NEP COLD STORAGE, INC.

HAZARD COMMUNICATIONS' TRAINING

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Why am I here today ?

- Provide Hazard Communications training in accordance with OSHA standards
- Quaker Valley wants to provide and maintain a safe and healthful workplace for all employees

OSHA is concerned with the following:

- Personnel are adequately trained and competent.
- Response personnel are capable of responding safely.
- Response personnel are managed by capable leaders.

Training should take place:

- Start of employment or assignment
- Annually during HAZCOM training

Toxicology

- Hazardous Material Definitions
- Regulatory Exposure Limits
- Human Exposure Consequences
- Chemical Specific Hazards

Ammonia

- Toxic
- Flammable

PPM

- **P**arts
- **P**er
- **M**illion

Definition: parts of a substance per million of air or water

PEL

- Permissible
- Exposure
- Limit

Definition: air concentration in the workplace which OSHA allows 8 hrs./day

IDLH

- **I**mmediately
- **D**angerous to
- **L**ife and
- **H**ealth

Definition:Maximum concentration of a contaminant from which one could escape within 30 minutes without any impairing symptoms or any irreversible health effects

Ammonia Exposure Limits

- OSHA-PEL 50 PPM
- IDLH 300 PPM

Vapor Density

Definition: relative density of a vapor compared to the density of air.

Ammonia

- Vapors lighter than air
- Mixes completely in water

Routes of Entry

- Absorption through contact with the skin and eyes
- Inhalation
- Ingestion
- Injection/Puncture

Absorption

The skin acts as a barrier against entry of foreign materials into the body. If this protective barrier is weakened or compromised, toxic chemicals enter.

The barrier is greatly diminished by lacerations and abrasions.

Inhalation

The most rapid route into the body, immediately introducing toxic chemicals to respiratory tissues and the bloodstream.

Once admitted to the blood through the lungs,these chemicals are quickly transported throughout the body.

Ingestion

GASP!

Materials get into the mouth through hand to mouth contact, and through coughing when inhaled particulate material is removed from the lungs to the throat and then swallowed

Injection

- The injection of hazardous materials into the body can occur by stepping on or bumping against a sharp object
- The best precaution for this eventually is to have on protective clothing and observe safe work habits

Ammonia First Aid

- Skin contact-

  Flush with large quantities of water for at least 15 minutes while removing clothing

- Inhalation-

  Remove from exposure.If breathing has stopped or difficult, administer artificial respiration or oxygen as needed.

Ammonia First Aid

- Eye contact-

  Flush with large amount of water for at least 15 minutes.

Always seek medical attention!!!

Ammonia Boiling Point

Ammonia has a boiling point of -28 degrees F

- Will stay as a liquid as long as the temperature remains at -28 degrees F or lower
- Will turn to vapor if the temperature rises above -28 degrees F

Ammonia Reactivity

- Reacts violently with acids
- Reacts with chlorine,bromine,fluorine,iodine
- Reacts with gold,silver or mercury

Ammonia

Zinc, copper, silver, cadmium, and their alloys must not be used in ammonia systems since they can be rapidly corroded by it.

Ammonia

Contact lenses must not be worn when working with ammonia

Upwind

Definition: the direction from which the wind is coming.

ALWAYS WANT TO BE UPWIND!!!!

Ammonia Release

- Emergency Response Coordinator will be notified

Incident Commander

The Incident Commander is the Philadelphia Fire Department

Quaker Valley Responsibilities

- Determine need for evacuation
- Notify appropriate government agencies
- Coordinate activities with outside response agencies
- Document and report after emergency situation

Quaker Valley Evacuation Coordinator Responsibilities

- Assist in evacuations
- Conduct head count
- Report results of head count to Fire Dept.

Evacuation

Accountability is the key!

The responsible people shall report their head count and unaccounted persons to the Fire Dept.

Evacuation Drills

During a fire or release in a plant,there are three objectives:

- Need to get employees out quickly and efficiently
- Need to account for all employees
- Need to move emergency personnel into position

Assembly Area

- Front of building

Types of Ammonia Spills

- Liquid
- Gases or vapor

EPA Notification

Formal reporting of any release greater than 100 lbs., in a 24 hr. period, is required by the Environmental Protection Agency.

Notification must be made within fifteen (15) minutes after the initial detection of the release.

The EPA number to call:(800) 424-8802

END