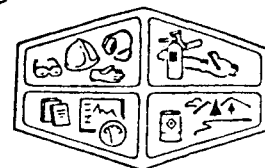




INTERNAL
CORRESPONDENCE

WV-0236 #38

"SHARE"



UNION CARBIDE CORPORATION

P.O. BOX 670, BOUND BROOK, NEW JERSEY 08805

SPECIALTY CHEMICALS DIVISION

To [Name]

Mr. W. Bosserman

Date

March 30, 1983

Division

Location

Sistersville

Originating Dept.

SHARE

Area

Area

Copy to

Mr. W. H. Barton*

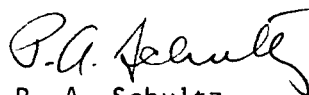
Subject

Asbestos Procedure

*Letter only

Per your recent request, I am enclosing the Bound Brook Procedure for Asbestos with background information giving salient points of our program in response to the OSHA citation of May 6, 1982.

Also included are personal monitoring data on typical asbestos removal jobs with references to figures in the addendum of the procedure. With this background data, we prescribe disposable dust respirators (3M No. 8710 or Norton No. R1070) as sufficient protection for up to five times the TLV.


P. A. Schultz

/rk
att.

CONTAMINANT NAME	TLV	AIR	8-HOUR	SAMP	EXP	PERSONNEL NAME	RESP	DATE	RECORD
		CONC.	T.W.A.	ICTL	HRS	WINS	WCRN		NUMBER

CONC. TIME

CENTRIFUGED PRODUCT.

ACRYLONITRILE 2.000 PPM 1.40 1.40 PPM 471 7 51 WENDLAND JR JJ YES 02/25/83 1038
R&D TAHT PROCESS 203

RECOVERED PRODUCT.

OPENED CENTRIFUGE WITH WET CAKE INSIDE CAUSING HIGHER EXPOSUR

ALUMINIUM OXIDE 10.000 MG/M3 5.00 MG/M3 105 FINNERTY JJ YES 01/07/83 0361
POLYETHYLENE B3 BAG DUMP 101

DUMPED 93 BAGS HYDRAL 710 INTO HOPPER. DUST FROM MT BAGS.
ESTIMATED TWA FROM 3HR/SHIFT EXPOSURE=1.5MG/M3

ANTIMONY OXIDE .500 MG/M3 .04 135 2 30 HARCAR S YES 12/14/81 0314
POLYETHYLENE B3 101

ANTIMONY OXIDE .500 MG/M3 .03 190 3 30 HARCAR S YES 12/14/81 0314
POLYETHYLENE B3 101

ASBESTOS 2.000 F/CC .40 F/CC 44 C5/18/82 0327
ASBESTOS REMOVAL 97 ABOVE TK-HEAD LEVEL FIBERS = 14000 AREA ABOVE 4FT.DIA X 6FT TANK. REF:FIG 4

ASBESTOS 2.000 F/CC .60 F/CC 45 05/19/82 0328
ASBESTOS REMOVAL 97 ABOVE TK-HEAD LEVEL FIBERS = 54000 AREA ABOVE 4FT.DIA X 6FT TANK. REF:FIG 4

ASBESTOS 2.000 F/CC .89 F/CC 48 48 BAHCCSHIAN WE YES C1/17/83 0363
MAINTENANCE AREA 5 101 TOTAL FIBERS=89640 REMOVED 50 LIN FT 1IN. INS. FROM 4IN.PIPE

CONTAMINANT NAME	TLV	AIR CONC	8-HOUR T.W.A. CONC.	SAMP TCIL HRS	EXP PERSONNEL NAME	RESP DATE	WORN	RECORD NUMBER
ASBESTOS	2.000 F/CC	.20	.03 F/CC	55	55 BARCH	YES	05/26/82	0329
ASBESTOS REMCVAL		1	COND FD 8 RET LINES		TOT FIBER: 25000 REMOVED 2 CLIN. FL. 1 IN. INSULATION. REF: FIG 6			
ASBESTOS	2.000 F/CC	.50	F/CC	38	38 BRZYCHCY	YES	05/18/82	0327
ASBESTOS REMCVAL		97	COND. TK CUTER COVER		FIBERS = 40000 STRIPPED OFF OUTER LAYER. 100 SCFT. REF: FIG 4			
ASBESTOS	2.000 F/CC	.80	.05 F/CC	9	9 BRZYCHCY	YES	05/18/82	0327
ASBESTOS REMCVAL		97	COND. TK CUTER COVER		FIBERS = 34000 REMOVED WIRE TO LOOSEN BLOCKS. REF: FIG 4			
ASBESTOS	2.000 F/CC	.80	.07 F/CC	44	44 BRZYCHCY	YES	05/19/82	0328
ASBESTOS REMCVAL		97	BLOCK INSUL-CLEANUP		FIBERS = 68000 REMOVED BLOCK INS. PLACED IN BAGS. REF: FIG 4			
ASBESTOS	2.000 F/CC	.80	.40	215	3 25 BRZYCHCY	SJ	YES	08/16/82 0344
ASBESTOS REMCVAL		203	DCW THERM. TANK					
ASBESTOS	2.000 F/CC	.15	F/CC	16	16 COLLINS	DT	YES	09/17/82 0347
ASBESTOS REMCVAL		41	DOW THERM. BOILER		TOT FIBER: 49800 PUNCHED 8 1 IN. HOLES IN 4 12 IN. X. 1 IN DISCS.			
ASBESTOS	2.000 F/CC	.54	.09 F/CC	35	1 10 COLLINS	DT	YES	09/17/82 0347
ASBESTOS REMCVAL		41	DCW THERM. BOILER		TOT FIBER: 39010 REMOVED 2 OF 4 OLD RUPTURE DISCS AND REPLACED WITH NEW. ASSUME SAME EXPOSURE FOR 2 DISCS NOT SAMPLES.			
ASBESTOS	2.000 F/CC	.05	F/CC	10	10 FOBERT	DA	YES	10/26/82 0348
ASBESTOS REMCVAL		CUT	400 LE-STEAM LINE		TOTAL FIBERS = 10800 REMOVED 9 LIN. FT. 2 IN. INS FROM 10 IN. PIPE			

CONTAMINANT NAME TLV AIR 8-HOUR SAMP EXP EXP PERSONNEL NAME RESP DATE RECORD
CONC T.W.A. TOTL HRS MINS WGRN NUMBER

ASBESTOS 2.000 F/CC CUT .02 .C1 F/CC 10 10 F0BERT DA YES 10/26/82 0348
ASBESTOS REMOVAL 400 LB. STEAM LINE TOTAL FIBERS= 500 REMOVED 8 LIN. FT 2 IN. INS FROM 10 IN. PIPE

ASBESTOS 2.000 F/CC TUNNEL 4.90 CONDENSATE LINES F/CC 31 31 FUNK YES 05/13/82 0325
ASBESTOS REMOVAL TOTAL FIBERS=317000 MONITOR ON RIGHT SIDE REFER FIG. 3
REMOVED 50 LINEAL FT 2 IN. INSULATION FROM HOT 4 IN. PIPING
SOME DUSTING FROM INCOMPLETE WETTING.

ASBESTOS 2.000 F/CC TUNNEL 3.40 CLEANUP .54 F/CC 31 31 FUNK YES 05/13/82 0325
ASBESTOS REMOVAL TOTAL FIBERS=224000 MONITOR ON LEFT SIDE REFER FIG. 3
LOADED DEBRIS INTO PLASTIC BAGS & DRUMS.

ASBESTOS 2.000 F/CC TUNNEL 4.8C CONDENSATE LINES F/CC 31 31 FUNK YES 05/13/82 0325
ASBESTOS REMOVAL TOTAL FIBERS=312000 MONITOR ON LEFT SIDE REFER FIG. 3
REMOVED 50 LINEAL FT 2 IN. INSULATION FROM HOT 4 IN. PIPING
SOME DUSTING FROM INCOMPLETE WETTING.

ASBESTOS 2.000 F/CC 55C .06 .0C F/CC 29 29 HCEHLER CW YES 01/25/83 0364
ENERGY SYSTEMS TOTAL FIBERS=4150 REMOVED 23 FT 1X1/8 IN. TAPE FROM WIRING

ASBESTOS 2.000 F/CC 55C .02 .0C F/CC 29 29 JACKSON ER YES 01/25/83 0364
ENERGY SYSTEMS TOTAL FIBERS=1660 OPERATED HIGH EFFICIENCY VACUUM CLEANER

ASBESTOS 2.000 F/CC 10 .01 .C1 F/CC 13 13 KEMPION R YES 10/29/82 0349
ASBESTOS REMOVAL TOTAL FIBERS= 166 REMOVED 22 LIN FT 1 IN. INS FROM 386 IN. PIPE

ASBESTOS 2.000 F/CC 1C .03 .01 F/CC 13 13 KUBECK L YES 10/29/82 0349
ASBESTOS REMOVAL

CONTAMINANT NAME TLV AIR 8-HOUR SAMP EXP EXP PERSONNEL NAME RESP DATE RECORD
CONC T.W.A. TOTL HRS MINS WCRN NUMBER
CCNC. TIME

TOTAL FIBERS= 913 REMOVED 22LIN FT 1IN. INS FROM 386IN. PIPE

ASBESTOS 2.000 F/CC 101 .79 .08 F/CC 47 47 WISHLER RL YES 01/17/83 0363
MAINTENANCE AREA 5 TOTAL FIBERS=78000 OPER FLT-PLACED SCRAP INS.INTO. FIBER DRUMS

ASBESTOS 2.000 F/CC 21 1.20 F/CC 34 34 PICKETT YES 05/11/82 0324
ASBESTOS REMOVAL TILL 2 RECEIVER TOTAL FIBERS= 88000 MONITOR ON RIGHT SIDE REFER FIG. 5
REMOVED 350 FT 1.5IN INSULATION

ASBESTOS 2.000 F/CC 21 2.20 F/CC 27 27 PICKETT YES 05/11/82 0324
ASBESTOS REMOVAL CONDENSATE LINES TOTAL FIBERS=125000 MONITOR ON LEFT SIDE REFER FIG. 2
REMOVED 9FT 1IN INSULATION

ASBESTOS 2.000 F/CC 21 .40 F/CC 31 31 PICKETT YES 05/13/82 0326
ASBESTOS REMOVAL STM LINE TO S-23 TOTAL FIBERS=23000LEFT SIDE.REMOVED 18LIN.FT 1IN.INSLN.REF:FIG.1

ASBESTOS 2.000 F/CC 21 .60 F/CC 31 31 PICKETT YES 05/13/82 0326
ASBESTOS REMOVAL STM LINE TO S-23 TOTAL FIBERS=40000RIGHTSIDE.REMOVED 18LIN.FT 1IN.INSLN.REF:FIG.1

ASBESTOS 2.000 F/CC 21 1.00 F/CC 34 34 PICKETT EJ YES 05/11/82 0324
ASBESTOS REMOVAL TILL 2 RECEIVER TOTAL FIBERS= 74000 MONITOR ON LEFT SIDE REFER FIG. 5
REMOVED 350 FT 1.5IN INSULATION

ASBESTOS 2.000 F/CC 21 2.10 F/CC 27 27 PICKETT EJ YES 05/11/82 0324
ASBESTOS REMOVAL CONDENSATE LINES TOTAL FIBERS=122000 MONITOR ON RIGHT SIDE REFER FIG. 2
REMOVED 9FT 1IN INSULATION

CONTAMINANT NAME	TLV	AIR CONC	8-HOUR T.W.A. CONC.	SAMP TOTL TIME	EXP HRS	EXP MINS	PERSONNEL NAME	RESP WCRN	DATE	RECORD NUMBER
ASBESTOS	2.000 F/CC	.02		F/CC 15	15		TEFFENHART L	YES	10/26/82	0348
ASBESTOS REMOVAL	CUT	400 LB. STEAM LINE								
										TOTAL FIBERS= 500 REMOVED 9 LIN. FT 2 IN. INS FROM 10 IN. PIPE
ASBESTOS	2.000 F/CC	.03		F/CC 10	10		TEFFENHART L	YES	10/26/82	0348
ASBESTOS REMOVAL	CUT	400 LB. STEAM LINE								
										TOTAL FIBERS= 664 REMOVED 8 LIN. FT 2 IN. INS FROM 10 IN. PIPE
ASBESTOS	2.000 F/CC	.40		F/CC 26	26		WINNICKI	YES	05/18/82	0327
ASBESTOS REMOVAL	97	COND. TK OUTER COVER								
										FIBERS = 23000 PUNCHED HCLES IN INSULATION TC WET. REF: FIG 4
ASBESTOS	2.000 F/CC	.30		F/CC 44	44		WINNICKI	YES	05/18/82	0327
ASBESTOS REMOVAL	97	COND. TK OUTER COVER								
										FIBERS = 25000 STRIPPED OFF OUTER LAYER 100SGFI. REF: FIG 4
ASBESTOS	2.000 F/CC	.80		F/CC 44	44		WINNICKI	YES	05/19/82	0328
ASBESTOS REMOVAL	97	BLOCK INSUL-CLEANUP								
										FIBERS = 74000 REMOVED BLOCK INS. PLACED IN BAGS. REF: FIG 4
ASBESTOS	2.000 F/CC	.50		F/CC 203	215	3	WINNICKI AO	YES	08/16/82	0344
ASBESTOS REMOVAL		DC THERM. TANK								
BARIUM HYDROXIDE PHENOLICS	.500 MG/M3	.60		MG/M3 6	6		GERENZA JR JJ	YES	12/01/82	0357
	41									
										DUMPED 6 BAGS + PARTIAL INTO BUGGY FOR BRN 2766 IN STILL 17. SOME DUSTING DUE TO NOT USING VENTILATED WEIGH STATION.
BARIUM HYDROXIDE PHENOLICS	.500 MG/M3	.18		MG/M3 44	44		ZUZA CJ	YES	12/02/82	0358
	41									
										DUMPED 6 BAGS + PARTIAL INTO BUGGY FOR BRN 2766 IN STILL 17. NO DUSTING DUE TO USE OF VENTILATED WEIGH STATION. SLIGHT DUST FROM STACKING EMPTY BAGS. ADDED WATER + STEAM TO DISSOLVE.

MAINTENANCE
PROCEDURE



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Effective: 1-26-79

Revised: 5/25/82

Approved:

By: S. J. Nadbielny
W. D. Neal

PLANT 312 BOUND BROOK
MAINTENANCE DEPARTMENT

ASBESTOS REMOVAL PROCEDURE

1.0 PURPOSE

To protect workers and others from inhalation of asbestos fibers, to safely remove and dispose of insulation materials which contain friable (easily crumbled or crushed into powder) asbestos and also to specify appropriate notification to regulatory agencies.

2.0 RESPONSIBILITY

It is the responsibility of the appropriate First Line Supervisors and Craftperson to control the safe removal, disposal and notification activities.

2.1 It is the responsibility of Environmental Protection/Occupational Health (EP/OH) to notify EPA of yearly amount of asbestos activity in the plant, per R. Burstein's letter (attached).

we need →

2.2 Where unanticipated asbestos removal work is to be conducted (i.e. notification was not given at beginning of calendar year or end of previous calendar year), the responsible person must notify the EP Department (R. Burstein) 45 days prior to demolition. (Notification requirement is for demolition work-not required for repair work.)

we need →

2.3 The responsible Supervisor shall provide the following information regarding the proposed work to the Environmental Engineer and/or the Industrial Hygienist:

1. Specific location of the job site.
2. Date and time interval of the work.
3. Initiate a Hazardous Work Permit

2.4 The responsible supervisor shall ensure that employees assigned to the work have medical clearance and respirator training.

3.0 PROCEDURES

3.1 Overlap of EPA and OSHA regulations - the regulations do overlap some, as the OSHA objective is protection of workers and others directly involved. The EPA objective is protection of people everywhere. These procedures consider all regulations for each agency; EPA and OSHA.

we need

MAINTENANCE

PROCEDURE

By: S. J. Nadbielny
W. D. Neal



PLANT 312 BOUND BROOK
MAINTENANCE DEPARTMENT

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Revised: 5-25-82

Approved:

ASBESTOS REMOVAL PROCEDURE

3.2 Personnel engaged in asbestos work.

3.2.1 Personnel engaged in asbestos work shall wear respirators and protective clothing according to the hazard rating of the job as follows:

Hazard Rating	Fibers Per cc	Protective Clothing	Respirator
1	≤ 10	Coveralls Optional	Air Purifying (3M Disposable)
2	> 10	Whole Body Coverings: Coveralls Head Covering Foot Covering Gloves	Air Purifying (3M Disposable)
3	> 20		Powered Air Purifying or Type C Supplied Air, Continuous Flow or Pressure-Demand
4 or Unknown Rating	> 200		Type C Supplied Air Continuous Flow or Pressure-Demand

we need all of this

To determine the hazard rating, compare the proposed job with typical jobs already monitored (See Addendum I). If the job is not similar to one listed, it must be treated as rated 4 requiring air-supplied respiratory protection.

3.2.2 If the proposed job cannot be identified with a corresponding job with a hazard rating, it shall be considered to have a rating of 4 until properly monitored for an initial determination of fiber level. While this determination is being made, it is mandatory that whole body covering including coveralls, head, foot, and hand covering and supplied breathing air be used.

3.2.3 The SHARE representative shall enter the hazard rating on the Hazardous Work Permit to release the job if the work does not have an established hazard rating. Successive Hazardous Work Permits shall be submitted to the SHARE representative or Emergency Coordinator for entry of hazard ratings in the event that the continuation of the job may result in a change of hazard ratings.

MAINTENANCE
PROCEDURE



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Approved:

By: S. J. Nadbielny
W. D. Neal

PLANT 312 BOUND BROOK
MAINTENANCE DEPARTMENT

ASBESTOS REMOVAL PROCEDURE

- 3.2.4 No outerwear shall be worn over disposable protective clothing.
- 3.2.5 Persons shall desuit for breaks and lunch within the protected work area except for jobs with Hazard Rating of 1.
- 3.2.6 Dispose of contaminated protective clothing in sealed, marked plastic bags, at the end of the workday.
- 3.2.7 Personnel engaged in asbestos work shall make every effort to minimize air borne particles.

3.3 Work Area Identification

- 3.3.1 Perimeter of hazardous area shall be identified with yellow barricade tape.
- 3.3.2 Warning signs (3.7.1) shall be posted at 50 feet intervals along barricade tape.

3.4 Removal of Insulation

- 3.4.1 Removal prior to demolition is required if excessive dusting is expected.
- 3.4.2 Insulation shall be wet down with "amended water" (1 oz. Tergitol Min-foam 2-X) per 5 gal. water, prior to removal and kept wet during removal, including that on equipment to be dismantled in sections exposing the broken edges of insulation.
- 3.4.3 Loose insulation stripped from equipment, pipe, etc. shall not be dropped or thrown to the ground.
- 3.4.4 Drop cloths are required on grating to catch falling debris.
- 3.4.5 Loose insulation shall be placed in plastic bags, sealed, tagged and placed in sealed fiber drums (so they won't break in loading) (3.7.2) prior to disposal.
- 3.4.6 Area cleanup shall be by wet or vacuum method - never use air, brooms or brushes. Waste shall be put in plastic bags, sealed and warning tags (or printing on bag) (3.7.2) applied.

MAINTENANCE

PROCEDURE

By: S. J. Nadbielny
W. D. Neal



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Approved:

ASBESTOS REMOVAL PROCEDURE

3.5 Disposal

3.5.1 Disposal is by U.C.C. EP Department.

3.5.2 Small amounts of insulation removed from repair work should be put in plastic bags and deposited in fiber drums.

3.5.3 The responsible person will notify EP Department (R. Burstein) of the number of drums (after completion of work).

3.6 Notify EP Department of annual amounts of insulation to be removed (by UCC EP Department).

3.7 Warning Communications - sign, tags and bags.

3.7.1 Signs for posting work areas and disposal sites are available from stores. They comply with OSHA copy, letter size, sign color, size, etc.

Code # 69-251-005. *Can we order from a commercial supplier?
I'll call BB. WB*

Asbestos Dust Hazard
Avoid Breathing Dust
Wear Assigned Protective Equipment
Do Not Remain In Area Unless Your Work Requires It
Breathing Asbestos Dust Maybe Hazardous To Your Health

3.7.2 Tags and Bags and Drums for insulation waste and contamination clothing are available in stores. They also comply with OSHA regulations regarding copy, letter size, size of tag, color, etc. Tags are available in stores.

CAUTION
Contains Asbestos Fibers
Avoid Creating Dust
Breathing Asbestos Dust May
Cause Serious Bodily Harm

3.8 The asbestos containing materials on this site are at the following locations.

3.8.1 Older elbows and fittings applied before 1973 very likely were coated with asbestos cement mixtures.

MAINTENANCE

PROCEDURE

By: S. J. Nadbielny
W. D. Neal



PLANT 312 BOUND BROOK
MAINTENANCE DEPARTMENT

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Revised: 5-25-82

Approved:

ASBESTOS REMOVAL PROCEDURE

- 3.8.2 "Pipelines containing hot liquids and vapors such as steam, hot water, Dowtherm, heating oil, etc. installed prior to 1973."
- 3.8.3 "When in doubt, treat insulation of unknown composition as asbestos until proved otherwise."
- 3.8.4 If identification of insulation is required contact EP/OH Department (D. Neal).

TYPICAL INSULATION REMOVAL JOBS
WITH HAZARD RATING OF 1

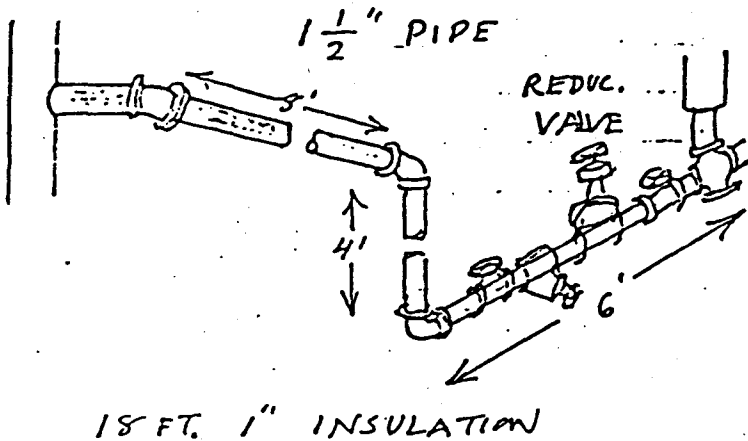


FIG. 1: STILL 23 STEAM
SUPPLY, BLDG. 21

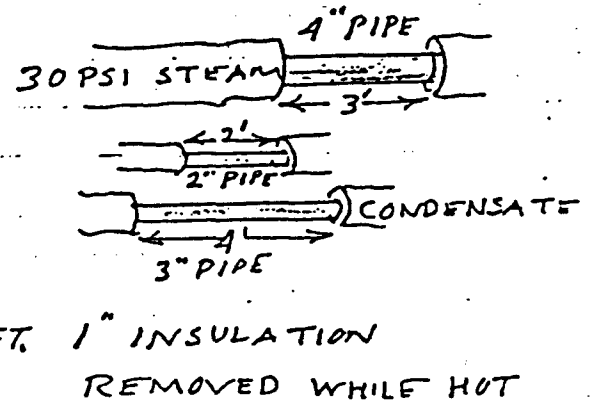


FIG. 2 CONDENSATE
LINES, WEST WALL,
BLDG. 21

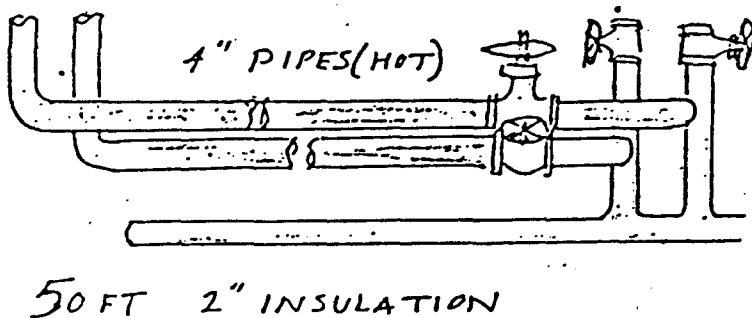


FIG. 3: TUNNEL, A7 TO A12

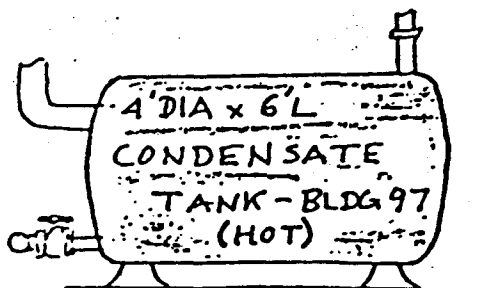


FIG. 4: 100 SQFT 1 1/2\" BLOCK INS.
WITH MASTIC COVERING

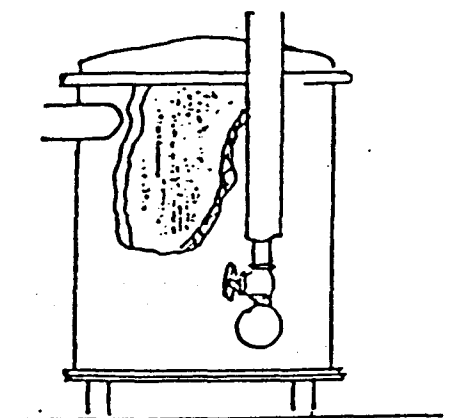


FIG. 5: STILL 2
RECEIVER, BLDG. 21
3 SQFT. 1 1/2\" INSULATION

HIGHLIGHTS OF ASBESTOS PROGRAM

- OSHA 1910.1001 CANNOT BE PRACTICALLY ADMINISTERED DUE TO FULL SUIT UP AND SELF-CONTAINED BREATHING REQUIREMENT ON ALL JOBS.
- ESTABLISHED COMPROMISE PROGRAM BASED UPON DEPARTMENT OF LABOR COMPLIANCE SECTION INTERPRETATIONS OF REGULATION 1910.1001 ALLOWING THAT EXACT COMPLIANCE TO 1910.1001 WOULD RESULT IN A DE MINIMUS TECHNICAL VIOLATION PROVIDED THAT ELEMENTS OF THE "INTERPRETATION" ARE FOLLOWED.
- DEVELOPED TYPICAL JOB CATEGORIES AND GENERATED DATA SHOWING FIBER COUNT FOR EACH CATEGORY--ALL OF WHICH ARE AT LEAST 75% LESS THAN TWA STANDARD.
- ESTABLISHED ONGOING PROGRAM TO EXPAND DATA BASE FOR EACH CATEGORY.
- REVISED ASBESTOS REMOVAL PROCEDURE TO COMPLY WITH OSHA STANDARDS BY MEANS OF JOB CATEGORY CONCEPT.
- STRENGTHENED COMPLIANCE TO PLANT'S RESPIRATOR PROGRAMS IN LINE ORGANIATION, I.E., MEDICAL QUALIFICATIONS, FIT TESTING, FACIAL HAIR POLICY.
- KEYS TO COMPLIANCE ARE:
 - . USE OF "AMENDED WATER".
 - . PROPER HANDLING TECHNIQUES BY PERSONNEL.
 - . THROUGH TRAINING OF INVOLVED PERSONNEL.

PAS/RK
6/3/82

POINTS TO REMEMBER

1. OPERATING DEPARTMENT IS RESPONSIBLE TO IDENTIFY ALL JOBS THAT COULD INVOLVE ASBESTOS REMOVAL.
2. ALL JOBS THAT COULD INVOLVE ASBESTOS REMOVAL REQUIRE A HAZARDOUS WORK PERMIT. ON SHIFTS, ASBESTOS REMOVAL WILL BE CONSIDERED "CLASS B" WORK.
3. WETTING OF INSULATION, PRIOR TO REMOVAL, WITH "AMENDED WATER" IS REQUIRED.
1 OZ. TERGITOL PER 5-GAL. WATER
4. ASBESTOS REMOVAL SIGNS ARE TO BE POSTED AT THE JOB PERIMETER AND ARE AVAILABLE IN STORES. CODE 69-251-005.
5. ALL RESPIRATOR USERS MUST BE MEDICALLY QUALIFIED.
6. ALL EMPLOYEES TRAINED IN THE ASBESTOS REMOVAL PROCEDURE SHALL BE RECORDED ON STAIRS.

EJB/RK

5/25/82

UCC 016227

STATUS OF ASBESTOS MONITORING PROGRAM

OSHA 1910.1001 TLV'S 8 TWA = 2 FIBERS/CC

15 MIN. CEILING = 10 FIBERS/CC

- 5 INSULATION REMOVAL JOBS MONITORED MAY 11-19.
 - 4 HAD LEVELS UNDER 0.5 F/CC
 - 1 EXCEEDED TLV WITH 5 F/CC DUE TO INADEQUATE WETTING.
 - WET DOWN IS THE KEY WITH NEED FOR IMPROVED TECHNIQUES.
- TEST PROGRAM CONTINUING BUT END IS IN SIGHT
- ASBESTOS REMOVAL PROCEDURE RE-REVISED FOR CRITIQUE.
- DRUM OF TERGITAL MIN-FOAM 2X IS ON TAP IN BUILDING 21 SHOP.
- HANDY-DANDY TEST KITS RECEIVED.
- WORKING UP REFERENCE MANUAL FOR ASSIGNMENT OF HAZARD RATING.

WDN/RK
5/20/82

ADDENDUM I TO MP-366.1: ASBESTOS REMOVAL PROCEDURE

REFERRING TO MAINTENANCE PROCEDURE 366.1 "ASBESTOS REMOVAL PROCEDURE", SECTION 3.2 REQUIRES THE SPECIFYING OF PROTECTIVE CLOTHING AND RESPIRATORS ACCORDING TO "HAZARD RATING" BEFORE STARTING THE JOB.

COMPARE THE PROPOSED JOB WITH TYPICAL JOBS ALREADY MONITORED (SEE ATTACHED SHEET) AND FOUND TO HAVE A HAZARD RATING OF 1, THEREBY PERMITTING AIR-PURIFYING-TYPE RESPIRATORS RATHER THAN FORCED AIR. IF A SIMILAR JOB CAN BE FOUND, ASSIGN THE HAZARDOUS RATING GIVEN THE TESTED JOB. IF THE JOB IS NOT SIMILAR TO ONE LISTED, IT MUST BE TREATED AS RATED 4 REQUIRING AIR-SUPPLIED RESPIRATORY PROTECTION.

WDN/RK
5/20/82

ATT.

PROPOSED ASBESTOS PROGRAM

- U/A MODIFIED ASBESTOS REMOVAL PROCEDURE WHICH MEETS OSHA REGULATION
 - . MEDICAL REQUIREMENTS
 - . PROTECTIVE CLOTHING OUTSIDE
 - . CHANGE ROOM ISSUE FOR CONTINGENCY
- FORM UNION/MANAGEMENT COMMITTEE TO IMPROVE PROCEDURE
 - . CONSIDER RECOMMENDATIONS FROM COMMITTEE FOR INCORPORATION INTO LONG TERM PROGRAM.
- FORM SHARE/MAINTENANCE COMMITTEE TO EXECUTE PRACTICAL LONG TERM PROGRAM.
 - PAS/EJB/WDN/LEM/RW/?
 - . IDENTIFY TYPICAL ASBESTOS REMOVAL JOB CATEGORIES FOR PLANT.
 - . DEVELOP BASELINE, BACKGROUND DATA FOR EACH OF THE ABOVE CATEGORIES.
 - . CATEGORIES FALLING BELOW 20 FIBERS PER CM^3 - WILL REQUIRE 3M-8710 DISPOSABLE FACE MASKS.
 - . CATEGORIES FALLING BETWEEN 20-200 CM^3 WILL REQUIRE POWERED AIR PURIFIER.
 - . CATEGORIES FALLING ABOVE 200 CM^3 WILL REQUIRE SCBA DURING DURATION OF JOB.
 - . ALL OF THE ABOVE FALL INTO MEDICAL SURVEILLANCE PROGRAM.
- ABOVE LONG TERM PROGRAM CARRIES A "DE MININIS" RISK PENALTY BUT IS SUPPORTED BY P.O.D. SHARE.
 - . GULF COAST PLANTS PRACTICE ESSENTIALLY THE SAME PROCEDURE.
 - . DU PONT PRACTICES THE SAME APPROACH.

PAS/RK
5/10/82

CITATION and NOTIFICATION OF PENALTY

Belle Mead Area Office
GSA Belle Mead Depot, Bldg. T-3
Belle Mead, NJ 08502

ISSUANCE DATE 5/6/82		OSHA NUMBER T7558 153	
REGION 02	AREA 2140	PAGE 1 OF 1	

TYPE OF VIOLATION(S) OTHER	CITATION NO. 1
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CERTIFIED MAIL-RRR

TO:

Union Carbide Corporation
P.O. Box 670
Bound Brook, New Jersey 08805
Attn: Mr. Eric Baumann
Personnel Safety Coordinator

INSPECTION DATE:

4/1-5/3/82

INSPECTION SITE:

1 River Road
Piscataway, NJ 08805

THE LAW REQUIRES that a copy of this Citation be posted immediately in a prominent place at or near the location of the violation(s) cited below. The Citation must remain posted until the violations cited below have been corrected, or for 3 working days (excluding weekends and Federal holidays) whichever is longer.

PENALTIES
ARE DUE
WITHIN 15
DAYS OF
RECEIPT
OF THIS
NOTIFICATION
UNLESS
CONTESTED
(See enclosed
Booklet)

This Section Must
Be Detached
Before Posting

This citation describes violations of the Occupational Safety and Health Act of 1970. The penalty(ies) listed below are based on these violations. You must correct the violations referred to in this citation by the dates listed below and pay the penalties proposed, unless within 15 working days (excluding weekends and Federal holidays) from your receipt of this citation and penalty you mail a notice of contest to the U.S. Department of Labor Area Office at the address shown above. (See the enclosed booklet which outlines your responsibilities and courses of action and should be read in conjunction with this form.)

ITEM NUMBER STANDARD, REGULATION OR SECTION OF THE ACT VIOLATED:	DESCRIPTION	DATE BY WHICH VIOLATION MUST BE CORRECTED	PENALTY
The issuance of this citation does not constitute a finding that a violation of the Act has occurred unless there is a failure to contest as provided for in the Act or, if contested, unless the citation is affirmed by the Review Commission. The violations described in this citation are alleged to have occurred on or about the day the inspection was made unless otherwise indicated within the description given below.			
1	29 CFR 1910.1001(f)(1): Initial monitoring was not conducted in such a manner to determine whether every employee's exposure to airborne asbestos fibers is below the prescribed limits: a) Tunnel which contains utility lines and process lines. Two maintenance mechanics removing asbestos insulation from pipes.	5/3/82	\$0
2	29 CFR 1910.1001(g)(1)(i): Asbestos caution signs were not posted in such a manner so employees could read them and take necessary protective steps before entering an area marked by the signs: a) Tunnel which contains utility lines and process lines. Employees removing asbestos insulation from pipes.	5/3/82	\$0



INTERNAL
CORRESPONDENCE

UNION CARBIDE CORPORATION P. O. BOX 670, BOUND BROOK, NEW JERSEY 08805
POLYOLEFINS DIVISION

To (Name) Mr. T. P. Raby

Division

Location

Area

Date

March 16, 1982

Originating Dept.

SHARE Department

Area

Copy to

Mr. G. H. Berry - B-71
Mr. K. E. Martin - Texas City
Mr. P. A. Schultz - B-11

Subject

Asbestos Removal

Subsequent to my comments on SH-256, I received the attached from Kirk Martin. The letter from OSHA moderates the literal reading of 1910.1001 (c) (2) (iii) which would otherwise put workers in air supplied respirators when demolishing insulation containing asbestos. However, the alternative places a heavy burden of administrative control and personal monitoring requirements on the employer. It would be helpful to incorporate these requirement in SH-256.

Don

W. D. Neal
Staff Industrial Hygienist

/rk
attachment



INTERNAL CORRESPONDENCE

P. O. BOX 471, TEXAS CITY, TEXAS 77590

To: R. E. Cope - 500
W. D. Neal - 312
S. E. Robinson - 519
C. R. Roundtree - Bechtel

March 11, 1982

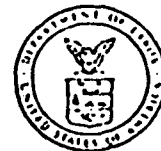
Subject: Personal Protective Equipment - Asbestos Demolition

Attached is a recent OSHA interpretation of standards associated with asbestos demolition, authored by Mr. Patrick R. Tyson, Acting Director of Federal Compliance and State Programs. I will not attempt to comment on Mr. Tyson's letter as it clearly outlines the current policy regarding the removal or demolition of asbestos.

A handwritten signature in cursive script, appearing to read "Kirk E. Martin".

Kirk E. Martin

KEM:ir
Attachment



Reply to the Attention of:

JAN 7 1982

John M. Hochstrasser, Ph.D.
Manager, Industrial Hygiene
Tenneco Chemicals
Park 80 Plaza West-1
Saddle Brook, New Jersey 07662

Dear Dr. Hochstrasser:

This is in response to your inquiry addressed to Mr. Bruce Hillenbrand regarding the use of type "C" supplied-air respirators to comply with 29 CFR 1910.1001 (c)(2)(iii) (spraying, demolition or removal of asbestos). Please accept my apology for the delay in our response.

OSHA has replied to similar questions in the past regarding the use of type "C" supplied-air respirators. As you know, 29 CFR 1910.1001(d)(2)(iii) states that a type "C" respirator shall be used when the ceiling or the 8-hour, time-weighted average airborne concentrations of asbestos fibers are reasonably expected to exceed 100 times the permissible exposure limits.

In accordance with 29 CFR 1910.1001(c)(2)(iii), employees about to engage in the spraying of asbestos, in the removal or demolition of pipes, structures, or equipment covered or insulated with asbestos, or in the removal or demolition of asbestos insulation or coverings, shall be provided with and shall use a type "C" continuous flow or pressure-demand, supplied-air respirator regardless of the concentrations of asbestos to which they may be exposed.

However, if the employer has conclusively established the upper concentration of airborne asbestos that employees could confront during spraying, demolition or removal, and the concentration does not exceed 100 times either the 8-hour time-weighted average or ceiling limits, then any of the respirators presented in 29 CFR 1910.1001 (d)(2)(i), (ii) and (iii) that afford adequate protection at such upper concentrations of airborne asbestos may be used. In such a case, although the employer would technically be in violation of 1910.1001(c)(2)(iii), OSHA would regard it to be a de minimis violation of the standard, as provided in Section 9 of the Occupational Safety and Health Act. Therefore, no citation would be issued, no penalty would be proposed, and no corrective action would be required.

To amplify these statements, we would add that the establishment of the upper concentrations of airborne asbestos fibers may require considerable effort if there are variations from operation to operation in any factors such as the following:

- (1) Binding material
- (2) Type of asbestos (e.g. length of fibers, composition)
- (3) Percentage of asbestos in the insulation
- (4) Removal techniques
- (5) Amount of insulation removed
- (6) Engineering and work practice controls instituted to reduce employee exposures
- (7) Complement of employees
- (8) How well employees are trained in asbestos control procedures.

Proof that the average airborne concentration of asbestos fibers an employee will confront will not exceed 100 times the 8-hour, time-weighted average and/or ceiling concentrations must be determined by the employer by applying sound scientific or engineering principles. The most reliable method would be through measuring exposures under all of the various conditions that will be encountered, as described in 29 CFR 1910.1001(f)(2)(ii), by collecting personal samples of airborne asbestos within the affected employees' breathing zones.

The asbestos should be collected on mixed cellulose (cellulose acetate-cellulose nitrate) membrane filters that are 37 millimeters in diameter and of 0.8 micron porosity. The filters should be held in three-piece cassettes. Sampling should be performed using an open-face cassette with the filter fully exposed. That is, one end piece of the cassette (not just the small plug) must be removed when sampling. The pump drawing the air through the filter must be operated at an accurately determined flow rate in the range of 1.0 to 2.5 liters per minute, depending upon the expected airborne concentration.

A practice that possibly could reduce airborne concentrations below 100 times the permissible limits of exposure would be the application of a fine spray of "amended water" to the asbestos-containing material before and during asbestos removal operations. "Amended water" is water containing 1 ounce of a surface active detergent or wetting agent (50% polyethylene ester and 50% polyoxyethylene ether) per 5 gallons.

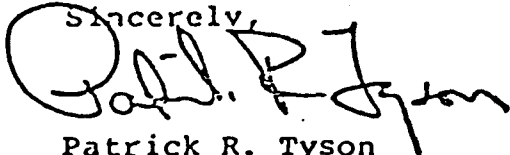
The employer must provide his employees with the proper respiratory protection at all times, if necessary. An employee exposure to asbestos, therefore, must be determined beforehand by using valid techniques such as those described above. In some instances the employer may have to provide supplied-air respirators (as prescribed in 29 CFR 1910.1001(c)(2)(iii))

until he has determined the exposure levels of his employees to asbestos. An employer must be able to demonstrate that he is in compliance with all provisions of the asbestos standard by providing information (i.e., sampling records) to OSHA, if requested during the course of an inspection of the employer's jobsite.

We would stress the extreme importance of complying with 29 CFR 1910.1001(f)(2)(ii) if an employer decides to provide respirators described in 29 CFR 1910.1001(d)(2)(i) or (ii) rather than a type "C" continuous flow or pressure-demand, supplied-air respirator.

Thank you for your support and your thoughtful comments. If I can be of further assistance, please do not hesitate to contact me again.

Sincerely,

A handwritten signature in dark ink, appearing to read "Patrick R. Tyson", is written over a circular stamp that is partially visible on the left.

Patrick R. Tyson
Acting Director, Federal Compliance
and State Programs

Enclosure