CONOCO

Interoffice Communication

To : All Employees

From : A. H. Sather

Date : July 30, 1982

Subject : VAPOR RELEASE ALARMS

During the week of June 7, 1982, the plant experienced two VCM releases. The size of the releases and the affected areas were different. A number of plant personnel have expressed their concern regarding employee notification of releases. In an effort to improve the timeliness, reliability, and consistency of employee communications during such periods, the plant has developed a new set of guidelines which will improve the communication of high VCM concentrations and the areas involved. These guidelines are as follows:

1. Whenever the Honeywell units detect three (3) consecutive readings at any specific point that exceed 5 ppm-VCM (an EPA leak), the Lead Operator will notify the unit operator or the Chief Operator via radio or Gaitronics to clear all personnel from the affected area. Special emphasis must be placed on keeping personnel out of this area until the condition is corrected or personnel re-enter with approved respirators. The Unit Operator or Chief Operator will then obtain an HNU photoionizer gas meter and a respirator, and locate the leak. The operator must wear an airline respirator for all leak detection work if the area readings exceed 10 ppm-VCM as indicated by the HNU. A canister mask may be worn for levels less than 10 ppm.

2. Whenever a known release occurs, or the Lead Operator detects three (3) consecutive Honeywell readings that are 10 ppm-VCM or greater the following actions must be taken. Consecutive readings means readings from different sample points on one Honeywell unit i.e. points 3, 4, and 5. Alert plant personnel by activating the local vapor alarm tone on the tone generator, turn on the generator tone for 3 to 5 seconds, reset the alarm tone and announce the leak over the Gaitronics system. The announcement should clearly indicate that all personnel in the affected unit should clear the area. The Lead Operator should immediately dispatch an operator, Chief Operator, or Supervisor to the area to identify the source and magnitude of the leak on a top priority basis. After notifying the control room, prompt corrective action should be taken to control and stop the release. Special emphasis must be placed on keeping other personnel out of the affected area until the condition is corrected.

3. Based on the feedback from the employee noted in item 2 (above), the Lead Operator must make a judgement regarding the use of the Plant Emergency Alarm (siren). If the Lead Operator is not sure, he should consult the Supervisor or Chief Operator concerning activation of the siren. Of course, in obvious major releases, he should activate the siren immediately. The following are some of the possible instances which would warrant use of the siren:

   A. Large volume releases such as:

      1. Blowing a reactor relief valve or any other major vapor relief valve;
      2. Ruptured VCM unloading hose;
      3. Process piping failure;
      4. Process valve failure (such as the one that occurred 6/7/82 on D-700 reactor allowing the recovery header to backflow out the steam jet);
      5. Liquid VCM blowing from a pump seal (not just a leak, but a major blowout);
      6. Vapor release from the propane tank farm piping or vessels;
      7. Major releases from any natural gas piping in the plant (high or low pressure).

   Note: These guidelines are not all inclusive, other conditions may occur which require the use of the siren.

The tone generator is also intended to supplement the Plant Emergency Alarm (siren) and all clear alarm tones. Due to problems that have occurred regarding audible coverage in the plant, anytime the Plant Emergency Alarm (siren) is actuated, the Gaitronics tone generator siren should also be sounded for three to five seconds just as is noted above for the local vapor alarm. Whenever the alarm condition has been corrected, the P.A. and Gaitronics all clear tones should be activated.

Immediate follow-up of high readings or known release conditions is very important. It is not our intent to alarm the plant and community unnecessarily. We do, however, want to attain a position of consistent and timely notification of personnel through the above alarm condition guidelines. Prompt response and corrective action will minimize the need to use the Plant Emergency Alarm (siren).

A. H. Sather

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c: Bulletin Boards, Supervisors, JGR, Guards

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PLANT ALARM SYSTEM

TRIGGER LEVELS

CONDITION	RESPONSE
Three (3) consecutive readings on the Honeywell at or above 5 ppm-VCM at any point (EPA leak).	1. Notify unit or Chief Operator to clear personnel from affected area and keep them clear. 2. Find and properly report leak.
Known release or three (3) consecutive readings on the Honeywell's 10 ppm-VCM or greater.	1. Sound LOCAL VAPOR RELEASE ALARM. 2. Announce which unit is affected and should be cleared on the Gaitronics System. 3. Dispatch Supervisor, Chief or unit operator to find leak, check size of leak, clear personnel, and report conditions to control room personnel. THIS MUST BE DONE ON A TOP PRIORITY BASIS.
Major vapor release such as: 1. Blowing a major vapor relief valve; 2. Ruptured VCM unloading hose; 3. Process piping failure; 4. Process valve failure (to atmosphere;); 5. Major blowout of a pump seal; 6. Propane area major vapor release; 7. Major releases from natural gas piping; 8. Other similar type vapor releases; and, 9. Fires of a significant nature (unit or area threatening).	1. Sound PLANT EMERGENCY ALARM (vapor, fire, etc.). (Alarm cycle time is 30 seconds.) 2. Sound Gaitronics SIREN (3 to 5 seconds). 3. Reset Gaitronics alarm and announce condition and affected area(s) on Gaitronics alarm two times. 4. Cancel PLANT EMERGENCY ALARM and announce condition and affected area(s) two times on plant PA system. 5. Activate emergency organization if directed (guard does calling).