Purpose

The purpose of Trinity Medical Management's program is to ensure the safety of employees who may be potentially exposed to Benzene levels above permissible exposure levels.

Administrative Duties

The Training and Compliance Manager (TCM) is the program coordinator/manager and is responsible for its implementation. Copies of the written program may be obtained in the Operations office.

General

Benzene is an aromatic hydrocarbon that is produced by the burning of natural products. It is also a component of products derived from coal and petroleum. It is found in gasoline and other fuels, and is used in the manufacture of plastics, detergents, pesticides, and other chemicals.

Benzene is a clear to light yellow liquid. It has a gasoline-like odor. It is soluble in most solvents. Benzene is a highly flammable material.

Research has shown benzene to be a carcinogen (cancer causing). With exposures from less than 5 years to more than 30 years, individuals have developed, and died from, leukemia. Long-term exposure may affect bone marrow and blood production.

Short-term exposure causes depression of the central nervous system (CNS), marked by drowsiness, breathlessness, irritability, euphoria, dizziness, headache, nausea, loss of coordination, confusion and unconsciousness. No effects are expected at 25 ppm. Exposure to 50 to 150 ppm produces headache, and tiredness. Eye, skin, nose, and throat irritation have also been reported following short-term exposure. A period of feeling excited or giddy may precede the onset of other symptoms. Exposure to approximately 20,000 ppm for 5 to 10 minutes may result in death. In general, blood and immune system effects have not been documented in humans following short-term exposures, although these effects have been seen in animals. The current permissible exposure level is 1 part per million (ppm) in air for an 8 hour average with a short-term exposure limit of 5 ppm. Benzene can also be absorbed through the skin.

Potential locations where employees may be exposed to Benzene include"

- Petroleum Refining Sites
- Tank Gauging (tanks at producing, pipeline & refining operations)
- Field Maintenance

Benzene liquid is highly flammable and vapors may form explosive mixtures in air. Fire extinguishers must be readily available. Smoking is prohibited in areas where benzene is used or stored.

The Company should be aware of Client's contingency plan provisions. Employees must be informed where benzene is used in the host facility and aware of additional plant safety rules.

General Safety Precautions

Benzene liquid is highly flammable and vapors may form explosive mixtures in air. Fire extinguishers must be readily available. Smoking is prohibited in areas where benzene is used or stored.

Exposure Monitoring

Determinations of employee exposure will be made from breathing zone air samples that are representative of each employee's average exposure to airborne benzene.

Methods of Compliance

Engineering Controls and Work Practices

The Company will institute engineering controls and work practices to reduce and maintain employee exposure to benzene at or below the permissible exposure limits, except to the extent that the Company can establish that these controls are not feasible.

Wherever the feasible engineering controls and work practices which can be instituted are not sufficient to reduce employee exposure to or below the PELs, the Company will use them to reduce employee exposure to the lowest levels achievable by these controls and will supplement them by the use of respiratory protection.

Where the Company can document that benzene is used in a workplace less than a total of 30 days per year, the Company will use engineering controls, work practice controls or respiratory protection or any combination of these controls to reduce employee exposure to benzene to or below the PELs, except that the Company will use engineering and work practice controls, if feasible, to reduce exposure to or below 10 ppm as an 8-hour TWA.

Compliance Program

When any exposures are over the PEL, the Company will establish and implement a written program to reduce employee exposure to or below the PEL primarily by means of engineering and work practice controls.

The written program will include a schedule for development and implementation of the engineering and work practice controls. These plans will be reviewed and revised as appropriate based on the most recent exposure monitoring data, to reflect the current status of the program.

Written compliance programs will be furnished upon request for examination and copying to the Assistant Secretary, the Director, affected employees and designated employee representatives.

Protective Clothing and Equipment

Personal protective clothing (i.e. boots, gloves, sleeves, aprons, and eye and face protection) and equipment will be worn where appropriate to prevent eye contact and limit dermal exposure to liquid benzene. Protective clothing and equipment will be provided by the Company at no cost to the employee and the Company will assure its use where appropriate. Eye and face protection will meet the requirements of applicable OSHA standards. If employees are potentially exposed to benzene levels above the PEL a Respiratory Protection Program must be developed and implemented in accordance with applicable OSHA regulations.

Communication of Benzene Hazards to Employees

Signs and Labels

The Company will post signs at entrances to regulated areas. The signs will bear the following legend:

DANGER
BENZENE
CANCER HAZARD
FLAMMABLE – NO SMOKING
AUTHORIZED PERSONNEL ONLY
RESPIRATOR REQUIRED

NOTE: Pipe labeling is required by the Company

The Company will ensure that labels or other appropriate forms of warning are provided for containers of benzene within the workplace. There is no requirement to label pipes. The labels will comply with the requirements of CFR 1910.1200(f) and in addition will include the following legend:

DANGER
CONTAINS BENZENE
CANCER HAZARD

Material Safety Data Sheets

The Company will obtain or develop, and will provide access to their employees, a material safety data sheet (MSDS) which addresses benzene and complies with 29 CFR 1910.1200.

Companies who are manufacturers or importers will:

- Comply with paragraph (a) of this section, and
- Comply with the requirement in OSHA's Hazard Communication Standard, 29 CFR 1910.1200, that they deliver to downstream Companies a MSDS which addresses benzene.

Information and Training

The Company will provide employees with information and training at the time of their initial assignment to a work area where benzene is present. If exposures are above the action level, employees will be provided with information and training at least annually thereafter.