file Asbestos

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H & S

BDD JD
JPA PDM
FB RMJ
TBB LLR
WBG DEH
EDS SC

MAR 4 1987

Organization Resources Counselors, Inc.

Memorandum

February 27, 1987

To: ORC Asbestos Task Force

From: Darrell K. Mattheis and Rebecca L. Daiss

Subject: Report of February 17 and 18, 1986 Asbestos Task Force Meetings

The two Asbestos Task Force subgroups - the chemical and petrochemical group, and the telecommunications and utilities group - which met on February 17, and 18 will combine to form a single Asbestos Data Collection Task Force. The next meeting of the combined task force will be on March 10, 1987 at ORC's Washington Office, beginning at 9:30 a.m. and continuing until approximately 3:00 p.m. **Please return the attached sign-up sheet if you plan to attend.**

Report of the February 17 Meeting

Purpose

Presently under OSHA's asbestos standard, employers performing small, short duration jobs, potentially involving asbestos containing material, are required to monitor for asbestos even though, based on expertise and past experience, the employer is confident that asbestos is not present above the action level. The cost of monitoring every job is unacceptably high. OSHA has provided an alternative to monitoring within the standard, however. OSHA will accept an employers decision that monitoring is not necessary if he is able to provide OSHA with data which supports that decision. Such a data base does not presently exist. The purpose of this task force was to first determine whether the establishment of a data base is feasible, whether it is worth the time, effort, and expense involved, and if so, to determine the means of creating a reliable data base.

It was agreed that, although such an undertaking will be costly and time consuming initially, the savings in the long run afforded by a sound, comprehensive data base, will far outweigh the initial costs.

PLAINTIFF'S EXHIBIT AL-953

Discussion

Because the manner in which asbestos is encountered varies so greatly from industry to industry and from job to job, the establishment of a representative data base will be a complex task. A determined effort will have to be made to standardize, to the extent possible, every aspect of the effort - collection, compilation, and analysis of the relevant data.

The group broke the task down into its primary parts and then prioritized them as follows:

1. Develop Data Collection Form

2. Establish Collection Methodology, i.e., sampling methods, quality assurance controls, etc.

3. Establish 3rd Party Monitoring Program

4. Determine Vehicle for Compilation, Entry, and Analysis of Retrieval

Data Collection Form

The task force spent the remainder of the meeting developing the format of a survey questionnaire designed to collect information on typical asbestos exposures of employees in the chemical/petrochemical, and telecommunications/utility industries. It is important that the survey be brief and as simply designed as possible to ensure participation, and at the same time elicit all of the necessary information in a quantifiable, analyzable form. A long and complicated survey which involves too much time and effort to complete is likely to either be ignored or returned incomplete.

A preliminary draft of what the task force narrowed down as information vital to the establishment of an effective data base is attached (attachment 1). Questions 4-8 of the attached form are specific to the chemical and petrochemical industry. The jobs performed by the chem/petrochem and telecom/utility industries differ to the extent that the information requested in this segment cannot be standardized to pertain to both. Questions specific to the jobs done in the telecommunications and utilities industries will have to be formed and the survey will have to tree into separate sections for the two types of industry. The first part of the survey, however, is applicable industry wide.

The quality of the results of the survey depends as much on how data is collected as on what data is requested. The survey must be specific as to the units of measurement, collection methods, and sampling techniques. Unless these are standardized, the data will be useless. The difficulty in standardizing collection

methods lies in the need to be flexible enough to allow for use of different techniques already being applied, but rigid enough to ensure that the data collected in numerous industrial settings can be combined into a single set of data for purposes of analysis. The form produced at the meeting does not address the specifics of collection techniques and methodology. The precise parameters of those items involving data collection have yet to be determined and defined. Specifically:

- The information which should be included in the sequence identifier will have to be determined.

- Job categories will have to be standardized.

- The parameters of sampling methods will have to be standardized:

  The specifics of personal sampling i.e., the sampling methods which deal most effectively with the problems of obtaining statistically interpretable data from short duration, low fiber concentration jobs, will have to be determined and precisely defined in the survey.

  One of the critical problems of any data collection effort for asbestos, is the necessity to pull enough air through your filter to assure a representative sample. If a job only lasts 15 minutes, it will be difficult to pull enough air to allow a reliable limit of detection below 0.1 f/cc on an 8 hour TWA.

  One suggestion was to start the pump when the installer leaves his/her vehicle, and stop it when they get back in. There are many problems with this approach, but we do need to come with a satisfactory solution to this limiting factor.

  One suggested approach is as follows:

  "For personal sampling, monitor at a flow rate of 2.0 liters/min. Monitor the amount of air necessary to allow for a reliable limit of detection below 0.1 f/cc on a TWA of 8 hours. Request that the cassette samples be analyzed by the laboratory in the following manner:"

  "Analyze using the NIOSH Method 7400. If results are at or above 0.1 F/cc do confirmatory analysis using scanning electron microscopy, (SEM)." Thanks to Kent Kunce for the above suggested approach. Mr. Kunce has also kindly made available to the task force, the "Air Monitoring Attachment 1, Required Air Volumes," which is attached to this report (attachment 2).

- o Quality assurance controls will have to be specified.
- o Bulk sampling categories of asbestos type, and ranges for amount of asbestos present, have to be set.
- o Units of measurement and measuring techniques will have to be specified.
- o Requirements for 3rd party monitoring as a means of validating the results of the survey will have to be determined.

Steve Dixon, Dupont and R. Wolfe Wagner, ICI Americas, and Ann Venetta, AT&T and Jim Degan, Nynex, volunteered to refine and expand upon the attached draft as discussed above for the chemical /petrochem and telecom/utilities industries respectively. Attached for review prior to the March 11 meeting is a copy of the form for recording the asbestos exposure data which Steve Dixon and Wolfe Wagner developed and which has already been sent out to the task force by facsimile transmittal to those who attended the meetings on the 17 and 18 **(attachment 3)**.

It is hoped that that form will be submitted to statisticians and industrial hygienists within each company for review and comment prior to the March 10 meeting. Input from statisticians is essential to ensure that the data produced can be statistically interpreted and analyzed. Each company will have to determine internally the number of samples needed to produce statistically significant data.

That draft will be reviewed and revised as necessary at the March 11 task force meeting. Representatives from OSHA will be attending the morning session of the March 10 meeting and can comment on the needs of the survey from the Agency's perspective.

Purpose of the March 11 Task Force Meeting

1. To review, revise, and refine the format of the data collection survey.
2. To agree upon and standardize specific methods and techniques of data collection.
3. To determine the best route for compilation and analysis of the data retrieved from the survey.
4. To determine the estimated cost of the entire survey effort and decide how the effort is to be paid for.

Report of the February 18 Task Force Meeting

Purpose

This meeting was to provide a forum to examine the problems facing the telecommunication and utilities employers in particular in complying with the OSHA Asbestos Standards and develop recommendations for OSHA. Specifically the group discussed the difficulty of meeting requirements for monitoring, showers, protective equipment, and the determination of the presence of asbestos.

Conclusions

Determine The Economic Costs of OSHA's Asbestos Standards

The task force concluded that it should examine the feasibility of collecting economic data on the costs of compliance with the OSHA Asbestos Standards. OSHA did a poor job of costing out the impact of the asbestos standard on the telecommunications and utilities industries. This information would be useful in dealing with OSHA and enlisting the aid of OMB.

For instance, what would be the costs to the telecommunications and utility industries of giving every employee who MIGHT be exposed to asbestos the physical examination required by the construction standard? What would the cost be if in fact these industries attempted to monitor each and every job? What would the economic consequences be of attempting to make showers available for every employee who might be exposed to asbestos as is required by the construction standard?

Consider Legislative Action as an Alternative

The most cost effective approach to achieving compliance with OSHA's Construction Asbestos Standard may be to push for national legislation to force building owners to inform all tenants of the presence of asbestos. Such legislation would render a lease legally null and void if the owner/landlord does not inform, in writing, the tenant of the presence or absence of asbestos in the building and the space being leased. We will discuss this further at the next meeting.

For The Next Meeting

Before we decide to try to collect costs, we must determine how much data is available and how hard it will be to collect. The Task Force should be prepared at the March 10, 1987 task force meeting to answer the following questions:

* What should we look at?

* How can we get at it?

* Examples of questions to be considered:

  1. Job shifting;

  2. the liability issue on less than total compliance with the OSHA Asbestos Standards;

  3. Shower availability;

  4. Costs of monitoring every job;

Discussion

On many of the jobs where telephone installers operate, the customers lease the space and do not know if asbestos is present or not. Some telephone companies are asking the customer for a certification that the premises are asbestos free before they will begin a job. If asbestos is present, they look for an alternate route, or ask the customer to remove the asbestos. If the customer will not do it, they do not do the job. This costs a company a certain number of jobs every year.

Many times, the customer when faced with the situation discussed above, will turn to "mom & pop" companies who will come in and do the installation with no questions asked, no protective equipment used, and at a cheaper price. OSHA needs to be pushed hard on this issue because this job shifting is forcing companies with well organized safety & health programs out of this area. At the same time it is bringing in an influx of small installers who lack safety & health training and protective equipment, as well as any incentives to get either!

The telecommunications companies are being forced to confront the question of "Do we really want or need this business?" One must make a decision, for a job is either asbestos free, or it is over the line!

We must ask the question, using historical data, are you willing to accept the statistical risk of finding asbestos where you do not expect it? Most answer **NO!**

Most organizations would rather rely on good work practices if at all possible, rather than protective equipment. If you open the ceiling and find asbestos, then you do not do the job. The problem is that after you have opened the ceiling tile, what kind of exposure did your employee receive?

The point that we have to make, regardless of what the data shows, is that a broad interpretation of "representative" sampling is necessary because of the diversity of jobs. If the data shows fairly consistent levels of exposure, then we need to rely upon it. We may not like what we find, because in the past we have often looked at best case situations.

What do we do about PPE while monitoring is being done? The unions will push for PPE if you are sampling for asbestos exposure!! If employees are given a respirator to wear while monitoring, then they must all receive medical surveillance.

One company's approach is to have all people given medical exams if there is any possibility that they may be exposed. Some organizations have attempted to use the Racal PAPR system, but that causes a problem with the customers employees as soon as it is seen!

What we may need to consider is national legislation to force building owners to determine if their buildings have asbestos, and then inform their tenants. One might word legislation such that a lease would legally be null and void if the building owner or landlord did not inform the leasing company of the presence or absence of asbestos.

OSHA's asbestos standards are forcing companies with good S & H programs to set such high requirements before they are willing to do the job, that customers are turning to "mom & pop " shops. Thus, OSHA is causing more exposures to more people in this business than before the standard.

If a company did try to conform to the monitoring requirements of the OSHA standards, there are simply not enough industrial hygienists available in the country to do all of the monitoring, or enough analytical capacity to handle the number of samples.

Most companies are already losing money on telecommunications installation, and to be forced to go into an expensive protective program may just force a lot of companies out of the business.

An important question is, can we collect accurate data to demonstrate what the OSHA asbestos standards are doing to costs and job shifting? If we can collect this information in a credible way, we would have a solid case to make in discussions with OSHA or OMB.

To deal with the monitoring requirements of the construction standard, we will have to rely on our data base, training, work practices and recordkeeping.

What we need to do then is to collect the economic cost data on doing installations, giving medical examinations to all installers, job shifting, and monitoring.

Protective clothing is not a good solution unless you know from the start that there is asbestos in a particular building. The problems raised when customers employees see telephone installers in protective equipment and respirators can be difficult to deal with, and potentially expensive.

Wearing protective clothing is expensive also, and installers would have to change before each job, wasting more time and money. It usually takes 4 suits/worker/day for an 8 hour removal job. Also on costing such a job, you must include having someone stationed outside the enclosure to hand tools etc., in to the workers.

Showers must be available when a removal job is being done for the practical reason that if it is a big job, asbestos often gets down the inside of the protective suit because the neck joint is not snug enough.

In the telecommunications and utility industries, virtually no one has showers available. If they had to use portable showers, you are speaking of a special vehicle costing in the range of 50-100,000 dollars each. To have showers you must have water, both carrying and holding tanks, driver, etc.

One approach may be to have sales people make the determination of the presence or absence of asbestos.

The bottom line is that we cannot, really, in good faith ask OSHA to allow us out of the shower requirement. The requirements of the standard essentially tie OSHA's hands. Industry must simply make its own best judgement about what must be done, do it, and defend it on that basis.

Consequently, following this lengthy discussion of the problems in terms of cost, time, etc. which compliance involves, the group decided that the data collection effort provided the most effective, least costly, avenue of compliance. Until it can present OSHA with data which shows that the level of asbestos to which a typical telecom/utility industry employee is exposed is not significant enough to subject those jobs to full extent of the standard, that industry is not in a position to ask OSHA to relax or alter requirements of the standard.

Consequently, until a reliable data base is established, the only alternative available to industry is to take a conservative approach; assume asbestos is present when its presence or absence is unknown and implement fully the requirements of the standard. Under this approach, the cost of a job will increase significantly and jobs, where the owner of the site is unable or unwilling to cover the added cost, may have to be rejected. We have attached copies of flow charts provided by Dean Chapell, GTE, and Andy Shapiro, U.S. West Information Systems, which delineate alternatives for dealing with OSHA's Asbestos Standard in the telecommunications industry (attachment 4).

Darrell K. Matthews

BD/1

Rebecca L. Davis

Please return to: Joyce K. Jenkins
Organization Resources Counselors, Inc.
National Place, North Lobby - Suite 911
1331 Pennsylvania Avenue, N.W.
Washington, D.C. 20004

( ) I will attend the March 10, 1987 Asbestos Data Collection Task Force meeting at the ORC Washington office, National Place, North Lobby - Suite 911, 1331 Pennsylvania Avenue, N.W., Washington, D.C. 20004.

Time: 9:30 A.M.

For ORC Records

Name_____

Title_____

Company_____

Address_____

Telephone_____

2/87

ASBESTOS DATA COLLECTION FORM

1. Sequence Identifier (Date/location/etc.)

2. Job Assignment (Maintenance, etc.)

3. Sampling Data
   a. Duration
   b. Concentration
   c. Type of sample
      1. Personnel
      2. Area
   d. Sampling done
      1. In house
      2. By contractor
      3. By 3rd Party

4. Substance Monitored
   a. bulk sample analysis;
      1. % asbestos: less than 10% - 10% to 50% - 50% to 100%
      2. Type: roofing/cement/insulation/gasket/tiles/ transite etc.)
   b. Identify control interference (other fibers present)
   c. Condition of use - use EPA standard definitions

6. Process description / Work practices
   a. Negative pressure enclosure or not
   b. Glove bags
   c. Wet methods (yes or no)
   d. Small enclosure (as distinct from glove bag job)
   e. Amount (volume depending on job type)
      1. cubic feet
      2. square feet
      3. linear feet
   f. Duration of job

7. Task
   1. Set up
   2. Remove cover
   3. Remove insulation
   4. Clean up
   5. Supervising
   6. Spraying (water)
   7. Ceiling removal
   8. Non Removal Tasks
      1-8 a. Tools used in task (power tools etc.)
      1-8 b. Environmental conditions
         1. inside/outside
         2. wind
         3. temperature

8. Unusual occurances (upsets/unplanned events)

AIR MONITORING
ATTACHMENT 2
REQUIRED AIR VOLUMES

A. An adequate air volume is an essential part of obtaining meaningful sample results.

B. The air volume required for acceptable sample accuracy is influenced by the legal or recommended standards to which the results will be compared and by the microscope used by the analyzing laboratory.

C. The formula which is used in NIOSH Method PCM239 and 7400 follows:

$$\text{Fibers/cc} = \frac{\left(\frac{F - B}{n}\right)(A)}{(1000)(T)(FR)(MFA)}$$

where
F is the number of fibers counted;
B is the number of fibers in the blank;
n is the number of fields counted;
A is the effective collection area of the filter;
T is the time sampled in minutes;
FR is the flow rate of the pump;
MFA is the microscopic field area.

For a 37mm filter, A = 855.
For a 25mm filter, A = 385.

The MFA can vary from microscope to microscope. It usually ranges from 0.0030 to 0.0080.
If Method 7400 is used, the MFA must be 0.00785.

D. The lower limit of detection of the NIOSH method requires that at least 10 fibers be counted in order to determine an exact fiber concentration. Otherwise, a "less than" assignment must be given to the results.

$$\text{air volume} = \frac{(.10)(A)}{(100)(1000)(MFA)}$$

LOD = Limit of detection

Attachment 3

ORC EXPOSURE TASK FORCE
SAMPLING FORM
(see instructions on back side)

IC CODE (leave blank) _____

BACKGROUND INFORMATION

Form of Asbestos Containing Materials(s) Being Worked with:

☐ building sprayed-on insulation (loose)	☐ pipe insulation	☐ equipment insulation	☐ brake shoes
☐ building sprayed-on insulation (hardened)	☐ pipe outer covering	☐ boiler insulation	☐ gaskets
☐ building sprayed-on insulation (encapsulated)	☐ laboratory bench	☐ roofing material	☐ other specify _____

Methods Used to Control Asbestos Exposure

☐ enclosure (without negative pressure) ☐ power tools without ventilation specify type _____ ☐ wetting agent, specify type (if known) _____

☐ enclosure (with negative pressure) ☐ power tools with ventilation specify type _____ ☐ glove bag ☐ other _____

Work Done - ☐ indoors ☐ outdoors 3a. Air Temperature - ☐ less than 50°F ☐ greater than 90°F

Percent Asbestos in Material (if known) ☐ 0 - 5% ☐ 5 - 10% ☐ 10 - 25% ☐ 25 - 50% ☐ 50 - 100%

Are other fibrous materials (glass fibers, paper fibers, rock wool, etc) being worked with in area? ☐ yes ☐ no Explain (if yes) _____

The Asbestos sampling/analytical method is: ☐ NIOSH 7400 or Appendix A OSHA Standard ☐ Other Specify _____

AIR SAMPLING DATA

ple #.	Date Mo/Day	Worker or area Number	Pump Flowrate liters/minute	Sample Duration (min)	Fiber Conc. fibers/cc	8 hr TWA Conc. fibers/cc	Amount of Time Spent Working with Asbestos	Specific Activities (see code)	Upset Conditions yes/no	Amount of Asbestos Removed During Sample	Comments (spills, unplanned events, etc)

(SPACE WILL BE EXPANDED IN FINAL VERSION)

CONFIDENTIAL INFORMATION (NOT TO BE RELEASED OUTSIDE OF ORC STAFF)

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INSTRUCTIONS FOR FILLING OUT FORM
(to be on reverse side of form)

A. BACKGROUND INFORMATION

1. Form of Asbestos Containing Material(s) Being Worked With

What is the type of asbestos material being removed/disturbed?

2. Method to Control Asbestos Exposure

What is the type of method(s) used to minimize the asbestos exposure?

3. Work Done Indoors or Outdoors

Was the asbestos removal/disturbance done inside a building or outdoors?

4. Percent Asbestos in Material

Check the appropriate box if a bulk sample of the asbestos material has been analyzed for asbestos content.

5. Are Other Fibrous Materials Present

Other fibers such as fiberglass, paper, and rock wool will be counted as fibers by the NIOSH/OSHA analytical method.

6. Asbestos Sampling/Analytical Method

The NIOSH Method 7400 and the OSHA Appendix A method both all for the use of 25 mm filter cassettes, sampling cowls, and specific counting techniques. Please specify any modifications made to the method.

B. AIR SAMPLING DATA

1. Date - enter month and day

2. Worker or Area Number

Each person or area should be assigned a unique number. More than one sample can be taken on one person or in one area.

3. Pump Flowrate

The pump flowrate should be the averaged flowrate as determined by calibration with a primary standard such as a bubble tube.

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4. Sample Duration

The duration of time for the sample.

5. Fiber Concentration

The fiber concentration (fibers per cc) as determined from the laboratory analysis. Use "GT" and "LT" for "greater than" and "less than" (respectively). If the sample filter is overloaded, note GT before the result.

6. Estimated 8 hour Time Weighted Average (TWA)

If more than one sample was taken on a person during a shift, a time weighted average should be calculated using the below formula:

$$\frac{C_1T_1 + C_2T_2 + \ldots C_nT_n}{T_1 + T_2 + \ldots T_n}$$

C_n = the fiber concentration for sample n
T_n = the sample duration for sample n

7. Amount of Time Spent Working with Asbestos

During the time of the sample, estimate the amount of time the worker was exposed to asbestos. Do not include preparation and clean-up time.

8. Specific Activities

Insert the code(s) for the specific activity(s) of the person during the period of the sample.

A = Operator performing task with direct exposure to asbestos
B = Supervising task
C = Operating sprayer
D = Onlooker (no direct exposure)
E = Monitoring exposure
F = Clean-up
G = Set-up
H = "throwing" electrical or telephone cables above false ceiling

9. Upset Conditions

Was there a greater than normal exposure to asbestos due to an unplanned event. Specify event in the comments section.

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10. Amount of Asbestos Removed

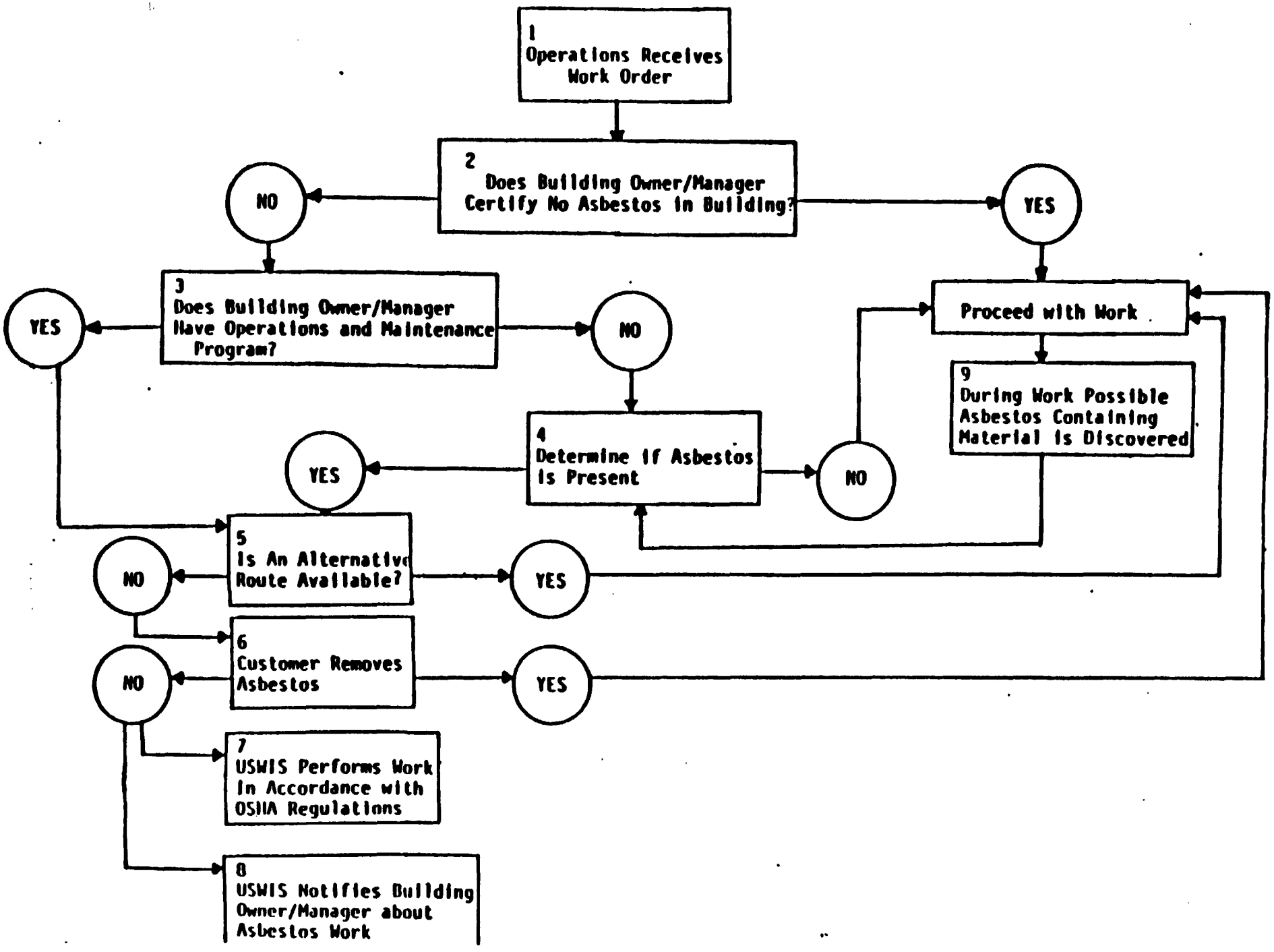
For the time period sampled, estimate the amount of asbestos removed in cubic feet (length x width x thickness). For pipe insulation, specify the pipe diameter and length of pipe insulation removed.

11. Comments

Specify any upset conditions, sampling pump malfunctions or other unusual events.

RWW/tlb/870220

DECISION TREE FOR OPERATIONS WITH ASBESTOS IN BUILDINGS



DESCRIPTION OF STEPS IN DECISION TREE FOR OPERATIONS IN BUILDINGS

STEP

1 Operations Receives Work Order or Equivalent

The contract will contain a clause explaining the necessity for customer and U S WEST Information Systems to adhere to Health and Safety Rules and Regulations including OSHA Asbestos Regulations in the performance of work.

2 Does Building Owner/Manager (BOM) Certify Asbestos-Free Environment

U S WEST Information Systems is obligated to follow OSHA Asbestos regulations; it must know if asbestos is present. U S WEST Information Systems representative will query customer for responsible party to approach for certification of asbestos presence or absence.

If asbestos is not present, a certification will be issued by the BOM to this effect and work should proceed.

If the BOM will not or cannot issue a certification that environment is asbestos-free, asbestos could be present and the BOM may or may not know this.

3 Does BOM have an Operations and Maintenance Plan?

If the BOM knows asbestos is present and has an Operations and Maintenance plan for asbestos, U S WEST Information Systems will adhere to its own procedures and the BOM plan.

4 Determining If Asbestos Is Present

If the BOM does not know if asbestos is present, the U S WEST Information Systems representative will contact a qualified contractor (see list) to obtain small bulk samples of the possible asbestos containing materials (ACM) for analysis to determine if asbestos is present (when suggested contract language is used, cost of this work will be borne by customer).

If laboratory results of bulk sample analysis indicate no asbestos, work will proceed without any asbestos precautions.

If asbestos is present, U S WEST Information Systems and the customer will seek an alternate route, etc.

STEP

5 Is an Alternate Route Available?

If an alternate route is available, proceed with the work.

If an alternate route is not available, determine if the customer/BOM will remove the asbestos prior to U S WEST Information Systems installation/maintenance.

6 Customer Removes Asbestos

If the asbestos is removed and the work area is certified for reoccupancy, U S WEST Information Systems will proceed with the work.

7 USWIS Performs Work in Accordance with OSHA Regulations

If the customer chooses not to remove the asbestos, U S WEST Information Systems will perform the work in accordance with OSHA regulations for asbestos work, at the customers expense when contract language is used.

8 BOM Notification Concerning Asbestos Work

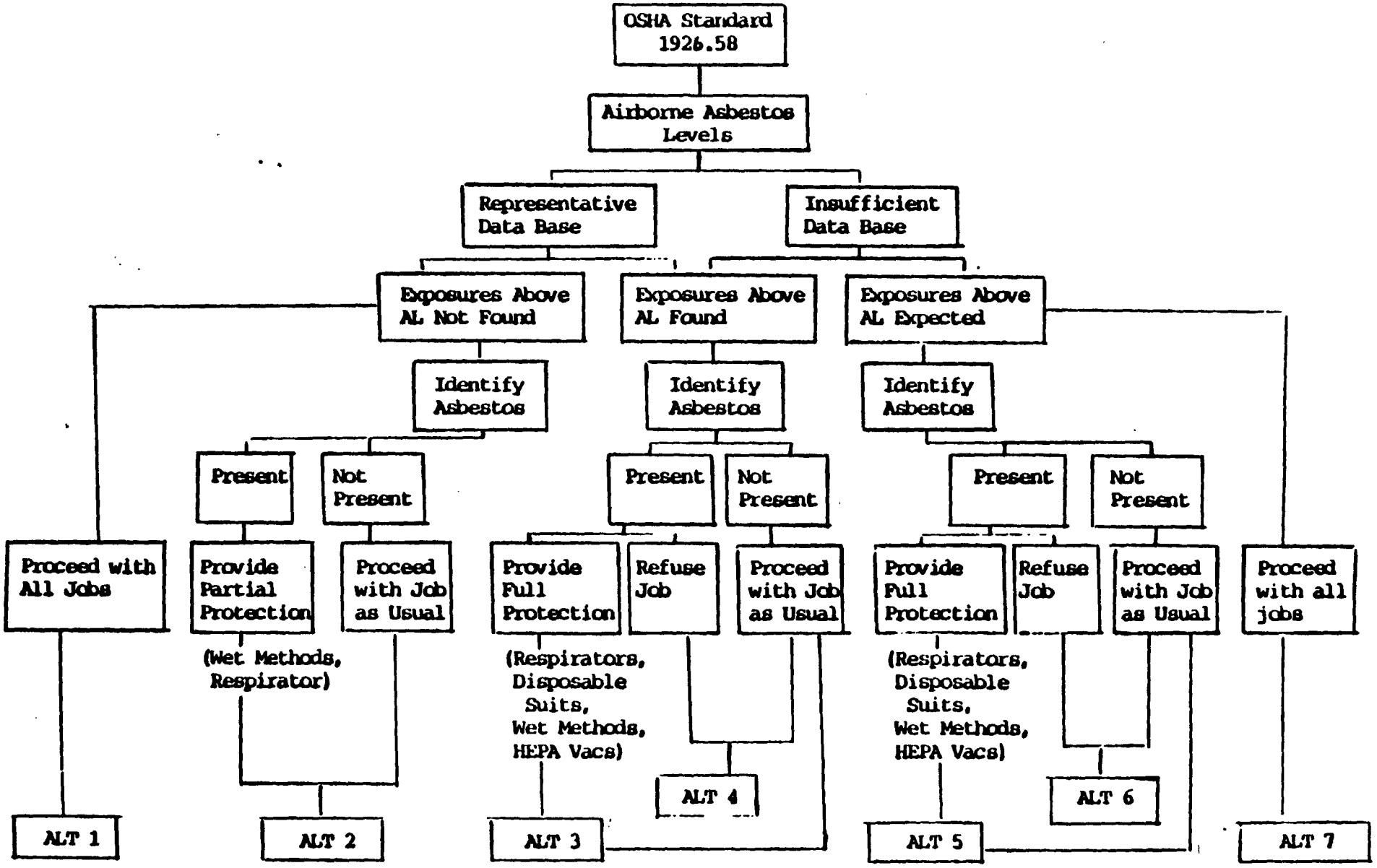
U S WEST Information Systems will also formally notify the customer/BOM/our contractors of the nature of the work to be performed in so far as asbestos is involved.

9 Suspected ACM Is Discovered

In the case of discovering possible ACM after BOM certification that asbestos is not present, U S WEST Information Systems will obtain bulk samples of the suspect material, arrange for analysis and proceed from Step 4 of the decision tree.

Attachment 4b

ATERNATIVES FOR DEALING WITH OSHA'S ASBESTOS STANDARD IN TELEPHONE EQUIPMENT INSTALLATION JOBS



ALTERNATIVE 1. DEVELOP REPRESENTATIVE DATA BASE; EXPOSURES ABOVE THE ACTION LEVEL NOT FOUND; DO NOT IDENTIFY IF ASBESTOS IS PRESENT
proceed with all jobs as usual (no protection)

Positives

Have sound rationale for decision

Can inform employees that the hazard is minimal

Negatives

Not easy to identify enough jobs proximate to asbestos to obtain a "representative" data base. Need to do a lot of air samples

Not easy to convince regulators that we have a representative data base

In the event of employee suit, not easy to convince legal system our data base is representative

No protection from theory which states that asbestos disease can be caused by a single fiber

ALTERNATIVE 2. DEVELOP REPRESENTATIVE DATA BASE; EXPOSURES ABOVE THE ACTION LEVEL NOT FOUND; IDENTIFY IF ASBESTOS IS PRESENT
if asbestos is present provide partial protection
if asbestos is not present proceed with job as usual

Positives

Have sound rationale for decision

Can inform employees that the hazard is virtually non-existant

Provides additional protection from theory which states that asbestos disease can be caused by a single fiber

Negatives

Not easy to identify enough jobs proximate to asbestos to obtain a "representative" data base. Need to do a lot of air samples

Assuring employee compliance with protective measures may be difficult

Depending on protective measures chosen, may present relations problems with customer employees

Need to determine if asbestos is present on customer premeses. Could lose business simply by asking the customer (regardless of whether asbestos is actually present)

ALTERNATIVE 3: EXPOSURES ABOVE THE ACTION LEVEL FOUND; IDENTIFY IF ASBESTOS IS PRESENT
if asbestos is present, provide full protection
if asbestos is not present, proceed with job

Positives

Employees are protected from asbestos

Negatives

Protection is costly

Assuring employee compliance with protective measures may be difficult

Need to determine if asbestos is present on customer premeses. Could lose business simply by asking the customer (regardless of whether asbestos is actually present)

If protection is provided without a sufficient data base, risk OSHA citation for not conducting initial monitoring (by providing the protection we are admitting that it is an asbestos job)

May present relations problems with customer employees seeing our employees in respirators and disposable clothing

ALTERNATIVE 4 EXPOSURES ABOVE THE ACTION LEVEL FOUND; IDENTIFY IF ASBESTOS IS PRESENT
if asbestos is present, refuse job
if asbestos is not present, proceed with job

Positives

Virtually eliminates liability (our employees or customer employees) and compliance problems

Negatives

May lose business unnecessarily because employee exposures on this job may actually be low or non-existant

Need to determine if asbestos is present on customer premeses. Could lose business simply by asking the customer (regardless of whether asbestos is actually present)

May not be possible to refuse certain asbestos jobs

ALTERNATIVE 5 EXPOSURES BELOW THE ACTION LEVEL EXPECTED (NOT PROVEN); IDENTIFY IF ASBESTOS IS PRESENT
if asbestos is present, provide full protection
if asbestos is not present, proceed with job

Positives

Employees are well protected from any potential asbestos exposure

Negatives

May be overkill and result in unnecessary employee concern.

Protection is costly

Assuring employee compliance with protective measures is difficult

Need to determine if asbestos is present on customer premises. Could lose business simply by asking the customer (regardless of whether asbestos is actually present)

If protection is provided without a sufficient data base, risk OSHA citation for not conducting initial monitoring (by providing the protection we are admitting that it is an asbestos job)

May present relations problems with customer employees seeing our employees in respirators and disposable clothing

ALTERNATIVE 6: EXPOSURES BELOW THE ACTION LEVEL EXPECTED (NOT PROVEN); IDENTIFY IF ASBESTOS IS PRESENT
if asbestos is present, refuse job
if asbestos is not present, proceed as usual

Positives

Virtually eliminates liability or compliance problems

Negatives

May lose business unnecessarily because employee exposures may actually be low or non-existant

Need to determine if asbestos is present on customer premises. Could lose business simply by asking the customer (regardless of whether asbestos is actually present)

ALTERNATIVE 7: EXPOSURES BELOW THE ACTION LEVEL EXPECTED (NOT PROVEN); DO NOT IDENTIFY IF ASBESTOS IS PRESENT
proceed with all jobs as usual

Positives

Except for failure to comply with the requirement for initial monitoring, puts burden on OSHA to show non-compliance

Negatives

Risk causing employee disease and/or employee suits

Risk severe OSHA penalties if asbestos exposures above the PEL are found

1948p

Comment #5

Regarding Telephone employees who may be required under the standard to take showers — we feel because of the infrequent and low levels of exposure-these employees should be allowed to utilize a HEPA-Vaccum for clean-up in lieu of showers.

To:

Re: Asbestos Air Monitoring

The recently promulgated OSHA Asbestos Standard (1926.58) requires initial air monitoring at each asbestos job or, in lieu of performing it at each job, "representative" monitoring may be conducted. Also, the need to comply with virtually all of the other requirements of this standard is based upon the results of air monitoring. Given the numerous worksites in which our employees may potentially come into proximity with asbestos on customer premises and other locations, initial monitoring at every jobsite is not practical. As a result, we need to develop a data base which can help us to comply with the monitoring requirement and to determine whether or not we need to institute any new protective measures.

Therefore, we are requesting that you arrange for NATLSCO to perform industrial hygiene surveys at eight separate asbestos-related jobsites. We have attached a copy of the guidelines provided to NATLSCO for the conduct of these surveys. For scheduling contact John Garis at 312/540-2026.

The following monitoring is requested:

Four surveys -	Equipment Installers working on customer premises
Two surveys -	Central Office Equipment Installers working on GTE premises

With regards to the above, we are looking for <u>significant</u> installation activities including running cables above suspended ceilings and in crawl spaces in and around asbestos fireproofing and construction materials. It is not useful to sample short duration jobs as these will not be representative of the larger jobs where there may be a greater potential for asbestos exposure.

You will have to work with your Service Departments to identify well in advance customer locations where asbestos containing materials are present so that arrangements can be made for scheduling the Industrial Hygienist.

The following criteria may be helpful in starting to identify customer facilities which may contain ACM:

- Buildings constructed prior to 1975
- Concrete or brick buildings with suspended ceilings
- Metal buildings with exposed steel support beams and columns
- Cable vaults and crawl spaces

It will be necessary, of course, to ultimately confirm with the building owner that asbestos is present or take bulk samples prior to the job. The NATLSCO lab can be used to perform the bulk sample analysis.

The two other surveys we are requesting are as follows:

One survey - A brake or clutch repair/replacement job at a vehicle maintenance garage

One survey - A repair or maintenance procedure utilizing a glove bag which involves cutting or removing asbestos pipe insulation

We are requesting that all of these surveys be completed before July 1, 1987.

We recognize the difficulties you may encounter in arranging for and conducting these surveys especially as it relates to those on customer premises. However, given the requirements of the OSHA standard, I don't see that we have any other choice. Please keep me advised of any problems which may be encountered in complying with this request and of any assistance you feel we can provide in resolving specific problems.

Sincerely,

Donald M. Espach
Director-Employee Safety

ASBESTOS MONITORING GUIDELINES FOR GTE

"Data Input info"

In addition to the standard NATLSCO industrial hygiene reporting format, the following items must be included in all future industrial hygiene reports which contain air monitoring for asbestos. This information is critical in attempting to establish a "representative" data base for specific asbestos work operations.

- Two general area samples should be taken outside the immediate work area to identify any background asbestos fibers which may be present in the facility. One should be taken at a distance of 10 feet and the other at 50 feet from the work area.

- Each specific job must be fully described to include the tasks performed, the quantity of work performed and the duration. For examples:

  -- cutting/sawing four 8" by 10" openings in ACM (1 hour)

  -- drilling fifteen holes in ACM floor tile (.5 hour)

  -- pulling cable in suspended ceiling containing ACM; placed approximately 25 feet of cable (2 hours)

  -- working in a cable vault/crawlspace containing ACM; placed approximately 150 feet of cable (2.5 hours)

- Each employee exposure must be shown as an 8 hour TWA. Sample "specific job tasks" which you feel may present potential problems. If the job is completed in less than 8 hours, sample for the remainder of the shift with a new filter to document the actual 8 hour TWA.

- Describe the work procedures used such as enclosures, glovebags, wet-methods, HEPA vacuum. If PPE was used, list it, i.e. goggles, gloves, coveralls, PAPR-respirator, ventilation, etc.

- Asbestos samples must be taken from the work area following SOP 3.12 Bulk Asbestos Sampling criteria. List the percentage and type of material found.

- Comment on the friability and condition of the ACM using the following criteria:

  Condition:

  -- undamaged/intact
  -- damaged/deteriorating

  Friability:

  -- highly friable
  -- moderately friable
  -- not friable

- The industrial hygienist should comment on any other items deemed appropriate and/or relevant.

DEAN Chappell - Emp. SAFETY MGR.
203-965-3012

1919p

Please Print Clearly

Meeting: Asbestos Data Survey Task Force

Date: February 17, 1987

NAME	TITLE	COMPANY	ADDRESS	PHONE
Paul Shelton	Industrial Hygiene Chemist	Monsanto	800 N. Lindbergh Blvd. St. Louis	314-694-8834
Tim Ryan	Ind. Hygienist	Rohm & Haas	P.O. Box 584 Bristol, PA 19007	215-785-7376
Edwin Downey	Ind. Hygienist	U.S. West-Mountain Bell	1801 California #1210 Denver CO 80202	303-898-3536
Andy Shapiro	Safety Mgr.	U.S. West Info Sys	6200 S. Quebec St. Englewood CO 80111	303-889-7574
L. Wolfe Wagner	Ind. Hyg.	ICI Americas	Concord Pike, Wilmington, DE	302-525-4547
S. Dixon	Ind. Hyg.	Dupont	1007 Market St. Wilmington, DE	302-774-7985
Anne Venetta	Ind. Hyg.	AT&T	4 Essex St. Bernardsville N.J. 07924	201-766-8439
Joseph Peri	Ind. Hyg.	Con Edison	30 Flatbush Ave., Brooklyn	718-802-5292
Laura Rippey	Staff I.H.	Alcoa	1501 Alcoa Bldg. Pittsburgh, PA	412-553-2597

Date for next meeting – March 10 week of

Put together a data collection form
Time frame 1 year until publication
Joe Hopkins Roy Dibbs, OSHA maybe Dave Smith too
they were interested in fact they wanted to attend

for credibility OSHA likes 3rd party sampling
at least some to confirm

Ultimately talking about a large # of samples how
to handle data
Could OSHA participate & kick in data too

Criteria for grouping

background samples ?
personal
area
bulk samples

· Analytical QA what are interferences
Appendix A

★ Money for consultant would have to come from
asbestos task force as a whole
Total data compilation ≈$50,000 & report
$2,000 per company

NIOSH 7400 A & B rules 3:1 & 5:1

★ Send Matthias copies of internal sheets
give Darrell FAX # Call Becky

Feb Tickle File ORC Task Force

Status asbestos filers in water ie Showers

OSHA interim stds Haz Waste operations
Dec 16
Do any Alcoa locations process Haz waste

factors for categorization of exposure

☆ type of asbestos containing material
Friability imbedded impregnated, friable
% asbestos <1% , 1-20 , >20

☆ Type of job
application of insulation transit, blanket, sprayed, coating
specific operation
scraping
cutting ~~saw~~ power tool hand tool
drilling
grinding

☆ Type of Eng control
Wet method only
negative air only
negative air w/ wet method
glove bag wet w/ HEPA evacuation

9753

411-703

Alexandra 683-3972

PAGE _____ OF _____ PAGES

Monsanto

DEPARTMENT OF MEDICINE AND ENVIRONMENT HEALTH
ST. LOUIS, MISSOURI

INDUSTRIAL HYGIENE MONITORING DATA FORM

JOB NO.: ⌊_⌊_⌊_⌊_⌋

REFERENCE JOB NO. ⌊_⌊_⌊_⌊_⌋

PLANT	DEPARTMENT	PROCESS DESCRIPTION/WORK ACTIVITIES
SUBSTANCE MONITORED	STD. VALUE / PERMISSIBLE LIMIT	
CHEMICALS HANDLED (POSSIBLE INTERFERENCES)	ATM. PRESSURE mm. Hg. / TEMPERATURE (°C)(°F)	SHIFT SAMPLED (CIRCLE) Day 2nd 3rd

SPL NO.	SAMPLE LOCATION / TYPE	EQUIP. NO.	FLOW SETTING INITIAL	FLOW SETTING FINAL	CALIB. FLOW RATE	SAMPLE TIME ON	SAMPLE TIME OFF	SAMPLE TIME TOTAL	VOLUME (ADJ.)	ANAL. RESULTS	AIR CONCENTRATION	HRS. LOC.
⌊_⌊												

NAME/JOB CLASSIFICATION

SOCIAL SECURITY NO.

COMMENTS (ENGR. CONTROL, PROTECTIVE EQUIP., WEATHER CONDITION)

DATE

SPL NO.	SAMPLE LOCATION / TYPE	EQUIP. NO.	FLOW SETTING INITIAL	FLOW SETTING FINAL	CALIB. FLOW RATE	SAMPLE TIME ON	SAMPLE TIME OFF	SAMPLE TIME TOTAL	VOLUME (ADJ.)	ANAL. RESULTS	AIR CONCENTRATION	HRS. LOC.
⌊_⌊												

NAME/JOB CLASSIFICATION

SOCIAL SECURITY NO

COMMENTS

DATE

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⌊_⌊												

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⌊_⌊												

NAME/JOB CLASSIFICATION

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COMMENTS

DATE

SPL NO.	SAMPLE LOCATION / TYPE	EQUIP. NO.	FLOW SETTING INITIAL	FLOW SETTING FINAL	CALIB. FLOW RATE	SAMPLE TIME ON	SAMPLE TIME OFF	SAMPLE TIME TOTAL	VOLUME (ADJ.)	ANAL. RESULTS	AIR CONCENTRATION	HRS. LOC.
⌊_⌊												

NAME/JOB CLASSIFICATION

SOCIAL SECURITY NO

COMMENTS

DATE

(OVER FOR CALIBRATION/CALCULATIONS)

DATE COMPLETED: _____ BY: _____

C-3293 (REV. 2-77)

INSTRUMENTATION

EQUIPMENT	NO.	MANUFACTURER	MODEL/SER. NO.

COLLECTION DEVICE _____

ANALYTICAL METHOD: DMEH NO. [ ]

JMP CALIBRATION: Method _____

PRECISION (CV_T) [ ] BY: _____

IR TEMPERATURE [ ] (°C) (°F)

TM. PRESSURE [ ] mm. HG.

CALIBRATION BY _____

LOCATION _____

DATE	PUMP NUMBER	ΔP (IN. H_2O)	FLOW SET.	TOTAL VOLUME	ELAPSED TIME	FLOW RATE	TOTAL STROKES	CC/ STROKE

DIAGRAM: WORK STATIONS/SURVEYED AREAS

DATA CALCULATIONS: (Additional remarks)

OTHER CONTAMINANTS MONITORED

SPL. NO.	AIR CONTAMINANT	ANALYTICAL RESULT	AIR CONCENTRATION

Monsanto

MEDICAL AND ENVIRONMENTAL HEALTH INFORMATION
OCCUPATIONAL EXPOSURE SYSTEM

INDUSTRIAL HYGIENE
DATA TRANSMITTAL FORM

CARD TYPE	Location	Dept	Area	Year
1 2	3 6	7 11	12-13	14-15
H,A				

SENT BY: _____ DATE: _____

LOCATION NAME	DEPT. NAME	AREA DESCRIPTION

CARD NO	DETERMINATION NO MO	DAY		MONITORING LOCATION OR DESCRIPTION	NO. OF SAMPLES	TIME MIN.					
16-17	18		23	24 60	61-62	63 65	66	67	68	69	70
1,0											
1,0											
1,0											
1,0											
1,0											

CARD NO	DETERMINATION NO MO	DAY		SOCIAL SEC. NO.	CLASS. CODE	Assign. Code	PER PROT	EMPLOYE NAME	JOB CLASSIFICATION
16-17	18		23	28 36	37 42	43 45	46		
2,0									
2,0									
2,0									
2,0									
2,0									

CARD NO	DETERMINATION NO MO	DAY		SUB. CODE NO.	L/G	RESULT	UNIT CODE	DMEH Method No.	SUBSTANCE MONITORED
16-17	18		23	24 32	34	35 40	41-42	43 47	
3,0									
3,0									
3,0									
3,0									
3,0									

CONDITIONS
A-Average exposure/Normal
B-Maximum exposure/Norm.
C-Upset/Abnormal
D-Start-Up
E-Turnaround/Infrequent Maintenance

SAMPLE TYPES
P-Personal
B-Breathing Zone
G-General Area
S-Source Sample
F-Fixed Point
W-Wipe
A Professional assessment
Ø-Other

DETERMINATION TYPE
T-TWA
D-TWA (cal)
C-Ceiling
E-Engineering
J-Job/Task
V-Validation
Ø-Other

COLLECTION DEVICE CODES
G-Grab Sample
F-Filter
D-Direct Reading Inst.
T-Detector Tube
N-Dosimeter
A Adsorption Tube
I-Impinger/Bubbler
X None
Ø-Other

SHIFT
1-Day
2-Evening
3-Night
A-Novel (1)
B-Novel (2)
C-Novel (3)

PERSONAL PROTECTION
H-Half Face
F-Full Face/Cartridge
C-Full Face/Cannister
S-Self Contained Breathing App.
A-Airline
D-Dust Mask
P-Powered Air Pur.
E-Hearing Prot.
Ø-Other

UNIT CODES
MG-mg/m^3
UG-ug/m^3
PM-Parts Per Million
PB-Parts Per Billion
FB-Fibers/cc
NG-ng/m^3
MW-mW/cm2
MR-m rem
DB-Decibel
PC-Percent
ØT-Other
CL Microcuries/Liters
UC-Microcuries/cc
CG Micocuries/gram
DM Disintegrations/Min
MH Millirems/Hr
CM Counts/Min
NC-Nanocuries

G-2875 (REV. 9/85)