

An Analysis of the Effectiveness of Fleet Safety Management Programme in Industries

Nehal Siddhiqui (1), S K Srivastava(2), K S Mohapatra(3)

(1)-Head(HSE) University of Petroleum and Energy Studies,Dehradun

(2)- AGM(HSE) Vedanta Limited Jharsuguda Odisha (Aluminium & Power)

(3) Manager (HSE)Vedanta Limited Jharsuguda Odisha (IPP)

Abstract

Amongst various causes of accidents, there are many contributory factors including Fleet Safety. At National level also, every year about 2 lacs people die in road accidents in India. Despite an increasing level of research being directed towards implementing fleet safety interventions, questions remain regarding the most appropriate methods to develop and implement effective driving safety initiatives within large organisations. This paper reviews current vehicle fleet safety research, focusing on the development, application and integration of research based fleet safety programs. The paper also highlights the major factors that influence fleet safety intervention development and implementation e.g., time, management commitment. The importance of undertaking a baseline measurement approach along with, accurately measuring driving behaviour and the corresponding impact of an organisation's safety climate on employees are discussed.

Keywords: *fleet-safety, interventions, work-related crashes.*

1. Introduction

Fleet Safety Management is a science where the site dynamics and type of vehicles is studied to develop a robust fleet management programme.

2. Major Causes of Industrial Road Accidents

Upon study of last three years data, it was found that major contribution to safety incidents was due to road. Also in Road incidents following are the major contributors :

- i. Unsafe Behaviour of drivers
- ii. Road Safety infrastructure issues
- iii. Rash Driving and Overspeeding by drivers
- iv. Lack of control /traffic management

- v. Lack of fitness problems in vehicles
- vi. Driving under influence of alcohol

3. Having Senior Management Buy In

Even with the best, most well-thought out plan, without senior management standing behind a safety program, it probably won't succeed.

It's important to make sure that when we are seeking senior management support we are fully prepared with facts and figures as to why developing a fleet safety program will benefit our company. Our plan should include a detailed description of the entire program, including goals, benefits, cost savings, budgetary considerations, and the assurance that the program will not compromise business operations. In addition, a comparison of what similar businesses are doing could help the cause. Anything short of these items could compromise our ability to launch a successful fleet safety program.

“Company culture is driven from the top,” is an established saying. For a company to create a strong safety culture, all employees need to know that senior management views fleet safety as a key element in the way the organization conducts its entire business, and that it has a major impact on how well it performs.

4. Engaging Key Stakeholders

While senior-management support is crucial for a safety program's success, it is equally crucial to get other key stakeholders' support, including HR, Security, finance, and even legal.

But, even more fundamentally, fleet managers need to know how the safety program will affect the rest of the organization.

5. Treating Fleet Safety as ‘One and Done’

Ask any safety manager, and they’ll agree that safety is an ongoing, never-ending activity.

The development of a fleet safety program should never be considered a static, ‘one and done’ kind of exercise. Programs that are not periodically reviewed and revisited quickly become stale. Realistic goals should also be established and measured, and must be reportable.

6. Having an Updated, Consistent Road Safety Policy

Not having a fleet driver policy that’s regularly updated or inconsistent, can be another recipe for compliance disaster.

The policy should be developed with the ability to adapt, because we don’t want to have to rewrite our fleet policy every year. This is a very free-flowing marketplace and new techniques and technologies come out. We have to have our policy written in a way that allows us to implement some things without having to rewrite our policy all the time.

In addition to the policy itself being consistent, it needs to be consistently enforced, and in a timely manner. Always treating drivers the same way for the same violations helps protect the fleet sponsor from liability. Holding drivers accountable as soon as possible after their policy violations is vital to changing driver behavior

7. Clearly Defined Goals

The purpose and results of the safety policy should be clearly defined. We have to set what our goals and expectations are for the program. Have you clearly identified a problem that requires a program to in fact measure and monitor such activities, What’s important within the fleet policy is what’s being measured, why it’s being measured, what effect or results we’re looking for.

8. Communication with Drivers

It may seem obvious, but communication is one of the most important keys to success for any endeavor. This is particularly the case for a fleet safety program.

If we have a clear communication plan, this will avoid any backlash from drivers and their supervisors.

9. Road Safety Penalty

A driver’s road safety penalty record may be the cornerstone of most fleet safety policies, but it can’t be the only item.

10. Having a ‘One-Size-Fits-All’ Policy

Not every fleet faces the same safety issues. A fleet operating in a large plant where fleet movement is diversified and large in numbers; we may have to focus on training drivers about avoiding collisions, and need to focus on how to drive safely in stop-and-go traffic.

Strategy should be developed to look at incidents, accidents, violations, even tracking unreported vehicle damages when a vehicle is remarketed along with other risk identifiers, and come up with strategic training that is incident based.

11. Misconcept :The Safety Policy is a Means to Penalize Drivers

The goal of a safety program is to help the driver stay safe.

A big pitfall would be treating the fleet safety program as a penalization process for bad behavior, bad driving behavior, when, in fact, it should be treated as a service or as a function to keep the driver safe.

On the other hand, recognition and remediation program can be a powerful way to strengthen the safety program and create compliance. There should be a recognition program in place and, at the same time, we have to focus more frequently on high-risk drivers, assigning safety training, make sure we engage our driver’s direct supervisor, and make sure they’re informed.

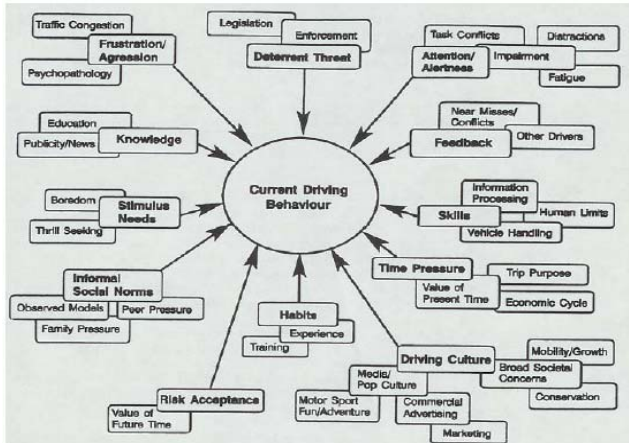
12. Road Safety Awareness Campaigns

The Road Safety Awareness Campaign aims to provide road safety information and messages to all organizational staff, particularly work-related drivers. The campaign may utilise a combination of methods including road safety posters, information in the form of work-related road safety hints or tips, easy-read fact sheets. By using a variety of tools, the Road Safety Awareness Campaign aims to reach as many individuals as possible and encourage staff to drive safely in all circumstances.

13. Factors of Influence in Fleet Driver Behavior

A number of factors may influence fleet safety as well as the implementation of effective strategies to reduce the risk of crashes and/or serious harm. While not always possible, a proactive multidimensional approach to fleet safety is required to help address the many factors that influence fleet driver behaviour. The following figure

provides an indication of the numerous conditions influencing driver behavior and subsequently fleet driver behavior



Conditions Influencing Driver Behaviour. Source: Lonero L.P. and Clinton K.M. (1998).

applications also helps in controlling and checking the drivers behavior.



The above picture shows the tracking of the speed of the vehicles through GPS based monitoring equipments installed in the vehicles

12. Road Safety Infrastructure

The Road conditions shall be healthy with separate entry and movement for men and material. Road safety signages, Spring posts, RPM, road barriers, speed breakers, spring posts etc. help in awareness and control of traffic.

13. Laser Based Speed Gun Monitoring

Speed monitoring of vehicles using Speed guns supported by robust penalty system as per Road Safety Policy helps in traffic management to a great extent.



14. Installation of GPS based Vehicle tracking system

The installation of GPS based devices in vehicles to monitor their speed violations, rash driving, sudden brake

15. Drink and Drive checking of drivers

Using breath analyzers to check alcohol intake by drivers also gives better control over drink and drive cases of road accidents in plant premises.

16. Installation of Convex mirrors at blind turns

Installing Convex mirrors at blind and sharp turns pose warnings to both direction drivers.

17. Risk Assessment of Roads

The risk assessment of roads to assess the hazards and challenges also helps in strengthening Fleet management programme by imparting awareness and training of the road risks to the drivers.

18. Outcome/Results :

It was analysed that after implementation of Fleet Safety Management programme with above mentioned measures; the rate of injury went down by 40% in the industry. Also the behavior of the fleet drivers and unsafe driving changed considerably and safe driving became a habit. The most effective part were the implementation of speed monitoring and installation of GPS based VTS equipments in the vehicles. This was in addition to healthy road conditions, road safety signages and defensive driving training to the drivers.

- Technology, Carseldine Campus, Queensland, Australia.
4. Vedanta Corporate Fleet Safety Performance Standard 2015

19. Conclusion

In summary, this paper has highlighted some of the major driving assessment tools, identified factors associated with crashes and general aberrant driving behaviours within organisations, and reviewed some of the major fleet safety countermeasures currently being implemented within Indian Industries. Additionally, the paper has identified some of the major barriers to the effective implementation of fleet safety initiatives and discussed the value of a proactive multi-modal approach to improving safety within organisations.

Currently, it appears the future of fleet interventions can continue to be significantly enhanced through embracing multi-modal approaches that utilise a comprehensive baseline benchmarking approach. Such an approach should be based on the utilisation of psychometrically sound measurement scales that have the potential to accurately measure driving behaviour. More specifically, measuring current employee's attitudes and behaviours regarding driving tasks and general safety appears a crucial element for the development and implementation of work-related road safety initiatives

References :

1. Motor Vehicles Act & Rules 1988
2. Cairn India Fleet Safety Standard
3. Article on fleet Safety by DAVEY Jeremy¹, FREEMAN James¹, WISHART Darren¹ & ROWLAND Bevan¹ Centre for Accident Research and Road Safety – Queensland (CARRS-Q) Queensland University of