Bath Township Fire Department			Standard Operating Guideline	
Section Operations	**Referral No.** O-47	**Subject:** Hydrogen Cyanide (HCN)	**Date Issued** 8/14	**Date Revised**

Purpose:

- To provide guidelines for the monitoring of Hydrogen Cyanide.

Scope:

- This standard operating guideline shall apply to all personnel.

Responsibilities:

- Officer
  - Ensure personnel that operate the gas analyzer are properly trained.
  - Ensure that conditions are safe to occupy.
  - Ensure completion of a Property Release / Post Incident Report.
- Personnel
  - All personnel have the responsibility of wearing proper safety equipment and to operate in a safe manner.
  - All personnel have the responsibility to ensure the completion of a Property Release / Post Incident Report.

General:

- HCN monitor will be kept on Tanker 1303
- Hydrogen Cyanide is a colorless gas.
- HCN is in combustion products of synthetic materials.
- HCN can enter the body through respiratory tract, ingestion, and through absorption through the skin.
- HCN can produce symptoms of headache, drowsiness, vertigo, rapid pulse, nausea & vomiting, dilated pupils, bright red colored face.
- A safe working limit for HCN is measured in three different readings.
  1. High Alarm = 10 ppm
  2. Time Weighted Average (TWA) = 4 ppm
  3. Short Term Exposure Limit (STEL) = 4.7 ppm

SAFETY OF OUR PERSONNEL IS OUR TOP PRIORITY.

Personal Protective Equipment

- Full PPE shall be worn when an IDLH environment is suspected; NO PPE will be removed until air monitoring can verify that HCN ppm is below the levels that are deemed Hazardous. (see levels that are shown in the “General” section.)

- PPE must be cleaned after all incidents that HCN was found in the atmosphere.
- Reminder good personal hygiene should also be a high priority during and after all calls involving HCN including but not limited too; Hand washing, showering, and putting on clean clothing.

Reporting

- HCN levels shall be measured and documented prior to Command giving clearance to on scene personnel to remove any PPE during firefighting activities.
- Ongoing HCN monitoring shall be conducted after guidance to down grade PPE has been given to ensure safe working conditions persist.
- HCN levels shall be documented into "Fire House" for accurate documentation.
- HCN levels that were obtained during on scene monitoring should be documented and relayed to receiving hospital with any patient transported due to possible HCN exposure.

Calibration

- Shall be completed at the first of each month by our county EMA. Any corresponding paperwork and or calibration certificate shall be filed with all other corresponding paper work located in the shift office.

Turning on the unit

- Hold the "Mode" button for three seconds
- The device will go into a self test mode; Left/Right LED/speaker/vibrating alarm/back light
- Screen will display the software version and the days till calibration
- After a 20 second countdown a Check mark should appear in the upper left portion of the screen indicating that all internal checks have passed.

Peak Reading

- Will show highest recorded amount since last cleared.
- After 30 seconds this screen will time out and return to main screen.
- Pressing the "Enter" button will clear out the value.

TWA

- Will give a value of the "Time Weighted Average" over a period of 1 to 40 hours.
- Will alarm at 4 ppm average over time.

STEL

- "Short Term Exposure Limit"
- Will give a value as found over last 15 minutes.
- Will alarm at 4.7 ppm average over 15 minutes

Shutdown

- Press and hold the "mode" button for 5 seconds (will receive one beep per second). "Hold" will appear and screen will go blank in an additional 5 seconds.