

Old Hickory, Tennessee
September 26, 1969

TO: AREA SAMPLERS

FROM: J. R. SMITH

PLAINTIFF'S
EXHIBIT
DUP-1771

DUST SAMPLING PROCEDURES

SAFETY

No unusual safety conditions exist.

EQUIPMENT (Provided by Chemical Control Laboratory)

- MSA Portable Pump - "Monitaire" No. 08-92814, Mine Safety Appliances Company, Pittsburgh, Pennsylvania.
- MSA Battery Charger - No. 08-92775, Mine Safety Appliance Company, Pittsburgh, Pennsylvania.
- Millipore Filter Assembly - MAWGO 37Ao, Millipore Corp., Bedford, Massachusetts.
- Rubber Tubing with Millipore Aerosol Adaptor - No. XX6200004, Millipore Corp, Bedford, Massachusetts.
- Dust Sampling Data Sheet.

PROCEDURE

1. Fill in data sheet (date, pump number, job description, etc.).
2. Attach lapel holder (leather scabbard) to pocket or shirt front near face.
3. Insert metal adaptor and rubber tubing upward through lapel holder.
4. Remove red plastic plug from filter assembly and attach assembly to metal adaptor using a twisting motion. Save the plug.
5. Check to see that the rubber tubing is secured to inlet fitting "A" of pump (see sketch).
6. Close valve "B" on pump by rotating clockwise (do not force). Then open valve one full turn as indicated by yellow indexing line.
7. Remove top section of filter assembly (containing blue plastic plug) from filter assembly (use coin in slot and twist to break loose - see drawing). Save top section for later use.

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DUST SAMPLING PROCEDURES (continued)PROCEDURE (continued)

8. Turn pump on at "C" and adjust valve until float reads between four and six on the scale (sight across the centerline of the ball float).
9. Note and record beginning sample time on data sheet to nearest minute.
10. Clip pump onto belt, check float reading and then perform job operation.

NOTE: The amount of time spent making adjustments between the starting of the pump and starting the job should be kept short so as not to cause error in the sample.
11. Continue sampling as specified by sample request.
12. When starting sampling with a freshly recharged pump, the flow rate should be checked after 15 minutes of operation. Thereafter, 30 minute periodic checks should be made. Adjust pump valve as necessary. (See Step 8 above).
13. When each sample is complete:
 - Turn pump off
 - Record sample end time (pump "off"). These records should be kept accurate to the nearest minute.
 - Remove filter assembly and replace the red plug in the bottom and the top section to seal the sample. Handle filter assembly gently at all times.
 - Check data sheet for accuracy.
 - Place filter assembly and data sheet in plastic bag. One sample per bag.
 - Return samples and test equipment to supervisor.
14. Recharging the pump
 - After approximately eight hours of use, charge the pump overnight with the battery charger in the 16 hour position.

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DUST SAMPLING PROCEDURES (continued)

PROCEDURE (continued)

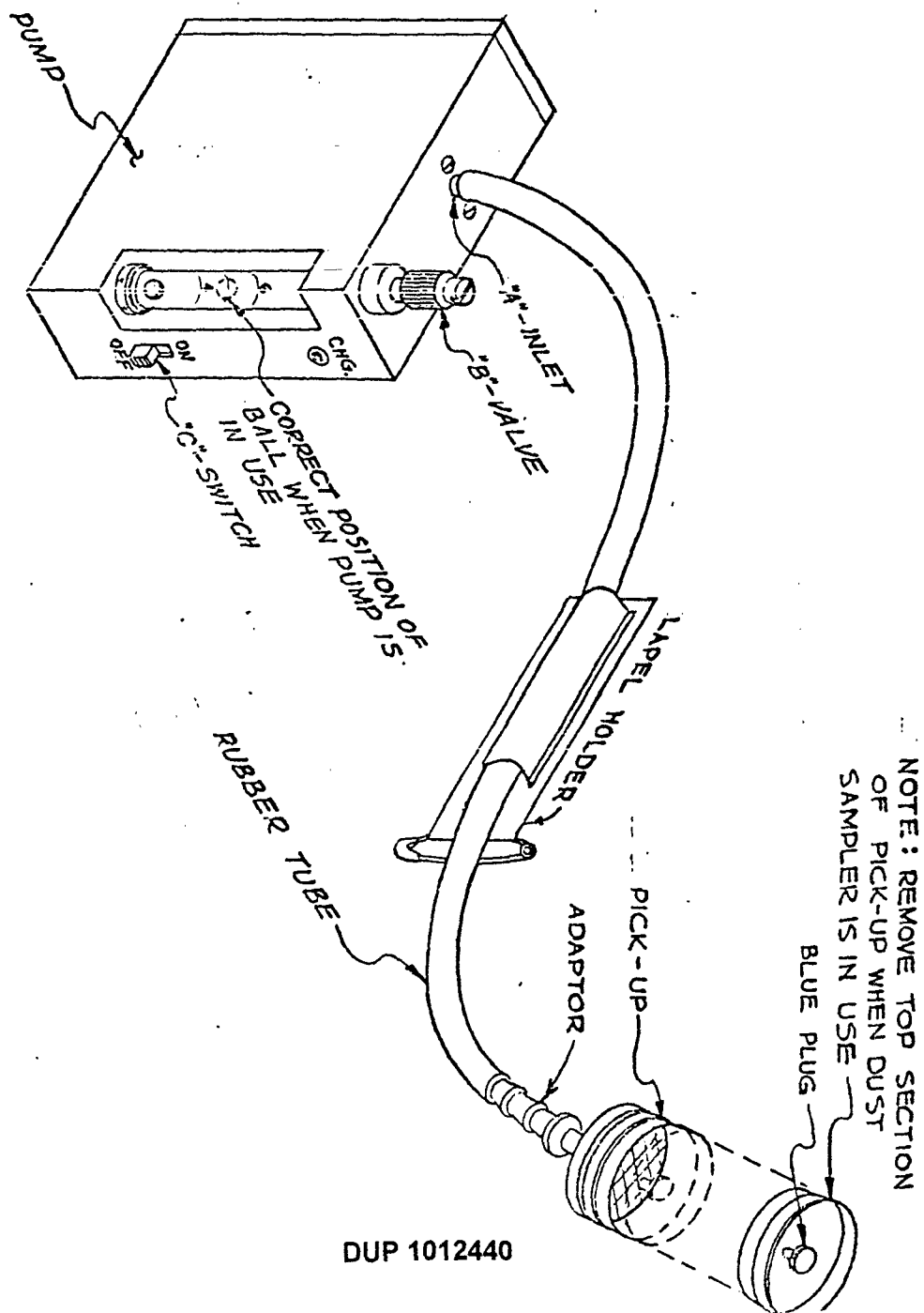
- If the pump is used one hour or less per day, recharging once per week is sufficient.
- Do not charge the device more than 16 hours (such as weekends or holidays) as overcharging may ruin the batteries.

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AIR SAMPLING PUMP



DUP 1012440

DUST SAMPLING DATA SHEET

AREA (Be Specific): _____

DATE: _____

SAMPLER: _____

PUMP NO.: _____

TIME PUMP STARTED: _____

TIME PUMP STOPPED: _____

DESCRIPTION OF WORK DONE AND MATERIALS INVOLVED:* _____

OTHER COMMENTS: _____

* Be specific as to job activity and material description.

Examples: Jobs - Bandsawing, hand sawing, assembling and fitting insulation at bench, assembling and fitting insulation on pipe lines, tearing off and removing permanently installed insulation, pouring ground asbestos or cement into storage bins, putting ground asbestos or cement into mix pails, mixing asbestos mud, sweeping shop floors, cleaning tables and equipment of dust, handling or stocking insulation materials, vacuum cleaning, cleaning vacuum cleaners or dust collection systems, etc.

Materials - Unibestos, Kaylo, Thermobestos, ground asbestos, cement #10, Thermosil, urethane, fiberglass, styrofoam, asbestos cloth, asbestos paper, etc. Use tradenames and/or any other description which will completely define the material.

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