PLAINTIFF'S EXHIBIT

SH-2023

April 26, 1988

EMT

Attached is a "draft copy" of a training script being developed for use in training Operations/Maintenance personnel for incidental asbestos removal. Paul Masta has requested this script be reviewed by the EMT.

Please return any comments/suggestions to N.G. Choate, Safety, by May 6, 1988.

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DPMC-02598

INCIDENTAL ASBESTOS REMOVAL PROCEDURES

DRAFT

SHOW HEALTH & SAFETY ORDER BOOK

The purpose of this tape is to review information on asbestos health hazards and to familiarize you with proper procedures and steps for incidental asbestos removal.

SHOW S-125

A review of asbestos health hazards and required removal procedures for DPMC are included in Health & Safety Order S-125. All employees should read and understand this Order.

SHOW PIPING, VALVES, VESSEL INSULATION, TRANSITE SIDING, GASKETS AND BRAKE LININGS. LAB CEILING TILES

Asbestos at DPMC is most frequently found as insulation on pipes, valves, and vessels. Asbestos is found in other materials such as gaskets, brake linings, and transite.

Some ceiling tiles contain asbestos.

SHOW D #9 SIGN WITH ASBESTOS SIGN IN BACKGROUND

Although the use of asbestos materials was discontinued in the early 1970's, asbestos will continue to be found in older units for years to come.

SHOW SLIDE #4 (ASBESTOS FILM)

Asbestos is a mineral found naturally as a fiber. It is noncombustible, doesn't conduct heat, and resists deterioration and chemical attack.

INCIDENTAL ASBESTOS REMOVAL PROCEDURES (SCRIPT)

DRAFT

SHOW SLIDE #6 (FIBER MAGNIFIED)

A tiny fiber, shown here magnified 500 times, can easily become airborne and can be inhaled into the body by breathing, or ingested by eating or drinking.

The body's natural defense cannot rid itself of the asbestos fiber because asbestos is so resistant to deterioration.

Asbestos fibers in the body can result in long-term illness, which may lead to death.

SHOW SLIDE #8, THEN SLIDE #9

Asbestos fibers are associated with several diseases such as Asbestosis, a scarring of the lungs, and Bron-cho-genic Carcinoma, cancer of the lungs.

SHOW DIGESTIVE TRACT POSTER FROM MEDICAL DEPARTMENT

Also, cancer of the digestive tract, the stomach, colon, and rectum has been associated with asbestos exposure.

SHOW SLIDE #10 - THEN SHOW PERSON SMOKING (NOT A FULL-FACE SHOT)

Cigarette smoking is an important factor in the development of asbestos-related diseases. Asbestos may cause lung cancer even in nonsmokers, but the risk increases by 50 times greater than a non smoker if 1 pack a day is smoked, and 90 times greater than a non smoker if 2 packs per day are smoked. This is based on past or present asbestos exposure.

INCIDENTAL ASBESTOS REMOVAL PROCEDURES (SCRIPT)

DRAFT 3

SHOW THE INSULATION TO BE REMOVED WITH AN EMPLOYEE LOOKING ON

Although asbestos is a serious health hazard, it can be handled safely when you understand the hazard and use proper controls and work practices.

SHOW ASBESTOS ANALYSIS (HOOD W/MICROSCOPE)

Insulation materials should be considered to contain asbestos unless otherwise known. Materials can be tested to confirm whether or not they contain asbestos.

The Health & Safety Department can perform this test upon request.

SHOW TAKING SAMPLE IN ZIP-LOCK BAG

A small representative sample should be placed in a sealed plastic bag and brought to Industrial Hygiene, ECB - room 121.

SHOW THIS STATEMENT IN WRITING

Incidental asbestos work is short duration work, less than one hour which does not exceed the permissible exposure level for 8 hours.

The PEL for asbestos is .2 fibers per cubic centimeter of air.

SHOW JOBSITE WITH EMPLOYEE IN AREA

The insulation around this valve will be removed as incidental removal.

SHOW A LONGER SHOT OF BEATING-OFF INSULATION

Never remove asbestos like this. Just imagine how many fibers are made airborne by this action. Fibers can stay airborne for 80 hours.

This type of asbestos removal is against the law, and it maybe hazardous to your health -- possibly causing eventual death.

SHOW THE JOB TO BE DONE (SHOW THIS STATEMENT IN WRITING)

This tape will review the minimum requirements for incidental asbestos removal.

SHOW EXISTING SHOT OF WAREHOUSE ACTIVITY

Materials needed for appropriate removal of asbestos, such as a sprayer, rolls of plastic wetting agent, pre-labeled disposal bags, and sealer can be obtained from the warehouse.

For short-term jobs, coveralls are not required but are highly recommended. They are available in the warehouse.

SHOW EMPLOYEE AT A RESPIRATOR CABINET

A dual cartridge respirator with HEPA cartridges must be used for asbestos protection. The HEPA cartridges have a purple band. (HEPA indicates High Efficiency Particulate Air.)

All respirators are color coded for size, with the round color stick-on placed on the respirator bag.

SHOW HARD HAT STICK-ON

Each employee warehouse has been fit tested has their respirator model and size recorded on a label inside their hard hat.

SHOW EMPLOYEE AT JOBSITE WITH ALL EQUIPMENT

A sprayer, wetting agent, pre-labeled disposal bag, plastic, sealer, paper coveralls and tools are onsite.

With the proper equipment and tools, the job is ready to begin.

SHOW EMPLOYEE SPREADING PLASTIC UNDER WORK AREA

- If an operator is doing work in his own area, a DWP is not required.
- An operator assisting the responsible operator may do so with a verbal permit.
- All others doing work will require a DWP.

SHOW EACH STEP BELOW IN SEQUENCE

1. Plastic is spread to catch the wet material.
2. The bands and metal covering are removed.
3. The removal of asbestos or suspected asbestos is to be done in a wet state to prevent or minimize airborne fibers.

   Water with a wetting agent is used in this process.

SHOW SEALING THE ENDS OF THE INSULATION WITH A SEALER

The remaining exposed ends have to be sealed to prevent fiber release.

SHOW THE CLEANUP PROCESS

After the insulation is removed, the cleanup process begins immediately.

SHOW BAG DECALS WARNING LABEL

These are pre-labeled disposal bags, approved for asbestos disposal.

SHOW EACH STEP IN SEQUENCE

1. The asbestos is kept in a wet state at all times.
2. The plastic drop cloth is rolled up and placed in the plastic bags.

3. Any insulation on the ground is first wet and then swept up and put into bags.
4. Paper coveralls should be bagged at this time.
5. Respirator filters are removed and put into the disposal bags.
6. Disposal bags are closed and sealed immediately.

SHOW A SEWER DRAIN (EXISTING FILM HAS THIS SHOT)

7. Asbestos should never be washed into sewer drains. This is an EPA water emission regulation.

SHOW WHERE BAG IS PUT PRIOR TO PICK-UP

8. Bags should be placed in a pick-up area.

SHOW EMPLOYEE RETURNING THE RESPIRATOR TO THE CABINET

9. Used respirators are always returned to the respirator cabinet to be picked-up, cleaned, and returned.

SHOW EMPLOYEE WASHING-UP

Good hygiene is a must when handling asbestos.

SHOW EMPLOYEE COMPLETING DPMC 6 FORM

The DPMC 6 - Waste Disposal Request Form is required to be completed.

SHOW EMPLOYEE ON PHONE (ALSO SHOW PHONE NUMBER)

Call Environmental Operations for disposal approval. The numbers are: 7280, 7653, 7226, or 6397.

Call the Dispatcher to make arrangements for transportation. His number is 6680.

SHOW DRIVER AND EMPLOYEE AT PICK-UP SITE

The driver is given the DPMC 6 Form at this time. He is instructed not to pick-up asbestos to be disposed of without this form.

SHOW TRUCK AT LANDFILL

It is the responsibility of the generating department to see that the asbestos is placed in the landfill.

SHOW A HEPA VACUUM CLEANER IN USE

HEPA vacuum cleaners are available for clean-up. They are equipped with an asbestos approved filter.

SHOW, IN SEQUENCE, EACH STEP TO BE TAKEN FOR INCIDENTAL ASBESTOS REMOVAL

SHORT SHOTS OF EACH

Show list of steps.

1. All tools and equipment on site.
2. Spreading of plastic under job.
3. Removal of Bands and metal covering.
4. Wetting of insulation.
5. Removal/bagging of wetted insulation.
6. Sealing of exposed ends.
7. Cleaning up with plastic and waste put in Bags.
8. Placing of disposal bag in push-up area.
9. Returning of respirator to cabinet.
10. Washing-Up
11. Filling out DPMC-6 form.
12. Calling dispatcher.

When these steps are taken, asbestos can be removed without exposure to you or other employees.

SHOW INSULATION BEING REPLACED

After removal of asbestos insulation is completed newly insulated materials should be installed as required.

SHOW WRITTEN ON A BOARD

"Do it Right the First Time".

551.4
Asbestos

ENGINEERING/MAINTENANCE TEAM

L. E. ABRAHAMSON	S/ADM
G. C. ANDERSON	S/ADM
B. B. BREAUX	N/EFO
W. R. CARTER	S/ADM
P. T. HAMILTON	N/EFO 1
D. G. JAEGER	N/ROB
K. W. JOBE	S/ADM
R. L. JONES	N/ESO 1
G. S. LANCASTER	N/EFO
H. L. LEE	S/ADM
M. N. MARTIN	UOB
P. A. MASTA	S/ADM
J. J. NIKLAS	S/ADM
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T. Q. QUEENER	OLEF
W. W. REEVES	N/LPA
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T. A. ROBERTS	N/ROB
A. SMITH	N/ADM
R. A. WALSH	N/ROB

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