

Chapter 6. Results & Discussion

6.1 Part 1 Safety Questionnaire's Result:

From receiving 66 employees PART 1 safety questionnaire out of total 66 employees, the following results were obtained which are tabulated:

TABLE NO.10: Activity 1 & 3 Result

SR. No.	TYPE OF CULTURE	NO. OF EMPLOYEES	% PERCENTAGE
1	PATHOLOGICAL	1	1.515151515
2	REACTIVE	7	10.60606061
3	CALCULATIVE	19	28.78787879
4	PROACTIVE	38	57.57575758
5	GENERATIVE	1	1.515151515
		66	

The following figure describes a pie chart of the above mentioned data:

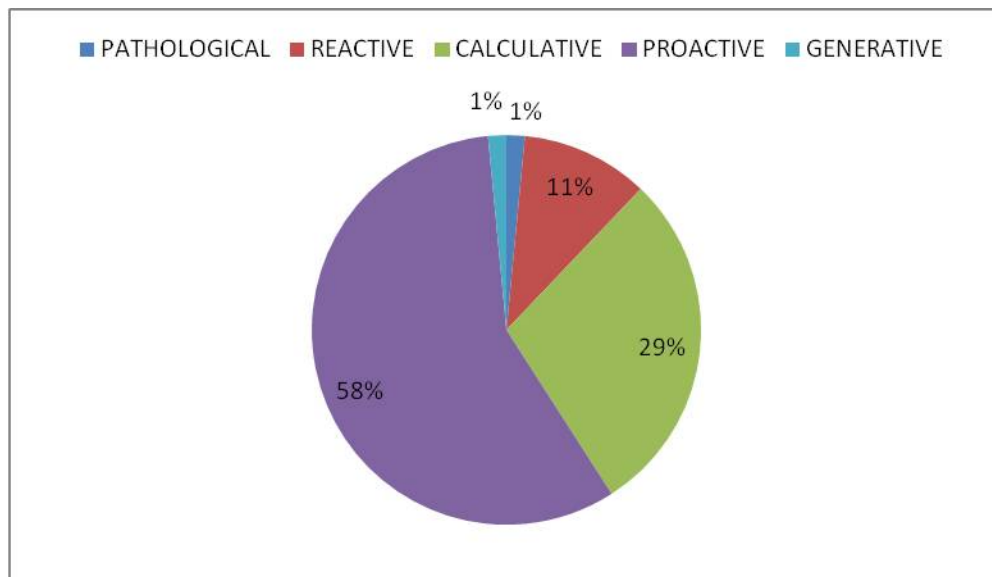


FIGURE 4: Activity 1&3 Result

From the Activity 2, the percentage of employees who viewed themselves as part of promoting EHS Culture is discussed in the following table:

TABLE NO.:11 – Activity 2 Result

S. No.	Promoting EHS Culture	No. of Employees	%
1	SELF	8	12.1212
2	OTHERS	51	77.2727
3	NONE	7	10.6061

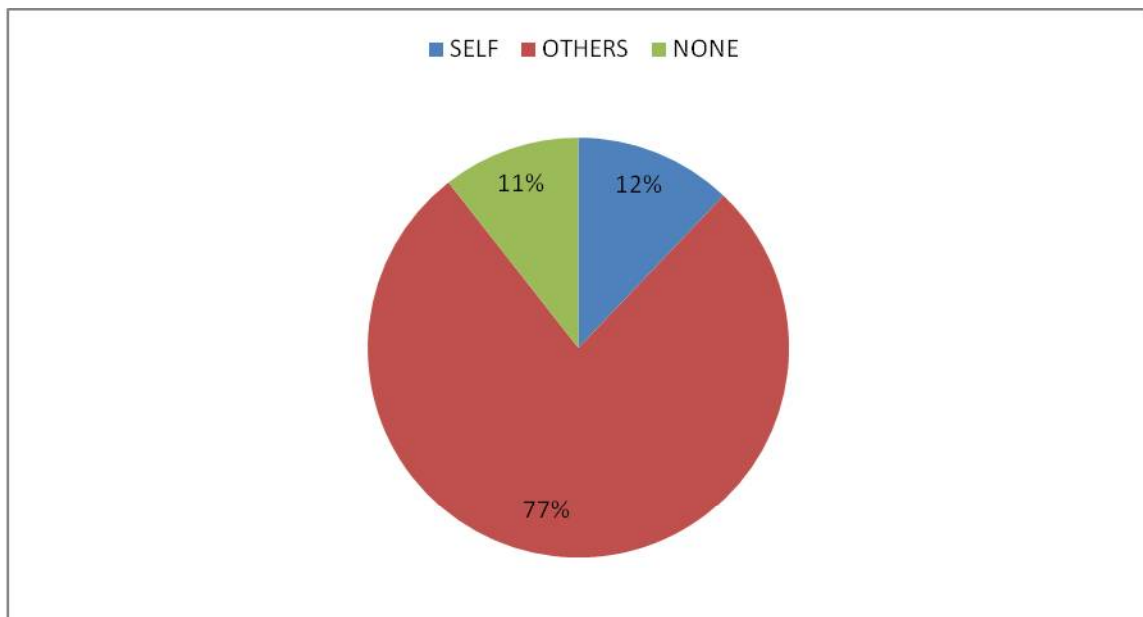


FIGURE 5: Activity 2 Result

6.2 Part 2 Safety Questionnaire's Result:

From receiving 66 employees PART 2 safety questionnaire out of total 66 employees, the following results were obtained which are tabulated:

TABLE NO:12 – Part 2 Safety Questionnaire's Result

S. NO.	EHS CULTURE ELEMENT	PERCENTAGE OBSERVED
1	Management Commitment	83.66
2	Communication	80.73
3	Priority of Safety	87.32
4	Safety Rules & Procedures	75.34
5	Supportive Environment	80.72
6	Involvement	83.69
7	Personal Priorities & Need for Safety	86.24
8	Personal Appreciation of Risk	73.78
9	Work Environment	73.14
10	Shared Values	89.79

Overall score of HSE Culture Dimensions Observed is 81% approximately.

The following graph shows a description for the above mentioned data:

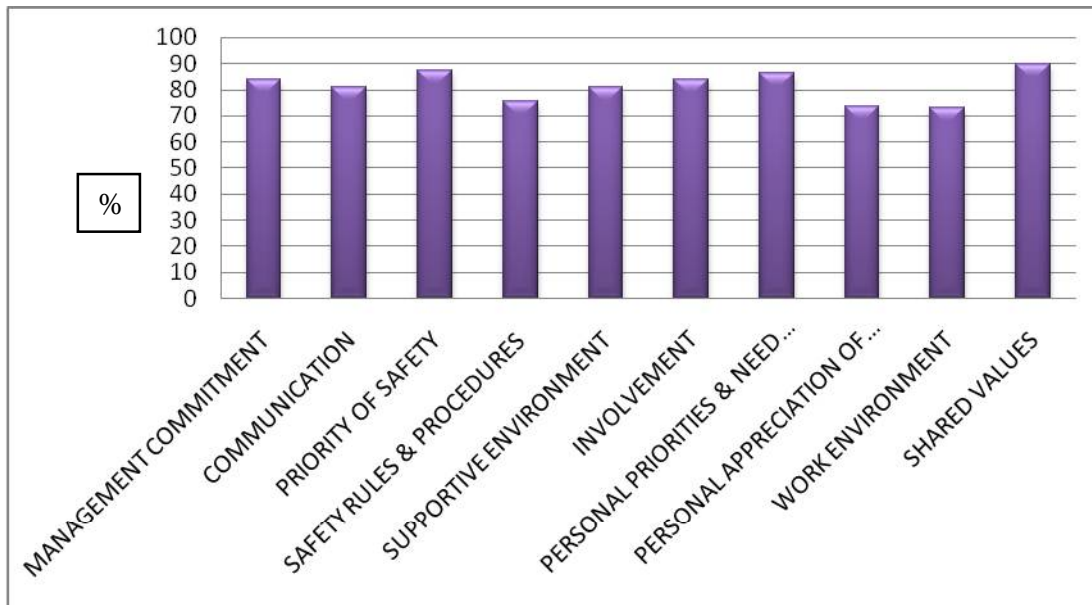


FIGURE 6: Part 2 Safety Questionnaire Survey

6.3 Direct Observation Based Safety Checklist Report:

From the data obtained through direct observation of safety checklist, the following results were obtained:

TABLE NO.:13 – Direct Observation Safety Checklist Report

S. No.	Assessment Elements	Average Score for Each Element
1	Excavation	82
2	Scaffolds	69
3	Electrical Safety	92
4	Plant & Machinery	90
5	Crane Safety	89
6	Ladder Safety	71
7	Concreting	100
8	Hot Work	79
9	Traffic Vehicles & Plant	75
10	Access on Plant	71
11	PPE Compliance	83
12	Working at Height	75
13	House Keeping	75
14	Fire Prevention	100
15	Hygiene	80
16	Environment	75
17	Miscellaneous	100

The average percentage of safe observations seen in the Orchid Crown Project Site of L&T ECCD, B&F – IC is around 83%.

The following graph denotes the graph representing the above data:

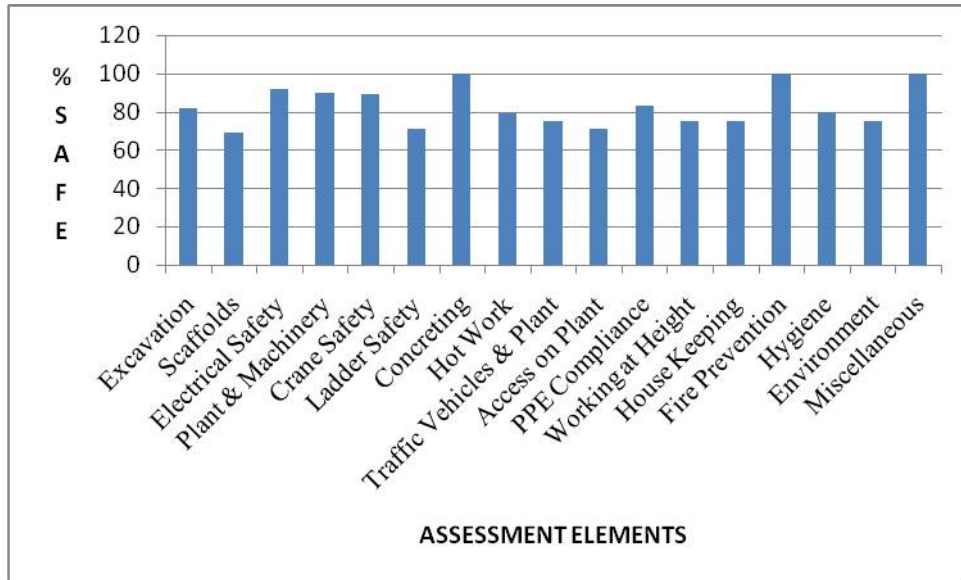


FIGURE 7: Percentage Safe Observations of Assessment Elements

The average of the EHS Culture Dimensions score and percentage of safe observations is around 82% and the following graph describes the frequency rate of reportable accidents, which is shown below:

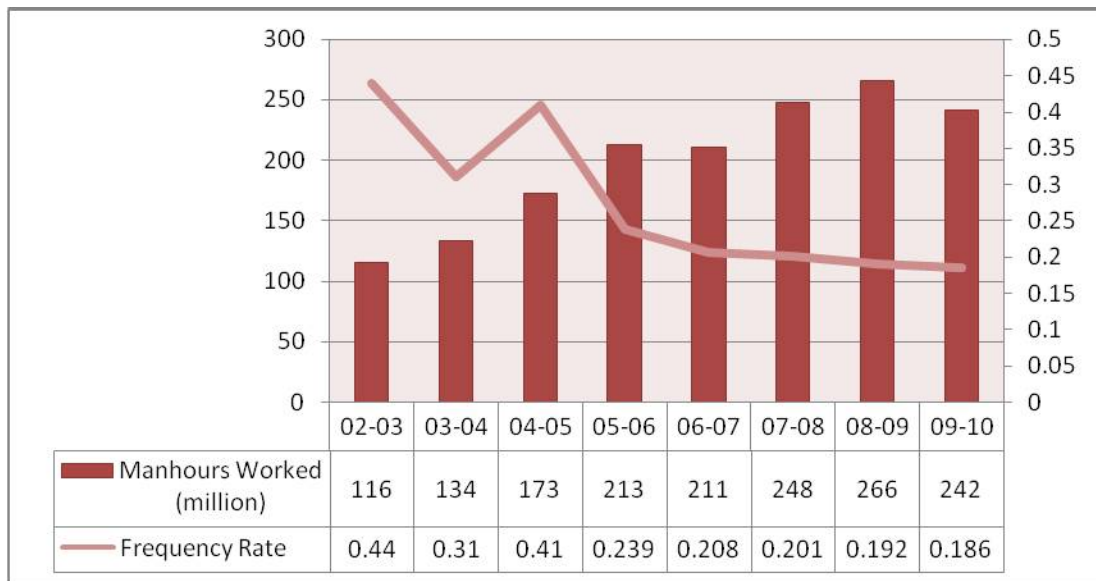


FIGURE 8: Frequency Rate of Reportable Accidents

From all the results discussed above we can see that there is a continual improvement of HSE standards as a whole and there is not even a single reportable incident since the construction of project has started and the site has achieved 2529769 safe man hours up to March 30 2011, which

shows how efficiently safety is being implemented in the organization. So we can come to a decision that the type of HSE Culture prevailing in the Orchid Crown Project of L&T ECC B&F IC is proactive in nature mainly because of the fact there is a high priority for safety among the employees and their management is highly committed towards enforcing safety. Although a few percentage of the employees feel that some rules & procedures of safety are not applicable all the time, this thought has to be completely removed out of doubt from their mind because they should always remember that “Safety, is the Only way to do it”. It is their responsibility to provide their workers a good workplace to work on. If they break out of such shackles, we can move ahead to higher levels of safety here at Orchid Crown Project site of L&T ECC B&F – IC.

Any Industry intending to improve HSE culture should use the following steps aided by the attached checklists.

- Gather all the information including unsafe act.
- Use the attached checklists to develop a Proforma Questionnaire, with specific Industry context and culture, to determine existing HSE -Culture including the Technical Data Analysis.
- Collect data by interviewing all employees of the Industry and Contractors and record technical data and improve to meet the international standards.
- Analyse the data using appropriate Standards.
- Obtaining results of the vast data by the Software, analyzing the results, interpreting and determining strengths and weaknesses in HSE-Culture with respect to technical data analysis.
- To develop an effective program to improve weak areas in HSE-Culture and to strengthen the works environment.
- Reduce Works Environment Stresses and Strains below minimum acceptable levels.