



ALEXANDER I. FERGUSSON
Senior II Consultant
Manager, Chicago Operations

M.S., Chemical Engineering, Georgia Institute of Technology

B.S., Chemical Engineering, University of South Carolina

Areas of Practice

Alex Fergusson is the Operations Manager of BakerRisk's Chicago office and works in the Process Safety Group. His work is primarily focused on insurance risk engineering, Facility Siting Studies (FSS), and Quantitative Risk Assessments (QRA) for refineries and chemical facilities where he has gained experience in loss prevention surveys, as well as consequence and risk modeling of blast, toxic, fire, and flammable hazards.

Experience

- Manages interdisciplinary teams on several FSS/QRA projects at a variety of chemical and petrochemical facilities using Safesite_{3G}[®] and QRATool[®], as well as PHAST.
- Experience with performing loss prevention surveys. These surveys focused on identifying and evaluating the property and production loss potential for the site. These surveys also examined a facility's management programs (operations, maintenance, inspection, etc.) and its capabilities to minimize or prevent loss.
- Key member of BakerRisk's testing programs, collecting dispersion and jet fire data used to evaluate the model used in BakerRisk's dispersion and blast modeling software tool, Safesite_{3G}[®].
- Involved with studies evaluating Shelter-in-Place (SIP) building models and structural envelope testing.
- Experience as a scribe for multiple Process Hazard Analysis (PHA) and HAZOP studies and is proficient with computer software packages such as PHAWorks[®] and PHAPro[®].
- Performed several relief valve and flare systems studies
- As a graduate research assistant at the Georgia Institute of Technology, Mr. Fergusson completed a Master of Science degree in Chemical Engineering in the Sholl research group. His thesis focused on the molecular modeling of carbon dioxide dissociation on atomically stepped copper surfaces using density functional theory. The work was done in conjunction with the Gellman group at Carnegie Mellon to identify copper surfaces that catalyze spontaneous carbon dioxide dissociation into carbon monoxide and atomic oxygen.

Professional Chronology

The University of South Carolina, Department of Chemical Engineering (Research Assistant, 2007 to 2010); Research Triangle Institute (Research Intern, Summer 2009); Georgia Institute of Technology (Graduate Research Assistant, 2010-2012); Baker Engineering and Risk Consultants, Inc. (Senior II Consultant, 2012 to present)

Professional Registrations / Certifications

Engineer-In-Training (South Carolina)