Chapter 1: Introduction

1.1 Executive summary

An organization at this stage of the journey in developing a Proactive safety culture has adopted the idea of continuous improvement and applied the concept to safety performance. There is a strong emphasis on communications, training, management style, and improving efficiency and effectiveness. Everyone in the organization contributes for safety. The level of awareness of behavioural and attitudinal issues is high, and measures are being taken to improve behaviour. Progress is made one step at a time and never stops.

- The organization begins to act strategically with a focus on the longer term as well as awareness of the present. It anticipates problems and deals with their causes before they happen.
- Decisions are made in the full knowledge of their safety impact on work or business processes as well as on departments and functions.
- Management’s role is seen as coaching people to improve business performance.
- Employees are aware of work or business processes in the organization and help managers to manage them.
- There is no goal conflict between safety and production performance. Safety and production are seen as interdependent.
- Employees recognize and state the need for collaboration between departments and functions. They receive management support, recognition and the resources they need for collaborative work.
- Mistakes are viewed in terms of work process variability.
- Learning from others both inside and outside the organization is valued. Time is made available and devoted to adapting such knowledge to improve business performance.
- Collaborative relationships are developed between the organization and regulators, suppliers, customers and contractors.
- Short term performance is measured and analyses so that changes can be made which improve long term performance.
- The relationship between management and employees is respectful and supportive. Employees are respected and valued for their contribution. The organization rewards not only those who ‘produce’ but also those who support the work of others. Rewards are given for improving processes as well as results.
Management and employees are aware of the impact of cultural issues, and these factors are considered in key decisions. Management strongly believes that Safety is part of the business and enhances the Profitability.

Value learning from other organizations and establish systems for doing this. They recognize the effects of processes on safety results.

Review safety targets and objectives. They remain alert to potential safety improvements.

Provide help to suppliers and contractors to improve their safety performance.

Introduce organizational cultural indicators (e.g. standards of housekeeping, reporting of ‘near misses’) that have a bearing on safety performance.

Make comparisons with external organizations chosen as benchmarks.

Transparent communication with the public on safety issues.

Encourage employees to assist in the further improvement of existing processes.

Top management support of a safety culture, providing resources for incident investigations, and safety training. Further progress toward a true safety culture uses accountability systems. These systems establish safety goals, measure safety activities, and charge costs back to the units that incur them. Ultimately, safety becomes everyone’s responsibility, not just the safety director’s. Safety becomes a value of the organization and is an integral part of operations. Management and employees are committed and involved in preventing losses. Over time the norms and beliefs of the organization shift focus from eliminating hazards to eliminating unsafe behaviors and building systems that proactively improve Environment, Health and Safety conditions. Employee safety and doing something the right way takes precedence over short term production pressures. Simultaneously, production does not suffer but is enhanced due to the level of excellence developed within the organization.

The summary of research further, emerged in the following areas

- Proactive and Generative culture is increasing trend.
- Behavioural changes in employees and organization is visible.
- Works environment improves which in turn improves the productivity.’
- More attention is given for Industrial Hygiene.
- The safety performance is improved year after year.
1.2 Methodology

1.2.1 Theoretical framework

The model or the set of theories related to the phenomenon of EHS-Culture are being studied.

The existing EHS theories / Models have been taken as reference to carry out the Research work. These theories have been put into practice and new EHS-Culture Evaluation Model has been developed through the EHS Evaluation Software and Works environment improvement through control of Stress factors of Heat, Noise, Dust & Pollutants and Illumination.

ILO Model for Hygiene Index dealing with Occupational Stresses both Physical and Mental is being studied and Existing levels of Stresses and Strains shall be evaluated using advanced software and improvements made to reduce/control these Stresses and Strains.

These R & D efforts involving evaluating and improving employee EHS-Culture and work Hygiene should result in high employee morale and productivity.

1.2.2 Source Data

The source data are collected through the employee’s interaction by set of questions which qualifies their extrinsic / Intrinsic / General Satisfaction about the job engagement. Survey worldwide research done on EHS-Culture, especially quantification of EHS-Culture under globally recognized levels of Pathological, Reactive, Calculative, Proactive, Generative.

Develop a Proforma Questionnaire, with specific Indian context and culture, to determine existing EHS-Culture. To develop an advanced software to quantitatively evaluate existing EHS-Culture in an Industry.

To collect data by interviewing 500 number of employees of the Industry and contractors and record data in the standardized questionnaire.
The Works Environment Data namely – Heat level, Noise Level, Dust / pollution Sampling and illumination level are measured by using the latest equipment and used to evaluate stresses and strains using Hygiene Index Software conforming to ILO-Model.

1.2.2 Sampling

The sampling includes the collection of EHS – Culture data from same level of employees at shop-floor through the questions developed to suit the Indian context. These answered questions will be analyzed through the advanced EHS Software Product.

The Works Environmental sampling data are collected at various works area. Stresses and Strains evaluated using Hygiene Index Software.

1.2.3 Statistical Tools

I. Instruments

a. EHS - Culture Software Product
b. Questionnaire
c. Environmental Warmth - Heat Stress monitoring Equipment,
d. Personal Sampler,
e. Noise dosi-meter,
f. Personal Detectors,
g. Exposimeter and
h. Lux-meter, etc. etc.

II. Data generation through the Software

a. Survey worldwide research done on EHS-Culture, specially quantification of EHS-Culture under globally recognized levels of Pathological, Reactive, Calculative, Proactive, Generative.
b. Develop a Proforma Questionnaire, with specific Indian context and culture, to determine existing EHS-Culture including the Technical Data Analysis.
c. To develop an advanced software to quantitatively evaluate existing EHS-Culture in an Industry.
d. To collect data by interviewing all employees of the industry and contractors and record technical data and improve to meet the international standards OHSAS.

e. Entering data in the Software developed.

f. Obtaining results of the vast data by the Software, analyzing the results, interpreting and determining strengths and weaknesses in EHS-Culture with respect to technical data analysis.

g. To develop an effective program to improve weak areas in EHS-Culture and to strengthen the works environment.

h. Achieve the Works Environment to meet the OHSAS and Statutory Requirement.