PEAK NDT SOLUTIONS	Benzene Awarness				
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Approved by:	Derrick Landry	Revised by:	Madison Myers	MOC#:	N/A

PURPOSE

The purpose of this written program is to provide guidance to Company personnel towards implementing engineering and work practice controls to reduce employee exposure to benzene at or below the Permissible Exposure Limit (PEL).

1.0 GENERAL

A. Benzene is a hydrocarbon that occurs naturally in petroleum crude oils and natural gas condensates and is an intermediate in petroleum processing commonly found in distillates, condensates and solvents.

B. Benzene is toxic, colorless, flammable, aromatic odor and is **not** soluble in water.

2.0 HEALTH EFFECTS

A. Acute health effects include:

- Headache
- Dizziness
- Breathless
- Drowsiness
- Euphoric Feeling
- Eye & Skin Irritation
- Respiratory Irritation

B. Chronic health effects may result in blood disorders:

- Cancer (i.e., leukemia or anemia)

3.0 WORKPLACE EXPOSURE

A. Company personnel may be required to work at customer sites where benzene is present. Locations where employees may be exposed to Benzene during their job functions may include, but not limited to petroleum refining sites, tank gauging and field maintenance areas.

B. Benzene concentrations are usually greater in lighter crude oils and condensates. Benzene is also present in small percentages in gasoline and in many processing and cleaning fluids where it is used as an additive. It is also produced in various steps of hydrocarbon processing.

C. Intermediate streams and products that may contain 0.1 percent or more of benzene and will be considered as a possible source of benzene exposure include:

- Oils
- Gasoline
- Solvents
- Distillates
- Condensates

D. In the event that personnel are required to perform any work in an area containing airborne concentrations of benzene in excess of one part of benzene per million parts of air (1ppm) as an 8-hour time-weighted average (TWA), or a short-term exposure limit (STEL) in excess of 5 ppm as averaged over any 15-minute period, a site specific written Benzene plan will be scheduled, developed and implemented prior to the start of the operation. The plan shall reflect the most recent exposure monitoring data and shall be made available to the Assistant Secretary, the Director, affected employees and designated employee representatives.

4.0 PROCEDURES

A. Under normal operating conditions, benzene should not be present in hazardous airborne concentrations in customer facilities. Company personnel are prohibited from entering work sites posted as benzene regulated areas and shall obey posted "No Smoking" signs. Peak NDT Solutions shall also make available Fire Extinguishers in designated benzene areas. If a customer site has hazardous airborne benzene concentrations, they should be identified by signs with the following warning:

DANGER
BENZENE
CANCER HAZARD
FLAMMABLE - NO SMOKING

B. If an employee suspects that a benzene spill or leak has occurred, they must vacate the area immediately and notify the appropriate personnel at the customer facility.

5.0 DETECTING BENZENE

A benzene spill or leak can be detected by:

- Odor: Benzene has an aromatic, slightly sweet odor
- Physical Symptoms: Benzene causes headaches, dizziness, drowsiness, and respiratory irritation
- Monitor: For example, a personal gas monitor, worn by workers, that alarms if benzene is detected in dangerous concentrations

6.0 PERSONAL PROTECTIVE EQUIPMENT

A. Peak NDT Solutions shall provide PPE at no cost to all employees including but not limited to boots, gloves, sleeves, aprons, eye and face protection.

B. Respiratory protection must be worn to prevent potential exposures to benzene when engineering controls or work practices are not feasible, or in emergencies. Respirators selected shall be NIOSH approved and shall be selected according to airborne concentrations of benzene or condition of use.

C. Personal protective eyewear shall be provided and worn to prevent eye contact and limit dermal exposure to liquid benzene.

7.0 EMPLOYEE TRAINING & MEDICAL SURVEILLANCE

A. Employee training will address Permissible Exposure Limits (PEL) and standards for reducing employee exposure. Peak NDT Solutions will ensure employees are aware of a Customer's contingency plan and are informed of areas where benzene is used.

B. A medical surveillance program shall be available for employees;

- who are or may be exposed to benzene at or above the action level 30 or more days per year;
- who may be exposed to benzene at or above the PELs 10 or more days per year; or
- who have been exposed to more than 10 ppm of benzene for 30 or more days in a year prior to the effective date of the standard when employed by their current employer.

Note: Peak NDT Solutions shall establish and maintain an accurate records of exposure measurements and medical surveillance.

REVISION INFORMATION

This is applicable to changes made to the current version of the preceding document.

Revision Number	Description