



AIM CORPORATE SERVICES

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TRAINING AND CONSULTANCY

ON

PROCESS HAZARD ANALYSIS (PHA)

AIM IS PLEASED TO PROPOSE TRAINING & CONSULTANCY INTERVENTION PROGRAMME ON 'PROCESS HAZARD ANALYSIS' TO IDENTIFY RISK & HAZARDS IN PROCESS OR ORGANIZATION TO PREVENT ANY UNUSUAL OCCURANCES, IN ORDER TO SECURE 4 "P" PEOPLE , PROPERTY , PROCESS AND PERFORMANCE .

MISION OF INTERVENTION PROGRAMME-

- To achieve ZERO accidents or unusual occurrences in organization through safe operation of manufacturing or handling process.



Process Hazard Analysis



Process Hazard Analysis (PHA) is the foundation of process safety and risk management programs. It helps companies to identify hazards in a process that could adversely affect people, property, performance, Process or the environment.

A team leader, or facilitator, works with a group of people who know the process to conduct the PHA. The team leader prepares for the study, advises on the selection of team members and methodology and the definition of study scope, and oversees the team's brainstorming of causes and consequences of possible accidents and the formulation of recommendations for appropriate corrective actions.

Hazard may be caused by toxic chemicals, equipment failures, human errors and external events must be considered. Safeguards, facility siting and human factors issues should be identified and their impact on safety.

The advance chemical production processes are complex and have more potential to incidents. The PHAs may be best approach to run your process safely and keep 4 "P" secured.

Why Process Hazard Analysis?

It is good engineering practice. Companies that handle or process hazardous chemicals or complex production process have a responsibility to protect employees, the public and the environment from exposure to accidental releases. This intervention helps organization to run their process unusual occurrences free.

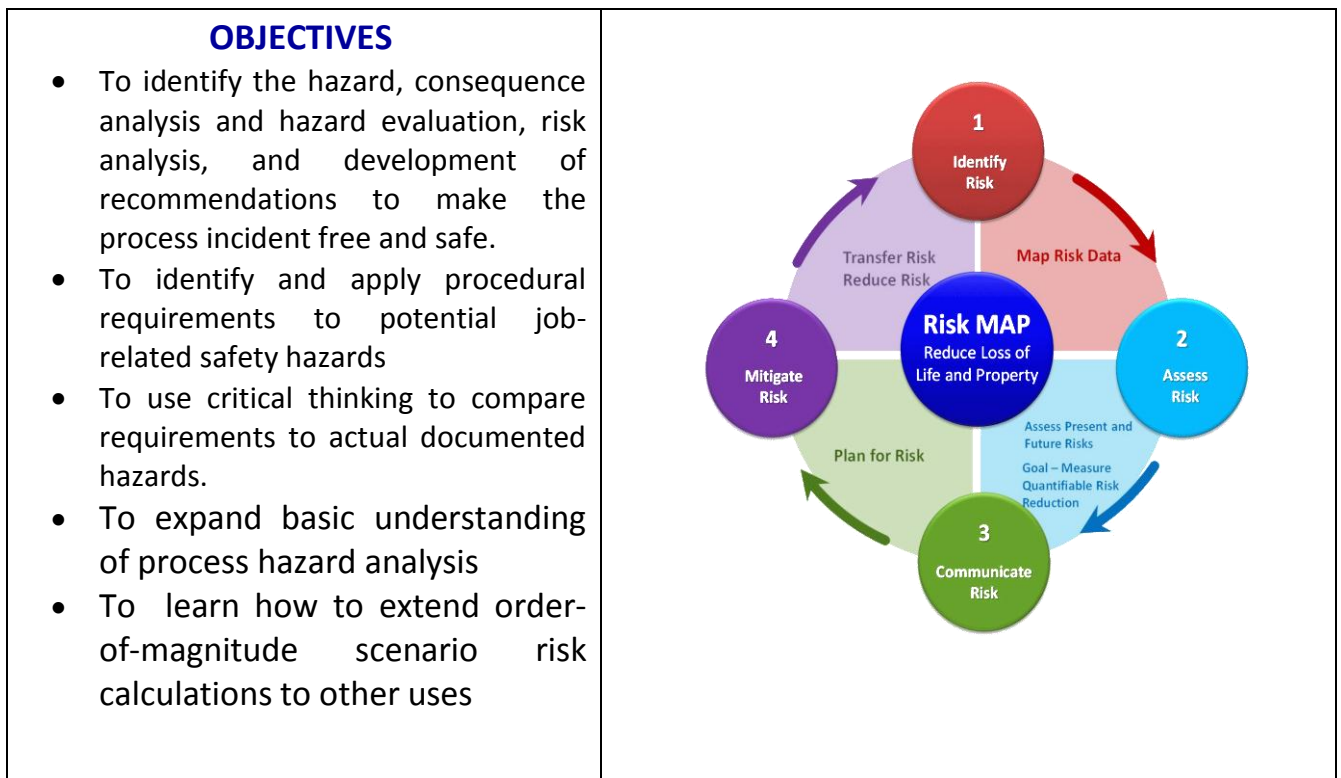
CONSULTANCY

- Our experts team will facilitate yours functional team to analyse the potential hazards, risk to measure and manage them in order to run the accident free process and keep organization safe.

WHO CAN ATTEND?

The operation, technology, engineering, maintenance and safety managers, engineers, frontline supervisors, PHA committee and site process safety management committee members.

Participants should be familiar with operating technology, risks and have prior experience in operations, maintenance and/or projects or material / process description. They should also have prior knowledge of material hazards, process design and equipment design



WHY AIM?

PHA demands a deep knowledge of chemical processes, operation and material descriptions and application of effective hazard analysis methods.

The team of expert trainers and facilitators have exposure of chemical industries as safety professional where complex and highly hazardous process handled. During their tenure they conducted many safety training and analysis. The team has ability to conduct the analysis efficiently. We utilize our experience in conducting and documenting studies.

SERVICES

- We facilitate for PHA studies at the design stage to improve safety before a process is built.
- PHAs at performed for an operating facility.

- To update and revalidate periodically to account for changes that may have been made to the process.
- Mentoring and coaching your personnel in PHA facilitation.
- Providing suggestions for improvements that will provide information useful in revalidating PHAs and improving the quality of your PHAs.
- Training for facilitating and documentation of PHA study.

BLUEPRINT OF TRAINING PROGRAM

- Introductions and importance of PHA
- **Planning and preparing the organization for PHA**
How to select team members, train them, and develop a charter?
- **Hazard Identification , MDS and Process description**
To identify toxic, flammable, explosive, reactive, and mechanical potential hazards
- **Consequence Analysis of potential Hazards**
Taking cases of potential unusual occurrences scenario so they will be enabled to uncover the direct or indirect impact of potentially hazardous events.
- **Process Hazards Evaluation**
Participants will explore the ways hazardous events can occur.
- **Determine Consequences with Loss of Engineering or Administrative Controls**
Participants will determine consequences based on the consequence analysis.
- **How to Identify Independent Layers of Protection?**
The results of the hazard analysis and determine the level of protection required.
- **Determine Frequency**
This module will focus on determining the frequency at which an event could occur.
- **How to Determine Risks?**
Using consequence and frequency, the risk of an event can be estimated.
- **How to Identify Risk Mitigation Needs** Evaluating chemical reactivity hazards in PHAs
it will help to determine events that require risk mitigation.
- **Layer of Protection Analysis (LOPA)**
To understand the safeguards against potential Hazards
- **Develop and Prioritize**
Recommendations Participants will develop recommendations to maximize efficacy of the PHA.
- **Prepare Report**
This module will cover how the PHA team should document the review team's work and prepare a report.

Facilitator Team:

We have well experienced expert team from different industries. The team leader G Satish has 30yrs experience in process operation of chemical industry and helped in prioritize risk reduction options, develop corporate and plant technical safety programs, identify inherently safer processes, train PHA team leaders, and analyze fire, explosion, and toxic release hazards.

METHODOLOGY

- Power point presentation, Interaction, modelling, experience Sharing, HAZOP/LOPA / JHA examples and exercises of process, Management Games, Brief lectures, Case studies.

PAY OFFS

<p style="text-align: center;">To the Organization</p> <ul style="list-style-type: none">• Helps to protect process downtime, property damage, quality and defamation of organization• Reduced health care/insurance costs• Reduced risk of fines and litigation• A positive and caring image <p style="text-align: center;">To the Employee</p> <ul style="list-style-type: none">• A safe and healthy work environment• Reduced stress and Improved morale• Increased skills for health protection• Improved sense of well-being	<p>The diagram illustrates the Risk MAP process as a continuous cycle of four steps surrounding a central goal. The central goal is 'Risk MAP: Reduce Loss of Life and Property'. The four steps are: 1. Identify Risk (top, red circle), 2. Assess Risk (right, blue circle), 3. Communicate Risk (bottom, green circle), and 4. Mitigate Risk (left, purple circle). Arrows indicate a clockwise flow from step 1 to 2, 2 to 3, 3 to 4, and 4 back to 1. Descriptive text for each step is: 1. Identify Risk: 'Map Risk Data'; 2. Assess Risk: 'Assess Present and Future Risks. Goal - Measure Quantifiable Risk Reduction'; 3. Communicate Risk: 'Plan for Risk'; 4. Mitigate Risk: 'Transfer Risk. Reduce Risk'.</p>
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Beyond Tangibles –

- Our experienced facilitators assist your people in learning the ropes and gaining confidence in facilitating PHA studies
- To learn and practice the PHA techniques successfully being applied in the process safety industry today.