

criterion, 85% of participants were accurately identified in regards to ability to pass the 3-PT. The PASS displayed a moderate correlation ($r = -0.41$; $p < 0.001$) but was not particularly sensitive to depicting pass/fail potential (PASS score of $\geq 6 = 59\%$ correctly predicted success scores).

Conclusions: The 1/4-PT appears to be an apt predictor of 3-PT performance and could help candidates self-assess capacity for success in the 3-PT. Adopting a shorter test would increase test administration efficiency and decrease costs by reducing the number of vests needed to test larger cohorts of WF.

69. Benzene Vapor Exposure Assessment Methodology and Personal Monitoring Plan

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Objectives: To develop an updated benzene inhalation exposure assessment and to align historical and on-going benzene monitoring data at a Southern California oil refinery with the corporate occupational hygiene process and Cal/OSHA regulations.

Methods: The report was based on qualitative and quantitative information from employee interviews, historical sampling data, and process stream information. The report summarizes benzene exposure potential and recommendations at the refinery by combining the following elements: terminology for exposure levels, criteria to define similar exposure groups, updated sampling results, graphs illustrating exposure levels and recommendations for future exposure assessment and monitoring. Criteria for defining similar exposure groups included plant division, job location, job task and task frequency level.

Results: Prioritized recommendations include the following: for the 'exposure potential' category, follow-up should be performed to assess exposure during tasks on an annual basis, and personal monitoring samples should be collected from personnel periodically with worst-case scenario sampling to ensure compliance. For the 'low exposure potential' group, samples should be collected from at least one employee from each division

every 3 years. For the 'very low exposure potential' group, collecting samples from at least one employee from each division every 5 years is adequate. For the 'insignificant exposure potential' group, area monitoring every few years (such as indoor air quality surveys) is sufficient. If monitoring shows results of concern, biological monitoring should be performed for those performing such job tasks.

Conclusions: By assessing interviews with employees, historical data and process stream information at a Southern California oil refinery, a report was created to summarize benzene exposure potential and make recommendations. The report includes definitions and criteria for similar exposure groups, updated personal sampling results, graphical analysis of historical exposure levels and an outline for future exposure assessment and monitoring recommendations.

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ABSTRACTS

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