

Louisville Plant Procedures

Gas Escape, Power Failure or Similar Emergency

Because of the hazards involved in the handling and processing of flammable liquids and gases, such as butadiene, vinyl chloride, acrylates, etc., it is necessary that a standard procedure be established as a guide in case of an emergency. It must be kept in mind that these rules are of a general nature and may not apply in all situations.

1. The person discovering the gas escape or spill shall turn in fire alarm.
2. As soon as the alarm is sounded, the foreman of the affected area shall assign someone to keep vehicular traffic from entering the affected area from all directions.
3. The foreman of the area involved in the escape will then put on a Scott Air Pak and proceed to the area of the escape to determine its cause and the steps which must be taken to correct the problem.

Under no conditions should the foreman or any other employee attempt to enter the area without a Scott Air Pak.

Once the foreman has determined the cause of the escape, he should take whatever steps are necessary to correct it if it is possible for it to be corrected. If maintenance or production operator assistance is needed, he should summon the necessary personnel and assure himself that each is properly fitted with a Scott Air Pak before reentering the emergency area to effect the repairs.

4. The guard on the entrance gate will not allow vehicles other than emergency equipment to enter the plant during the time the emergency exists.

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5. The foreman of the buildings or area adjacent to the gas escape will go to the affected area and check on the seriousness of the leak or spill. After checking, he will return to his area and take necessary steps to protect his employees and equipment.
6. All "hot work" or other activities which might produce a spark or flame are to be stopped at once.
7. All vehicles and gasoline or diesel-driven equipment in the plant are to be stopped immediately and the motors switched off.
8. Smoking in the plant must be stopped and the use of matches or lighters strictly forbidden.
9. All production and maintenance employees, with the exception of volunteer fire crews, will remain in their respective areas to deal with any emergency that might develop.
10. All members of the volunteer fire crews will report to the area of the emergency and await further orders.
11. It will be the responsibility of Plant Protection to warn the train crew of the emergency.
12. The foreman in charge of the building or area will be responsible for the safety of his employees. He will also be responsible for all repair and/or emergency measures.
13. After it has been determined that a hazard no longer exists, Plant Protection will sound the "all clear" on the fire alarm system. All normal operations may be resumed after the "all clear" signal or approval has been obtained from Safety or Plant Protection.

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B.F.GOODRICH CHEMICAL COMPANY
Avon Lake General Chemical Plant

GAS ALARM PROCEDURE FOR GEON WEST AND GEON EAST AREAS

Unless otherwise directed by the person in charge of the emergency, the Gas Alarm Procedure shall take precedence over the Fire Alarm Procedure.

GEON WEST AREA GAS ALARM

Gas alarm sirens are located in Buildings 451, 452, 461, 463, 464 and between Buildings 451 and 461. There is also a gas alarm siren mounted on the roof of Building 455 for the Geon East Area.

When the gas alarms are activated by Building 451 or 461, 463 or 464, these sirens will blow in intermittent cycles to notify the people in the Geon West Area or Geon East Area to evacuate their buildings and report to their designated meeting area.

Geon East Area and the Geon West Area gas alarms are independent of each other.

The Geon West Area includes Buildings 451, 452, 461, 463, 466, 471 and all offices in this confine. Geon East Area includes Buildings 455 and 464.

All standbys will be responsible for getting their persons out of any type of vessel. It is the responsibility of the charge operators to get all poly cleaners out of the polys. Any operations (VCI charging, blowdown, etc.) which could add to the gas escape should be secured by the operator before leaving the building.

All outside and inside work in the area, including construction and building maintenance, shall shut down during a gas alarm. This work shall remain down until the all-clear is given.

All Smoking within the plant shall cease until the all-clear is given.

All Traffic other than emergency vehicles on roadways shall pull over to the side of the road and shut off their engines. The vehicles shall remain inactive until the all-clear is given.

It is imperative that everyone go to his respective area for a head count. If a person is missing, this means that someone has the additional risk of going back into the hazardous area to locate the missing person.

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- A. Building 451 personnel will report at the road intersection by the Catalyst Building 453.
- B. Building 452 personnel will report North of their building on the pad by the sidewalk to the Mill Room.
- C. Building 461 personnel will report on the road by the VCI pump house..
- D. Building 463 personnel will report to the hose house West of Bldg. 463.
- E. Building 455 and 464 personnel will report to hose house 13, West of Bldg. 464.
- F. All maintenance people working in the Geon West or Geon East area are to report to the Production Foremen or delegates responsible for that area and then proceed to his designated head count area. Should the services of the maintenance men be required, the foreman or delegate shall notify the maintenance foreman, at Building 450 head count area, of this decision.
- G. All maintenance people in Building 462 or 466 are to report to hose house 10, North of Building 452 when the Geon West Area Alarm is activated.

If the hazardous condition can be corrected, everyone will go back to work after the all-clear has been given. The decision to evacuate the plant is left to the foreman or delegate responsible for the activated area.

Geon West Area Gas Alarm Procedure

The purpose of the gas alarm is to inform plant personnel of a gas escape in either Building 451, 461 or 463.

Gas alarm buttons are located in the following places:

- B/451 1st, 2nd, 3rd floor stairwells
3rd floor at South door to fire escape
4th floor at Cold Room Exit to roof (outside)
- B/461 1st, 2nd, 3rd floor stairwells
3rd floor at South door to fire escape
- B/463 North and East pedestrian door

Reset buttons are located as follows:

- B/451 3rd floor control room
- B/461 2nd floor breaker room
- B/463 North wall at lighting panel in Warehouse

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Geon West Area Gas Alarm

The building safety representative and/or charge operator will take a head count of the people in his area. One of the B/461 charge operators will shut off the VC1 flow to the affected building. The Geon West Foreman will notify B/464 personnel by radio. It will be the responsibility of those in the headcount area to stop all traffic in the area.

Please do not go through the affected area in order to reach your head count station. All personnel should stay out of the affected building or area unless otherwise requested by the area supervisor.

Geon East Area Gas Alarm

The purpose of the gas alarm is to inform plant personnel of a gas escape in Geon East Bldg. 464 and 455.

Alarm activation stations are located on each floor just outside the exit doors (North and South). All the gas alarm stations are clearly marked and are painted with orange fluorescent paint.

Electrically operated sirens, activated at these stations, are located in the poly building (B/464) and in the dryer building (B455). In B/464 the sirens are located on the third floor and on the second floor (over the blend tank area). In B/455 the sirens are located on the second floor on the staircase to the sl10 area and on the roof (outside) above the southeast door.

Gas alarms can be activated from any station in B/464 by simply pushing the "Start" button.

The gas alarm itself is a cycling siren (wailing) lasting one minute.

When the gas alarm is activated in B/464, all persons in B/464 shall evacuate the building and head for the hose house located Northwest of B/464.

It will be the responsibility of the charge operators to get all men cleaning polys out of the polys as well as shutting off any of the charge meters (vinyl or water) that may be running before evacuating the building themselves.

It will be the responsibility of the Geon East Foreman to radio Bldg. 461 and also notify the Bldg. 455 Venturi Dryer Operator. The Venturi Dryer Operator is to call Bldg. 441 so both areas are alerted to the alarm. Once the Venturi Dryer Operator has call Bldg. 441, he will shut the vinyl chloride charge valve in the high line Northwest of Bldg. 455. He will then reutrn to Bldg. 455 and keep it running. All other people in Bldg. 455 shall report to the hose house.

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At the hose house, the cause and seriousness of the alarm will be determined and corrective action taken. For this reason, it is all important for the man turning in the gas alarm to get word of the situation back to the hose house.

Pertaining to corrective action: Under NO circumstances will one man enter the building alone to correct the situation. When it comes time to correct the situation, one man will be situated at the stairwell on the floor where the man who is correcting the situation is working, as well as one man on the first floor stairwell. This is for the purpose of safety as well as a help in communication.

Once the situation is under control the all-clear is to be sounded. The all-clear is one blast of the siren to last approximately 5 seconds. This is accomplished by pressing the "STOP" button from the activated station and holding it depressed for approximately 5 seconds. Pressing the "STOP" button also serves the purpose of resetting the alarm.

When the all-clear signal has been sounded, the Venturi Dryer Operator will call Bldg/441 at 441 and inform them of the all-clear. The Geon East Foreman will radio the Geon West Foreman of the all-clear.

The gas alarms in the Geon West and Geon East Areas will be tested every Friday immediately after the fire alarm test at 12:30 P.M. A different station will be tested each week.

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B.F.GOODRICH CHEMICAL COMPANY
DEVELOPMENT CENTER

HAZARDOUS CHEMICALS

I. Introduction

A. Chemicals may be hazardous because they are

1. Toxic
2. Corrosive
3. Reactive or Explosive
4. Flammable
5. Irritating to the skin

B. Chemicals may possess one or more of the hazardous characteristics listed above.

C. Thorough knowledge of the properties of the individual material being handled is the best safeguard against accidents and injuries. The general rules given below are not intended as a substitute for this knowledge, which is the direct responsibility of the technical man under whose direction the material is being used.

II. Toxic and irritating chemicals may enter the body through the mouth, skin or nose.

A. Protection against entry through the skin or mouth is best afforded through simple rules of hygiene.

1. Always wash your hands after handling chemicals, particularly before eating or smoking.
2. Don't allow food or smoking materials to come in contact with laboratory benches, sample tables, or chemicals.
3. Don't store food in cold rooms or sample storage refrigerators.
4. Wear rubber gloves and/or other suitable protective equipment.
5. Don't pipette material by mouth. Use a vacuum trap or aspirator bulb.
6. If chemicals are splashed on you, change your clothing promptly and wash skin areas affected thoroughly.

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B. Protection against breathing toxic fumes may be provided by adequate ventilation, leaving the area, or the use of gas masks.

1. The best method of protection is adequate ventilation.

a. In the process areas each installation will be carefully designed to provide proper fume removal by hoods, ducts and ventilating fans.

b. In the laboratory all toxic materials should be handled and stored in the fume hoods provided.

2. In case of a gas escape, in spite of precautions, the gas alarm should be sounded and the area evacuated. Follow directions of area "Safety Monitor".

a. A long blast of the siren which can be heard in most areas of the plant is the gas alarm signal.

b. A flashing red light will also be seen in the building affected. These lights are mounted both inside and outside of the buildings.

c. When you hear the siren and see the flashing red light, evacuate your building until the all-clear sounded.

d. When you hear the siren but the red light is not flashing in your building, remain at your work station. Your presence elsewhere will only interfere with corrective operations.

e. A short blast on the siren is the all-clear signal.

3. If it is necessary to enter an area known to be hazardous, a gas mask of the proper type must be worn. Several types are available. Only those persons who are thoroughly familiar with the use and limitations of gas masks will be permitted to enter hazardous area.

III. Storage and Handling

A. General rules of good housekeeping apply.

1. Aisles should be clear and free from litter.

2. Storage should be neat and orderly.

3. When materials are stacked, those on the bottom must have sufficient strength to support the load. The base must be broad and firm to prevent falling.

4. Access to fire-fighting equipment must not be blocked.

5. Materials bearing different colored shipping labels must be stored separately.

B. Large containers should be transported with a cart or hand truck. Elevators should be used when moving them from one floor to another.

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IV. Disposal (See General Notice SAF-9, "Disposal of Trash and Waste Chemicals Materials")

MANAGER, INDUSTRIAL RELATIONS

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B.F.GOODRICH CHEMICAL COMPANY
DEVELOPMENT CENTER

Procedure To Be Followed
In Case Of Serious Gas Escape Or Serious Injury

FOREWORD

Because of the many hazardous chemicals used at the Development Center and the ever constant danger prevalent to the use of such chemicals, it is desirable that a procedure be established to be used at a guide in the case of serious gas escape or serious injury. The following rules will apply on all cases of gas escape and serious injury. It must be remembered that these rules are of a general nature and cannot apply to all conditions, however, one outstanding rule must always be considered as being of superior importance, if a toxic or flammable gas is escaping, a gas alarm should be sounded immediately. This will be accomplished by directions given verbally by the safety monitor of the area. In case of a gas escape in any particular department within that building, the entire building shall immediately be evacuated until contamination has been eliminated. Only those persons authorized to re-enter the contaminated area or building shall do so. All other personnel shall remain outside the building until the "ALL CLEAR" signal has been sounded. (All clear - a slight rise of the siren or short blast)

DISCOVERY
OF LEAK

1. The person discovering the leak or gas escape shall immediately go to the nearest gas alarm emergency button and press the RED button. This will cause the gas alarm system to be actuated in the building and the sirens will remain on for approximately 15 seconds. This is considered one long blast. The building in which the gas alarm is activated will be indicated by the RED light flashing on the outside of the building. This is indication that this is the contaminated building and all personnel except those so authorized shall remain outside until the "ALL CLEAR" has been sounded.

"ALL CLEAR"
SIGNAL

2. After the contaminated building has been cleared of gas and it is considered safe to resume operations, the signal of "ALL CLEAR" shall be sounded by a person authorized by the supervisor or in his absence, the person in charge of the department of the contaminated area or building at the time of the occurrence.

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IN CASE OF
SERIOUS INJURY

3. In case of serious injury to any person this emergency alarm system may be used to summon aid by following the same procedure as outlined in the preceding paragraphs. It is suggested that this alarm be used for this purpose only in case of absolute necessity.

SMOKING ROOM
AND SMOKING

4. At the sound of the gas alarm, all smoking will cease and all flames extinguished in the immediate area.

WARNING OF
VEHICLES

5. At the sound of the gas alarm all vehicular traffic inside The gates shall be stopped until the all clear is sounded. It shall be the duty of the guard or guards on duty at the time of the alarm to stop all traffic within the premises and warn them to turn off the ignition of their equipment until the all clear has sounded. The same procedure as outlined in paragraph 14, SAF-8 shall apply in case of serious gas escape. The guard or guards shall immediately return to their post and be responsible for directing traffic, keeping unauthorized personnel from entering the premises and performing general plant protection duties.

PLANT RESCUE
TEAM

6. At the sound of the gas alarm, the plant rescue team of the Process Building shall report immediately to the contaminated area and ascertain if their services are needed.

DUTIES OF TECH-
NICAL FOREMAN

7. It shall be the duty of the technical foreman to immediately take precautionary measures to eliminate the gas leak. Such personnel as are assigned to such duties shall enter the contaminated area with proper breathing equipment. Such assignment shall not be undertaken with a canister mask; an air line respirator or Scott self-contained unit must be used, preferably the latter.

DUTIES OF THE
PRODUCTION FOREMAN-
PROCESS BUILDINGS

8. It shall be the duty of the Production Foreman to immediately muster the personnel under his supervision to determine if all are present. If any person/persons are missing he will either authorize personnel to search the building for them or will make the search himself. All precautionary measures will be taken to make certain that no personnel have been overlooked. --Same shall apply to laboratories Except Monitors will muster persons of their area.

DUTIES OF LAB-
ORATORY SUPER-
VISORS

9. It shall be the duty of all laboratory supervisors or their designated representatives to take precautionary measures to eliminate the gas leak if such occurs in their department.

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