FILE NAME: Rockwell (ROCK)

DATE: 1983

DOC#: ROCK002

DOCUMENT DESCRIPTION: Inspection Report - Assessment Respecting Asbestos Exposure-Rockwell International

ASSESSMENT RESPECTING ASBESTOS EXPOSURE
ROCKWELL INTERNATIONAL
HIGHWAY BRAKE AND TRAILER AXLE DIVISION
TILBURY, ONTARIO

The following assessment is documented to meet the requirements of Section 6 (1) of the Regulation respecting asbestos, Chapter 321 of the Revised Statutes of Ontario, 1980.

The completion of this document was achieved with the able assistance of the following personnel:

- Mr. Peter Belanger, Plant Chairman of Local 1941 of the UAW, representing hourly employees at the Tilbury plant;
- Mr. Edgar Labonte and Mr. Greg Church, both Health and Safety Committee Members of Local 1941 of the UAW;
- Mr. Joe Simard, Labour Relations Supervisor at Tilbury;
- Mr. Dan Ianicello, Manager, Industrial Relations at Tilbury;
- Mr. Mike Berthiaume, Director of Manufacturing at Troy, Michigan, and former Plant Manager at Tilbury.

The input from the various parties was greatly appreciated. It is a concensus that this assessment indicates Rockwell has satisfied the requirement and the intent of the Legislation.



Bankhead_Pltfs' Exhibit no 0450 pg1

WORKBOOK FOR
DESIGNATED SUBSTANCE ASSESSMENTS

SUBSTANCE: ASBESTOS (CHRYSOTILE)
DATE: AUGUST 22, 1983

COMPANY NAME: ROCKWELL INTERNATIONAL

DEPARTMENT/OPERATION(S):

HIGHWAY BRAKE & TRAILER AXLE DIVISION

LOCATION(S):

TILBURY, ONTARIO

ASSESSMENT PREPARED BY: W.J. LONG

TITLE: REGIONAL MANAGER, SAFETY ENGINEERING, TROY, MICHIGAN

DATE PREPARED: AUGUST 22, 1983

Bankhead_Pltfs' Exhibit no. 0450 pg2

APPLICATION — WORKSHEET 1: IS THE DESIGNATED SUBSTANCE PRESENT?

1. (a) Do any of the processes or activities or situations listed in the Appendix, or other information sources, indicate that the substance is or may be present?

YES ☒ NO ☐

1. (b) Do any data sheets or information from your suppliers indicate the presence of the substance?

YES ☒ NO ☐

2. If substance is present, indicate the department where it is used, nature of the use (i.e. direct or indirect) and the quantity purchased per month or year:

Product Name	Department	How Used? Direct/Indirect	Quantity Per Month/Year
BRAKE LININGS (CHRYSOTILE ASBESTOS)	RIVET & GRIND	DIRECT	* . 140,000 TOTAL/MO
	ASSEMBLY	DIRECT	. 80,000/MO ARE GROUND
	SHIPPING & RECEIVING	INDIRECT	. 17,200 ARE NON ASBESTOS LININGS
	QUALITY CONTROL	INDIRECT	
	WAREHOUSING	INDIRECT	. 400 OF THE 80,000 ARE NON ASBESTOS
	CENTRAL PAYOUT	INDIRECT	
	CAROUSEL	INDIRECT	**. 100,000/TOTAL/MO
	LIFT TRUCK DRIVER	INDIRECT	**. 40,000 ARE GROUND
			** 40% OF TOTAL LININGS ARE NON-ASBESTOS

* THESE FIGURES ARE FOR THE MONTH OF AUGUST, 1983

** " " " " " " " JANUARY, 1986

CONCLUSIONS

Read statements and check applicable box:

☐ Substance not present anywhere in workplace: regulation does not apply. **No Assessment needed.**

☒ Processes/activities have been identified where substance present. **Proceed to worksheet 2.**

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APPLICATION — WORKSHEET 2: IS WORKER EXPOSURE LIKELY?

1. In what form does the substance enter the plant? SOLID & SOME DUST IN THE BOXES.

   Product title: BRAKE LININGS

   Type of container: CARDBOARD BOXES STRETCHED WRAPPED Size of Container: 25 LININGS EACH OR 50 LININGS EACH

2. Is this form altered during use or in the operation? YES ☒ NO ☐

   If YES, indicate altered form: 57% OF LININGS ARE GROUND; THIS GENERATES DUST

3. Is there a possibility of the substance being released into the workplace environment during normal use? YES ☒ NO ☐

   If YES, indicate the stage of the operation or areas where this can occur. INSPECTION, MATERIAL HANDLING, RIVETING, GRINDING, BRAKE ASSEMBLY BENCH, STACKING AND BANDING.

4. If YES, to Question 3, specify the job functions and approximate number of employees who might be exposed: (see addendum #1)

Job Function	Number of Employees
RIVETERS & GRINDERS	10 OVER 3 SHIFTS

5. If YES, to Question 3, indicate how workers could be exposed:

   Inhalation ☒ Ingestion ☒
   Skin absorption ☐ Skin contact ☐

6. If NO, to Question 3, is there a likelihood of escape due to leaks, accidents, etc.? YES ☐ NO ☐

   Are workers likely to be exposed? YES ☐ NO ☐

CONCLUSIONS

Are there any activities/situations where exposure by any route is likely? YES ☒ NO ☐

If NO, no further action is necessary. Date completed _____

If YES, an assessment is necessary. — **Proceed to Section III**

Note: If protection against exposure has been left up to some engineering control measure which can fail, or deteriorate for any reason, or to a work/hygiene practice, an assessment is necessary. — ***Proceed to Section III.***

Bankhead_Pltfs' Exhibit no. 0450 pg4

ASSESSMENT — WORKSHEET 3: PROCESS DESCRIPTION

NAME OF PROCESS: BRAKE MANUFACTURE .

	Process Flow*	Description	Likely Exposure Yes/No
1.	RECEIVING AND LIFT TRUCK	Linings received in sealed cardboard boxes on stretch wrapped pallets.	No
2.	Q.C. INSPECTION	Very few boxes are opened for physical inspection.	No
3.	CENTRAL PAYOUT AND LIFT TRUCK	Weigh count done on all incoming boxes.	No
4.	STOCK ROOM AND LIFT TRUCK	Boxes, some open, most sealed stored in racks.	No
5.	RIVET STOCK AREA	Boxes, some open, most sealed stored in racks.	No
6.	RIVET AND LIFT TRUCK	All boxes are opened, linings removed, and riveted to steel brake shoes. Some dust is generated and collected by down draft tables and suction hose.	Yes
7.	GRIND AND LIFT TRUCK	Approximately 57% of the shoes are mounted on a grinder and the outside of the linings are ground to a specific radius. Dust is generated and collected in exhaust system.	Yes

* Add boxes as necessary

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ASSESSMENT — WORKSHEET 3: PROCESS DESCRIPTION

NAME OF PROCESS: BRAKE MANUFACTURE (Continued)

Process Flow*	Description	Likely Exposure Yes/No
8. RIVET AND GRIND AREA CLEAN-UP	Operators vacuum machine areas after each shift. Cartons are vacuumed after emptying. Vacuum hose is attached to bag house. Some dust is disturbed.	Yes
9. EMPTY BAG HOUSE	Dust from collector hopper is augered into plastic bags inside wooden boxes. Bags are sealed and labeled. Boxes are picked up by B.F.I., the Disposal Contractor and taken to the Ridge landfill site-approved certification No. 8000. Some dust can escape if proper procedures are not followed.	Yes
1). ASSEMBLY LINE & STACKING & BANDING	Shoes are assembled into a finished brake unit, stacked and banded on pallets, and sent to stretch wrap. Some dust may escape to the environment.	No
1). RIVET STOCK AREA	Holding area.	No
'0. PAYOUT CHECK	Assemblies are physically checked for proper components.	No
10. CENTRAL PAYOUT	Holding area	No

* Add boxes as necessary.

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ASSESSMENT — WORKSHEET 3: PROCESS DESCRIPTION

NAME OF PROCESS: BRAKE MANUFACTURE (Continued)

Process Flow*	Description	Likely Exposure Yes/No
10. STOCK ROOM	Holding area.	No
11. CAROUSEL FOR PALLETIZING	Finished assemblies palletized for shipment.	No
12. STRETCH WRAP	Palletized assemblies are wrapped in plastic (except for Ford and I.H.C.).	No
13. AXLE LINE STORAGE	Holding area.	No
* 14. SHIPPING PICK-UP	Palletized assemblies are transferred to Olsen's Warehouse.	No
* 15. HOLDING AT OLSEN'S	Holding area. * The Olsen operation was abandoned May, 1985. All shipping now done from Rockwell.	No
* 16. SHIPPING FROM OLSEN'S	Palletized Assemblies are loaded onto highway vehicles for shipment.	No
17. REWORK IN RIVET AND GRIND	Repairing defective brakes.	Yes

* Add boxes as necessary.

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ASSESSMENT — WORKSHEET 4: EXISTING CONTROLS

Process Flow Stage	Control Description	Problems/Recommendations
RIVET AND GRIND ROOM	Engineering Controls: . Wheelabrator 95 unit bag house complete with ducts to exhaust asbestos dust from 2 grinders and 7 rivet machines . Downdraft tables at each riveter. . Rivet and Grind Room under constant negative air pressure . Rework table exhausted to baghouse Work Practices: - Personal Protective Equipment . Coveralls . Respirators-3M No.8710 Disposable Dust Masks. The Approval No. is 3M-TC-21C-132. - Baghouse inspection and maintenance done quarterly by Endure, Filter Care Division. - Daily manometer reading - No smoking or eating in rivet and grind or assembly areas - Daily shift clean-up - Reporting dusty boxes for corrective action - Proper disposal of dirty clothing, dust and marked bags. - Use of separate lockers for work & street clothes - Visual inspection of ducts and repairs as necessary.	. Failure to open damper . Broken exhaust fan belts . Loss of power to exhaust motor . Broken or poorly seated bags . Fire in baghouse or ducts . Clogged ducts All the above are monitored by reading the manometer daily. The bags in the baghouse are Dupont 90521 F119 cotton bags. . Failure to secure plastic bag at end of auger. . Sometimes sweeping is done during rivet and Grind Room clean-up. This practice must stop and be replaced by a vacuum clean-up practice. *Purchasing Department is now searching for equipment to replace the unsatisfactory portable shop vacs originally purchased to correct this problem. * Vacuum units were purchased and have been in use for a couple of years.

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ASSESSMENT — WORKSHEET 4 — EXISTING CONTROLS (Cont'd)

Process Flow Steps	Control Description	Problems/Recommendations
RIVET AND GRIND	Hygiene Facilities and Practices: . Coveralls supplied & cleaned by Work Wear . No one leaves the plant in coveralls . Separate lunch facility east of cafeteria . No smoking allowed in Rivet and Grind Room or Assembly areas . Employees encouraged to wash up before eating or drinking. Training/Information: . New operators trained by foreman *. Edgar Labonte, Greg Church, Pete Belanger trained by W. Long in the use of Dupont monitoring equipment. . Labonte, Church & Simard attended "Health Hazards in the Workplace" seminar in Toronto, June 14-15, 1983. . Stewards, Chairman, President Committeemen, and Safety Committee have been to Troy T/C to learn microscope techniques. Emergency Procedures/Equipment: . Exhaust equipment to be shut down if system fails. . Foreman to contact Joe Simard immediately. Personal Protective Equipment: . All personnel (includ. visitors) in Rivet and Grind Room must wear respirators-3M-NO. 8710 (throw away masks) . Coveralls . Eye protection . Safety shoes . Gloves * J. Otley, R. Arnell, and R. St. John have been trained.	Supply separate dirty clothes locker and clean clothes locker separated by a shower room, with an adjacent eating area. For Rivet and Grind Room employees only. -Chosen by employees from several offered.

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ASSESSMENT — WORKSHEET 5: JOB EXPOSURE ANALYSIS

Process Flow Stage	Job Title	Total Number of Employees	Tasks Where Exposure Likely	Duration Hrs. Per Week	PPE Req'd. To be Used
1. REWORK	1. SALVAGE AND REPAIR		Knocking out rivets and replacing defective linings.	*-	Yes 3M-8710 Respirator

* 2 17 Hours - Contractural hours - not necessarily actual hours worked for 40 Hour Week

* 1 .17 Hours - Contractural hours - not necessarily actual hours worked for 48 Hour Week

CONCLUSIONS

Jobs/tasks to be noted particularly during walk through survey:

. RIVETERS
. GRINDERS

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ASSESSMENT — WORKSHEET 6: HEALTH EFFECTS

1 Any reported health effects? If so, describe.

NO

2. Any current Medical Program? If so, describe.

. Pre-employment medical for all new hires includes PA & Lateral x-rays and pulmonary function tests including FVC & FEV_1.

. Annual medicals for all employees to include x-rays & pulmonary function tests will begin in 1986.

. Preplacement training for health education.

. Asbestos exposure records are retained for 40 years after plant closure.

3. Previous exposure monitoring results? If so, describe.

*. Regular monthly sampling done by Edgar Labonte with Dupont vacuum pump and 37mm diameter millipore filter. Samples are counted at R.I. Tech Center by Murtis Hartry and reported back to the plant.

. W. Long samples annually as a check on E. Labonte's sampling.

. The Ontario Ministry of Health conducted comprehensive sampling in 1981 (Refer to the asbestos file in Personnel for sample results).

. Since brake production methods have remained essentially the same over the years, the results in the asbestos file still apply.
Rockwell commissioned McLaren & Associates in 1980 to do a complete asbestos environmental study. Results are available in Personnel.

. Sampling for asbestos has been done regularly since 1973.

* C. Otley, R. Arnel & R. St. John have since been trained to take asbestos samples.

CONCLUSIONS

Health effects known at this stage: YES ☐ NO ☒

This plant was acquired by Rockwell in 1959 and has been in operation for the past 24 years. The latency period for asbestos related disease is generally in excess of 20 years.

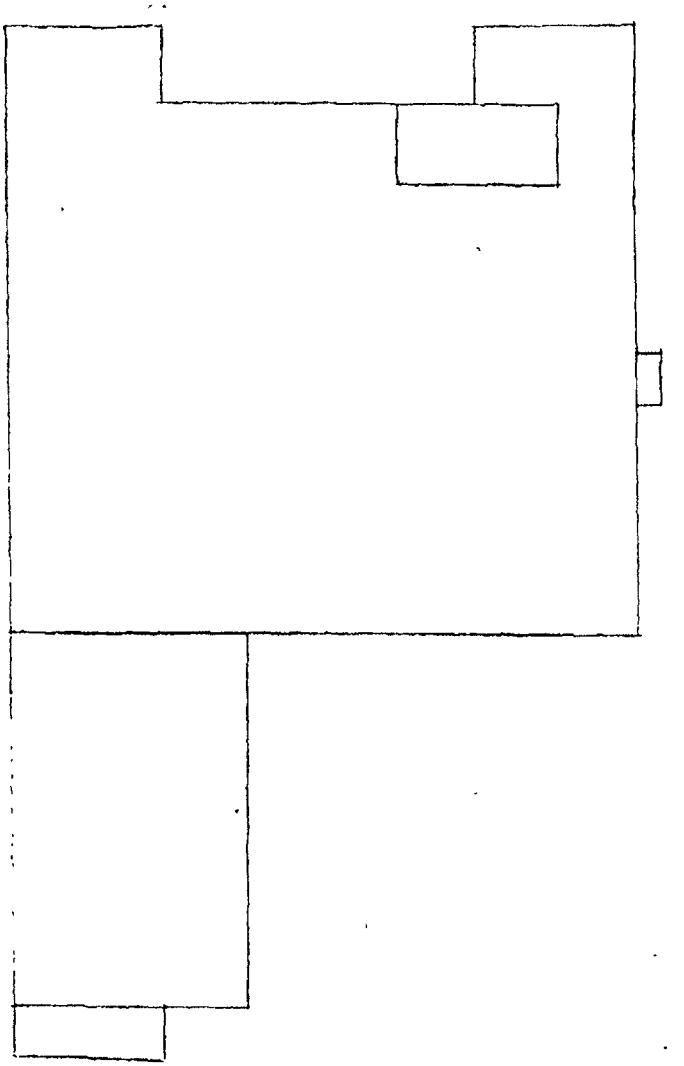
Further information required: YES ☐ NO ☒

Regular monitoring will continue and we will do what we can to continue to reduce the fiber count.

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ASSESSMENT — WORKSHEET 7: FLOOR PLAN

LOCATION: TILBURY, ONTARIO DATE: AUGUST 22, 1983

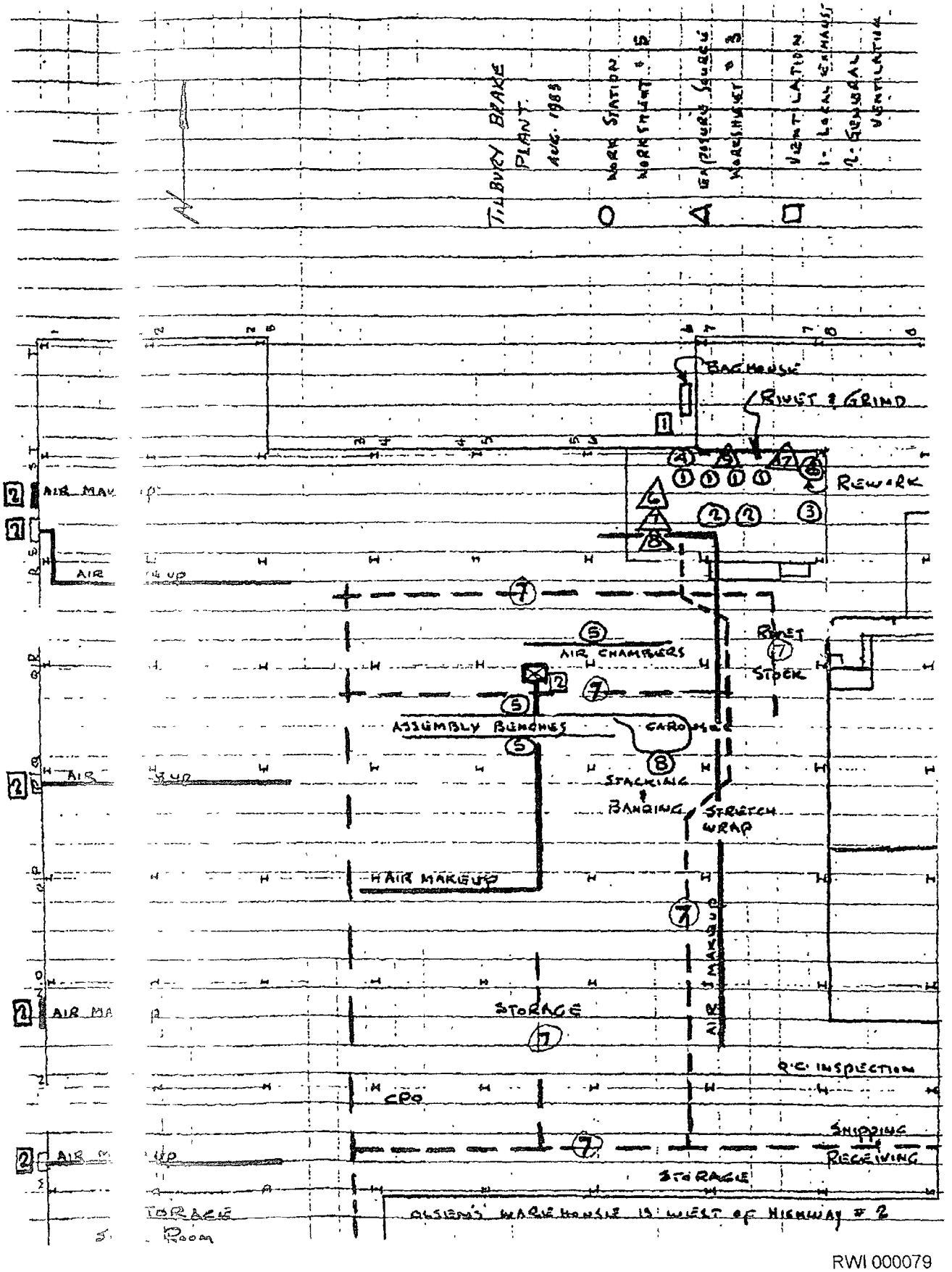


DIMENSIONS: L _____ W _____ H _____

○ WORK STATION — enter number from Job Title - Worksheet 5

△ EXPOSURE SOURCE — enter number from Process Flow - Worksheet 3

□ VENTILATION — enter 1 for local exhaust & 2 for general ventilation


TILBURY BRAKE PLANT
AUG. 1985
WORK STATION
WORK EMPLOYEE
EMPLOYEE SQUARE FOOTAGE
WAREHOUSE # 3
VENTILATION
1- LOCAL EXHAUST
2- GENERAL VENTILATION
BAGHOUSE
RIVET & GRIND
REWORK
AIR CHAMBERS
RIVET
STOCK
ASSEMBLY BENCHES
CARO
STACKING
BANDING
STRETCH WRAP
AIR MAKEUP
STORAGE
Q.C. INSPECTION
SHIPPING
RECEIVING
ALCOA'S WAREHOUSE IS WEST OF HIGHWAY # 2

RWI 000079

ASSESSMENT — WORKSHEET 8: WALK THROUGH

ADDITIONAL NOTES ON:

Evidence of Contamination:

. Some dust on ductwork in Rivet and Grind Room.

Hygiene facilities and Work Practices:

. An A.R. has been prepared to revise the locker room, shower, and eating facilities for the Rivet and Grind Room employees. See Engineering for layouts.

Ventilation Systems:

. The exhaust system - Baghouse and Ductwork operate efficiently as evidenced by the constant low fiber counts.

. Quarterly inspection and maintenance of the system is done by Endure, Filter Care Division.

Storage Facilities.

. Storage of raw materials nor the finished product present any health problems. Low fiber counts have been recorded in all these areas.

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ADDITIONAL NOTES ON:

Dispensing Procedures:

. Sealed and marked plastic bags in wooden boxes are used to handle all the waste products.

. B.F.I. transports all asbestos scrap to the Ridge Landfill site.

Housekeeping:

. Generally very good.

. Rivet and grind room employees vacuum after each shift.

Personal Protective Equipment:

. Rivet and Grind Room employees wear coveralls, 3M disposable respirators, safety glasses, safety shoes and gloves in certain operations.

Emergency Facilities/Procedures:

. The manometer was moved from the baghouse to the Rivet and Grind Room where it can be read anytime during a shift.

. In the event of exhaust failure maintenance and personnel must be notified immediately.

. The situtation will be assessed and a decision made on the merits of each case.

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ASSESSMENT — WORKSHEET 9: WALK THROUGH CONCLUSIONS

1(a) Were any areas found where controls are required or where existing controls may require improvement? YES ☒ NO ☐

1(b) If YES, indicate the areas where the controls may be required or where existing controls may require improvement.

AREA	SUGGESTED IMPROVEMENT
Rivet and Grind Room	. Continue to maintain the quarterly inspection of the exhaust system. . Continue to maintain a good housekeeping program.

2.(a) Personal exposure monitoring is required. YES ☒ NO ☐

2 (b) If YES, indicate where:

. Continue the program to monitor employee exposure in the Rivet and Grind Room on a monthly basis.

. Continue to sample other areas of the plant on a periodic basis to ensure exposure is maintained well below the allowable limit.

3. Indicate any workers for whom medical testing and/or examinations may be required:

. All the riveters and grinders.

Bankhead_Pltfs' Exhibit no. 0450 pg16

CONCLUSIONS: WORKSHEET 10: IS A CONTROL PROGRAM NECESSARY?

CONCLUSION I: NO WORKER'S HEALTH MAY BE AFFECTED.

CONCLUSION II: A WORKER'S HEALTH MAY BE AFFECTED.

. Exhaust ventilation in the Rivet and Grind Room generally works well.
. The Baghouse inspection is done quarterly by Endure--Filter Care Division.
. There are currently no reported health problems.
. The asbestos sampling program will continue as it has in the past.
. This ongoing program recognizes the presence of asbestos in the air, but it will maintain the employee exposure to the lowest possible concentrations.

CONCLUSION III: FURTHER ADVICE TESTS REQUIRED.

DATE ..... SIGNED .....

Bankhead_Pltfs' Exhibit no. 0450 pg17

ADDENDUM #1 TO THE ASSESSMENT RESPECTING ASBESTOS EXPOSURE - TILBURY

ASSUMPTIONS:

There is no definition of the word "exposure" in any of the material that constitutes the regulation respecting asbestos. The fiber counting procedure currently in use has definite accuracy limitations when the very minute concentrations are reached. Accordingly, for the purpose of this assessment, we have chosen to accept the I.A.P.A. (Industrial Accident Prevention Assocation) guidelines for exposure as being .5 fiber per cubic centimeter. The various actions required by the assessment and control program are predicated on that I.A.P.A. definition.

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ADDENDUM #2 - To the Assessment Respecting Asbestos Exposure - Tilbury

Many changes in the personnel involved with the development of this assessment have taken place since August, 1983. They should be listed in the interest of continuity of effort with this document.

1. Plant Manager Changes:
   - Mr. Dick Quaid replaced Mike Berthiaume in October, 1983.
   - Mr. John Thompson, current Plant Manager, assumed those duties February, 1985.

2. Personnel Manager Changes:
   - Mr. G. Willis replaced Mr. D. Ianicello in March, 1984.

3. Other Changes:
   - Mr. S. Travis replaced Mr. P. Belanger as Plant Chairman of Local 1941 of the U.A.W. in July, 1985.
   - Mssrs. J. Otley, R. Arnel and R. St. John are the current Health and Safety Committee members of Local 1941 of the U.A.W. Union.

February, 1986

Bankhead_Pltfs' Exhibit no. 0450 pg19