Can-Technologies Inc.
An Engineering Company

Safety Services - Process Safety

Can-Technologies process safety and risk management services help customers meet their safety, health, and environmental compliance needs in a thorough, systematic, and efficient manner. We have the experience to address issues ranging from operational risk, equipment integrity, loading limits or naturally occurring hazards.

Process Hazards Analysis (PHA) is a component of both Process Safety Management (PSM) and Risk Management Programs (RMP), to be utilized in Regulatory Compliance Audits.

Can-Technologies approach to risk management emphasizes:

- Minimizing personnel exposure
- Minimizing quantities of hazardous materials
- "Safety by Design"
- Accurate procedures and standards
- Rigorous personnel training

Proper risk management focuses on not only normal operations/conditions but also abnormal operations/conditions, equipment design, human factors, standard operating and contingency procedures, maintenance operations, and facility design and siting.

Can-Technologies approach to risk management focuses resources on addressing critical credible failure scenarios. This is accomplished by prioritizing operations/equipment based on perceived risk and material type and quantity, identifying and ranking potential hazards using qualitative methodologies, and then using quantitative methodologies to evaluate the critical scenarios. This type of review is known to industry as risk assessment or Process Hazards Analysis (PHA).

The following are examples of the risk assessment and hazards analysis methodologies that our engineers are trained in:

Qualitative Risk Assessment

- Job Safety Analysis (JSA)
- Logic Diagrams
- What If/Checklist
- Failure Modes and Effects Analysis (FEMA)
- Hazard and Operability Study (HAZOP)

Quantitative Risk Assessment

- Fault Tree Analysis (FTA)
- Probability Statistical Analysis
- In Process Energy Modelling
- Risk/Cost Trade Off

We assist customers in identifying risk-minimizing solutions based on sound engineering principles and are cost effective. We can team up with your personnel to provide a thorough analysis of planned, modified, or existing processes.

A HAZOP, or HAZard and OPerability analysis, is a structured analysis technique in which a multi-disciplined team performs a systematic study of a process using guide words to discover how deviations from the design intent can occur in equipment, actions, or materials, and whether the consequences of these deviations can result in a hazard.

A FMEA, or Failure Modes and Effects Analysis, is a systematic approach to identify failure modes that could either directly result in, or contribute significantly to, the identified accident scenario by a multi-discipline team familiar with the process. The failure modes and failure causes are identified initially and are used as the starting point for the FMEA.

Each cause is evaluated for adequate design safety and potential effect on the system. A qualitative risk category is then assigned to each failure cause. This qualitative ranking is determined by considering both the severity and frequency of occurrence.

Critical areas of the process are identified and studied to determine the possibility of a major incident. Management can then use this information to control the potential risk, and avoid the accident scenario.

Can-Technologies process safety services can include any of the following:

- PHA Facilitation
- Risk Management Program Development
- Qualitative Risk Assessment
- Hazard and Operability Study (HAZOP)
- Failure Modes and Effects Analysis (FEMA)
- Quantitative Risk Assessment
- Process Reliability Studies
- Process Optimization Studies

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"Providing Quality Services & Attention to Our Customer Needs."