

INTER-CORPORATE CORRESPONDENCE

September 17, 1992

TO: V. R. DeLeon/Safety Supervisor
FROM: T. Alvarado/Safety Trainer - Auditor
SUBJECT: Asbestos Encapsulation Project Audit

A walkthrough audit of the Asbestos encapsulation project in the Southside area was conducted today. The following is my account of observations:

PREFLASH HEATER AREA - Three workers on site

- Area properly barricaded, completely encircling unit being worked on.
- Proper signage on all four sides of area.
- All three workers wearing full proper protective equipment
- Ladders being used according to standard procedures.
- Ladders being used were constructed of fiberglass and aluminum and conform to standards.
- Ladders supplied with tie-off ropes.
- Workers also equipped with safety belts

Observations were conducted at approximately 10:30 a.m..

VISBREAKER AREA - No work activity

- Area not barricaded properly.
- Inadequate warning signs.
- Advised Juan Martinez of Basic Industries of discrepancies.

#2 CRUDE UNIT 560 - No work activity

- Area not properly barricaded.
- Some areas barricaded above six feet, thus allowing passage into restricted area.
- Additional warning signs are necessary on all sides to restrict possible entry.
- Advised Juan Martinez of Basic Industries of discrepancies.

DECONTAMINATION TRAILER -

- Bad housekeeping on clean side.
- Negative pressure gauge on dirty side inoperative rolloff-container.
- Area needs to be re-barricaded.

TA/lob
cc: C. Stennett

RAM 0002556

August 17, 1992

To: V. R. DeLeon / Safety Supervisor

From: T. Alvarado / ~~Safety~~ Safety Trainer - Auditor

Subject: Asbestos Encapsulation Project Audit

A walk through audit of the Asbestos encapsulation project in the Southside area was conducted today. The following is my account of observations:

- Preflash Heater area - three workers on site
- Area properly barricaded, completely ~~isolating~~ ^{encapsulating} unit being worked on.
- Proper signage on all four sides of area
- All three workers wearing full proper protective equipment.
- Ladders being used according to standard procedure
- Ladders being used were constructed of fiber glass & aluminum & conform to standards.
- Ladders supplied with tie-off ropes.
- Workers also equipped with safety belts

Observations were conducted at approximately 10:30 A.M.

- V.S. breaker area - no work activity.
- Area not barricaded properly.
- Inadequate working signs.
- Advised Juan Martinez of Basic Industries of

RAM 0002557

discrepancies.

2 Crude Unit 560 - no work activity

- Area not properly barricaded
- Some areas barricaded above six feet, thus allowing passage into restricted area.
- Additional warning signs are necessary on all sides to restrict possible entry
- Advised Juan Martinez of Basic Industries of discrepancies.

Decontamination trailer

- Bad housekeeping, on clean side
- Negative pressure gauge on dirty side inoperative
- Roll off - Container
- Area needs to be re-barricaded.

cc: C. Stennett

INDUSTRIAL HYGIENE PLAN- CHEMICAL MONITORING									
LOCATION	MONITORED CONTAMINANT	MONITORING REQUIRED		REGULATION	ACGIH TLV/8 HR.TWA	OSHA PEL 8HR.TWA	ACTION LEVEL	SAMPLE RESULTS	COMMENT &/OR RECOMMENDED ACTION REQUIRED
		YES	NO						
EAST PLANT:									
Alkylation Unit:									
	Hydrofluoric Acid		✓	29CFR1910 Subpart G	3 ppm	3 ppm			Establish Baseline
	Propylene		✓	29CFR1910 Subpart G					Classified as an Asphyxiant
	Total Hydrocarbon	✓		29CFR1910 Subpart G	Hexane, Heptane, Nonane, Pentane	500 ppm 400 ppm 200 ppm 600 ppm			
	Asbestos	✓		29CFR1910.1001	Amosite Chrysotile Crocidolite other forms	5 fibers 2.0 fibers .2 fibers 2.0 fibers	0.1 fibers		Annual monitoring required
	Noise	✓		29CFR1910.95	90 dBA	90dBA	85dBA		Annual area monitoring required Personnel monitoring required for those above action level
Nonene Unit:									
	Toluene		✓	Z37.12	100 ppm	200 ppm			
	Total Hydrocarbon	✓		29CFR1910 Subpart G	Hexane, Heptane, Nonane, Pentane	500 ppm 400 ppm 200 ppm 600 ppm			

INDUSTRIAL HYGIENE PLAN- CHEMICAL MONITORING									
LOCATION	MONITORED CONTAMINANT	MONITORING REQUIRED		REGULATION	ACGIH TLV/8 HR. TWA	OSHA PEL 8HR.TWA	ACTION LEVEL	SAMPLE RESULTS	COMMENT &/OR RECOMMENDED ACTION REQUIRED
		YES	NO						
	Asbestos	✓		29CFR1910.1001	Amosite Chrysotile Crocidolite other forms	.5 fibers 2.0 fibers .2 fibers 2.0 fibers	0.1 fibers		Annual monitoring required
	Noise	✓		29CFR1910.95	90 dBA	90dBA	85dBA		Annual area monitoring required Personnel monitoring required for those above action level
FCCU									
	Ammonia		✓	29CFR1910 Subpart G	25 ppm	25 ppm			
	Catalysts								
	Nickel		✓	29CFR1910 Subpart G	1 µ/m³	1 µ/m³			Establish baseline for determining proper respiratory protection
	Platinum		✓	29CFR1910 Subpart G	1 µ/m³	1 µ/m³			Establish baseline for determining proper respiratory protection
	Hydrogen Sulfide	✓		29CFR1910.1000 Z.2 Z.37.2	10 ppm				Ceiling concentration - 20 ppm STEL- 50 ppm - 10 minutes once/shift
	Nitrogen Oxides		✓	29CFR1910 Subpart G	25 ppm	25 ppm			

INDUSTRIAL HYGIENE PLAN- CHEMICAL MONITORING									
LOCATION	MONITORED CONTAMINANT	MONITORING REQUIRED		REGULATION	ACGIH TLV/8 HR. TWA	OSHA PEL 8HR.TWA	ACTION LEVEL	SAMPLE RESULTS	COMMENT &/OR RECOMMENDED ACTION REQUIRED
		YES	NO						
	Total Hydrocarbon	✓		29CFR1910 Subpart G	Hexane, Heptane, Nonane, Pentane	500 ppm 400 ppm 200 ppm 600 ppm			
	Asbestos	✓		29CFR1910.1001	Amosite Chrysotile Crocidolite other forms	.5 fibers 2.0 fibers .2 fibers 2.0 fibers	0.1 fibers		Annual monitoring required
	Noise	✓		29CFR1910.95	90 dBA	90dBA	85dBA		Annual area monitoring required. Personnel monitoring required for those above action level
LEU									
	Butane		✓	29CFR1910 Subpart G	800 ppm	800 ppm			
	Propylene		✓	29CFR1910 Subpart G					Classified as an asphyxiant
	Total Hydrocarbons	✓		29CFR1910 Subpart G	Hexane, Heptane, Nonane, Pentane	500 ppm 400 ppm 200 ppm 600 ppm			
	Asbestos	✓		29CFR1910.1001	Amosite Chrysotile Crocidolite other forms	.5 fibers 2.0 fibers .2 fibers 2.0 fibers	0.1 fibers		Annual monitoring required

INDUSTRIAL HYGIENE PLAN- CHEMICAL MONITORING									
LOCATION	MONITORED CONTAMINANT	MONITORING REQUIRED		REGULATION	ACGIH TLV/8 HR.TWA	OSHA PEL 8HR.TWA	ACTION LEVEL	SAMPLE RESULTS	COMMENT &/OR RECOMMENDED ACTION REQUIRED
		YES	NO						
	Noise	✓		29CFR1910 95	90 dBA	90dBA	85dBA		Annual area monitoring required Personnel monitoring required for those above action level
Manifold Pt									
	Benzene	✓		29CFR1910 1028	1 0 ppm	1 0 ppm	5 ppm		Monitoring required annually STEL (5 ppm) for 15 minutes TWA
	Total Hydrocarbons	✓		29CFR1910 Subpart G	Hexane, Heptane, Nonane, Pentane	500 ppm 400 ppm 200 ppm 600 ppm			
	Asbestos	✓		29CFR1910 1001	Amosite Chrysotile Crocidolite other forms	5 fibers 2 0 fibers 2 fibers 2 0 fibers	0 1 fibers		Annual monitoring required
	Noise	✓		29CFR1910 95	90 dBA	90dBA	85dBA		Annual area monitoring required Personnel monitoring required for those above action level
Loading Racks									
	Butane		✓	29 CFR 1910 Subpart G					
	Propane		✓	29 CFR 1910 Subpart G					Classified as an asphyxiant

INDUSTRIAL HYGIENE PLAN- CHEMICAL MONITORING									
LOCATION	MONITORED CONTAMINANT	MONITORING REQUIRED		REGULATION	ACGIH TLV/8 HR.TWA	OSHA PEL 8HR.TWA	ACTION LEVEL	SAMPLE RESULTS	COMMENT &/OR RECOMMENDED ACTION REQUIRED
		YES	NO						
	Isobutane		✓	29CFR1910 Subpart G					
	Gasoline		✓	29 CFR 1910 Subpart G	300 ppm				
	Jet Fuels		✓	29 CFR 1910 Subpart G					
	Asbestos	✓		29CFR1910.1001	Amosite Chrysotile Crocidolite other forms	5 fibers 2 0 fibers 2 2 fibers	0.1 fibers		Annual monitoring required
Boiler House									
	Asbestos	✓		29CFR1910.1001	Amosite Chrysotile Crocidolite other forms	5 fibers 2 0 fibers 2 2 fibers	0.1 fibers		Annual monitoring required
	Heat Stress	✓		29CFR1910					Establish baseline & acclimation periods. (See appendix 2)
	Noise	✓		29CFR1910.95	90 dBA	90dBA	85dBA		Annual area monitoring required. Personnel monitoring required for those above action level
Cu-Gen									

INDUSTRIAL HYGIENE PLAN- CHEMICAL MONITORING									
LOCATION	MONITORED CONTAMINANT	MONITORING REQUIRED		REGULATION	ACGIH TLV/8 HR.TWA	OSHA PEL 8HR.TWA	ACTION LEVEL	SAMPLE RESULTS	COMMENT &/OR RECOMMENDED ACTION REQUIRED
		YES	NO						
	Noise	✓		29CFR1910.95	90 dBA	90dBA	85dBA		Annual area monitoring required Personnel monitoring required for those above action level
	Hydrogen Sulfide	✓		29CFR1910.1000 Z-2 Z.37.2	10 ppm				Ceiling concentration - 20 ppm STEL 50 ppm - 10 minutes once/shift
ISOM									
	Benzene	✓		29CFR1910.1028	1.0 ppm	1.0 ppm	5 ppm		Monitoring required annually STEL (5 ppm) for 15 minutes TWA
	Hydrogen Sulfide	✓		29CFR1910.1000 Z-2 Z.37.2	10 ppm				Ceiling concentration - 20 ppm STEL 50 ppm - 10 minutes once/shift
	Asbestos	✓		29CFR1910.1001	Amosite Chrysotile Crocidolite other forms	5 fibers 2.0 fibers .2 fibers 2.0 fibers	0.1 fibers		Annual monitoring required
	Noise	✓		29CFR1910.95	90 dBA	90dBA	85dBA		Annual area monitoring required Personnel monitoring required for those above action level
WEST PLANT:									
Coke Cuttings									

INDUSTRIAL HYGIENE PLAN- CHEMICAL MONITORING									
LOCATION	MONITORED CONTAMINANT	MONITORING REQUIRED		REGULATION	ACGIH TLV/8 HR.TWA	OSHA PEL 8HR.TWA	ACTION LEVEL	SAMPLE RESULTS	COMMENT &/OR RECOMMENDED ACTION REQUIRED
		YES	NO						
	Coke Dust	✓		29CFR1910 Subpart G	2 mg/m ³				Required initially to determine concentration & particulate size
	Polynuclear Aromatics	✓		29 CFR 1910 Table Z-2					
	Asbestos	✓		29CFR1910 1001	Amosite Chrysotile Crocidolite other forms	.5 fibers 2.0 fibers 2 fibers 2.0 fibers	0.1 fibers		Annual monitoring required
	Noise	✓		29CFR1910.95	90 dBA	90dBA	85dBA		Annual area monitoring required. Personnel monitoring required for those above action level
Coker Blowdown									
	Benzene	✓		29CFR1910.1028	1.0 ppm	1.0 ppm	.5 ppm		Monitoring required annually STEL (5 ppm) for 15 minutes TWA
	Total Hydrocarbons	✓		29CFR1910 Subpart G	Hexane, Heptane, Nonane, Pentane	500 ppm 400 ppm 200 ppm 600 ppm			
	Asbestos	✓		29CFR1910 1001	Amosite Chrysotile Crocidolite other forms	5 fibers 2.0 fibers 2 fibers 2.0 fibers	0.1 fibers		Annual monitoring required

INDUSTRIAL HYGIENE PLAN-CHEMICAL MONITORING									
LOCATION	MONITORED CONTAMINANT	MONITORING REQUIRED		REGULATION	ACGIH TLV/8 HR TWA	OSHA PEL 8HR TWA	ACTION LEVEL	SAMPLE RESULTS	COMMENT &/OR RECOMMENDED ACTION REQUIRED
		YES	NO						
	Noise	✓		29CFR1910.95	90 dBA	90dBA	85dBA		Annual area monitoring required. Personnel monitoring required for those above action level.
Sulfur Recovery									
	Benzene	✓		29CFR1910.1028	1.0 ppm	1.0 ppm	.5 ppm		Monitoring required annually STEL (5 ppm) for 15 minutes TWA
	Hydrogen Sulfide	✓		29CFR1910.1000 Z-2 Z.37.2	10 ppm				Ceiling concentration - 20 ppm STEL 50 ppm - 10 minutes once/shift
	Total Hydrocarbons	✓		29CFR1910 Subpart G	Hexane, Heptane, Nonane, Pentane	500 ppm 400 ppm 200 ppm 600 ppm			
	Asbestos	✓		29CFR1910.1001	Amosite Chrysotile Crocidolite other forms	.5 fibers 2.0 fibers .2 fibers 2.0 fibers	0.1 fibers		Annual monitoring required
	Noise	✓		29CFR1910.95	90 dBA	90dBA	85dBA		Annual area monitoring required. Personnel monitoring required for those above action level.
Coker/Kero/Gas Oil HDS									
	Polynuclear Aromatics	✓		29 CFR 1910 Table Z.2					

INDUSTRIAL HYGIENE PLAN- CHEMICAL MONITORING									
LOCATION	MONITORED CONTAMINANT	MONITORING REQUIRED		REGULATION	ACGIH TLV/8 HR.TWA	OSHA PEL 8HR.TWA	ACTION LEVEL	SAMPLE RESULTS	COMMENT &/OR RECOMMENDED ACTION REQUIRED
		YES	NO						
	Hydrogen Sulfide	✓		29CFR1910 1000 2 2 2 37.2	10 ppm				Ceiling concentration - 20 ppm STEL 50 ppm - 10 minutes once/shift
	Asbestos	✓		29CFR1910 1001	Amosite Chrysotile Crocidolite other forms	.5 fibers 2.0 fibers .2 fibers 2.0 fibers	0.1 fibers		Annual monitoring required
	Noise	✓		29CFR1910 95	90 dBA	90dBA	85dBA		Annual area monitoring required. Personnel monitoring required for those above action level
Crude Vacuum/Diesel HDS									
	Polynuclear Aromatics	✓		29 CFR 1910 Table Z-2					
	Benzene	✓		29CFR1910 1028	1.0 ppm	1.0 ppm	.5 ppm		Monitoring required annually ST: L (5 ppm) for 15 minutes TWA
	Hydrogen Sulfide	✓		29CFR1910 1000 Z 2 2 37.2	10 ppm				Ceiling concentration - 20 ppm STEL 50 ppm - 10 minutes once/shift
	Asbestos	✓		29CFR1910 1001	Amosite Chrysotile Crocidolite other forms	.5 fibers 2.0 fibers .2 fibers 2.0 fibers	0.1 fibers		Annual monitoring required

INDUSTRIAL HYGIENE PLAN- CHEMICAL MONITORING									
LOCATION	MONITORED CONTAMINANT	MONITORING REQUIRED		REGULATION	ACGIH TLV/8 HR.TWA	OSHA PEL 8HR.TWA	ACTION LEVEL	SAMPLE RESULTS	COMMENT &/OR RECOMMENDED ACTION REQUIRED
		YES	NO						
	Noise	✓		29CFR1910.95	90 dBA	90dBA	85dBA		Annual area monitoring required Personnel monitoring required for those above action level
Gas Oil/Leu									
	Benzene	✓		29CFR1910.1028	1.0 ppm	1.0 ppm	5 ppm		Monitoring required annually STEL (5 ppm) for 15 minutes TWA
	Total Hydrocarbons	✓		29CFR1910 Subpart G	Hexane, Heptane, Nonane, Pentane	500 ppm 400 ppm 200 ppm 600 ppm			
	Asbestos	✓		29CFR1910.1001	Amosite Chrysotile Crocidolite other forms	5 fibers 2.0 fibers 2 fibers 2.0 fibers	0.1 fibers		Annual monitoring required
	Noise	✓		29CFR1910.95	90 dBA	90dBA	85dBA		Annual area monitoring required Personnel monitoring required for those above action level
Mercox Unit									
	Gasoline		✓	29 CFR 1910 Subpart G	300 ppm	300 ppm			

INDUSTRIAL HYGIENE PLAN- CHEMICAL MONITORING									
LOCATION	MONITORED CONTAMINANT	MONITORING REQUIRED		REGULATION	ACGIH TLV/8 HR.TWA	OSHA PEL 8HR.TWA	ACTION LEVEL	SAMPLE RESULTS	COMMENT &/OR RECOMMENDED ACTION REQUIRED
		YES	NO						
	Total Hydrocarbons	✓		29CFR1910 Subpart G	Hexane, Heptane, Nonane, Pentane	500 ppm 400 ppm 200 ppm 600 ppm			
	Asbestos	✓		29CFR1910 1001	Amosite Chrysotile Crocidolite other forms	.5 fibers 2.0 fibers .2 fibers 2.0 fibers	0.1 fibers		Annual monitoring required
	Noise	✓		29CFR1910 95	90 dBA	90dBA	85dBA		Annual area monitoring required Personnel monitoring required for those above action level.
Platformer									
	Benzene	✓		29CFR1910 1028	1.0 ppm	1.0 ppm	5 ppm		Monitoring required annually STEL (5 ppm) for 15 minutes TWA
	Total Hydrocarbons	✓		29CFR1910 Subpart G	Hexane, Heptane, Nonane, Pentane	500 ppm 400 ppm 200 ppm 600 ppm			
	Asbestos	✓		29CFR1910 1001	Amosite Chrysotile Crocidolite other forms	.5 fibers 2.0 fibers .2 fibers 2.0 fibers	0.1 fibers		Annual monitoring required

INDUSTRIAL HYGIENE PLAN- CHEMICAL MONITORING									
LOCATION	MONITORED CONTAMINANT	MONITORING REQUIRED		REGULATION	ACGIH TLV/8 HR.TWA	OSHA PEL 8HR.TWA	ACTION LEVEL	SAMPLE RESULTS	COMMENT &/OR RECOMMENDED ACTION REQUIRED
		YES	NO						
	Noise	✓		29CFR1910.95	90 dBA	90dBA	85dBA		Annual area monitoring required. Personnel monitoring required for those above action level
QUINTANA PLANT:									
	Hydrocracker/SMR								
	Polynuclear Aromatics	✓		29 CFR 1910 Table Z-2					
	Hydrogen Sulfide	✓		29CFR1910.1000 Z.2 Z.37.2	10 ppm				Ceiling concentration - 20 ppm STEL 50 ppm - 10 minutes once/shift
	Asbestos	✓		29CFR1910.1001	Amosite Chrysotile Crocidolite other forms	.5 fibers 2.0 fibers .2 fibers 2.0 fibers	0.1 fibers		Annual monitoring required
	Noise	✓		29CFR1910.95	90 dBA	90dBA	85dBA		Annual area monitoring required. Personnel monitoring required for those above action level
Reformer/Naphia HDS									
	Benzene	✓		29CFR1910.1028	1.0 ppm	1.0 ppm	5 ppm		Monitoring required annually STEL (5 ppm) for 15 minutes TWA

INDUSTRIAL HYGIENE PLAN- CHEMICAL MONITORING									
LOCATION	MONITORED CONTAMINANT	MONITORING REQUIRED		REGULATION	ACGIH TLV/8 HR TWA	OSHA PEL 8HR TWA	ACTION LEVEL	SAMPLE RESULTS	COMMENT &/OR RECOMMENDED ACTION REQUIRED
		YES	NO						
	Hydrogen Sulfide	✓		29CFR1910 1000 Z-2 Z.37.2	10 ppm				Ceiling concentration - 20 ppm STEL 50 ppm 10 minutes once/shift
	Total Hydrocarbons	✓		29CFR1910 Subpart G	Hexane, Heptane, Nonane, Pentane	500 ppm 400 ppm 200 ppm 600 ppm			
	Asbestos	✓		29CFR1910 1001	Amosite Chrysotile Crocidolite other forms	.5 fibers 2.0 fibers .2 fibers 2.0 fibers	0.1 fibers		Annual monitoring required
	Noise	✓		29CFR1910 95	90 dBA	90dBA	85dBA		Annual area monitoring required Personnel monitoring required for those above action level
TBA									
	Total Hydrocarbons	✓		29CFR1910 Subpart G	Hexane, Heptane, Nonane, Pentane	500 ppm 400 ppm 200 ppm 600 ppm			
	Asbestos	✓		29CFR1910 1001	Amosite Chrysotile Crocidolite other forms	.5 fibers 2.0 fibers .2 fibers 2.0 fibers	0.1 fibers		Annual monitoring required

INDUSTRIAL HYGIENE PLAN- CHEMICAL MONITORING									
LOCATION	MONITORED CONTAMINANT	MONITORING REQUIRED		REGULATION	ACGIH TLV/8 HR. TWA	OSHA PEL 8HR. TWA	ACTION LEVEL	SAMPLE RESULTS	COMMENT &/OR RECOMMENDED ACTION REQUIRED
		YES	NO						
	Noise	✓		29CFR1910.95	90 dBA	90dBA	85dBA		Annual area monitoring required. Personnel monitoring required for those above action level.
Sour Water Stripper									
	Aminonia		✓	29CFR1910 Subpart G		50 ppm			
GENERAL PLANT OPERATIONS:									
Analytical Laboratory									
	Acetone		✓	29CFR1910 Subpart G	750 ppm	1000 ppm			
	Benzene	✓		29CFR1910.1028	1.0 ppm	1.0 ppm	5 ppm		Monitoring required annually STEL (5 ppm) for 15 minutes TWA
	MEK		✓	29CFR1910 Subpart G	200 ppm				
	Ventilation Survey		✓	29CFR1910 Subpart G					Annual survey is recommended to monitor operability and efficiency of vent hoods
Pumping Department									
	Benzene	✓		29CFR1910.1028	1.0 ppm	1.0 ppm	5 ppm		Monitoring required annually STEL (5 ppm) for 15 minutes TWA

INDUSTRIAL HYGIENE PLAN-CHEMICAL MONITORING									
LOCATION	MONITORED CONTAMINANT	MONITORING REQUIRED		REGULATION	ACGIH TLV/8 HR.TWA	OSHA PEL 8HR.TWA	ACTION LEVEL	SAMPLE RESULTS	COMMENT &/OR RECOMMENDED ACTION REQUIRED
		YES	NO						
	Hydrogen Sulfide	✓							
	Lead Compounds			29CFR1910 Subpart G	0.15 mg/m ³	0.15 mg/m ³			
Welding Shops									
	Welding Fumes								
	Nickel		✓	29CFR1910 Subpart G	0.1 µ/m ³				Establish baseline for determining proper respiratory protection
	Iron		✓	29CFR1910 Subpart G	5.0 µ/m ³				Establish baseline for determining proper respiratory protection
	Manganese		✓	29CFR1910 Subpart G	1.0 mg/m ³				Establish baseline for determining proper respiratory protection
	Titanium		✓	29CFR1910 Subpart G	10 mg/m ³				Establish baseline for determining proper respiratory protection
	Noise	✓		29CFR1910.95	90 dBA	90dBA	85dBA		Annual area monitoring required. Personnel monitoring required for those above action level.
General Plant									

INDUSTRIAL HYGIENE PLAN- CHEMICAL MONITORING									
LOCATION	MONITORED CONTAMINANT	MONITORING REQUIRED		REGULATION	ACGIH TLV/8 HR.TWA	OSHA PEL 8HR.TWA	ACTION LEVEL	SAMPLE RESULTS	COMMENT &/OR RECOMMENDED ACTION REQUIRED
		YES	NO						
	Bulk Asbestos Survey	✓		29CFR1910.1001	Amosite Chrysotile Crocidolite other forms	.5 fibers .2 fibers 2 fibers 2 fibers	0.1 fibers		Annual monitoring required
	Noise Survey	✓		29CFR1910.95	90 dBA	90dBA	85dBA		Annual area monitoring required Personnel monitoring required for those above action level

TABLE 1. Threshold Limit Values for Noise

Duration per Day Hours	Sound Level dBA*
16	80
8	85
4	90
2	95
1	100
1/2	105
1/4	110
1/8	115*

* Sound level in decibels are measured on a sound level meter, conforming as a minimum to the requirements of the American National Standard Specification for Sound Level Meters, S1.4 (1971) Type S2A and set to use the A-weighted network with slow meter response.

★ No exposure to continuous or intermittent in excess of 115 dBA.

TABLE 2. PERMISSIBLE HEAT EXPOSURE THRESHOLD LIMIT VALUES
Values are given in °C and (°F) WBGT

Work — Rest Regimen	Work Load		
	Light	Moderate	Heavy
Continuous work	30.0 (86)	26.7 (80)	25.0 (77)
75% Work —			
25% Rest, each hour	30.6 (87)	28.0 (82)	25.9 (78)
50% Work —			
50% Rest, each hour	31.4 (89)	29.4 (85)	27.9 (82)
25% Work —			
75% Rest, each hour	32.2 (90)	31.1 (88)	30.0 (86)

A. The range of the dry and the natural wet bulb thermometer should be -5°C to $+50^{\circ}\text{C}$ (23°F to 122°F) with an accuracy of $\pm 0.5^{\circ}\text{C}$. The dry bulb thermometer must be shielded from the sun and the other radiant surfaces of the environment without restricting the airflow around the bulb. The wick of the natural wet bulb thermometer should be kept wet with distilled water for at least 1/2 hour before the temperature reading is made. It is not enough to immerse the other end of the wick into a reservoir of distilled water and wait until the whole wick becomes wet by capillarity. The wick should be wetted by direct application of water from a syringe 1/2 hour before each reading. The wick should extend over the bulb of the thermometer, covering the stem about one additional bulb length. The wick should always be clean and new wicks should be washed before using.

B. A globe thermometer, consisting of a 15-cm (6-inch) diameter hollow copper sphere painted on the outside with a matte black finish or equivalent, should be used. The bulb or sensor of a thermometer (range -5°C to $+100^{\circ}\text{C}$ [23°F to 212°F] with an accuracy of $\pm 0.5^{\circ}\text{C}$) must be fixed in the center of the sphere. The globe thermometer should be exposed at least 25 minutes before it is read.

C. A stand should be used to suspend the three thermometers so that they do not restrict free air flow around the bulbs, and the wet bulb and globe thermometer are not shaded.

D. It is permissible to use any other type of temperature sensor that gives a reading identical to that of a mercury thermometer under the same conditions.

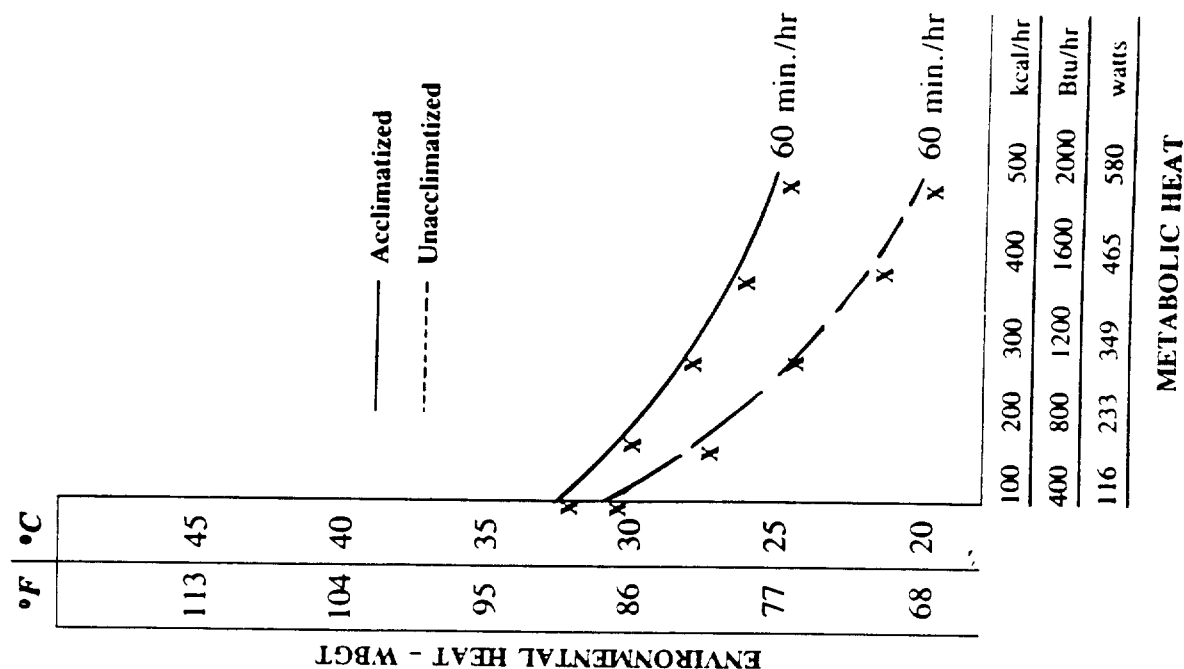


Figure 1—Permissible heat exposure Threshold Limit Values for heat acclimatized and unacclimatized workers

HQ EMERSON MONTBURNS 68821
F912

BOXFOLDER
LOCATION

RAM 0002577

COASTAL REFINING AND MARKETING CO.
 VIOLATIONS REVIEW FOR ACCOUNT NO.: NE0043A
 GENERATED ON: 01/03/92
Date Reported

INVT-#	V-SENT	V-RECD	TYPE	RULE	CFR CAUSE	RESOLVED
UNKNOWN	810902	810907	U	101.4	NUISANCE ODOR	840430
210487A	830204	830209	U	101.4	NUISANCE ODOR	840430
210728A	830913	830918	U	101.4	NUISANCE ODOR	840430
210726A	830913	830918	U	101.4	NUISANCE ODOR	840430
210756A	840126	840131	U	115.255	HC MONITORNG INCOMPLET	850601
210756A	840126	840131	U	115.252	HC MONITORNG INCOMPLET	850601
210892A	840202	840207	U	101.4	NUISANCE ODOR	840430
210958A	840416	840421	U	101.4	SOX WEST PLANT FLARE N	840430
211183A	840926	841001	U	101.4	NUISANCE ODOR TANK 109	840430
211183A	840926	841001	U	101.4	NUISANCE ODOR WEST FLA	840430
211473A	850610	850615	U	101.20	ASBESTOS NESHAP VIOLAT	850624
211482A	850613	850618	U	101.4	NUISANCE ODOR	850626
211902A	860325	860330	U	101.20(2)	NESHAPS	870325
211964A	860508	860513	U	101.4	NUISANCE ODOR	860519
212023A	860603	860608	U	101.4	NUISANCE ODOR	860613
212033A	860603	860608	U	101.4	NUISANCE ODOR	860613
212176A	860820	860825	U	101.4	NUISANCE ODOR	870327
212198A	860905	860910	C	101.4	WEST PLANT FLARE ODOR.	870327
212847A	860926	861001	N	115.252	VOC FUGITIVE MONITORIN	861009
212847A	860926	861001	N	101.20(1)	H2S FUEL GAS MONT NSPS	861009
212847A	860926	861001	N	116.4	H2S FUEL GAS MONIT-QUN	861009
212943A	861201	861206	N	101.4		870327
212958A	861201	861206	N	101.4		870327
212961A	861201	861206	N	101.4		870327
212973A	861212	861217	N	101.4	MUSTY, SOUR GAS ODORS	870327
212970A	861212	861217	N	101.4	NUISANCE ODOR	861229
212970A	861212	861217	N	101.6	NUISANCE ODOR	861229
213474A	871005	871010	N	116.1	NEED PERMIT AMENDMENT	880715
213474A	871005	871010	N	116.1	NEED PERMIT AMENDMENT	880715
213474A	871005	871010	N	116.1	NEED PERMIT AMENDMENT	880715
213474A	871005	871010	N	116.1	NEED PERMIT AMENDMENT	880715
213474A	871005	871010	N	116.1	NEED PERMIT AMENDMENT	880715
213474A	871005	871010	N	116.1	NEED PERMIT AMENDMENT	880715
213474A	871005	871010	N	101.20(1)	JJJ GAS H2S CONTENT	880715
213474A	871005	871010	N	101.20(1)	JJJ GAS H2S CONTENT	880715
213474A	871005	871010	N	101.20(1)	JJJ GAS H2S CONTENT	880715
213474A	871005	871010	N	101.20(1)	J GAS H2S CONTENT	880715
213474A	871005	871010	N	101.20(1)	JJJ GAS H3S CONTENT	880715
213474A	871005	871010	N	101.20(1)	JJJ GAS H2S CONTENT	880715
213474A	871005	871010	N	101.20(1)	JJJ GAS H2S CONTENT	880715
213474A	871005	871010	N	101.20(1)	JJJ GAS H2S CONTENT	880715
213474A	871005	871010	N	101.20(1)	JJJ GAS H2S CONTENT	880715
213474A	871005	871010	N	101.20(1)	JJJ GAS H2S CONTENT	880715
213474A	871005	871010	N	101.20(1)	JJJ MONITORING GAS H2S	880715
213474A	871005	871010	N	101.20(1)	JJJ MONITORING GAS H2S	880715
213474A	871005	871010	N	101.20(1)	JJJ MONITORING GAS H2S	880715
213474A	871005	871010	N	101.20(1)	JJJ MONITORING GAS H2S	880715
213474A	871005	871010	N	101.20(1)	JJJ MONITORING GAS H2S	880715
213474A	871005	871010	N	101.20(1)	JJJ MONITORING GAS H2S	880715
213474A	871005	871010	N	101.20(1)	JJJ MONITORING GAS H2S	880715

(PAGE 1 OF 2 PAGES)

COASTAL REFINING AND MARKETING CO.
VIOLATIONS REVIEW FOR ACCOUNT NO.: NE0043A
GENERATED ON: 01/03/92

INVT-#	V-SENT	V-RECD	TYPE	RULE	CFR CAUSE	RESOLVED
213474A	871005	871010	N	101.20(1)	JJJ MONITORING GAS H2S	880715
213474A	871105	871110	N	101.20(1)	JJJ MONITORING GAS H2S	880715
213474A	871005	871010	N	116.4	PERMIT PROVISIONS	880715
213474A	871005	871010	N	116.4	PERMIT PROVISIONS	880715
213474A	871005	871010	N	116.4	PERMIT PROVISIONS	880715
213474A	871005	871010	N	116.4	PERMIT PROVISIONS	880715
213474A	871005	871010	N	116.4	PERMIT PROVISIONS	880715
213474A	871005	871010	N	116.5	PERM. REPRESENTATIONS	880715
213474A	871005	871010	N	116.5	PERM. REPRESENTATIONS	880715
213474A	871005	871010	N	116.5	PERM. REPRESENTATIONS	880715
213474A	871005	871010	N	116.5	PERM. REPRESENTATIONS	880715
213702A	871222	871227	N	101.4	NUISANCE ODOR	880104
213694A	871218	871223	N	101.4	NUISANCE ODOR	871223
213692A	871218	871223	N	101.4	NUISANCE ODOR	871223
213802A	880211	880216	N	101.20(1)	60 60.113(a)(1) SEAL GAP	880722
213802A	880211	880216	C	101.20(2)	61 61.09(a)(1)	881209
213802A	880211	880216	N	101.20(2)	61 61.242-1(d)	881209
213802A	880211	880216	N	101.20(2)	61 61.242-2(c)(1)	881209
214448A	881221	881226	N	101.4	NUISANCE ODOR	890105
214502A	890120	890125	N	101.4	NUISANCE ODOR	890201
214647A	890411	890416	N	101.4	NUISANCE ODOR	890509
214648A	890411	890416	N	101.4	NUISANCE ODOR	890509
214768A	890614	890619	N	101.4	NUISANCE ODOR	890720
214804A	890711	890716	N	101.4	NUISANCE ODOR	890726
215347A	900131	900205	N	101.4	NUISANCE ODOR	901214
215152A	871219	871224	N	101.20	61 BENZENE MESHAP	901214
215431A	900301	900306	N	101.4	NUISANCE ODOR	901214
215441A	900301	900306	N	101.4	NUISANCE ODOR	901214
215595A	900514	900521	N	101.4	NUISANCE ODOR	900604
216188A	901220	901221	N	101.4	NUISANCE ODOR	910105
216189A	901220	901221	N	101.4	NUISANCE ODOR	910105
216301A	910215	910220	N	101.4	NUISANCE ODORS	910311
216440A	910329	910403	N	101.4	NUISANCE ODOR	910417
216576A	910605	910610	N	101.4	NUISANCE ODOR	910619
216587A	910605	910610	N	101.4	NUISANCE ODOR	910619
216624A	910612	910617	N	101.4	NUISANCE ODOR	0
216625A	910612	910617	N	101.4	NUISANCE ODOR	0
[GRAND TOTAL]				102	678	(PAGE 2 OF 2 PAGE)

102

678

(PAGE 2 OF 2 PAGE)

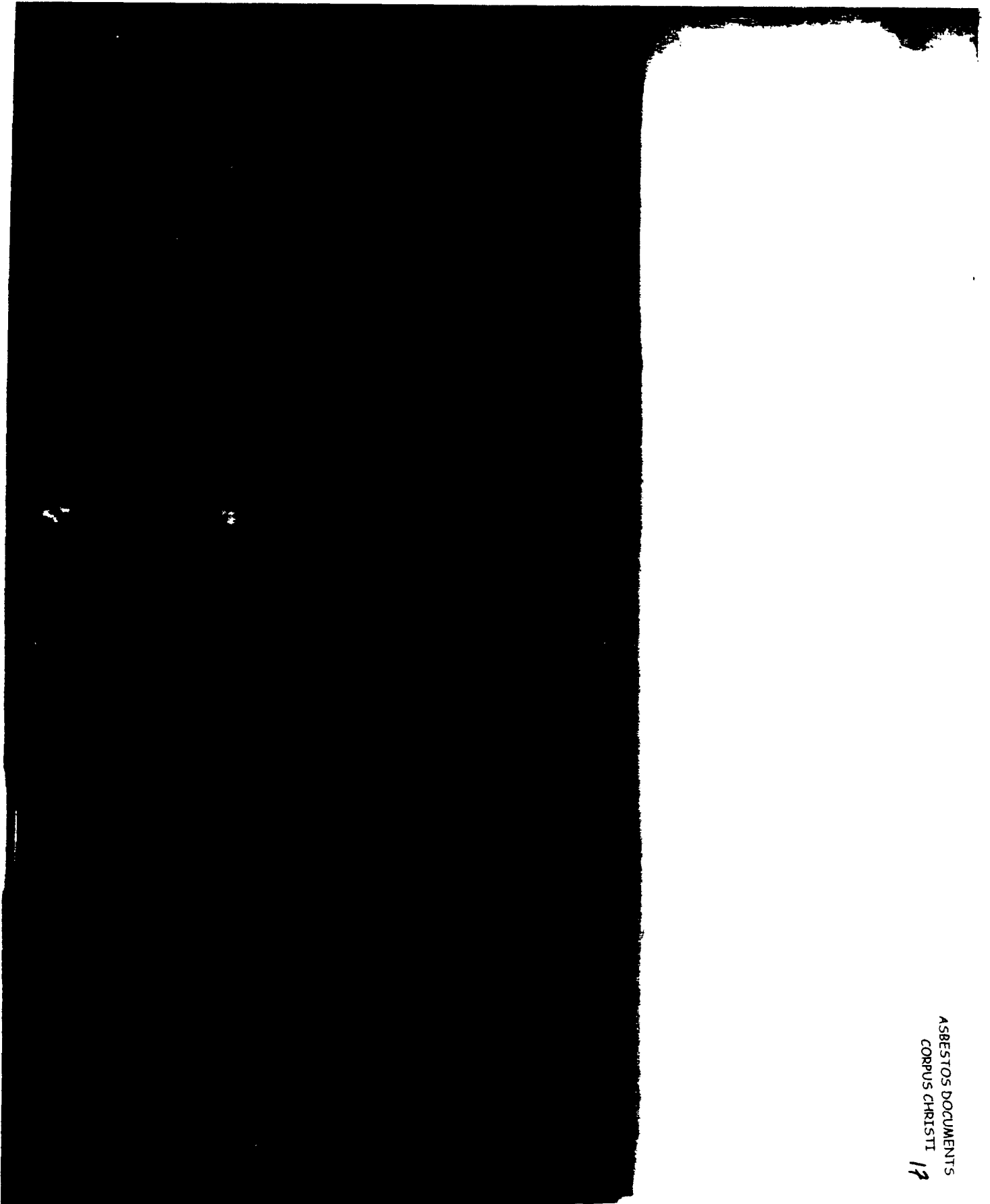
34 = 101.4 33%

412 NOV. FOR H REPAIR/CHG HTS.
TOTAL FINE ~ 450,000

RAM 0002579

APR 2 '92 13:25

513802700 1111 1111



Enclaves 2-Mem

RAM 0002555