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International Association of Oil & Gas Producers

Global Health Practice Example

Benzene

PURPOSE	To consistently identify, assess and control worker exposure to potential health risks associated with benzene.
SCOPE	This practice applies to sites or operations handling benzene-containing materials at concentrations greater than 0.1% benzene by volume.
AWARENESS REQUIREMENTS	• Identification: Streams and materials that may result in worker exposure to benzene (> 0.1 % benzene) during operations and maintenance activities are identified and assessed for potential exposure to personnel. • Training: Workers are informed of the presence, potential hazards, control measures, proper handling practices, and emergency response precautions associated with benzene containing materials.
CONTROL REQUIREMENTS	1. Health exposure risk assessments of activities associated with benzene are completed which evaluate health risks and ensure appropriate controls and surveillance measures, as required, are in place. 2. Elimination approaches , Technical/ Engineering or administrative controls are implemented and used, where feasible, to limit or eliminate worker exposure, including closed sample systems, equipment preparation for opening equipment (i.e., depressurizing, draining, steaming, cleaning and / or flushing), and work in lab hoods when handling stream samples. 3. Chemical protective gloves and clothing (e.g. aprons, coveralls, eye/face protection) of appropriate material are selected and used to limit or prevent skin contact with benzene containing streams and materials. 4. For activities requiring Respiratory Protective Equipment, workers wear suitable respiratory protection consistent with the Respiratory Protection Global Health Practice 5. Benzene specific gas tests are conducted prior to entry into equipment which previously contained a benzene stream (>0.1% benzene) 6. Equipment Preparation: Work practice controls and personal protective equipment must be used when opening benzene-containing equipment. This includes: a. De-pressure and draining residual liquid to a closed system. Where residual liquid is drained to open areas, and the occupational exposure limit can be exceeded, personnel presence is restricted and appropriate respirators are worn at all times during draining. b. Streams containing more than 3% benzene (by volume) are drained to a closed system and purged (e.g. flush with a non - benzene liquid, steam) to remove benzene containing residual prior to opening. Where exposures cannot be reduced below the exposure limits, and/or purging cannot be conducted, workers must wear suitable respiratory protective equipment until gas testing verifies benzene levels are below the exposure limit. c. Benzene specific gas tests should, where possible, be conducted during response to a spill or leak of a benzene-containing stream.
SURVEILLANCE REQUIREMENTS	• Occupational evaluations/exams are offered to employees as mandated by local/country regulations and/or the Company Occupational Evaluation procedures, whichever is the more stringent.