



Frank

Interoffice Communication

Program

To Jerald Uptain

From Owen Tubb

Date December 8, 1975

Subject Aberdeen Chemical Exposure Abatement Program

- A. materials*
B. define monitoring routine
C. define deadlines for starting

On June 11, 1975, Leon Vernon issued a letter which was to be used as a guideline in establishing a plant chemical exposure abatement program. On July 10, 1975, an Aberdeen chemical exposure abatement program was initiated. Outlined below is the status of that program and also the program plan for 1976.

I. Initial Abatement Program

A. Identifying -

In the Aberdeen chemical exposure abatement program, ten chemicals were identified as the most dangerous chemicals used in the plant. They were as follows:

1. Vinyl Chloride
2. Lead
3. Phthalic Anhydride
4. Nitrobenzene
5. Trichlorethylene
6. Alphamethylstyrene
7. Antimony
8. Barium
9. Cadmium
10. Ammonia

How identified?
 --- permissible level
 --- volume used
 --- personnel exposed

B. The plan was to take the top four chemicals, excluding vinyl chloride, and run a quick-check analysis on each of the four chemicals. These chemicals are as follows:

1. Lead
2. Phthalic Anhydride
3. Nitrobenzene
4. Trichloroethylene

define "quick-check" analysis
daily area sample

B. Status of Existing Program

1. Since the start of the chemical exposure abatement program the following chemicals have been monitored:

- a. Lead
- b. Trichloroethylene
- c. Tin
- d. Barium
- e. Other metals as per attached table
- f. Cadmium (Not detected on monitoring results)

don't include these because we did not monitor in a way likely to detect them

Antimony

better comment on phthalic anhydride

don't forget VCM

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- again - details on monitoring plan*
2. The monitoring results to date are listed on the attached table.
 3. Monitoring of the other chemicals listed in (Section IA) will be completed by March 31, 1976.
 4. After monitoring is completed the plant safety department will decide what course of action to take. This action will include:
 - (a) Quarterly monitoring of each chemical as listed in (Section IA) if none of the chemicals monitored in the initial program exceed the action level of each chemical.
 - (b) Personnel dosimetry, *most limited method to this* weekly, for a two month period if any of the chemicals exceed the action level. If needed, this will be completed by May 31, 1976.
 - (c) If the personnel monitoring results indicate that a chemical exceeds the action level, the safety department will take the following action:
 1. Propose to the affected operating department changes in work practices.
 2. Propose the use of personnel protective equipment.
 3. Propose the use of "substitute" less toxic chemicals.
 4. *Propose engineering plans be developed*
 - (d) After the personnel dosimetry program is completed, the engineering department will be asked to make a study of the problem and develop a plan to reduce employee exposure.

II. 1976 Chemical Exposure Abatement Program

- A. The 1976 program is essentially the same as the program initiated in 1975. This program includes the following:

1. Identifying toxic chemicals

- Mechanism for determining when toxic chemicals are in use*
- a. The safety department is responsible for determining which chemicals are to be monitored. Those chemicals listed on the "Suspected Carcinogen List" and those chemicals in plant use that are suspected of exceeding the permissible limit will be given higher priority.
 - b. It is the purchasing department's responsibility, when purchasing chemicals, to insure that material safety data sheets are sent to the plant prior to the purchase of the chemicals.
- does purchasing know this yet?*

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- c. The safety department is responsible for keeping an up-dated file of material safety data sheets that are available for review to all employees.

2. Monitoring toxic chemicals

- a. The safety department is responsible for monitoring toxic chemicals. There responsibilities include:

- (1) Purchase of monitoring equipment
- (2) Scheduling and conducting monitoring
- (3) Determining what action to take toward further monitoring
- (4) Review and filing of monitoring results

- b. The monitoring schedule is as follows:

- how frequently*
- (1) Area dosimetry or quick check analysis for a two month period for each chemical.
 - (2) If monitoring results exceed the action level, a two month period of personnel dosimetry will be initiated on a weekly basis to determine if employees are exposed above the action level.
 - (3) If it is determined at the end of the personnel dosimetry tests that employees are being exposed in excess of the action level, the safety department will take the following action:
 - (a) Propose to operating department a program for better employee work practices.
 - (b) Propose the use of personnel protective equipment.
 - (c) Survey the possibility of using a "substitute" less toxic material.
 - (d) Continue personnel monitoring on a monthly basis to assure that the plant remains below the action level.
- each employee?*

- c. This monitoring program will begin in April of 1976, immediately after the completion of the initial program.

- d. The plant laboratory is responsible for:

- (1) Aiding the safety department in determining what monitoring methods to use.
- (2) Determining what type analytical methods to use.
- (3) Analyze monitoring tests and send results to the safety department.

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- e. The plant operating departments are responsible for assisting, as needed, in conducting monitoring tests.

3. Control of toxic chemicals.

- a. The safety department has the following responsibilities in the control of toxic materials:

- (1) Knowledge of the toxicity of materials before they enter the plant.
- (2) Monitor the toxic materials on a scheduled basis to assure that employees are not over-exposed.
- (3) Propose to operating departments proposals for better employee work practices.
- (4) Ask the engineering department for assistance in planning engineering controls.

- b. The laboratory is responsible for:

- (1) Analyzing monitoring tests
- (2) Aiding the safety department in the search for "substitute" less toxic materials.

- c. The plant engineering department is responsible for being prepared to make a study and design plans that will reduce employee exposure to toxic chemicals. The safety department will ask engineering for assistance immediately after the completion of the personnel dosimetry program, if the chemical being monitored exceeds the action level.

4. Reports

- a. Results from all monitoring will be included in the monthly report.
- b. Monitoring results will be filed in the safety department.

5. Summary

- a. After completion of monitoring the ten "most dangerous" chemicals listed in (Section IA) on March 31, 1976, the safety department will take the following action:

- 1. Pick two chemicals as per priorities given in (Section II A 1.) and run a quick check analysis on each chemical.
- 2. If either chemical exceeds the action level, a personnel dosimetry program will commence.

what section?
Safety?

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3. If, at the completion of the personnel dosimetry program, the chemicals exceed the action level, the safety department will prepare a program as listed in (Section IB4c).
4. Ask assistance from the engineering department to develop a program to reduce employee exposure.
5. Continue personnel dosimetry on a monthly basis to insure that the plant remains below the action level.

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