

INTERNAL
CORRESPONDENCE

APR 14 1983

UNION CARBIDE CORPORATION PC BOX 579, 4625 ROYAL AVE.
METALS DIVISION NIAGARA FALLS, NEW YORK 14302

To (Name)	Messrs. R. J. Kronkhyte	Date	April 11, 1983
Division	J. L. Myers	Originating Dept.	New Product Development
Location	UCC - Metals Division	Area	
Area	King City, CA	Subject	Asbestos Dust Control Results of NIOSH Air Monitoring Survey of King City Bagging Room Operations
Copy to	Messrs. G. L. Dickson T. J. Kagetsu D. F. Kapral R. O. Marsten H. B. Rhodes J. B. Rouse F. L. Smith W. C. Thurber		Project No. 530-10903

During the week of January 23-30, 1983, NIOSH ran a three-day air monitoring survey of the plant bagging operations. Objectives of the survey, test protocols and operating conditions are discussed in the attached report issued by the writer February 3, 1983.

The fiber count results for March 25, 26 and 27 are shown in Tables I, II and III, respectively. Ceiling value concentrations in the main circuit bagging area ranged from 0.4 to 6.8 fibers/cc for personal samples. Personal ceiling exposures for the RG-244 bagging operator were between 1.1 and 6.6 fibers/cc. Personal time weighted averages (TWA) based on approximately four hours of testing per day demonstrated levels in excess of 2.0 fibers/cc in four separate instances. TWA's for operators in the main circuit bagging room ranged from 0.5 to 3.6 fibers/cc. TWA's for the RG-244 bagger were 1.4 to 3.8 fibers/cc.

The high exposures are attributed for the most part to various mechanical problems evident during the course of these tests; the details of which are covered in the preliminary report appended. However, these tests demonstrate the need for some sort of continuous monitoring program. It would, in my opinion, behoove us to proceed with a plant evaluation of continuous air monitoring equipment as soon as possible.

Tom Cooper, project leader of the NIOSH survey team, contacted me March 30th. They have completed the dust counts and their results are considerably lower than ours. According to Tom, their highest ceiling value was 2.7 fibers/cc and the TWA's were all less than 0.6 fibers/cc. I did not discuss our findings with him. He is sending us copies of their raw data this week. The final report will not be forthcoming for at least another month or two.

UCC 001383

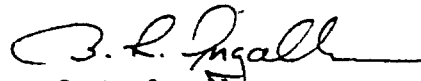
Messrs. R. J. Kronkhyte
J. L. Myers

-2-

April 11, 1983

In view of the discrepancies between labs, we recounted several of the more heavily loaded filters. These results are shown in Table IV. Generally speaking, the replicate counts demonstrated correlations with original test results within the accepted limits of variance. With one exception, Sample D-60, the replicate counts were significantly lower than the original count. This sample contained a considerable amount of fine fiber with diameters approaching the visible detection limit at 400X magnification and was very difficult to count. This type of fiber was detected in some of the other RG-244 samples as well. With fine particulate of this nature, every field viewing area has to be scrutinized in detail at several focal planes. Normally, a sample can be counted in 10 to 20 minutes. By comparison, it took approximately an hour to count D-60.

As you are aware, our fiber does not exhibit the morphology typical of Canadian chrysotile. Coalinga asbestos has a much smaller mean diameter and fiber length distribution. Because of this and the fact that most counting laboratories are not familiar with Coalinga asbestos, their fiber counts are often artificially low. I should point out that it is possible that the NIOSH counts are correct. Prior studies have shown that the variance between simultaneous multiple samples can be quite high. In this instance, however, I think the problem is related to differences in the counting procedure rather than between samples. It would appear that the NIOSH counting lab missed a significant amount of asbestos fiber in some of the samples.


B. L. Ingalls

BLI:et
Attach.

TABLE I

KING CITY AIR MONITORING TEST RESULTS - MARCH 25, 1983

Sample No.	Main Circuit Bagging Area				RG-244 Circuit Bagging Area			
	Sample Identification	Time		Fibers/cc of air	Sample No.	Sample Identification	Time	
		On	Off				On	Off
D-54	Personal - L. Trevino-bagger	8:05	10:01	0.7	D-60	Personal - J. Godinho-bagger	10:34	12:01
D-44	Personal - L. Trevino-bagger	13:47	15:34	6.8 ⁽¹⁾	D-52	Personal - J. Godinho-bagger	13:50	15:32
				(TWA = 3.6)				(TWA = 3.8)
D-45	Personal - H. Segobia-palletizer	8:13	10:01	0.4	D-69	Area - near broken bag disposal unit	10:31	11:56
D-64	Personal - H. Segobia-palletizer	13:45	15:34	0.6	J-54	Area - near broken bag disposal unit	13:51	15:31
				(TWA = 0.5)				(TWA = 0.2)
D-56	Area - at end of bag shaper	8:04	10:07	0.1	D-59	Area - over bagging unit	10:33	11:58
D-51	Area - at end of bag shaper	13:46	15:38	0.3	J-34	Area - over bagging unit	13:54	15:31
				(TWA = 0.2)				(TWA = 0.2)
D-63	Area - over bagging unit	8:11	10:05	0.2				
D-65	Area - over bagging unit	13:42	15:39	0.3				
				(TWA = 0.3)				

(1) Bagger entered product bin for ~ 20 minutes during this sample period.

(2) RG-244 bagging unit not working properly. Some bag breakage occurred during this period.

TABLE II

KING CITY AIR MONITORING TEST RESULTS - MARCH 26, 1983

Main Circuit Bagging Area					RG-244 Circuit Bagging Area				
Sample No.	Sample Identification	Time		Fibers/cc of air	Sample No.	Sample Identification	Time		Fibers/cc of air
		On	Off				On	Off	
J-36	Personal - L. Trevino-bagger	8:05	10:00	2.8	H-14	Personal - J. Godinho-bagger	8:05	9:56	1.8
K-41	Personal - L. Trevino-bagger	12:56	15:07	1.4	J-32	Personal - J. Godinho-bagger	12:52	15:01	1.1
		(TWA = 2.1)					(TWA = 1.4)		
D-57	Personal - H. Segobia-palletizer	8:01	10:00	1.3	K-31	Area - Near broken bag disposal unit	8:00	9:56	0.2
D-74	Personal - H. Segobia-palletizer	12:58	15:09	1.1	C-23	Area - Near broken bag disposal unit	12:49	15:02	0.3
		(TWA = 1.2)					(TWA = 0.3)		
UCC 8-1386	Area - Over main bagging unit	7:41	9:58	0.6	J-50	Area - Over bagging unit	8:01	9:56	0.1
L-74	Area - Over main bagging unit	12:42	15:10	0.4	J-20	Area - Over bagging unit	12:50	15:03	0.1
		(TWA = 0.5)					(TWA = 0.1)		
J-53	Area - Over Auger packer	7:46	9:58	0.9					
K-35	Area - Over Auger packer	12:43	15:10	1.3					
		(TWA = 1.1)							
D-50	Area - Over bag shaper	7:43	9:56	0.4					
K-36	Area - Over bag shaper	12:44	15:08	0.2					
		(TWA = 0.3)							

TABLE III

KING CITY AIR MONITORING TEST RESULTS - MARCH 27, 1983

Sample No.	Main Circuit Bagging Area				RG-244 Circuit Bagging Area				
	Sample Identification	On	Off	Fibers/cc of air	Sample No.	Sample Identification	On	Off	Fibers/cc of air
E-65	Personal - L. Trevino-bagger	8:01	9:59	1.6	D-40	Personal - J. Godinho-bagger	8:11 9:31	8:14 10:01	5.1 ⁽¹⁾
A-16	Personal - L. Trevino-bagger	13:15	15:19	1.1 (TWA = 1.3)	J-72	Personal - J. Godinho-bagger	13:28	15:14	1.4 (TWA = 2.3)
C-30	Personal - M. Segobia-palletizer	8:02	10:01	0.5	B-96	Area - Near broken bag disposal unit	8:02	9:56	0.7
K-45	Personal - M. Segobia-palletizer	13:18	15:20	0.9 (TWA = 0.7)	C-26	Area - Near broken bag disposal unit	13:16	15:13	0.4 (TWA = 0.5)
H-10	Area - Over main bagging unit	8:03	10:10	<0.1	B-53	Area - Over bagging unit	8:03	8:14	5.5 ⁽¹⁾
J-67	Area - Over main bagging unit	13:16	15:21	0.9 (TWA = 0.5)	L-85	Area - Over bagging unit	13:16	15:14	0.1 (TWA = 0.5)
C-32	Area - Over Auger packer	8:03	10:08	0.1					
J-66	Area - Over Auger packer	13:16	15:21	1.2 (TWA = 0.7)					
K-30	Area - Over bag shaper	8:05	10:06	<0.1					
D-76	Area - Over bag shaper	13:18	15:22	0.5 (TWA = 0.3)					

(1) RG-244 bagging unit had a leak and repairs took most of the morning.

TABLE IV

UCC REPLICATE FIBER COUNTS

<u>Sample No.</u>	<u>Original Count</u> ⁽¹⁾	<u>Replicate Count</u> ⁽²⁾	<u>Replicate Count</u> ⁽³⁾
J-36	3.1	1.3	2.7
D-40	5.1	4.0	6.2
D-44	6.8	6.7	8.1
D-60	6.6	3.4	4.6
D-64	0.6	0.6	0.6

(1) Performed by F. L. Smith - March 11, 1983

(2) Performed by F. L. Smith - March 29, 1983

(3) Performed by B. L. Ingalls - March 30, 1983

Niagara Falls, New York, February 3, 1983

REPORT NO. 83-M-4

FILE NO. 530-10903

UNION CARBIDE CORPORATION

METALS DIVISION

TECHNOLOGY DEPARTMENT - PRODUCT DEVELOPMENT

TRIP TO: King City, California

DATE: January 23-30, 1983

BY: B. L. Ingalls

PURPOSE: NIOSH Monitoring Survey

INTRODUCTION

NIOSH ran a three day air monitoring survey of the plant bagging operations. The objective of this study is to document effective methods currently in practice for the control of airborne dust and further promote their use in industry.

DISCUSSION

NIOSH personnel in attendance:

Thomas C. Cooper, Mining Engineer (Project Leader) NIOSH, 4676 Columbia Parkway, Cincinnati, OH 45226, Telephone: 513-684-4320

Paul E. Caplan, P.E., C.I.H. Res. IND. Hygienist (address, same as above) Telephone: 513-684-4442

Alfred A. Amendola, P.E. Chief, Materials Processing, (address, same as above) 513-684-4224

Pierre L. Belanger, M.S., Industrial Hygienist, NIOSH, DHEW, region IX 50 United Nations Plaza, San Francisco, CA 94102, telephone: 415-556-3781

Test Protocol

Air samples were obtained on bagging personnel in both the RG-244 and Main circuit bagging areas for approximately two consecutive hours in the morning and again in the afternoon of January 25, 26 and 27, 1983. A total of eighteen stationary area locations were also monitored at the same times in the two bagging rooms. NIOSH collected a total of 120 area and 18 personnel samples over the course of the three days. Samples were collected by Union Carbide simultaneously on the three bagging operators and at five of the stationary area points monitored by NIOSH totaling 47 samples in all. Area sampling locations are shown in attached schematics of the RG-244 and Main circuit bagging rooms.

Test Protocol cont'd

NIOSH also conducted tests for hood face-velocities, duct and static pressure measurements and pitot tube traverses of the ventilation systems in the two bagging areas.

NIOSH used MSA model G pumps calibrated to a setting of 1.5 L/m. UCC used MSA model G and new Gilian model HF 113T pumps also set at 1.5 L/m. Milliporemembrane filters of 0.8 micron porosity were used throughout.

Sample identifications and test information regarding sampling times, locations, and other pertinent data are appended. Photographs were taken by NIOSH of the various test locations and negatives were left with UCC for editing prior to release.

Operating Conditions

January 25, 1983- Weather conditions: temperature low 60's with scattered clouds and light to moderate winds (5-15 mph).

The RG-244 bagging unit was not performing properly during the grave shift resulting in excessive bag breakage. The problem was resolved before testing commenced but some breakage did occur during the day. Pellet cooler broke down requiring approximately 1 1/2 days to repair.

Bauer mill seals failed sometime during later part of the grave shift. Both Main circuit and RG-244 products were contaminated with oil necessitating a temporary shut-down and purging of the circuits. The Bauer was bypassed for the remainder of the week while repairs were made. As a result, only RG-244 and SG-103.5 were produced during the monitoring tests. The Black and Stoker packers were used for the main circuit material during the morning of the 25th. Switched to the Auger packer and plastic bags in the afternoon which continued for the remainder of the week. The main circuit bagger went into the product bin during the last 20 minutes of the morning test (sample P-1, 8:05 - 10:01am).

January 26, 1983 - Weather cloudy with a slight drizzle in the afternoon. Temperatures ranged from high 50's to mid 60's. Winds medium to high with gusts 10-30 mph. Some dusting noticed late morning in RG-244 bagging area. A Raymond mill was being repaired and considered a possible source of the problem.

RG-244 bagger went inside the bagging unit temporarily (2-5 minutes) during the morning test. (Sample P-3, 8:05-9:56 am). RG-244 rotolouvre drier was not operating properly. Firing unit repeatedly kicking out causing erratic moisture control. Ultimately, it was repaired during the course of the day.

The main circuit ventilation duct for the broken bag disposal unit was found to be plugged several feet during pitot tests. A considerable dust cloud was generated in the area for approximately 2-3 minutes while the duct was being cleaned at 3:05 - 3:08 pm.

January 27, 1983 - Rain light to heavy during the morning with winds up to 25-35 mph. Temperature 50-55° Cloudy with higher temperatures and intervals of sunshine during the afternoon.

RG-244 bagger unit leaking asbestos fines. Considerable dusting in bag room during grave shift; fines on the rafters and floor etc. Windy conditions caused dust swirling effects in the bag room. Testing was terminated for

approximately 1 1/2 hours while repairs were made to the bagging unit. NIOSH subsequently decided to discard morning samples obtained in the RG-244 area because of abnormal conditions stated.

Preliminary Observations

Dust and hood velocities measured by NIOSH were found in general to be within design specification limits established by UCC Engineering.

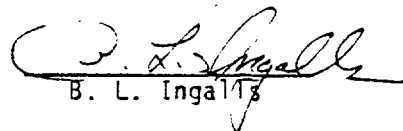
NIOSH Comments:

In general, plant dust controls and work practices were good, but could be improved in some areas. No serious problems were noted. Suggestions included:

1. A ventilation hood over the RG-244 broken bag disposal unit.
2. Modification of the air duct pickup system for the main circuit broken bag disposal system to prevent clogging.
3. The addition of plastic closure strips at the openings of the bag shapers and shrink wrap ovens where not already in use.
4. Bar to be installed across RG-244 bagger hood opening to prevent operators from entering the unit during cleaning.
5. Removal of an elbow in the air duct hose to the RG-244 bagger cone to improve flow.
6. Eliminate spillage from RG-244 bag spouts between packer and weighing scale (work practice problem).
7. An enclosure or hood for the RG-244 Micro-Pulverizer equipment (UCC suggestion).
8. Main circuit bagger enclosure exhaust duct slide gate requires some sort of locking mechanism to prevent accidental closing.
9. Exhaust dust catcher under main circuit straightening belt just before shrink wrapping device not working properly.

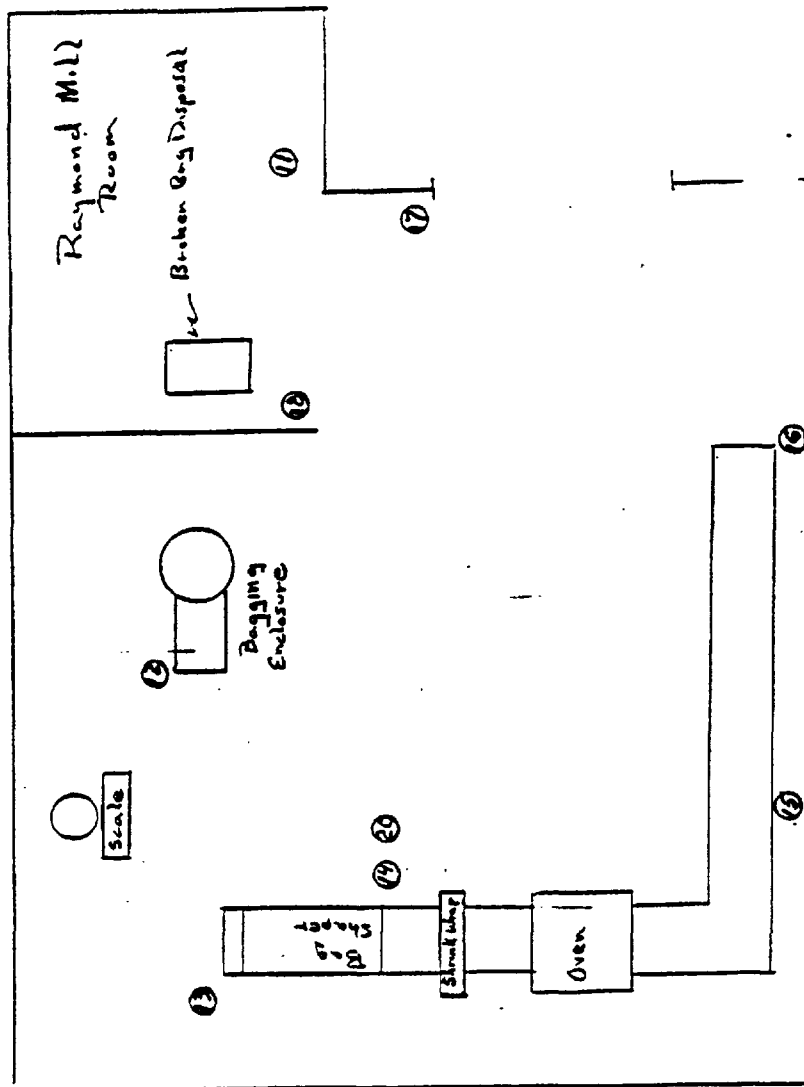
CONCLUSIONS

Conclusions are pending completion of the fiber counts and compilation of the test results. At such time, the results of the two laboratories will be exchanged for comparative purposes.

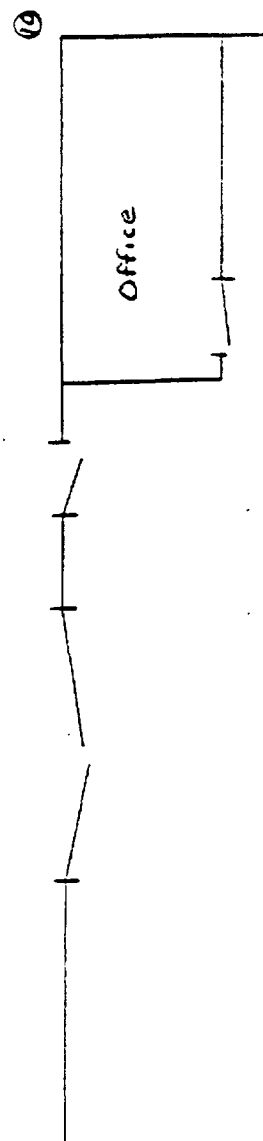
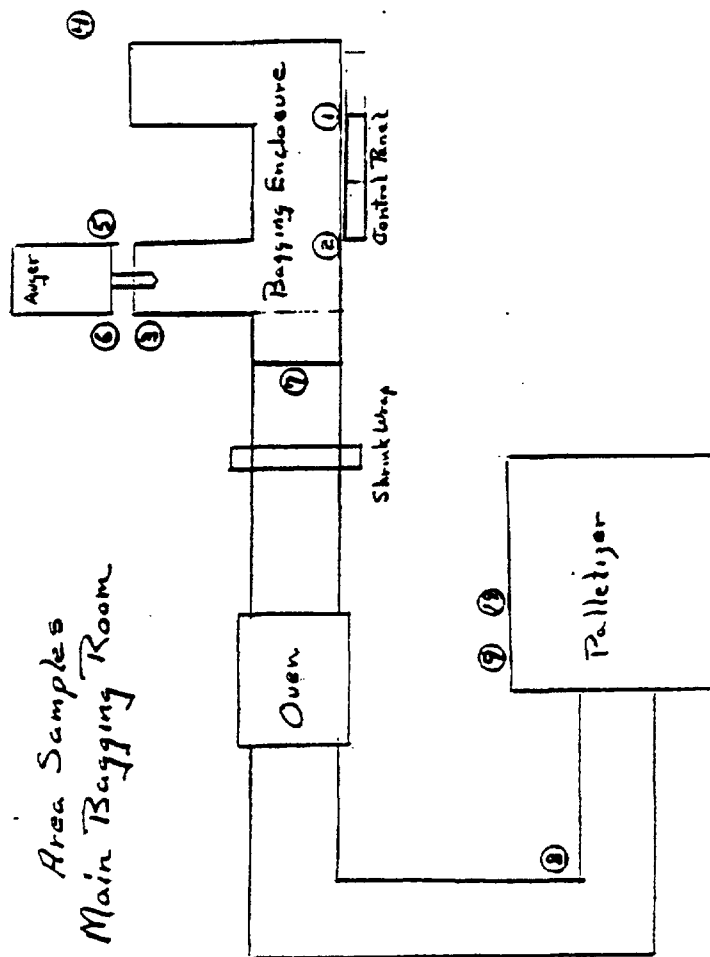

B. L. Ingalls

/j1

Area Samples
RG-244 Bagging Room



Area Samples
Main Bagging Room



ASBESTOS

PERMISSIBLE EXPOSURE LIMIT(S)

WORKPLACE CONDITIONS:

TWA!

Colloids

ASIS:

MSHA___ OSHA___ STATE___ 'UCC___

OTHER ALISA

Scheduled Hours Per Shift: _____

Count Date	Concentration
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Fibers	Fiber Fields	Fiber Fields (mm ²)	F/cc	% of
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11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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31/1/77	✓
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UCC 001394

ASBESTOS INDUSTRIAL HYGIENE SAMPLE SUMMARY

IDENTIFICATION

PHANT: King City ID.#: 0401062
Worker Sampled: Maxwell Sargent
Soc. Sec. #: 544-44-4560
Job Description: 018 Palletizing (M44)
Sample Type: Personal Area
Sampled By: Q.E. Date: 1/25/42
Counted By: Q.E. Date: 3/11/42

PERMISSIBLE EXPOSURE LIMIT(S)

TWA: _____
 Calligs: _____
 ASIS: _____
 MSHA _____ OSIA _____ STATE _____ UCC _____
 OTHER *MSA*

WORKPLACE CONDITIONS:

Operations: Normal ___ Nut Normal ☒
 Explain Tamoxifen oil *
 Ventilation: Type Exhaust-Signature
 Normal ___ Not Normal ___
 Explain ___

WEATHER CONDITIONS:

Precipitation Cloudy Partly Cloudy Clear —
Winds Calm Light Medium High — "Temperature 60 °F

Scheduled Hours Per Shift: _____

Gratula Field Area: 0038 ² Type: WB

- SAMPLING INFORMATION					- INPUT DATA					- RESULTS				
Sample I.D.	Job Location	Respirator		Pump	Time		Flow Rate (lpm)	Count Data		Duration (Min)	Concentration		Work Description/Remarks	
		Type	% Use		Start (Hr:Min)	Stop (Hr:Min)		Fibers	Fields		F/cc	% of PEL		
D-43 P-2				Canister T-3373	8:13	10:01	1.5	28.5	100	108	396		N105H #915 Relatively SG-1000	
B-61 P-2				Canister T-3373	11:43	15:14	1.5	47	100	109	167		#1022 same	
									TV-A		522			
													* Pump shut down around noon for repairs	
													Pellet cooler also broke down during the day repairing ~ 1 1/2 days to repair	

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PERMISSIBLE EXPOSURE LIMIT(S)

WORKPLACE CONDITIONS:

TWA: _____
 Calling: _____
 BASIS:
 MSHA _____ OSHA _____ STATE _____ UCC _____
 OTHER ALSO

Operations: Normal ☒ Not Normal ☐
 Explain Normal crackling air
 Ventilations Type subcutaneous
 Normal ☒ Not Normal ☐
 Explain _____

WEATHER CONDITIONS:

Precipitation Cloudy Partly Cloudy Clear
Winds Calm Light Medium High ° Temperature ° F

Scheduled Hours Per Shift: _____

Graticule Field Area: 0038 mm^2 Type: UB

Form: UCC/MIS-011-82-1/2A

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PERMISSIBLE EXPOSURE LIMIT(S)

WORKPLACE CONDITIONS:

TWA

Coupling: _____

ASIS:

MSHA OSHA STATE UCC

OTHER None

100

Scheduled Hours Per Shift:

— 211 —

Count Data	Duration	Concentration
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Fibers	Fibers (mm)	F/cc	% of
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PEL	
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TwA, 189

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PERMISSIBLE EXPOSURE LIMIT(S):

Plant: Knox City I.D.#: 0421062

Worker Sampled: _____

Soc. Sec. # 1

Job Description: -

Sample Type: Personal Area ✓

Sampled By: CL Date: 1/25/13

Counted By: Date: Gratticle Field Area: 0028 mm² Type: UB

Scheduled Hours Per Shift: _____

WORKPLACE CONDITIONS:

Operations: Normal ___ Not Normal ___

مقدمہ

Ventilation: Type 1

Normal ✓ Not Normal

Explica

WEATHER CONDITIONS:

Precipitation -- Cloudy -- Partly Cloudy ☒ Clear --

Wind: Calm — Light — Medium — High —

... - SAMPLING INFORMATION - INPUT DATA -

[illegible]

PERMISSIBLE EXPOSURE LIMIT(S)

WORKPLACE CONDITIONS:

TWA: _____
 Callgts: _____
 ASIS:
 MSHA _____ OSHA _____ STATE _____ UCC _____
 OTHER: *ASIS*

Operations: Normal ___ Not Normal ___
 Explain Power bypassed
 Ventilations Type Exhaust - Siphon
 Normal ___ Not Normal ___
 Explain X

WEATHER CONDITIONS:

Precipitation ☒ Cloudy ☐ Partly Cloudy ☒ Clear ☐
Winds: Calm ☐ Light ☐ Medium ☒ High ☐ Temperature 60° F

Scheduled Hours Per Shift: _____

Graticule Field Area: 0.038 m^2 Type: WB

SAMPLING INFORMATION				INPUT DATA						RESULTS		
Sample I.D.	Respirator Type & Use	Pump Type I.O. #	Time		Flow Rate (lpm)	Count Data		Duration (min)	Concentration		Work Description/Remarks	
			Start (Hr:min)	Stop (Hr:min)		Fibre	Flute		F/cc	% of PEL		
J-76 P-1		Gibco T 2429	8:05	10:00	1.5	106	50	11X	2765		Walt #876 Ringing S.C.-10B-S (Angerback)	
K-41 P-1		Gibco T 2429	12:56	15:07	1.5	1255	100	131	1437		#914 Same	
							TWA	2058				
											* Ventilation duct per Graham	
											bag department - in new vent	
											were plugged several feet from	
											work properly. They have been	
											improved on 1/23/84 available	

ASBESTOS | INDUSTRIAL HYGIENE SAMPLE SUMMARY

[illegible]

UCC 001403

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ASBESTOS INDUSTRIAL HYGIENE SAMPLE SUMMARY

Page 11 of 24

IDENTIFICATION

Plant: Kaiser I.D.#: C401062
 Worker Sampled: _____
 Soc. Sec. #: _____
 Job Description: _____
 Sample Type: Personal Area X
 Sampled By: C. J. E. Date: 4/26/83
 Counted By: _____ Date: 5/14/83

PERMISSIBLE EXPOSURE LIMIT(S)

TWA: _____
 Ceiling: _____
 BASIS:
 MSHA — OSHA — STATE — UCC —
 OTHER NIOSH

WORKPLACE CONDITIONS:

Operations: Normal — Not Normal —
 Explain: Excess by Process
 Ventilation: Type Exhaust System
 Normal — Not Normal —
 Explain: Exhaust System

WEATHER CONDITIONS:

Precipitation: Cloudy Partly Cloudy Clear
 Winds: Calm Light Medium High Temperature 60°F

Scheduled Hours Per Shift: _____

Graticle Field Area: 1028 m² Type: WB

SAMPLING INFORMATION				INPUT DATA				RESULTS			
Sample I.D.	Respirator	Pump	Time	Flow	Count Data	Duration	Concentration	Work Description/Remarks			
Job Location	Type	I.D.#	Start (hr:min)	Stop (hr:min)	Feet	Flashes	F/cc	% of PEL			
D-65 B-142	Canister	T-3326	7:41	9:38	100	137	1.95		NIOSH		
									40.2 & 9.24	Clear Area beginning work	
L-24 B-142	Canister	T-3326	12:12	15:10	100	168	3.60		45.2 & 8.94	Same	
										last count generated	
										last count of unit in	
										15:05 - 15:08 during end of bagging	
										of broken bag disposed	
										in dust	

PERMISSIBLE EXPOSURE LIMIT(S)

TWA: _____
 Ceiling: _____
BASIS:
 MSHA: _____ OSHA: _____ STATE: _____ UCC: _____
 OTHER: _____ *Niessl*

BASIS:

MSHA___ OSHA___ STATE___ UCC___
OTHER ALSO

Scheduled Hours Per Shift: _____

Precipitation 4 Cloudy Partly Cloudy Clear
Winds: Calm Light Medium High Temperature 65.0 °F

Gratula Field Area: 1033 Type: WE

SAMPLE INFORMATION				INPUT DATA				RESULTS			
Sample I.D.	Respirator	Pump	Time	Flow	Count Data	Duration	Concentration	Work Description/Remarks			
Job Location	Type	Type	Start (hr:min)	Rate (lpm)	Fibers	Field	F/cc				
	% Use	I.D. #	Stop (hr:min)				% of PEL				
R-30 A-2		7-2272	7:43 9:56	1.5	33.5	100	133 .378	11105 ft	#921	Clear Bay slope	
K-36 A-7		7-2272	12:44 1:50	1.5	16.5	100	164 .172	#925		separate	
						TEVA	.271			about cloud generated dust	
										couple of minutes later	
										unloading of tank today	
										disposal on that	

ASBESTOS INDUSTRIAL HYGIENE SAMPLE SUMMARY

Page 27 of 28

IDENTIFICATION

Plant: Key City I.D.#: 674062
 Worker Sampled: John Graciano
 Soc. Sec. #: 55-1-17-2631
 Job Description: 26184 R-type
 Sample Type: Personal Area: ---
 Sampled By: C. J. S. Date: 1/26/63
 Counted By: --- Date: 3/10/83

Graticle Field Area: 002.6 m² Type: WB

PERMISSIBLE EXPOSURE LIMIT(S)

TWA: ---
 Ceiling: ---
 BASIS:
 MSHA — OSHA — STATE — UCC —
 OTHER: MOSH

WORKPLACE CONDITIONS:

Operations: Normal — Not Normal ---
 Explain: Repaired furnace
 Ventilation: Type Exhaust system
 Normal 469 Not Normal ---
 Explain: noise intensity (hyperbolic line)

WEATHER CONDITIONS:

Precipitation: Cloudy — Partly Cloudy --- Clear ---
 Wind: Calm — Light — Medium — High --- Temperature: --- °F

SAMPLING INFORMATION				INPUT DATA				RESULTS			
Sample I.D.	Respirator	Pump	Time	Flow	Count Data	Duration	Concentration	Work Description/Remarks			
Job Location	Type	Type	Start (Hr:Min)	Stop (Hr:Min)	Rate (lpm)	Fibre	F/cc	% of PEL			
<u>11/14</u>	<u>---</u>	<u>---</u>	<u>8:55</u>	<u>9:56</u>	<u>1.5</u>	<u>100</u>	<u>1.824</u>		<u>MOSH</u>		
<u>P-3</u>									<u># 966</u>		
									<u>Repaired exhaust bagging unit for 3 minutes</u>		
<u>11/22</u>									<u># 946</u>		
<u>P-3</u>									<u>Summit</u>		
									<u>Light dust noticed in</u>		
									<u>open area, Summit</u>		
									<u>unknown. Followed up with</u>		
									<u>B. Clancy</u>		

Page 2 of 24

PERMISSIBLE EXPOSURE LIMIT(S)

WORKPLACE CONDITIONS:

TWA!

Callings: _____

IASIS:

MSHA__ OSHA__ STATE__ UCC__

OTHER 11/5/16

Scheduled Hours Per Shift: _____

—

Count Data	Duration	Concentration
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Fibers	Fields	(Mils)	F/cc	% of
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10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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551.071	12-71
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25	100	123	782	4
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TC11A	223
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Page 15 of 24

PERMISSIBLE EXPOSURE LIMIT(S)

WORKPLACE CONDITIONS:

Operations: Normal ___ Not Normal ___

3x010101

Ventilation: Type

Normal

Explain

100

100

FIELD —

מחיר – 100 ₪

RESULTS

WILLIAM H. WATSON

1940-55

1

Figure 1

11

Abstract

Abstract

Abstract

Form: UCC/M11S-OH-82--4/2A

PERMISSIBLE EXPOSURE LIMIT(S)

Gratulate Field Area: 0038 ^{mm²} Type: WA

Scheduled Hours Per Shift: _____

WORKPLACE CONDITIONS:

Explain

WEATHER CONDITIONS:

Precipitation ~~Cloudy~~ Partly Cloudy Clear
Wind: Calm Light Medium High Temperature 50 F

RESULTS

[illegible]

Page 10 of 24

PERMISSIBLE EXPOSURE LIMIT(S)

WORKPLACE CONDITIONS:

Worker Sampled: _____

Soc. Sec. # _____

Job Description: _____

Sample Type: Personal Area ☒

Sampled By: CC Date: 1/27/83

Counted By: 78 Date: 3/16/

1

Grasshopper Field Area: 0.058 ^{mi²} Type: WB

SAMPLING INFORMATION

Sample I.D.	Respirator	Pump	Time
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Job Location	Type	Type	Start
			(MM-YY)

BRUN 1617	11.11.11	2.000
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1375 8.00

Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
1990	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100

13.18
6.12.17
D 27

77 5727

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Author	Year	Country	Sample Size	Study Design	Findings
Smith et al.	2001	USA	1,200	Longitudinal	Increased risk of depression in children of parents with mental illness.
Johnson et al.	2003	UK	800	Cross-sectional	Higher rates of anxiety disorders in children of parents with anxiety.
Williams et al.	2005	Canada	1,500	Family Study	Genetic factors play a significant role in the transmission of mood disorders.
Miller et al.	2007	Australia	900	Longitudinal	Environmental factors, such as parenting style, mediate the risk of mental illness.
Chen et al.	2009	China	2,000	Cross-sectional	Stressful life events increase the risk of mental health problems in children.
Lee et al.	2011	South Korea	1,100	Family Study	Parental mental illness is associated with higher rates of substance use in offspring.
Wong et al.	2013	USA	1,300	Longitudinal	Early intervention for children of parents with mental illness can reduce long-term risk.
Nguyen et al.	2015	Vietnam	1,000	Cross-sectional	War-related trauma in parents is linked to mental health issues in their children.
Patel et al.	2017	India	1,400	Family Study	Cultural factors influence the expression and reporting of mental illness.
Kim et al.	2019	South Korea	1,600	Longitudinal	Parental mental illness increases the risk of adolescent delinquency.
Alvarez et al.	2021	Spain	1,200	Cross-sectional	Family environment significantly impacts the mental health of children.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	

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FURTH UCC/MTS - 011-62-4/2A

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PERMISSIBLE EXPOSURE LIMIT(S)

WORKPLACE CONDITIONS:

TWA: _____
 Cellings: _____
BASIS:
 MSHA — OSHA — STATE — UCC —
 OTHER *Chesht* _____

Operations Normal ___ Not Normal ✓
Explain hopper went out working properly

Ventilations Type Exhaust
Normal ___ Not Normal ✓
Explain hopper cannot be being closed

WEATHER CONDITIONS:

Precipitation ~~L~~ Cloudy — Partly Cloudy — Clear —
Winds: Calm — Light — Medium — High — Temperature 53 °F

Scheduled Hours Per Shift: _____

Graticule Field Area: 20.58 ^{mm}2 Type: WR

[illegible]

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PERMISSIBLE EXPOSURE LIMIT(S)

WORKPLACE CONDITIONS:

TWA: _____

GPO SAC #:

Job Description: _____

Sampled By: C.E. Date: 1/27/83

—

Graticule Field Area: 0.18 ^{cm²} Type: WS

SAMPLING INFORMATION

Sample I.D.	Respirator	Pump	Time
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Job Location	Type	Type	Start

7-53

0.12 63449 0.02

[illegible]

115W
-115W
55-7

6141
45713
21-H

Case	Age	Sex	Duration of illness	Site of lesion	Pathological findings	Microscopic findings	Immunohistochemical findings	Diagnosis
1	65	M	10 years	Right parietal lobe	Large, well-circumscribed, solid, grayish-white mass	Neurons with eosinophilic cytoplasm and prominent nucleoli	Neurons positive for GFAP, S-100, and vimentin	Neurocytoma
2	55	F	5 years	Left frontal lobe	Well-circumscribed, solid, grayish-white mass	Neurons with eosinophilic cytoplasm and prominent nucleoli	Neurons positive for GFAP, S-100, and vimentin	Neurocytoma
3	45	M	3 years	Right temporal lobe	Well-circumscribed, solid, grayish-white mass	Neurons with eosinophilic cytoplasm and prominent nucleoli	Neurons positive for GFAP, S-100, and vimentin	Neurocytoma
4	35	F	2 years	Left parietal lobe	Well-circumscribed, solid, grayish-white mass	Neurons with eosinophilic cytoplasm and prominent nucleoli	Neurons positive for GFAP, S-100, and vimentin	Neurocytoma
5	25	M	1 year	Right frontal lobe	Well-circumscribed, solid, grayish-white mass	Neurons with eosinophilic cytoplasm and prominent nucleoli	Neurons positive for GFAP, S-100, and vimentin	Neurocytoma

1. The first step in the process is to identify the problem or issue that needs to be addressed. This involves gathering information and understanding the context of the problem.

Author	Year	Country	Sample Size	Age Range	Gender	Study Type	Findings
Smith et al.	2001	USA	1,200	18-25	Male	Survey	High levels of stress and anxiety reported.
Johnson et al.	2003	UK	800	26-35	Female	Interview	Significant increase in mental health issues.
Lee et al.	2005	Canada	1,500	19-30	Male	Survey	Stress levels correlated with job satisfaction.
Chen et al.	2007	China	900	20-30	Female	Survey	High prevalence of depression.
Wong et al.	2009	Australia	1,100	21-30	Male	Survey	Stress levels increased over time.
Miller et al.	2011	USA	1,300	22-31	Female	Survey	Significant correlation between stress and health.
Kim et al.	2013	South Korea	1,400	23-32	Male	Survey	High levels of job-related stress.
Ng et al.	2015	Singapore	1,600	24-33	Female	Survey	Stress levels linked to productivity.
Patel et al.	2017	India	1,700	25-34	Male	Survey	High prevalence of anxiety disorders.
Adams et al.	2019	USA	1,800	26-35	Female	Survey	Stress levels increased with age.
Thompson et al.	2021	UK	1,900	27-36	Male	Survey	Significant impact of stress on mental health.

1. The first part of the document is a title page. It contains the title of the document, the author's name, and the date of the document. The title is "The first part of the document is a title page. It contains the title of the document, the author's name, and the date of the document." The author's name is "The author's name is the name of the person who wrote the document." The date of the document is "The date of the document is the date when the document was written." The title page is the first page of the document and it is usually the most important page. It is the page that the reader sees first and it is the page that the reader will remember. The title page is the page that the reader will see first and it is the page that the reader will remember. The title page is the page that the reader will see first and it is the page that the reader will remember.

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Year	Number of cases	Percentage of cases
1990	10	10.0
1991	15	15.0
1992	20	20.0
1993	25	25.0
1994	30	30.0
1995	35	35.0
1996	40	40.0
1997	45	45.0
1998	50	50.0
1999	55	55.0
2000	60	60.0
2001	65	65.0
2002	70	70.0
2003	75	75.0
2004	80	80.0
2005	85	85.0
2006	90	90.0
2007	95	95.0
2008	100	100.0
2009	105	105.0
2010	110	110.0
2011	115	115.0
2012	120	120.0
2013	125	125.0
2014	130	130.0
2015	135	135.0
2016	140	140.0
2017	145	145.0
2018	150	150.0
2019	155	155.0
2020	160	160.0
2021	165	165.0
2022	170	170.0
2023	175	175.0
2024	180	180.0
2025	185	185.0
2026	190	190.0
2027	195	195.0
2028	200	200.0
2029	205	205.0
2030	210	210.0
2031	215	215.0
2032	220	220.0
2033	225	225.0
2034	230	230.0
2035	235	235.0
2036	240	240.0
2037	245	245.0
2038	250	250.0
2039	255	255.0
2040	260	260.0
2041	265	265.0
2042	270	270.0
2043	275	275.0
2044	280	280.0
2045	285	285.0
2046	290	290.0
2047	295	295.0
2048	300	300.0
2049	305	305.0
2050	310	310.0
2051	315	315.0
2052	320	320.0
2053	325	325.0
2054	330	330.0
2055	335	335.0
2056	340	340.0
2057	345	345.0
2058	350	350.0
2059	355	355.0
2060	360	360.0
2061	365	365.0
2062	370	370.0
2063	375	375.0
2064	380	380.0
2065	385	385.0
2066	390	390.0
2067	395	395.0
2068	400	400.0
2069	405	405.0
2070	410	410.0
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2090	510	510.0
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2100		

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