



Evaluation of HSE Management System At Modular Fabrication Facility, L&T Hydrocarbon Engineering using British Safety Council Five Star Audit System

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Abstract: - Poor health and safety practices result in an estimated 2.2 million people, worldwide, dying every year as a result of work-related ill-health, disease and injury. The human cost of these deaths and many more injuries is immense. However, these deaths, injuries and ill-health also have a tremendous social and economic cost. Some estimates place it at 4% of annual global gross domestic product or £1.5 trillion. The manufacturing company across the globe recorded the high accident rates for last few years. These accidents cause the organization the heavy man-day loss, the production loss and heavy costs of insurance. In order to establish a Sustainable Accident and Injury Prevention programme a well drafted HSE Management system shall be implemented with stringent HSE regulations. The established HSE Management system shall be benchmarked regularly for best in class Industry practices. The Project aims at evaluating the established HSE Management system at Modular Fabrication facility, L&T Hydrocarbon Engineering using BSC five star audit system, Specification 2015. It is observed that the evaluation helped to measure, analyze and improve overall HSE plan to protect the life and health of the employees.

Keywords: British Safety Council, HSE MS, Risk Assessment, OHSMS Controls

Introduction

An HSE Audit is a systematic and, wherever possible, independent examination to determine whether activities and related results conform to planned arrangements and whether these arrangements are implemented effectively and are suitable to achieve the organization's policy and objectives. An effective HSE auditing program is carried out to determine whether the Management System is effectively implemented and can deliver the expected performance, Assess whether the organization complies with the Established Policy, Standards and Applicable statutory Compliances, and communicate valuable information so that leadership are able to proactively manage HSE risks and HSE Performance.

The British Safety Council, a Registered Charity founded by James Tye in 1957 is one of the world's leading Health and Safety organizations. The British Safety Council is a government-regulated awarding body and, as such, must comply with a wide range of conditions set by the regulator so that rigor and consistency in the awarding of qualifications is maintained. The BSC Five Star audit is applied by organizations worldwide to benchmark their safety management system against current best practice. The Five Star audit is best suited to organizations that require a detailed and objective evaluation of their occupational health and safety management system. The audit identifies areas of strength and weakness and provides a structured approach to continuous improvement.

Objective

- Conduct an Internal Audit within MFFK covering various Departments and Work sites using BSC Five star Audit 2015 specification as Base Document.
- Prepare the BSC Five star Audit document.
- Perform Gap Analysis.
- Depict the Gap analysis through Charts and Figures.

Methodology

The basic methodology involved in this project includes the following:

- Reviewing the HSEMS Framework, HSEMS manual.
- Reviewing HSE Objectives and Targets for the FY 2016-2017, Project HSE Plans, HSE OHSAS system and HSE Standard Operating
- Interview Line Management, Engineers and Workmen in order to assess the reach of established HSEMS.
- Drafting BSC specification audit document.
- Generating pictorial representations like graphs, tables etc. to depict the observations and results.
- Generate the final Audit Report after completion of the Audit.

Audit Process and Audit Scoring

The audit was conducted by reviewing key areas of the organisation's HSE Management system and maintained Documents in relation to the requirements of the British Safety Council's Five Star Audit 2015 specification and was followed by an inspection of the Workplaces and Office Buildings.

The Audit criteria are divided into 5 sections which are further divided into sixty six (66) elements which attract a maximum numerical value of 5000 points. Wherever an element of the audit is not applicable to the organisation, it is subsequently withdrawn from the audit. Scores are expressed as a percentage of the total available mark for each element, section and the audit as a whole. The total available mark is that which is applicable to the organization and will discount areas of the audit that are agreed not applicable.

Throughout the audit, two safety management indicators (leadership and Commitment, and continual improvement) are evaluated either as elements within their own right in certain sections, or alternatively as scoring areas within other elements.

The cumulative scoring for these two sub-sections are then converted into a percentage figure which can provide an additional 0.5% - 2% to the overall audit grading when measured against the threshold criteria shown below.

Safety Management Indicator 1 and Safety Management Indicator 2 - cumulative scoring

85% - 88% add an additional 0.5% to overall grade

89% - 92% add an additional 1.0% to overall grade

93% - 96% add an additional 1.5% to overall grade

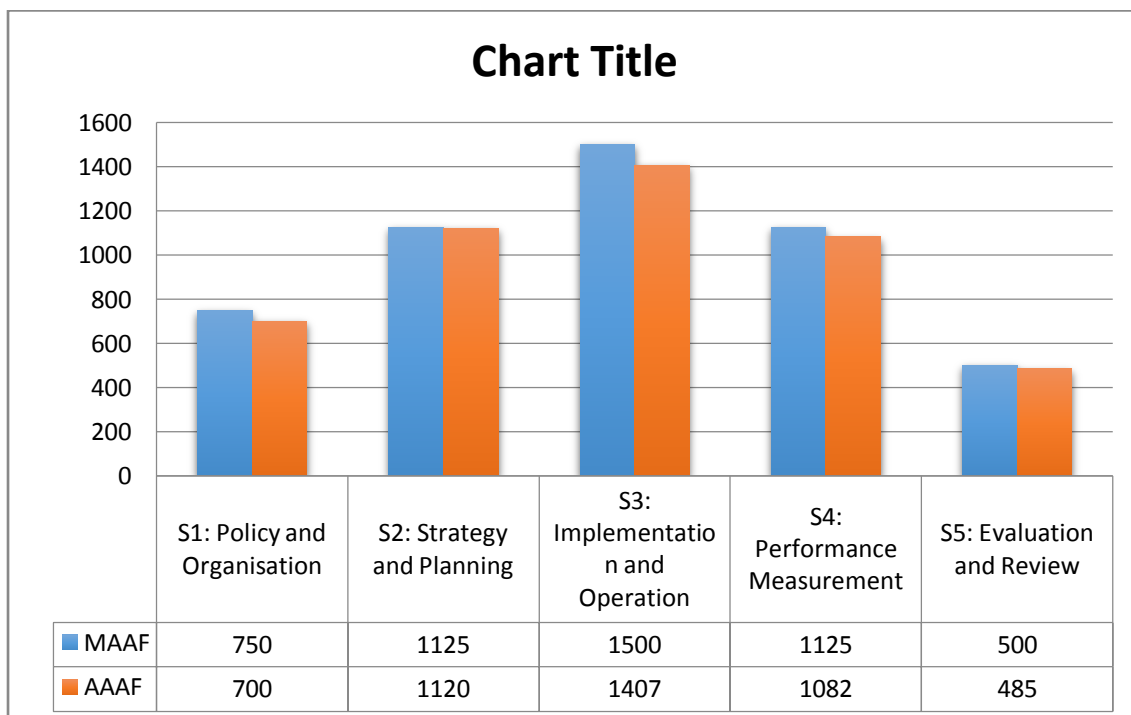
97% - 100% add an additional 2.0% to overall grade

This aspect of the audit process is designed to encourage organizations to focus upon continually developing their safety management systems and culture through demonstration of commitment and robust leadership at all levels.

The verification process allows the auditor to record

- ✓ Specific areas inspected
- ✓ Personnel interviewed
- ✓ Documentation reviewed

Results and Discussion



Conclusion

- During the audit process it has been seen that Modular Fabrication facility, L&T Hydrocarbon Engineering has well established HSE Management system to control the Risk to ALARP Level.
- Evaluation of HSE Management system using BSC five star 2015 specification has thrown light into the knowhow of the technical and social elements of an organization's safety management system. It gives detailed specifications and requirements that have to be looked upon during the audit process while carrying the audit on any organization.
- Internal Audit was conducted and notable observation was the strong Line Management competency in HSE Management Programmes. The established HSE Management system at Modular Fabrication facility, L&T Hydrocarbon Engineering has proved to be a highly structured, tiered and diversified system and which is constantly nurtured for continual improvement in alignment with the vision of the company.
- It is observed that having a stringent HSE Management system with adequate control systems will help in mitigating the Risk level in a sustainable way.

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