

4.3.5 Accident/ Incident Investigation

Accident/ Incident Investigation are to determine the causes and recommend corrective actions in eliminating or minimizing these events and emphasizing on fact, not on fault finding. Accidents must be investigated systematically not only those that for property damage or cause serious injury but also those that may have the potential to reoccur. A normative definition of accident investigation by TBCS (1992) is:

“The determination of the facts of an accident by inquiry, observation, and examination and an analysis of these facts to establish the causes of the accidents and the measures that must be adopted to prevent its recurrences”

Ministry of Labor and National Services (UK) have postulated six principles of accident prevention in 1956, detail such as follows; (1) An essential part of good management and workmanship (2) Employers and employees must co-operate whole heartedly on securing freedom from accidents (3) The top management must take the lead in organizing safety, (4) definite, (5) known safety policy, and finally, (6) the best available knowledge and methods must be applied. These principles have received legislative backing steps involved an accident investigating processes at Company by identifying the causes and reporting the findings.

The Company has a systematic system in preventing the occurring accident, named as “The Incident Reporting System” that require the application from all sections and individual, which can results in personal injury, illness, and/ or property and vehicle damage. The Safety Health Committee (SHC) will make recommendations to prevent recurrence of such incident. This requirement was done to fulfill the Regulation of *Act 514 (OSHA) 1994, Part VII - Safety and Health Organization, Section 30; Establishment of Safety and Health Committee at Place of Work* (Appendix 1).

Then, the Safety and Health Officer (SHO) has furnished the SHC Chairman with a report about his findings, to fulfill Regulation of *Act 514 (OSHA) 1994, Part VII - Safety and Health Organization, Section 29; Safety and Health Officer* (Appendix 1). One example of Company's Accident and Incident Report on near miss in Year 2013 was shown in Appendix 31, while Accident Reporting Procedures in Appendix 32.

Preliminary Investigations

In this study, the findings have seen that the SHC conducts an inspection to investigate the root cause of accident, as if the place of accident is in a safe situation. In this case, the Preliminary Investigations was done and the following action was taken; (1) Potential Accident Factors and (2) Control Measures. The examples of Accident Investigations from previous cases were discussing details as below;

(a) Details of Accident Case 1:

How accident happened:

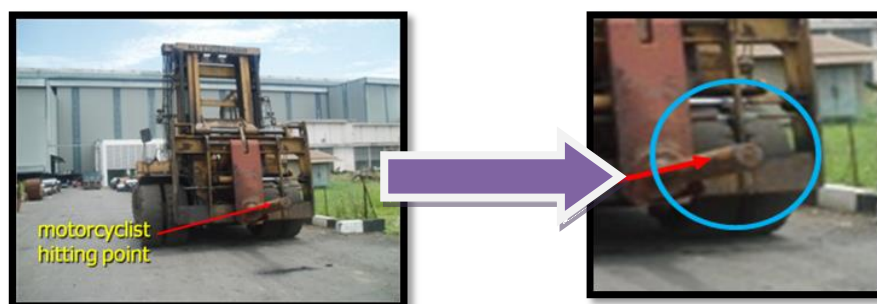


Figure 4.10: The Motorcyclist's Hitting Point during the Accident

The causes of the accident:



Figure 4.11: Tree and Coils Blocking are the Accident' Factors

Table 4.10: Potential Accident Factors and Control Measures Taken (1)

No	Potential Accident Factors	Type of Causes	Control Measures	Status
1	Visibility is obstructed by coils and trees due to inadequate coils storage	Direct	1. Cut all blocking trees 2. Remove all coils nearby corners and junctions	1. Done 2. Done
2	Delay in installation of speed reducers (speed limit signs & road humps)	Direct	Speed up installations	Done
3	No separation of heavy vehicles & motorcycle	Direct	Block the road for motorcycles	Done
4	Lack of road safety awareness & rushing	Indirect	Road safety awareness training	In-progress
5	Lack of traffic control	Indirect	Employ security to control traffics at critical areas at peak time	On-going
6	Forklift lack of safety alert devices	Indirect	Install 2 beacon lights and put reflective strips around all forklifts	Done

(b) Details of Accident Case 2:

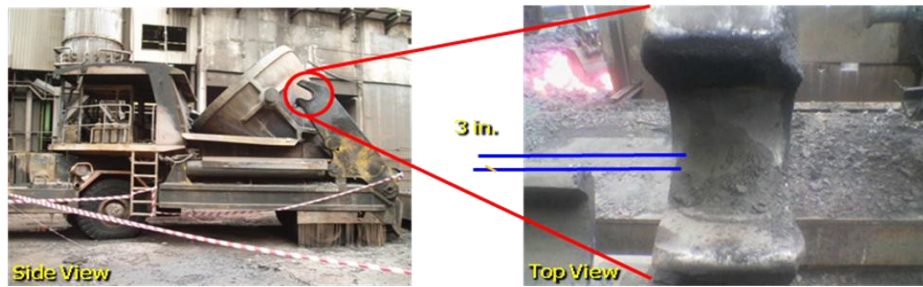


Figure 12: The side view and top view

Table 4.11: Potential Accident Factors and Control Measures Taken (2)

No	Potential Accident Factors	Type of Causes	Control Measures	Status
1	Lifting practice not reviewed, presence of thick slag on lifting arm during accident	Direct	Written SOP – clean lifting arm every lifting, ensure 80%-filling, change 15 to 5-min slag cooling	Done
2	Lack of awareness on supervision and unsafe acts	Direct / Indirect	1. OSH Awareness Training 2. Daily & weekly meeting on importance of safety	On-going
3	Near misses of similar incidents not reported	Direct / Indirect	Issue memo to advise everybody to report near misses	Done
4	Lighting not uniformed sufficiently	Indirect	Install additional direct lightings at the area	Done
5	Lack of barricades and warning signs	Indirect	Design & install warning signs	Done

(c) Details of Accident Case 3:



Figure 4.13: No hump before accident

Table 4.12: Potential Accident Factors and Control Measures Taken (3)

No	Potential Accident Factors	Type of Causes	Control Measures	Status
1	1. Both the deceased and lorry driver lack of hazard awareness by not stopping or reduce speed at STOP sign and blinking lights 2. The lorry driver was negligently not looking in both directions before crossing the road at the intersection	Direct	1. OSH Awareness Training 2. Improve traffic control by placing security personnel 3. Road Safety Awareness Training 4. Install road humps on all critical roads 5. All internal lorries to put head lights "ON" 6. Increase more road safety signs	On-going On-going In-progress Done On-going In-progress
2	No criteria for lorry drivers fitness	Direct/ Indirect	Establish internal vehicle guidelines	Done
3	Lack of safe design & effective preventive maintenance	Indirect	Monthly inspection of all scrap lorries	On-going

As summarized, it recognizes the need to ensure that the workplace is free of industrial hazards that can cause injury to safety and health employees have been observed as the responsibilities in order to make the workplace as a safe and orderly to work. Others, employers also have managed their own activities by avoiding risks to any person who may be affected by its operations (Refer Appendix 21- Safe Working Measure Manual).

With this positive attitude the employees will be able to perform their task better and indirectly help the employer to implement OSHMS by reducing accident occurrence and realize numerous business advantages such as lower insurance and overtime costs, better productivity and improved morale, among others (Zaccardi and Macdonald, 1995). The following Figures show us the action taken by the management in implement effectiveness of OSHMS after the accidents happened. Empirical studies revealed that managements play a vital role in ensuring safety in the workplace (Yule, Flin & NMurdy, 2007).

Action Taken by Management in Implement Effectiveness of OSHMS

a) Before Accident



Figure 4.14: Tree and coils are blocking the views

b) After Accident



Figure 4.15: Tree blocking view cut down



Figure 4.16: Ensuring no coils blocking the view



Figure 4.17: Road hump near junction



Figure 4.18: Road hump as a speed reducer near admin office



Figure 4.19 and 4.20: Improved forklift visibility



Figure 4.21: Ensuring no coils at corners to minimize hidden view