



File: Asbestos Task force ORC

From LAURA L. RIPPEY

To MR. C. F. DI MASCIO

PITTSBURGH OFFICE - 6

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1987 June 05

RE: ORGANIZATION RESOURCES COUNSELORS, INC.

The ORC is embarking upon a project to pool asbestos exposure data for various industry tasks involving potential exposure to asbestos. Participation in this effort will serve Alcoa well in two ways:

1. Having access to this sort of data will enable Industrial Hygienists to anticipate potential exposure levels associated with asbestos jobs and environmental controls. This information will be used to plan specific job procedures and protective measures necessary for jobs.
2. If a job being conducted in an Alcoa plant is analogous to one in the data base, which will result from pooled data, expensive and time-consuming daily sampling will not need to be done for all large asbestos abatement jobs. This reliance on historical data is allowed under OSHA's Asbestos Standard for Construction. The Industrial Hygienist will then be free to determine sample frequency based on professional judgement rather than having to meet the arbitrary sample frequency from the OSHA standard.

In order to participate in this project, ORC will be requesting funds to pay a consultant for computerization and statistical analysis of the collected data. The data collection and number crunching will be approximately a two-year project, so I propose that Alcoa contribute funds for each of the years. The estimate of monies required for each of the participating companies is \$1,000 for each year. Money for 1988 need not be contributed until 1988.

Attached is additional information describing this Asbestos Data Collection Project. If you would like to discuss my request, I will be free the week of June 22 and also the following week and into July.

LAURA L. RIPPEY

LLR:LMH

Att.

cc: R. M. James, Pittsburgh - 6 (w/a)



PLAINTIFF'S
EXHIBIT
AL-946

INTRODUCTION TO THE ORC ASBESTOS DATA COLLECTION PROJECT

GOALS

To be build a data base on the levels of airborne asbestos fibers generated during the completion of a variety of routine jobs in the chemical, petrochemical, telecommunications and utility industries.

INTENDED USE

This data base is intended to allow the participating companies to meet the requirements of the Occupational Safety and Health Administration for "objective data".

METHODS

The intent is to monitor a variety of separate jobs, and to establish a TWA exposure for each job. This would be done in the chemical, petrochemical, telecommunications and utilities industries. For the purposes of this study we are less concerned with the overall exposure of the individual (8 hour TWA) than we are with the actual fiber concentrations generated by each job.

THE BENEFITS

This "objective data" should allow participating companies to avoid doing new "initial monitoring" each time a small asbestos removal job is started so long as standard techniques are used. This data base should also allow small jobs to be performed without monitoring each worker during the course of the job.

In the telecommunications industry this data base should document the kinds of exposures that can be expected in routine telephone and cable installation jobs where it is known that asbestos is present. Protective measures appropriate to the known hazard can then be put in place to meet the requirements of the OSHA standard, and adequately protect workers.

In those industries, where it is not always known whether or not asbestos is present, the random sampling of a statistically significant number of jobs across the country should give a solid indication of the probability, on any particular like job, of encountering levels of asbestos at or above the 0.1 fibers per cubic centimeter of air, the action level in OSHA's asbestos standard.

HIGH CREDIBILITY NECESSARY

The requirements that OSHA is establishing for the collection of this "historical objective data" are strict. Therefore, for the data base to be credible and thus usable, all data must be collected in strict accordance with the rules of the study.

If we accurately collect monitoring data relating to levels of airborne asbestos fibers generated during certain operations, it can be used with confidence to meet our obligations under the OSHA Asbestos Standards. If we do not make every effort to be as accurate as possible in this study, we will be wasting both our money and our time.

REQUIREMENTS OF THE STUDY

The following are the general requirements that all participants in the study have been asked to meet in order to insure the smooth functioning and high quality of the study:

1. This study will require that participants monitor a significant number of employees engaged in activities where they may potentially be exposed to airborne asbestos fibers.
2. Documentation information will be collected for each operation monitored, recorded on the ORC forms and send to ORC in a timely fashion.
3. The data base development, data entry, and analysis of results will be done by a contractor, selected by ORC and approved by the Task Force, at a price agreed upon by the Task Force.
5. The cost of the study will be divided equally among those participating in the study.
6. Each participating company will receive a block of numbers that are reserved for its use. These numbers will be used sequentially to identify the sampling data sheets.
7. Each sheet will be the data for one person, one job, and one day.
8. For each job an actual TWA and an 8 hour TWA will be calculated.
9. All participants will have met the relevant requirements of the OSHA Construction Asbestos Standard (1926) or the General Industry Asbestos Standard, 1910.1001.

10. All participants will require the use of personal protective equipment and respirators if there is any reasonable chance of exposure at or above the action level.

11. All participants agree that sampling data will be for those doing "hands-on" work, not supervisors or observers.

12. All participants agree that all analytical work done for the purposes of this study will be performed by laboratories certified under the existing Professional Acceptance Testing (PAT), or the American Industrial Hygiene Association (AIHA) Asbestos Accreditation Program.

13. Where appropriate, the data collection forms should be filled out by industrial hygienists using their organizations monitoring data forms.

14. The sampling data forms will be signed by the person filling them out. The company name and address and a phone number for the person signing the sheet should be included.

15. Where reasonable, a certain amount of third party, (contractor/consultant) monitoring should be done as part of the study and identified as such on the data sheet.

16. A separate company data sheet should be included along with each company's sampling data sheets. This sheet should have information about the percent of the potentially exposed employee population that was monitored, the total number of employees monitored, and total number of employees in the corporation.

17. The company data sheet should discuss how jobs enter the system, and how the particular job site and individual(s) who do the work are chosen. This needs to be done to establish the degree of randomness in the system.

18. Employees participating in this study should have received the OSHA required training for working with asbestos.

19. Detailed data from this study will be available only to those organizations that participated in the study.

20. Companies not having participated in the study initially, but wishing to have access to detailed data from the study after it is completed, must agree to do a certain minimum amount of sampling using the agreed upon task force protocol and data collection forms, the results to be entered into the data base.

21. Once the information on the sampling data sheets has been entered into the data base, they will be microfiched and each participant in the study will receive a copy of all of the sampling data sheets in the study.

22. The final results of the study will be written up and submitted for publication to the AIHA Journal.

This data is to be collected with all participants using the same sampling and analytical techniques, and the data recorded on the same form. This information will form the data base of "objective data", documenting the levels of airborne asbestos fibers generated in a variety of jobs, across 4 large industrial classifications, and many individual corporations.

This monitoring data is to be collected with a high degree of accuracy, and thoroughly documented. It is intended that this study be highly credible and able to withstand close examination and criticism.

Many of the jobs that this project will examine are similar across a variety of industries. For instance, removing asbestos insulation from around a valve before working on it. This job, if done in accordance with accepted, good industrial hygiene and safety practices, will be performed similarly in the chemical, petrochemical, or utility industries. With similar jobs and procedures, one would expect that actual levels of airborne asbestos fibers generated would also be similar across different industries; the study may tell us if this assumption is correct.

Sampling Data Sheets

Two sets of sampling data sheets will be used; one intended for use in "small scale" work as defined by OSHA, and the other for primary removal, demolition and renovation.

Small scale work would include a variety of jobs in the chemical, petrochemical, telecommunications and utilities industries where the removal of asbestos was incidental to the accomplishment of the job. Large scale jobs would include those where asbestos is being removed from buildings, where asbestos containing pipe insulation is to be removed and will be replaced with other insulation. and other operations where the removal of asbestos is the main purpose of the job.

Each set of sampling data sheets will have two pages of questions designed to collect background data, and one air sampling data sheet to record the actual monitoring data.

Collection Project

1. SHEET NUMBER

2. TASK
(CHECK ONE)

- ☐ ACM Removal
- ☐ Drilling/Cutting
- ☐ Pulling cable
- ☐ Splicing cable
- ☐ Cable maintenance
- ☐ Remove cable cover
- ☐ Open ceiling tiles
- ☐ O & M Clean-up

3. AMOUNT OF ACM REMOVED

- square ft.
- cubic ft.
- none
- unknown

4. ACM FORM
(CHECK ALL THAT APPLY)

- ☐ Sprayed on insulation
- ☐ Equipment insulation
- ☐ Pipe insulation
- ☐ Boiler insulation
- ☐ Floor tiles
- ☐ Ceiling tiles
- ☐ Clutches
- ☐ Brakes
- ☐ Gaskets
- ☐ Pipe fittings
- ☐ Large diameter pipe > 12"
- ☐ Small diameter pipe
- ☐ Asbestos cement
- ☐ Roofing
- ☐ Transite Board
- ☐ Transite Pipe
- ☐ Other

5. TYPE OF ASBESTOS
(INDICATE % IF KNOWN)

- ☐ % amosite
- ☐ % chrysotile
- ☐ % crocidolite
- ☐ Unknown

6. OTHER FIBROUS MATERIALS
PRESENT

- ☐ Yes ☐ No

7. ACM CONDITION

- ☐ Loose/friable
- ☐ Hardened/non-friable
- ☐ Encapsulated

8. STRUCTURE OWNERSHIP

- ☐ Company Owned
- ☐ Leased

9. STRUCTURE
(CHECK ONE)

- ☐ School
- ☐ Hospital
- ☐ Office
- ☐ Telecom Central Office
- ☐ Warehouse
- ☐ Factory
- ☐ Garage
- ☐ Residential
- ☐ Control room
- ☐ Laboratory
- ☐ Offshore Platform

10. ACM LOCATION
(CHECK ALL THAT APPLY)

- ☐ Above hung ceiling
- ☐ Beams/columns
- ☐ Boiler/engine room
- ☐ Crawl space
- ☐ Tunnel
- ☐ Manhole
- ☐ Cable vaults
- ☐ Outdoor
- ☐ Other

11. LOCATION OF JOB WITH
RESPECT TO ACM

- ☐ Adjacent to
- ☐ On
- ☐ Through
- ☐ Other

12. DISTANCE TO ACM

- ☐ 1-3 ft.
- ☐ 3-5 ft.
- ☐ 5-10 ft.
- ☐ 10-20 ft.
- ☐ > 20 ft.

10. ACM DISTURBED

- ☐ Yes ☐ No

11. AIR TEMPERATURE

- ☐ > 32° F
- ☐ < 32° F

12. CONTROL METHODS
(CHECK ALL THAT APPLY)

- ☐ Enclosure (without negative pressure)
- ☐ Enclosure (with negative pressure)
- ☐ Power tools with exhaust ventilation
- ☐ Wetting agent
- ☐ Glove bag
- ☐ Hepa vac
- ☐ Wet wipe
- ☐ Alternate route
- ☐ Ventilate
- ☐ None

13. SAMPLING/ANALYTICAL METHOD

- ☐ NIOSH 7400
- ☐ Appendix A OSHA Standard
- ☐ Other (specify)
- ☐ Confirmatory Analysis (by SEM, TEM)

14. SAMPLING COMPLETED BY

- ☐ In-house
- ☐ Contractors

15. REMARKS

1. Cassette #
— (One worker only)
— (One job only)

	1	2	3	4
2. Sample duration: (minutes)				
3. Fiber Concentration: (f/cc)				

4. Duration of job: (total min. pump ran) _____
(total individual sample durations from 4) _____

5. Actual TWA

6. 8 hour TWA:

7. Pump flow rate: (ltr/min) Pre-sample _____ Post-sample _____

8. Pump Calibration: _____ Pump Cereal Number _____

9. Date: _____ / _____ / _____
Month Day Year

10. Worker ID (if applicable): _____

11. Upset conditions ___Yes ___No

Comments (spills, unplanned events, etc.)

Signature/title of person filling out form

Print name in full: _____ Phone No. _____

Company name (print) _____

City _____ State _____