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MICHAEL D. MOOSEMILLER
Senior Principal Consultant
BAKER ENGINEERING AND RISK CONSULTANTS, INC.

Education:

B.S., Chemical Engineering, Purdue University, W. Lafayette, Indiana

M.S., Chemical Engineering, University of Wisconsin-Madison

Areas of Practice:

Mike Moosemiller's areas of expertise are in process safety and risk and reliability assessment, with 30 years' experience in the following areas: Facility Siting Analyses, Quantitative Risk Assessment, Process Hazards Analysis, Reliability/Availability Assessment, Risk-Based Inspection, and auditing of management systems and field installations.

Experience:

- Several years of hands-on experience in refinery operations in which he was responsible for checkout and commissioning of refinery project startups for a variety of processes, primarily overseas. Other duties included pilot-plant and catalyst manufacturing operations and supervision. He has shift operating experience in several refining processes, including alkylation, hydrocracking, isomerization, fluid catalytic cracking, among others.
- Facilitated hundreds of hazard evaluations such as HAZOP and Structured What If in many industries including refining, chemical, pipeline, oil/gas production, foods, pharmaceuticals, hydroelectric power, waste handling, metals processing, and aeronautics. He has also trained several hundred other people in these same methodologies.
- Core member of a global team that developed a comprehensive HSEQ practices tool based on U.S. and international standards. Mike developed the initial version of the American Petroleum Institute's Risk-Based Inspection technology for pressure relief devices.
- Managed quantitative risk assessments and consequence analyses in several industries including petroleum refining, pipelines, chemicals and metals processing. He helped companies in these same industries develop risk criteria and risk management strategies based on cost-benefit analysis. He has also been involved in the following subject areas: Fault Tree Analysis, Failure Modes and Effects Analysis, Layers of Protection Analysis, Safety Instrumented System assessment, pressure relief valve design, human factors assessment, flare radiation analysis, and more.
- Author and manager of BakerRisk's failure rate and risk analysis database.
- Knowledgeable in the implementation of applicable codes and standards, including OSHA PSM 29 CFR 1910.119, API RP 752/753 and others. He was one of two primary authors of the CCPS book "Guidelines for Improving Plant Reliability through Data Collection and Analysis," one of three authors of the CCPS book "Guidelines for Evaluating Process Plant Buildings for External Explosions, Fires and Toxic Releases" and the primary author of the CCPS book "Guidelines for Determining the Probability of Ignition of a Released Flammable Mass." He has authored many articles and presentations in the areas of process hazards analysis and risk analysis. He is an ongoing contributor to CCPS book committees, and has chaired the 11A Loss Prevention committee and the Loss Prevention Symposium.

Professional Chronology:

Purdue University, Chemical Engineering B.S., 1974 – 1979; U.S. Department of Agriculture Northern Regional Research Center, Co-op Engineer, 1975 – 1978; UOP Inc., 1979 – 1986, Refinery Commissioning Engineer; University of Wisconsin – Madison, Chemical Engineering M.S., 1986 – 1988; Technica (acquired by Det Norske Veritas), Risk and Reliability Engineer, 1988 – 2003; Baker Engineering and Risk Consultants, Inc. 2003 – present.

Professional Certifications:

(former) Certified Reliability Engineer (American Society for Quality)

Professional Memberships:

American Institute of Chemical Engineers (AIChE) 11a (Loss Prevention) Committee, and Safety & Health Division.