6-10-77

31

2 Fiber stage

Front Post

161 - w.c.

Fiber No 29

Setting up Fiber at Trunk

Start - 10:05

stop - 3:05

31-77

7 Fibers

100 Fio/ks

22-77

AIR SAMPLING DATA SHEET

CERTAIN-TEED PRODUCTS

Plant	Dept.	Type	Location	Date	Time	Employee
Instrument	Manufacturer	Model	Serial Number	Calibrated	Flow Rate	
Sampling Medium Manufacturer Part Number Batch Number Pore Size Area						
Screen						
Weather Conditions ;				Time Log		Min.
Ventilation Controls;						
Operating Conditions;						
Personal Protection ;						
Comments;						
Sampler;			Area Total Sampling Time 180 min			

ANALYSIS

Instrument	Manufacturer	Model	Serial Number	Calibrated	Field Area
Blank Medium;					
Fibers;		counted		Fields counted	Average
Sampling Medium;					
Fibers;	71	counted		Fields counted 100	Average
Concentration = $\frac{(\text{Average Fiber Count-Sampling Medium} - \text{Average Fiber Count Blank Medium}) \times (\text{Sampling Medium Area}) + (\text{Field Area}) \times (\text{Flow Rate} \times \text{Sampling Time}) \times (1000)}{(1000) \text{ OR } (AFCSM-AFCBM)(SMA)}$					
C. = $\frac{(AFCSM-AFCBM)(SMA)}{(FA)(FR \times ST)(1000)}$ 71 855 607.05					
Concentration = $(.003 \times 2.0)(180) 1000 1080$ 56.208					
CONCENTRATION = 56.208 Fibers Slide Number					
Analysts; Microscopist;					

6-10-77

#32

#2 willow mill

start - 3:08

stop - 6:08 3 hrs

Fiber sock 18 drops from water

16" d.c.

8

#32-77

71 Fibers

100 Fibers

33-77

AIR SAMPLING DATA SHEET

CERTAIN-TEED PRODUCTS

Plant	Dept.	Type	Location	Date	Time	Employee
Instrument	Manufacturer	Model	Serial Number	Calibrated	Flow Rate	

Sampling Medium	Manufacturer	Part Number	Batch Number	Pore Size	Area
-----------------	--------------	-------------	--------------	-----------	------

Screen

Weather Conditions ; _____ Time Log _____ Min. _____

Ventilation Controls; _____

Operating Conditions; _____

Personal Protection ; _____

Comments; _____

Sampler; _____ Area Total Sampling Time -----

ANALYSIS

Instrument	Manufacturer	Model	Serial Number	Calibrated	Field Area
------------	--------------	-------	---------------	------------	------------

Blank Medium;
Fibers; _____ counted _____ Fields counted _____ Average _____

Sampling Medium;
Fibers; _____ counted _____ Fields counted _____ Average _____

Concentration = $\frac{(\text{Average Fiber Count-Sampling Medium} - \text{Average Fiber Count Blank Medium}) \times (\text{Sampling Medium Area}) + (\text{Field Area}) \times (\text{Flow Rate} \times \text{Sampling Time}) \times (1000)}{\text{OR}}$

C. = $\frac{(\text{AFCSM} - \text{AFCEM}) (\text{SMA})}{(\text{FA}) (\text{FR} \times \text{ST}) (1000)}$

Concentration = _____

CONCENTRATION = *Uncountable* Fibers _____ Slide Number _____

Analysts; _____ Microscopist; _____

33-77

104 Fibers
18 Fiol-1/2

33A - 77

unstable

#34-77

AIR SAMPLING DATA SHEET

CERTAIN-TEED PRODUCTS

Plant	Dept.	Type	Location	Date	Time	Employee
Instrument	Manufacturer	Model	Serial Number	Calibrated	Flow Rate	
Sampling Medium	Manufacturer	Part Number	Batch Number	Pore Size	Area	
Screen						
Weather Conditions ;				Time Log		Min.
Ventilation Controls;						
Operating Conditions;						
Personal Protection ;						
Comments;						
Sampler;			Area Total Sampling Time -----			

ANALYSIS

Instrument	Manufacturer	Model	Serial Number	Calibrated	Field Area
Blank Medium;					
Fibers;	counted		Fields counted		Average
Sampling Medium;					
Fibers;	counted		Fields counted		Average
Concentration = $\frac{(\text{Average Fiber Count-Sampling Medium} - \text{Average Fiber Count Blank Medium}) \times (\text{Sampling Medium Area})}{(\text{Field Area}) \times (\text{Flow Rate} \times \text{Sampling Time}) \times (1000)}$ OR $C = \frac{(AFCSM - AFCEM)(SMA)}{(FA)(FR \times ST)(1000)}$					
Concentration =					
CONCENTRATION - <u>Uncountable</u> fibers Slide Number					
Analysts;			Microscopist;		

CTD018429

34

uncountable

lots of crystals

#35-77

AIR SAMPLING DATA SHEET

CERTAIN-TEED PRODUCTS

Plant	Dept.	Type	Location	Date	Time	Employee
Instrument	Manufacturer	Model	Serial Number	Calibrated	Flow Rate	
					2.0	
Sampling Medium	Manufacturer	Part Number	Batch Number	Pore Size	Area	
Weather Conditions ; _____ Time Log _____ Min.						
Ventilation Controls; _____						
Operating Conditions; _____						
Personal Protection ; _____						
Comments; _____						
Sampler;			Area Total Sampling Time 18 min			

ANALYSIS

Instrument	Manufacturer	Model	Serial Number	Calibrated	Field Area
Blank Medium;					
Fibers;	counted	Fields counted	Average		
Sampling Medium;					
Fibers;	counted	Fields counted	Average		
Concentration = $\frac{(\text{Average Fiber Count-Sampling Medium} - \text{Average Fiber Count Blank Medium}) \times (\text{Sampling Medium Area})}{(\text{Field Area}) \times (\text{Flow Rate} \times \text{Sampling Time}) \times (1000)}$ OR $C = \frac{(AFCSM-AFCBM)(SMA)}{(FA)(FR \times ST)(1000)}$					
				26 (955)	2223
				(.003)(2.0)(18)	108
Concentration =				2.05833	
CONCENTRATION = 2.058		Fibers	Slide Number		
Analysts;		Microscopist;			

CTD018431

522 77

#75

st. ...
2:00 P.M. 18 min

tl Cunnings

#35B-77

26/100

~~26 Filters~~
~~100 fields~~

AIR SAMPLING DATA SHEET

36-77

CERTAIN-TEED PRODUCTS

Plant	Dept.	Type	Location	Date	Time	Employee
Instrument	Manufacturer	Model	Serial Number	Calibrated	Flow Rate	
Sampling Medium	Manufacturer	Part Number	Batch Number	Pore Size	Area	
Weather Conditions ;				Time Log		Min.
Ventilation Controls;						
Operating Conditions;						
Personal Protection ;						
Comments;						
Sampler;			Area Total Sampling Time -----			

ANALYSIS

Instrument	Manufacturer	Model	Serial Number	Calibrated	Field Area
Blank Medium;					
Fibers;	counted	Fields counted	Average		
Sampling Medium;					
Fibers;	counted	Fields counted	Average		
Concentration = $\frac{(\text{Average Fiber Count-Sampling Medium} - \text{Average Fiber Count Blank Medium}) \times (\text{Sampling Medium Area}) + (\text{Field Area}) \times (\text{Flow Rate} \times \text{Sampling Time}) \times (1000)}{\text{OR}}$					
OR $C = \frac{(AFCSM - AFCBM)(SMA)}{(FA)(FR \times ST)(1000)}$					
Concentration =					
CONCENTRATION = <u>pump & topical</u> Fibers Slide Number					
Analysts;			Microscopist;		

CTD018433

6-11-11
Bureau + 2

36

Copy - 11 -

Break 11:30 -

Fault prop. stopped - 2

R. 9:14

12:15

1:18

#225^{0.} Schilling

1

AIR SAMPLING DATA SHEET

#37-77

CERTAIN-TEED PRODUCTS

Plant	Dept.	Type	Location	Date	Time	Employee
Instrument	Manufacturer	Model	Serial Number	Calibrated	Flow Rate	
Sampling Medium	Manufacturer	Part Number	Batch Number	Pore Size	Area	
Weather Conditions ;			Time Log		Min.	
Ventilation Controls;						
Operating Conditions;						
Personal Protection ;						
Comments;						
Sampler;			Area Total Sampling Time -----			

ANALYSIS

Instrument	Manufacturer	Model	Serial Number	Calibrated	Field Area
Blank Medium;					
Fibers;	counted		Fields counted		Average
Sampling Medium;					
Fibers;	counted		Fields counted		Average
Concentration = $\frac{(\text{Average Fiber Count Sampling Medium} - \text{Average Fiber Count Blank Medium}) \times (\text{Sampling Medium Area})}{(\text{Field Area}) \times (\text{Flow Rate} \times \text{Sampling Time}) \times (1000)}$ OR $C = \frac{(AFCSM - AFCEM)(SMA)}{(FA)(FR \times ST)(1000)}$					
Concentration =					
CONCENTRATION = <u> </u> Fibers <u> </u> Slide Number <u> </u>					
Analysts; <u> </u> Microscopist; <u> </u>					

CTD018435

6

#37

St. ...
From ... 7:32 A.M.
P...

... 500 From 50

AIR SAMPLING DATA SHEET

#38-77

CERTAIN-TEED PRODUCTS

Plant	Dept.	Type	Location	Date	Time	Employee
Instrument	Manufacturer	Model	Serial Number	Calibrated	Flow Rate	
					2.0	
Sampling Medium	Manufacturer	Part Number	Batch Number	Pore Size	Area	
Weather Conditions ; _____ Time Log _____ Min.						
Ventilation Controls; _____						
Operating Conditions; _____						
Personal Protection ; _____						
Comments; _____						
Sampler;			Area Total Sampling Time ----- <i>ADN</i>			

ANALYSIS

Instrument	Manufacturer	Model	Serial Number	Calibrated	Field Area
Blank Medium;					
Fibers; _____	counted _____	Fields counted _____	Average _____		
Sampling Medium;					
Fibers; _____	counted _____	Fields counted _____	Average _____		
Concentration = $\frac{(\text{Average Fiber Count-Sampling Medium} - \text{Average Fiber Count Blank Medium}) \times (\text{Sampling Medium Area})}{(\text{Field Area}) \times (\text{Flow Rate} \times \text{Sampling Time}) \times (1000)}$ OR $C = \frac{(AFCSM - AFCEM)(SMA)}{(FA)(FR \times ST)(1000)}$					
Concentration = <i>100</i> <i>77/2</i> <i>385</i> <i>755</i> <i>32912</i> <i>(1003)(2.0)(60)(1500)</i>					
CONCENTRATION = <i>0.60959</i> Fibers _____ Slide Number _____					
Analysts; _____ Microscopist; _____					

CTD018437

6-27-77
P. 21

Revised: See Area
of Control Box

38

5.41L 10:00 90min
11:38

start saving at -
12:00 Sample 2 - 1:00
Saving 16:150 FURN 3'

sample P. 2 B. 4 P. 2
12:00 Sample 2: 1-12:00
5:00 - 11:14 1-12:00
5:00 - 3:3

CTD018438

AIR SAMPLING DATA SHEET

CERTAIN-TEED PRODUCTS

not input

39.77

Plant	Dept.	Type	Location	Date	Time	Employee
Instrument	Manufacturer	Model	Serial Number	Calibrated	Flow Rate	
Sampling Medium	Manufacturer	Part Number	Batch Number	Pore Size	Area	
Weather Conditions ;			Time Log		Min.	
Ventilation Controls;						
Operating Conditions;						
Personal Protection ;						
Comments;						
Sampler;			Area Total Sampling Time -----			

ANALYSIS

Instrument	Manufacturer	Model	Serial Number	Calibrated	Field Area
Blank Medium;					
Fibers;	counted	Fields counted	Average		
Sampling Medium;					
Fibers;	counted	Fields counted	Average		
Concentration = $\frac{(\text{Average Fiber Count-Sampling Medium} - \text{Average Fiber Count Blank Medium}) \times (\text{Sampling Medium Area})}{(\text{Field Area}) \times (\text{Flow Rate} \times \text{Sampling Time}) \times (1000)}$ OR $C = \frac{(AFCSM - AFCEM)(SMA)}{(FA)(FR \times ST)(1000)}$					
Concentration =					
CONCENTRATION = <u>per ppt of fibers</u> Slide Number					
Analysts;			Microscopist;		

CTD018439

2/11/77
Rc.

#32

Small to v. small Area
ft. Conv. E. B.

5-8 11/77

Found pump stops 1/02

Some 5' - 52 - 54 x 17
Some pipe not.

40-77

AIR SAMPLING DATA SHEET

CERTAIN-TEED PRODUCTS

Plant	Dept.	Type	Location	Date	Time	Employee
Instrument	Manufacturer	Model	Serial Number	Calibrated	Flow Rate	
						2.0
Sampling Medium	Manufacturer	Part Number	Batch Number	Pore Size	Area	
Weather Conditions ; _____ Time Log _____ Min. _____						
Ventilation Controls; _____						
Operating Conditions; _____						
Personal Protection ; MO.- 1,10439 (855) 944.253ds						
Comments; (1.003306) (2.0 x 147) (1000) 971.964						
.9714901						
Sampler; Area Total Sampling Time 147						

ANALYSIS

Instrument	Manufacturer	Model	Serial Number	Calibrated	Field Area
Blank Medium; Fibers; 98.5 counted _____ Fields counted 150; Average .985					
Sampling Medium; Fibers; _____ counted _____ Fields counted _____ Average _____					
Concentration = $\frac{(\text{Average Fiber Count Sampling Medium} - \text{Average Fiber Count Blank Medium}) \times (\text{Sampling Medium Area})}{(\text{Field Area}) \times (\text{Flow Rate} \times \text{Sampling Time}) \times (1000)}$ OR $C = \frac{(AFCSM - AFCEM)(SMA)}{(FA)(FR \times ST)(1000)}$					
Concentration = 5 985 (855) 842.175 .866472					
(1.003306) (2.0 x 147) (1000) 971.964					
CONCENTRATION = _____ Fibers _____ Slide Number 80/77					
Analysts; _____ Microscopist; _____					

CTD018441

6-22-77

Small R. 100

40

Start 12:18

60
50
12
13
45
27

Stop 2.45

12-1 - 60
1-2 - 60
2 - 22
142

not input

41-77

AIR SAMPLING DATA SHEET

CERTAIN-TEED PRODUCTS

Plant	Dept.	Type	Location	Date	Time	Employee
Instrument	Manufacturer	Model	Serial Number	Calibrated	Flow Rate	
Sampling Medium	Manufacturer	Part Number	Batch Number	Pore Size	Area	
Weather Conditions ;			Time Log		Min.	
Ventilation Controls;						
Operating Conditions;						
Personal Protection ;						
Comments;						
Sampler;			Area Total Sampling Time <u>225</u>			

ANALYSIS

Instrument	Manufacturer	Model	Serial Number	Calibrated	Field Area
Blank Medium;					
Fibers;	counted		Fields counted		Average
Sampling Medium;					
Fibers;	counted		Fields counted		Average
Concentration = $\frac{(\text{Average Fiber Count-Sampling Medium} - \text{Average Fiber Count Blank Medium}) \times (\text{Sampling Medium Area})}{(\text{Field Area}) \times (\text{Flow Rate} \times \text{Sampling Time}) \times (1000)}$ OR $C = \frac{(AFCSM - AFCEM)(SMA)}{(FA)(FR \times ST)(1000)}$					
Concentration =					
CONCENTRATION = <u>2.25</u> <u>Lucy</u> Fibers Slide Number					
Analysts; Microscopist;					

CTD018443

7 (5-77)

41

stop 1:43

stop 5:09

60
60
60
17
205

2 1:43

1-3	60
2-3	60
3-4	60
4-5	25
	205

42-77

AIR SAMPLING DATA SHEET

CERTAIN-TEED PRODUCTS

Plant	Dept.	Type	Location	Date	Time	Employee
Instrument	Manufacturer	Model	Serial Number	Calibrated	Flow Rate	
Sampling Medium	Manufacturer	Part Number	Batch Number	Pore Size	Area	
Weather Conditions ; _____ Time Log _____ Min.						
Ventilation Controls; _____						
Operating Conditions; _____						
Personal Protection ; _____						
Comments; _____						
Sampler; _____ Area Total Sampling Time <u>216 min</u>						

ANALYSIS

Instrument	Manufacturer	Model	Serial Number	Calibrated	Field Area
Blank Medium;					
Fibers; _____	counted _____	Fields counted _____	Average _____		
Sampling Medium;					
Fibers; _____	counted _____	Fields counted _____	Average _____		
Concentration = $\frac{(\text{Average Fiber Count-Sampling Medium} - \text{Average Fiber Count Blank Medium}) \times (\text{Sampling Medium Area})}{(1000)} \div (\text{Field Area}) \times (\text{Flow Rate} \times \text{Sampling Time}) \times (1000)$ OR $\text{C.} = \frac{(\text{AFCSM} - \text{AFCEM})(\text{SMA})}{(\text{FA})(\text{FR} \times \text{ST})(1000)}$					
Concentration =	1.1292 (955)	965.466	676006		
	(.003306) (2.0) (216) (550)	1428.19			
CONCENTRATION =	Fibers	Slide Number			
Analysts; _____ Microscopist; _____					

CTD018445

7-20-17

Milton

#42

Start 11:11

Stop 2:47

Crop 500 6" - 3300

Finn 877

11-12
12-1
1-2

60
60
60
32
217

AIR SAMPLING DATA SHEET

#43-77

CERTAIN-TEED PRODUCTS

Plant	Dept.	Type	Location	Date	Time	Employee
Instrument	Manufacturer	Model	Serial Number	Calibrated	Flow Rate	
Sampling Medium	Manufacturer	Part Number	Batch Number	Pore Size	Area	
Weather Conditions ;					Time Log	Min.
Ventilation Controls;						
Operating Conditions;						
Personal Protection ;						
Comments;						
Sampler;	Area Total Sampling Time -----					

ANALYSIS

Instrument	Manufacturer	Model	Serial Number	Calibrated	Field Area
Blank Medium;					
Fibers;	counted		Fields counted		Average
Sampling Medium;					
Fibers;	counted		Fields counted		Average
Concentration = $\frac{(\text{Average Fiber Count Sampling Medium} - \text{Average Fiber Count Blank Medium}) \times (\text{Sampling Medium Area})}{(\text{Flow Rate} \times \text{Sampling Time}) \times (1000)}$ OR $C = \frac{(AFCSM - AFCBM)(SMA)}{(FA)(FR \times ST)(1000)}$					
$C = \frac{(235)(855)}{(1003)(2.0)(4000)(221)}$					
Concentration =	200.925				
1326					
CONCENTRATION =	15	Fibers	Slide Number		
Analysts;	Microscopist;				

CTD018447



SLIGO
DIVISION MID-CONTINENT SUPPLY COMPANY



6th & O'Fallon - - - P. O. Box 171 - - - St. Louis, Mo. 63166

7.11.57
11/10/57

I 43

P. M. to day 4/10/57
140
21

8:15 6:19 140
stop 10:30 1/2

Milton work 3M 1/2

F. 11

5:00 15:15 2 - 250 pm

F. 11, 41

Area still dirty

231-3050

STEEL • INDUSTRIAL SUPPLIES • TOOLS

CTD018448

AIR SAMPLING DATA SHEET

CERTAIN-TEED PRODUCTS

Plant	Dept.	Type	Location	Date	Time	Employee
Instrument	Manufacturer	Model	Serial Number	Calibrated	Flow Rate	
Sampling Medium	Manufacturer	Part Number	Batch Number	Pore Size	Area	
Weather Conditions ;			Time Log		Min.	
Ventilation Controls;						
Operating Conditions;						
Personal Protection ;						
Comments;						
Sampler;			Area Total Sampling Time <u>264</u>			

ANALYSIS

Instrument	Manufacturer	Model	Serial Number	Calibrated	Field Area
Blank Medium;					
Fibers;	counted		Fields counted		Average
Sampling Medium;					
Fibers;	counted		Fields counted		Average
Concentration = $\frac{(\text{Average Fiber Count-Sampling Medium} - \text{Average Fiber Count Blank Medium}) \times (\text{Sampling Medium Area})}{(\text{Field Area}) \times (\text{Flow Rate} \times \text{Sampling Time}) \times (1000)}$ OR $C = \frac{(AFCSM - AFCEM)(SMA)}{(FA)(FR \times ST)(1000)}$					
Concentration =	575 (850)		491,625		128164
	(1,003306)	(2.0)	(264)	1745,568	
CONCENTRATION =	Fibers		Slide Number		
Analysts;			Microscopist;		

CTD018449



6th & O'Fallon - - - P. O. Box 171 - - - St. Louis, Mo. 63166

7-22-77
Cooling tower

14
44

start - 1:15, 2nd
4

stop pump 4:20

16" - Coup

open 4:11

231-3050

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CTD018450

AIR SAMPLING DATA SHEET

CERTAIN-TEED PRODUCTS

Plant	Dept.	Type	Location	Date	Time	Employee
Instrument	Manufacturer	Model	Serial Number	Calibrated	Flow Rate	
Sampling Medium	Manufacturer	Part Number	Batch Number	Pore Size	Area	
Weather Conditions ;			Time Log		Min.	
Ventilation Controls;			7:10		7:49	
Operating Conditions;						
Personal Protection ;						
Comments;						
Sampler;			Area Total Sampling Time 40.57 min			

ANALYSIS

Instrument	Manufacturer	Model	Serial Number	Calibrated	Field Area
Blank Medium;					
Fibers;	counted	Fields counted	Average		
Sampling Medium;					
Fibers;	counted	Fields counted	Average		
$\text{Concentration} = \frac{(\text{Average Fiber Count Sampling Medium} - \text{Average Fiber Count Blank Medium}) \times (\text{Sampling Medium Area})}{(\text{Field Area}) \times (\text{Flow Rate} \times \text{Sampling Time}) \times (1000)} \text{ OR } \frac{(\text{AFCSM} - \text{AFCRM}) (\text{SMA})}{(\text{FA}) (\text{FR} \times \text{ST}) (1000)}$					
$\text{Concentration} = \frac{2.6025 \times 855}{(1.003) (2.0) (105) / 1000} = 2225.14$					
$\text{Concentration} = 3.5320 \text{ Fibers}$					
CONCENTRATION = 3.5320 Fibers Slide Number					

Analyst; Microscopist;

8-28-71

#45

Ground Johnson

st- 12:40

st- 2:30

Dunplass Blue fiber

Left Area 1:05

Stroking AK Fiber

Back 1:46

CTD018452

AIR SAMPLING DATA SHEET

#46-77

CERTAIN-TEED PRODUCTS

Plant	Dept.	Type	Location	Date	Time	Employee
Instrument	Manufacturer	Model	Serial Number	Calibrated	Flow Rate	
Sampling Medium	Manufacturer	Part Number	Batch Number	Pore Size	Area	
Weather Conditions ;			Time Log			Min.
Ventilation Controls;						
Operating Conditions;						
Personal Protection ;						
Comments;						
Sampler;			Area Total Sampling Time -----			

ANALYSIS

Instrument	Manufacturer	Model	Serial Number	Calibrated	Field Area
Blank Medium;					
Fibers;	counted	Fields counted	Average		
Sampling Medium;					
Fibers;	counted	Fields counted	Average		
Concentration = $\frac{(\text{Average Fiber Count Sampling Medium} - \text{Average Fiber Count Blank Medium}) \times (\text{Sampling Medium Area})}{(\text{Field Area}) \times (\text{Flow Rate} \times \text{Sampling Time}) \times (1000)}$ OR $\text{C.} = \frac{(\text{AFCSM} - \text{AFCEM})(\text{SMA})}{(\text{FA})(\text{FRST})(1000)}$					
Concentration = <i>Too dusty to count</i>					
CONCENTRATION = _____ Fibers _____ Slide Number _____					
Analysts; _____ Microscopist; _____					

CTD018453

AIR SAMPLING DATA SHEET

#49-77

CERTAIN-TEED PRODUCTS

Plant	Dept.	Type	Location	Date	Time	Employee
Instrument	Manufacturer	Model	Serial Number	Calibrated	Flow Rate	
Sampling Medium	Manufacturer	Part Number	Batch Number	Pore Size	Area	
Weather Conditions ;			Time Log		Min.	
Ventilation Controls;						
Operating Conditions;						
Personal Protection ;						
Comments;						
Sampler;			Area Total Sampling Time 180			

ANALYSIS

Instrument	Manufacturer	Model	Serial Number	Calibrated	Field Area
Blank Medium;					
Fibers;	counted		Fields counted		Average
Sampling Medium;					
Fibers;	counted 12.6		Fields counted 180		Average
Concentration = $\frac{(\text{Average Fiber Count-Sampling Medium} - \text{Average Fiber Count Blank Medium}) \times (\text{Sampling Medium Area})}{(\text{Field Area}) \times (\text{Flow Rate} \times \text{Sampling Time}) \times (1000)}$ OR $C = \frac{(AFCSM - AFCEM)(SMA)}{(FA)(FR \times ST)(1000)}$					
Concentration = $\frac{125(955)}{(603)(2.0)(180)(1000)} = 106.875$					
CONCENTRATION = _____ Fibers _____ Slide Number _____					
Analysts; _____ Microscopist; _____					

CTD018454

8-31-77

47

2nd floor

52, - 52

stop 3:05

AIR SAMPLING DATA SHEET

#75-77
50

CERTAIN-TEED PRODUCTS

259 90/ P Plant Dept. Type Location Date Time 6:56 A.M. #68 J. Edwards Employee

Instrument Manufacturer Model Serial Number Calibrated 14-16 Flow Rate Bendix 12.0

Sampling Medium Manufacturer Part Number Batch Number Pore Size Area

Weather Conditions ; Cool & Humid Time Log Min.

Ventilation Controls; Dust collector working properly

Operating Conditions; Below normal 7 3/4 T PH

Personal Protection ; Dual Respirator & white suit

Comments;

Sampler; George J. Jones, Jr. Area Total Sampling Time 224 Min.

ANALYSIS

Instrument Manufacturer Model Serial Number Calibrated Field Area

Blank Medium; Fibers; counted Fields counted Average

Sampling Medium; Fibers; counted Fields counted Average

Concentration = (Average Fiber Count Sampling Medium - Average Fiber Count Blank Medium) X (Sampling Medium Area) + (Field Area) X (Flow Rate X Sampling Time) X (1000) OR

$$C = \frac{(AFCSM - AFCEM)(SMA)}{(FA)(FR \times ST)(1000)}$$

Concentration = 2.0816 (855) 1779.768 1.201662
(003306) X (224) (2.0) (1000) 1481.088

CONCENTRATION = Fibers Slide Number

Analysts; Microscopist;

CTD018456



SLIGO
DIVISION MID-CONTINENT SUPPLY COMPANY



STEEL • INDUSTRIAL SUPPLIES • TOOLS

10-11-77

#75

Stav + 6126

John Edwards #68

Blond 10-35, Red hair in water

7 1/2 T.P.H. wearing Reg + white suit
P.S. for only

6.37 In white Room

6.38 Suit + drape

6.48 From drape, out of Room + back

6.49 From drape 1 out 40

6.52 From suit, Room + out, back + out

6.53 From trash outside

out hand, shirt out

7.00

MAIN OFFICE & WAREHOUSE

6th & O'Fallon • P.O. Box 171
St. Louis, Missouri 63166
Phone: 314/231-3050

BRANCHES

1951 East Florida St.
Springfield, Mo. 65803
Phone: 417/831-0576

2332 North 40th St.
Decatur, ILL. 62526
Phone: 217/429-5460

CTD018457



SLIGO

DIVISION MID-CONTINENT SUPPLY COMPANY



STEEL • INDUSTRIAL SUPPLIES • TOOLS

7:13 In white Em, put on air
start dumping

7:24 finish dumping Van Glass

Install door closure

Scal' Dump

Need diff type lid for trash can

MAIN OFFICE & WAREHOUSE

6th & O'Fallon • P.O. Box 171
St. Louis, Missouri 63166
Phone: 314/231-3050

BRANCHES

1951 East Florida St.
Springfield, Mo. 65803
Phone: 417/831-0576

2332 North 40th St.
Decatur, ILL. 62526
Phone: 217/429-5460

CTD018458



SLIGO

DIVISION MID-CONTINENT SUPPLY COMPANY



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8:22 Break

Relief men dropped in 1 Batch

8:38 Break

dropped 5 bags + set up

9:49 - start dumping fiber dump #6

9:59 - finish dumping, vac floor + Area

10:00 - Remove + replace trash bag

10:01 - out of white room carry trash to outside

MAIN OFFICE & WAREHOUSE

6th & O'Fallon • P.O. Box 171
St. Louis, Missouri 63166
Phone: 314/231-3050

BRANCHES

1951 East Florida St.
Springfield, Mo. 65803
Phone: 417/831-0576

2332 North 40th St.
Decatur, ILL. 62526
Phone: 217/429-5460

CTD018459



STEEL • INDUSTRIAL SUPPLIES • TOOLS

10/28 - 1 - 10/28

1 - 10/28 - 10/28

1 - 10/28 - 10/28

1 - 10/28 - 10/28

1 - 10/28 - 10/28

1 - 10/28 - 10/28

1 - 10/28 - 10/28

1 - 10/28 - 10/28

1 - 10/28 - 10/28

1 - 10/28 - 10/28

MAIN OFFICE & WAREHOUSE

6th & O'Fallon • P.O. Box 171
St. Louis, Missouri 63166
Phone: 314/231-3050

BRANCHES

1951 East Florida St. Springfield, Mo. 65803 Phone: 417/831-0576	2332 North 40th St. Decatur, ILL. 62526 Phone: 217/429-5460
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CTD018460

AIR SAMPLING DATA SHEET

426-77
51

CERTAIN-TEED PRODUCTS

Plant	Dept.	Type	Location	Date	Time	Employee
Instrument	Manufacturer	Model	Serial Number	Calibrated	Flow Rate	
Sampling Medium	Manufacturer	Part Number	Batch Number	Pore Size	Area	
Weather Conditions ;			Time Log		Min.	
Ventilation Controls;						
Operating Conditions;						
Personal Protection ;						
Comments;						
Sampler;			Area Total Sampling Time <u>120 Min</u>			

ANALYSIS

Instrument	Manufacturer	Model	Serial Number	Calibrated	Field Area
Blank Medium;					
Fibers;	counted		Fields counted		Average
Sampling Medium;					
Fibers;	counted		Fields counted		Average
Concentration = $\frac{(\text{Average Fiber Count-Sampling Medium} - \text{Average Fiber Count Blank Medium}) \times (\text{Sampling Medium Area})}{(\text{Field Area}) \times (\text{Flow Rate} \times \text{Sampling Time}) \times (1000)}$ OR $C = \frac{(AFCSM - AFCEM)(SMA)}{(FA)(FR \times ST)(1000)}$					
Concentration =	<u>1.21084 (855)</u>		<u>1035.268</u>		<u>1.3047</u>
	<u>(.003306)(12.0)(120)(1000)</u>		<u>793.44</u>		
CONCENTRATION =	Fibers		Slide Number		

Analysts; _____ Microscopist; _____

CTD018461



STEEL • INDUSTRIAL SUPPLIES • TOOLS

10-11-77

96

stop 11:35

*Fiber
can be loaded*

Sho

stop 12:35

*Special Mat
ML 6*

MAIN OFFICE & WAREHOUSE

6th & O'Fallon • P.O. Box 171
St. Louis, Missouri 63166
Phone: 314/231-3050

BRANCHES

1951 East Florida St.	2332 North 40th St.
Springfield, Mo. 65803	Decatur, ILL. 62526
Phone: 417/831-0576	Phone: 217/429-5460

CTD018462

AIR SAMPLING DATA SHEET

#188-77
53

CERTAIN-TEED PRODUCTS

Plant	Dept.	Type	Location	Date	Time	Employee
Instrument	Manufacturer	Model	Serial Number	Calibrated	Flow Rate	
					2.0	
Sampling Medium	Manufacturer	Part Number	Batch Number	Pore Size	Area	
Weather Conditions ; _____ Time Log _____ Min. _____						
Ventilation Controls; _____						
Operating Conditions; _____						
Personal Protection ; _____						
Comments; _____						
Sampler;			Area Total Sampling Time 327			

ANALYSIS

Instrument	Manufacturer	Model	Serial Number	Calibrated	Field Area
Blank Medium;					
Fibers; _____	counted _____	Fields counted _____	Average _____		
Sampling Medium;					
Fibers; _____	counted _____	Fields counted _____	Average _____		
Concentration = $\frac{(\text{Average Fiber Count-Sampling Medium} - \text{Average Fiber Count Blank Medium}) \times (\text{Sampling Medium Area})}{(1000)} \text{ OR } \frac{(\text{AFCSM} - \text{AFCEM})(\text{SMA})}{(\text{FA})(\text{FR} \times \text{ST})(1000)}$					
Concentration =	2.030 x (855)	1735.65	802753		
	(00336) (2.0 x 327) (1000)	2162.12			
CONCENTRATION =	Fibers _____	Slide Number _____			
Analysts; _____		Microscopist; _____			

10-11-77

#28

start 9:11

stop 6:51

Time: Ave. 8:30

*Slaging warehouse
sweeper operator*

AIR SAMPLING DATA SHEET

79-77

CERTAIN-TEED PRODUCTS

59

4:15
10/14 2:47

54

Barra

Plant Dept. Type Location Date Time

Employee

Instrument	Manufacturer	Model	Serial Number	Calibrated	Flow Rate
------------	--------------	-------	---------------	------------	-----------

Sampling Medium	Manufacturer	Part Number	Batch Number	Pore Size	Area
-----------------	--------------	-------------	--------------	-----------	------

Weather Conditions ; Cool sunny Time Log 60 Min.

Ventilation Controls; _____

Operating Conditions; _____

Personal Protection ; _____

Comments; _____

Sampler; _____

Area Total Sampling Time 88

ANALYSIS

Instrument	Manufacturer	Model	Serial Number	Calibrated	Field Area
------------	--------------	-------	---------------	------------	------------

Blank Medium;
Fibers; _____ counted _____ Fields counted _____ Average _____

Sampling Medium;
Fibers; _____ counted _____ Fields counted _____ Average _____

Concentration = $\frac{(\text{Average Fiber Count-Sampling Medium} - \text{Average Fiber Count Blank Medium}) \times (\text{Sampling Medium Area})}{(\text{Field Area}) \times (\text{Flow Rate} \times \text{Sampling Time}) \times (1000)}$ OR

$$C = \frac{(AFCSM - AFCEM)(SMA)}{(FA)(FR \times ST)(1000)}$$

Concentration = .79 (855) 675.45 1.160854
.003306 X 2.0 (88 X 1000) 581.856

CONCENTRATION = _____ Fibers _____ Slide Number _____

Analysts; _____ Microscopist; _____

CTD018465

Bura 2:30 break ^{#79} 10/13

12:45 - 2:30

Film Staging -

Cool

A stylized, cursive handwritten signature, possibly reading "John" or "John D.", with a large loop at the end.

AIR SAMPLING DATA SHEET

55
#85

CERTAIN-TEED PRODUCTS

59 901 E Scale Area 10-15-77

#6 Lawrence

Plant Dept. Type Location Date Time

Employee

Instrument Manufacturer Model Serial Number Calibrated Flow Rate

Bendix

Sampling Medium Manufacturer Part Number Batch Number Pore Size Area

Weather Conditions ; Misty Rain

Time Log

Min.

Ventilation Controls; Dust Collector on

Operating Conditions; 774 TPH Mfg. 8440-150 Ford No 38

Personal Protection ; NONE WORN IN AREA

Comments; Cement - & silica bucket also, leaking on 2nd floor

Sampler; G. Jones

Area Total Sampling Time -----

ANALYSIS

Instrument Manufacturer Model Serial Number Calibrated Field Area

Blank Medium;

Fibers; _____ counted _____; Fields counted _____; Average _____

Sampling Medium;

Fibers; _____ counted _____; Fields counted _____; Average _____

Concentration = (Average Fiber Count-Sampling Medium - Average Fiber Count Blank Medium) X
(Sampling Medium Area) ÷ (Field Area) X (Flow Rate X Sampling Time) X
(1000) OR

C. = $\frac{(AFCSM-AFCBM)(SMA)}{(FA)(FR)(ST)(1000)}$ 625

Concentration = _____

CONCENTRATION = _____

Fibers

Slide Number

Analysts; _____

Microscopist; _____

CTD018467

AIR SAMPLING DATA SHEET

CERTAIN-TEED PRODUCTS

Plant Dept. Type Location Date Time Employee

Instrument Manufacturer Model Serial Number Calibrated Flow Rate

Sampling Medium Manufacturer Part Number Batch Number Pore Size Area

Weather Conditions ; nice - cool, clear. Time Log Min.

Ventilation Controls; 60

Operating Conditions; 38

Personal Protection ;

Comments;

Sampler; Area Total Sampling Time -----

ANALYSIS

Instrument Manufacturer Model Serial Number Calibrated Field Area

Blank Medium;
Fibers; counted Fields counted Average

Sampling Medium;
Fibers; counted Fields counted Average

Concentration = $\frac{\text{Average Fiber Count-Sampling Medium} - \text{Average Fiber Count Blank Medium}}{(\text{Sampling Medium Area}) + (\text{Field Area}) \times (\text{Flow Rate} \times \text{Sampling Time}) \times (1000)}$ OR

C. = $\frac{(AFCSM-AFCBM)(SMA)}{(FA)(FR \times ST)(1000)}$

Concentration = $\frac{(885)(855)}{(1003306)(20)(98)1000}$ $\frac{756.675}{647.976}$ $\frac{1.167751}{}$

CONCENTRATION = Fibers Slide Number 81-77

Analysts; Microscopist;

AIR SAMPLING DATA SHEET

CERTAIN-TEED PRODUCTS

59 901 E #2 Netting 11-03-77 12:28

Plant Dept. Type Location Date Time

Employee

Instrument

Manufacturer

Model

Serial Number

Calibrated

Flow Rate

2.0

Sampling Medium

Manufacturer

Part Number

Batch Number

Pore Size

Area

Weather Conditions ;

Time Log

Min.

Ventilation Controls;

Operating Conditions;

Personal Protection ;

Comments;

Sampler;

Area Total Sampling Time

ANALYSIS

Instrument

Manufacturer

Model

Serial Number

Calibrated

Field Area

Blank Medium;

Fibers;

counted

Fields counted

Average

Sampling Medium;

Fibers;

counted

100

Fields counted

31

Average

Concentration = (Average Fiber Count - Sampling Medium - Average Fiber Count Blank Medium) X (Sampling Medium Area) + (Field Area) X (Flow Rate X Sampling Time) X (1000) OR

C. = (AFCSM - AFCEM) (SMA) / (FA) (FR) (ST) (1000)

3.225 (855)

(1003) (2.0) (1120) (1000)

Concentration =

2757.38

720

3.8296

CONCENTRATION =

Fibers

Slide Number

Analyst;

Microscopist;

CTD018470

11-03-77

#82-

start 12:28

stop 2:28

univ # 300 discharge chute by wetting screen

8/15

83-77
68

AIR SAMPLING DATA SHEET

CERTAIN-TEED PRODUCTS

Plant	Dept.	Type	Location	Date	Time	Employee
Instrument	Manufacturer	Model	Serial Number	Calibrated	Flow Rate	
Sampling Medium	Manufacturer	Part Number	Batch Number	Pore Size	Area	
Weather Conditions ; _____ Time Log _____ Min. _____						
Ventilation Controls; _____						
Operating Conditions; _____						
Personal Protection ; _____						
Comments; _____						
Sampler; _____			Area Total Sampling Time _____			

ANALYSIS

Instrument	Manufacturer	Model	Serial Number	Calibrated	Field Area
Blank Medium;					
Fibers; _____	counted _____	Fields counted _____	Average _____		
Sampling Medium;					
Fibers; _____	counted _____	Fields counted _____	Average _____		
Concentration = $\frac{(\text{Average Fiber Count-Sampling Medium} - \text{Average Fiber Count Blank Medium}) \times (\text{Sampling Medium Area}) + (\text{Field Area}) \times (\text{Flow Rate} \times \text{Sampling Time}) \times (1000)}{(1000)}$ OR $C = \frac{(AFCSM - AFCEM)(SMA)}{(FA)(FR \times ST)(1000)}$					
Concentration = _____					
CONCENTRATION = _____ Fibers _____ Slide Number _____					
Analysts; _____ Microscopist; _____					

CTD018472

PLANT St. Louis #259 ASBESTOS MONITORING REPORT DATE 1979

PERSONAL PUMP MODEL NO.

Control Number	Operation	Employee's Name	Flow Rate	Sample Time	Exposure %	Type of Controls	Fibers Per/cc	Date
1-79	Truck Shop	Emerson	2.0	76		8	.0938	1/18/79
2-79	"	"	2.0	105		8	.0882	1/18
3-79	Sm F.M. Loke	Don Davis #37	2.22	115		5	.413	1/25
4-79	Waste Machine	Al Muscarello	2.0	37		8	11.326	2/2
5-79	"	"	2.0	45	Too dusty to read			2/2
6-79	"	"	2.0	64		8	.4341	2/2
7-79	Control Operator	John Edwards	2.0	175		2	.21	3/22
8-79	Mandrel Handler	Junior Faulstich	2.0	146		2	.18	3/22
9-79	Control Oper	J. Edwards	2.0	180		2	.04	3/22
10-79	Mandrel Handler	J. Faulstich	2.0	180		2	.18	3/22
11-79	Truck Driver	Leroy Alexander	1.92	130	None punched	4	.23	3/23
12-79	Pipe Beller	Willie Moore	1.92	100		3	.09	3/23
13-79	Auto Line Truck	Willie Hughes	1.92	165		3	.004	✓
14-79	"	"	2.0	150		4	.36	✓
15-79	Pipe Beller	H. Moore	2.0	65		4	.18	✓
16-79	"	"	2.0	40		3	.11	✓
17-79	Auto Line Truck	H. Hughes	2.0	40		3	.11	✓

REMARKS: (S) - means less than - Count minus the blank resulted in a negative number

Other numbers in Red - Airborne - Department

as production phases

mixing - Mfg - Finishing - Main page 1

ASBESTOS MONITORING REPORT

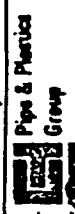
PLANT St. Louis 254

PERSONAL PUMP MODEL NO. DATE

Control Number	Operation	Employee's Name	Flow Rate	Sample Time	Exposure %	Type of Controls	Fibers Per/cc	Date
18-79	Pipe Filler	Ronnie Lawrence	1.92	80		4	1.04	3/27/79
19-79	Inter Handler	Lawrence (Quinn)	2.0	75		4	.17	✓
20-79	Inter Operator	Gerald Rose	2.0	65		4	1.09	✓
21-79	Inter Handler	L. Lawrence	2.0	145		4	.29	✓
22-79	Pipe Filler	R. Lawrence	1.92	145		4	.22	✓
23-79	Inter Operator	H. Rose	2.0	140		4	.85	✓
24-79	Inter Handler	L. Lawrence	2.0	75		4	.32	✓
25-79	Inter Operator	G. Rose	2.0	75		4	.35	✓
26-79	Pipe Filler	R. Lawrence	1.92	75		4	.71	✓
27-79	Inter Handler	R. Thompson	1.92	90		2	.49	3/28/79
28-79	Control Room	H. Harper	2.0	85		2	.20	✓
29-79	Crane Operator	Rich Metz	2.0	70		3	.72	✓
30-79	Control Room	H. Harper	2.0	90		2	.32	✓
31-79	Inter Handler	R. Thompson	1.92	90		2	.40	✓
32-79	Crane Operator	Rich Metz	2.0	100		3	.16	✓
33-79	Inter Handler	R. Thompson	1.92	105		2	.10	✓
34-79	Control Room	H. Harper	2.0	103		2	.35	✓

REMARKS:

CTD018475



Pipe & Plastics Group

Page 2

ASBESTOS MONITORING REPORT

PLANT St. Louis #259

DATE

PERSONAL PUMP

MODEL

NO.

Control Number	Operation	Employee's Name	Flow Rate	Sample Time	Exposure %	Type of Controls	Fibers Per/cc	Date
35-79	Crane Operator	Dick Metz	2.0	95		3	.19	3/25/79
36-79	Control Room	St. Harpold	2.0	57		2	.46	✓
37-79	Crane Operator	Dick Metz	2.0	60		3	.23	✓
38-79	Mandrel Harder	R. Thompson	1.92	55		2	1.11	✓
39-79	Boeing Mill #2	R. Burns	2.0	45		5	1.62	3/29/79
40-79	#2 Cplg Saw	Harold K. Lohr	2.0	45		5	.62	✓
41-79	" "	"	2.0	120	100 dust	5		✓
42-79	Boeing Mill #5	R. Burns	2.0	120		5	.67	3/29/79
43-79	#2 Cplg Saw	Harold K. Lohr	2.0	95		5	.56	✓
44-79	Boeing Mill #2	R. Burns	2.0	90		5	.54	✓
45-79	Guard	John H. Boyle	2.0	215		8	.033	3/20/79
46-79	"	Boyle	2.0	165		8	.5.096	✓
47-79	Maint. Mch	Frank Haverly	2.0	120	100d - 90d	8		4/26/79
48-79	Mandrel Harder	Bill & Davis	2.04	95	100 Dusty	8		✓
49-79	Erection Mach	Tom Moran	2.04	120		8	0.12	✓
50-79	Control Room	Jim Cole	2.019	90		2	2.26	✓
51-79	Mainst Mach	Frank Haverly	2.0	160		8	0.025	4/26/79

REMARKS:

CTD018476

Pipe & Plastics
Group

Page 3

ASBESTOS MONITORING REPORT

PLANT St. Louis 259

DATE

NO.

PERSONAL PUMP

MODEL

Control Number	Operation	Employee's Name	Flow Rate	Sample Time	Exposure %	Type of Controls	Fibers Per/cc	Date
52-79	Control Oper	Jim Cole	2.04	110		2	0.016	4/26/79
53-79	Excavation Mach	Sam Moore	2.04	205		8	0.03	4/26/79
54-79	Mandrel Puller	Bill Davis	2.0	160		2	.32	✓
55-79	Boiler Operator	Ray Dickel	2.04	150		8	0.007	✓
56-79	Control Oper	Jim Cole	2.04	60		2	0.10	✓
57-79	Mandrel Puller	Wm. Vinger	2.04	120		3	0.13	✓
58-79	Electrician	Harry Burr	1.96	130		8	0.07	✓
59-79	Relief Man	Harold Humbolt	2.04	45		2	.60	✓
60-79	Gen Commodity Dr	Wm. Burkholder	2.04	345		6	.07	4/27/79
61-79	Relief Man	Harold Humbolt	2.04	70		2	.53	4/26/79
62-79	Truck Operator	Jim Barton	2.0	350		6	.09	4/23/79
63-79	Accessory Handl	Leo Kauter	2.04	205		6	.20	✓
64-79	Workroom Att	Harry Harris	1.96	345		8	.18	✓
65-79	Accessory Handl	Leo Kauter	2.04	90		6	.33	✓
66-79	Mandrel Puller	Wm. Vinger	1.96	248		2	.39	4/27/79
67-79	Relief Man	Harold Humbolt	2.04	242		2	.20	✓
68-79	Boiler Operator	Ray Dickel	2.04	240		8	0.0006	✓

REMARKS:

CTD018477

PLANT St Louis 259

ASBESTOS MONITORING REPORT

DATE _____

PERSONAL PUMP

MODEL

NO.

Control Number	Operation	Employee's Name	Flow Rate	Sample Time	Exposure %	Type of Controls	Fibers Per/cc	Date
69-79	Electrician	Larry Bivens	2.0	240		8	1.24	4/27/79
70-79	Duct House	D. Smith	2.0	24	Too Dusty		-	4/27/79
71-79	Duct House	E. Medlock	2.0	30	Too Dusty		-	
72-79	Removal Duct House	J. Cole	1.85	28	Too Dusty		-	
73-79	Duct House	D. Smith	2.0	18	Too Dusty		-	
74-79	Duct House	E. Medlock	2.0	97	Too Dusty		-	
75-79	Duct House	J. Cole	1.85	18	Too Dusty		-	
76-79	Blank						-	
77-79	Duct House	E. Medlock	2.0	18		8	.08	
78-79	Duct House	D. Smith	2.0	97		8	1.11	
79-79	Mfg. Supp. Duct House	George Jones	2.0	124		8	1.64	
80-79	Duct House	J. Cole	1.85	4		3	-	
81-79	Duct House	J. Cole	1.85	80		8	.78	
82-79	Removal Trunk	J. Cole	1.85	34		8	.43	
83-79	Duct House	E. Medlock	2.0	5		8	- 17.23	
84-79	Duct House	D. Smith	2.0	9		8	7.83	
85-79	Machinist	John Bonnamant	2.0	59		8	.23	

REMARKS:

CTD018478

Pipe & Plastics
Group

Page 5

PLANT St Louis 259 ASBESTOS MONITORING REPORT DATE _____
PERSONAL PUMP MODEL _____ NO. _____

Control Number	Operation	Employee's Name	Flow Rate	Sample Time	Exposure %	Type of Controls	Fibers Per/cc	Date
86-79	Sweeper	D. Smith	2.0	41		8	.59	4/29/79
87-79	Main Street	Bill Mays 141	2.04	25		8	.81	✓
88-79	West Hoppers	E. Medlock	2.04	45		8	1.26	✓
89-79	Miller	Curry Thompson	1.85	25		8	.52	✓
90-79	Mt's Sups	W. Jones	1.85	35		2	.44	✓
91-79	West Hoppers	E. Medlock	2.04	17		8	2.67	✓
92-79	Machinist	John Bonmarito	2.0	92		8	.11	✓
93-79	Billers	George Charnel	1.90	250		8	.64	4/30/79
94-79	Truck Driver	Lucy Allyn	1.82	250		6	.209	✓
95-79		John Kastner	2.0	195		4	.87	✓
96-79	Wood sample	sample		25				✓
97-79	Machinist	John Bonmarito	2.0	260		8	0.03	5/1/79
98-79	Welder / Sheet Metal	Bill Edwards	1.82	90		8	0.125	✓
99-79	San. Maint Mech	Allen Melton	2.0	210		8	0.062	✓
100-79	Boiler Oper	Ron Nelson	1.79	95		8	0.033	✓
101-79	Welder Sheet Metal	B. Edwards	1.82	120		8	0.076	✓
102-79	Boiler Oper	Ron Nelson	1.79	95		8	0.033	✓

REMARKS:

CTD018479

Pipe & Mania
Group

ASBESTOS MONITORING REPORT

PLANT St. Louis 259

DATE _____

PERSONAL PUMP

MODEL

NO.

Control Number	Operation	Employee's Name	Flow Rate	Sample Time	Exposure %	Type of Controls	Fibers Per/cc	Date
103-79	Boiler Operator	John Williams	1.79	100		8	0.025	5/1/79
104-79	"	"	1.79	60		✓	0.02	✓
105-79	Mainl. Mech.	Byrell Mayo	2.0	60		✓	0.052	✓
106-79	Painter	Curry Thompson	2.0	105		8	0.064	✓
107-79	Crewman/Network	Steven Parker	1.79	125		7	0.166	✓
108-79	Log Network	Mike Evans	1.82	75		4	0.795	✓
109-79	Boiler Operator	Joe Rogers	2.0	85		8	0.019	✓
110-79	Log Network	Mike Evans	1.82	70		4	0.4	✓
111-79	Boiler Oper	Joe Rogers	2.0	80		8	0.021	✓
112-79	Crewman/Network	Steve Parker	1.79	65		7	0.002	✓
113-79	Log Network	Mike Evans	1.82	45		4	1.068	✓
114-79	Crewman/Network	Steve Parker	1.79	45		7	0.37	✓
115-79	Boiler Oper	Joe Rogers	2.0	40		✓	0.04	✓
116-79	Accessory Man	Harry Hauffman	1.79	105		✓	0.017	5/2/79
117-79	Fitting Jack Dr.	Ed. Maxner	1.82	80		5	0.52	✓
118-79	Log Network/Sec	Richard Thomas	2.04	75		4	0.57	✓
119-79	Accessory Man	Harry Hauffman	1.79	75		6	0.029	✓

REMARKS:

CTD018480

Pipe & Flanges
Group

12017

PLANT St. Louis #259

DATE _____

PERSONAL PUMP

MODERATION

NO.

Control Number	Operation	Employee's Name	Flow Rate	Sample Time	Exposure %	Type of Controls	Fibers Per/cc	Date
120-79	Fitting Truck Dr	Ed Morris	1.82	60		6	0.078	✓
121-79	"	"	1.82	170		6	0.19	✓
122-79	Environ	Office	1.82	140		8	<0.013	✓
123-79	Cplg Texter	Ed Medlock Sr	1.82	135		4	0.025	✓
124-79	MEO Suther	Bob Buckley 60	2.04	120		5	<0.013	✓
125-79	Truck Dr Finial	Lawrence Hunt 118	1.79	120		6	0.051-0.163 70	✓
126-79	Inspector #2	Clarence Mann 118	2.04	120		4	0.154	✓
127-79	Cplg Texter	Ed Medlock Sr	1.82	75		4	0.052	✓
128-79	Truck Dr Finial	Lawrence Hunt 118	1.79	90		6	0.153	✓
129-79	Inspector #2	Clarence Mann 118	2.04	80		4	0.10	✓
130-79	MEO Suther	Bob Buckley	2.04	75		5	0.254	✓
131-79	Blank	"					0.05 1/10	—
132-79	Maind Labor	J Morris 110	1.73	150		8	0.031	5/3/79
133-79	Electrician	S. Steedman 110	2.04	135		8	0.04	✓
134-79	Maind Labor	J. Ragan 110	2.04	205			<0.003	✓
135-79	Crusher	J. Haley 160	1.82	210		7	—	✓
136-79	"	"	1.82	210			0.203	✓

REMARKS.

CTD018481


**Pipes & Plastics
Group**

ASBESTOS MONITORING REPORT

PLANT St Louis #209

DATE

PERSONAL PUMP

MODEL

NO.

Control Number	Operation	Employee's Name	Flow Rate	Sample Time	Exposure %	Type of Controls	Fibers Per/cc	Date
137-79	Electrician	Lee Anderson	2.04	195		8	0.045	5/3/79
138-79	Crewman	Ray Haley	—	Lost Control		7	—	✓
139-79	Manual Labor	Joe Rieck	2.04	75		8	0.051	✓
140-79	"	Jerry Morris	1.73	180		8	0.068	✓
141-79	Crewman	Ray Haley	1.82	70		7	0.268	✓
142-79	Relief	Willie Watson	2.04	125		2	0.316	✓
143-79	Manual Labor	Lufer Nicks	1.73	115		3	0.083	✓
144-79	Electrician	Doni Rodrick	1.82	110		8	0.36	✓
145-79	Relief	W. Watson	2.04	110		2	0.123	✓
146-79	Auto-blender	Sneed	2.04	110		3	0.038	✓
147-79	Manual Labor	R. Nicks	1.73	110		3	0.044	✓
148-79	Elec.	Rodrick	1.82	110		8	0.0095	✓
149-79	Auto-blender	Sneed	2.04	120		3	0.034	✓
150-79	Manual Labor	Palomella	2.0	105		3	0.069	5/14/79
151-79	Relief	James Vertenberger	1.82	105		2	0.18	✓
152-79	Miner Oper.	John Duffer	1.64	90		1	0.233	✓
153-79	Crane Oper	Emil Hannibuck	2.0	105		3	0.053	✓

REMARKS:

CTD018482

Pipe & Plastics
Group

Handwritten signature/initials

ASBESTOS MONITORING REPORT

PLANT St. Louis #25

DATE _____

PERSONAL PUMP _____

MODEL _____

NO. _____

Control Number	Operation	Employee's Name	Flow Rate	Sample Time	Exposure %	Type of Controls	Fibers Per/cc	Date
154-79	Mixer Open	J. Hefner	1.64	1275		1	0.126	5/14/79
155-79	Mand. Puller	P. Chabolla	2.10	235		3	0.032	✓
156-79	Relief	J. Hefner	1.42	120		2	0.17	✓
157-79	Cylinder Open	E. Hefner	2.0	235		3	0.104	✓
158-79	Relief	J. Hefner	1.82	170		2	0.184	✓
159-79	Mixer Open	J. Hefner	1.64	140		1	0.36	✓
160-79	"	"	1.64	40		1	0.28	✓
161-79	Didn't use this sample			number		1		
521	White room	Area	2.21	230		1	.030	7/16/79
522	Mixers	"	2.0	230		1	.025	"
523	Can pile	"	2.18	375		8	.035	"
524	yard	Area	2.0	210		8	.029	"
525	Shifting Sand	Area	1.92	220		2	.039	7/16/79
526	yard	"	2.0	170		8	.015	7/16/79
527	Office	"	2.0	470		8	—	7/17/79
528	Shifting	"	2.18	470		4	.005	7/17/79
529	Blank						14/100 f/ft	"

REMARKS:

CTD018483

Pipe & Plastics
Group

[Signature]

PLANT St. Louis 259

No.

MODEL

PERSONAL PUMP

No.

MODEL

PERSONAL PUMP

[illegible]

REMARKS:

CTD018484

Pipe & Plastics
Group

CertainTeed Industrial Hygiene

PUMP CALIBRATION

Precalibration

Location: St. Louis 259

Date: 7/26 - Time: _____

Stopwatch used Meyan

J. Nodden
(Signatures)

Postcalibration

Location: _____

Date: _____ Time: _____

Stopwatch used _____

(Signatures)

Collection Medium Lot No.	Sampling Device & No.		Rotameter Setting	Time in Minutes For Bubble To Displace 1.0 Or 0.1 Liter		Flow Rate cc/min or l/min		Sampling Rate
	4/26	4/27	4/28	4/29	4/30 PRE POST	5/1 PRE POST	5/2 PRE POST	5/4
4973	.25	.26	.25	.25	.25	.25	.24	.25
4976	.25	.24	.24	.25	.25	.25	.24	.25
4978	.25	.26	.27	.28	.28	.28	.28	.28
4979	.25	.24	.25	.28	.27	.28	.30	.31

CTD018485

Q8K 70320

This AA filter in this product has been tested using the N I O S H method for clarification and determination of asbestos.

The background count of N I O S H defined fiberlike structures has been determined to be less than 0.1 "fibers" per Porton reticle field.

Cat. No. AAWP03700
MAWP037A0

6557

#47-96
1979

Rev. 2/78

CTD018486

Gelman Lot # 81889, filter
Phillips pad Lot # 27993

367-3085

771 7600

CTD018487

ST. LOUIS AIR SAMPLES - 1993

in computer
checked & corrected
SD
7/8/93

27-PT-11