

FORENSIC ENGINEERING

Analysis Report Presentation Deposition Trial Testimony



Alan D. Black, PE, CSP **Principal Engineer**

Certified Safety Professional, 2008
Registered Professional Engineer, 2007
MS, Operations Research, Stanford, 1984
BS, Mechanical Engineering, SJSU, 1980

Areas of Specialization:

Theme Park Accidents
Hazard Assessment
Risk Mitigation
Safety Analysis
Weather and Visibility
Training and Documentation

Recent Cases:

Ride restraint failure analysis
CO poisoning source determination
Construction vehicle injury causation
Store shelving collapse
Code analysis in trip and fall
Bicycle crash energy analysis
Industrial operation safety analysis
Commercial door design failure

Research:

Nighttime Visibility
Computer simulation of lighting environments

Mr. Black performs forensic engineering of accidents and assessments of existing conditions to evaluate product deficiencies, process problems and human error.

Analyses can range from the straightforward such as safety analysis, hazard mitigation, and human factors assessment to the more complex tools of fault tree analyses (FTA), event tree analyses (ETA) or failure modes and effects analyses (FMEA). Results are presented verbally, in a report, as a powerpoint presentation or as court room testimony as requested by the client.

Mr. Black has spent the last 17 years working as a Principal Engineer and Director for both Walt Disney Imagineering and Universal Creative dealing with the advanced design of ride, show and stunt equipment for theme parks and resorts worldwide. Mr. Black's many roles have included development of an international theme park safety program including attraction analysis, field implementation and risk assessment.

Prior to his engagement in entertainment, Alan worked with Kaiser Aerospace developing information displays for the high stress environment of fighter aircraft cockpits.

Alan is also a commercial pilot and certified flight instructor.