



ORIGINAL RESEARCH PAPER

Arts

ROLE OF LOCO PILOTS ON RAILWAY SAFETY-A STUDY

KEY WORDS: Loco pilot, backbone, precautions, punctuality, Railway safety.

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ABSTRACT

The goal of the Railway is to achieve public safety. Indian Railways are the lifeline of the nation and the backbone of Indian economic development. Railways are a great national asset. This is the most common and cheapest mode of transportation in India. Loco pilot being a frontline staff in train movement and train safety. Loco pilots are playing an important role in Indian railways for safe and in time running of trains. Loco pilot is a person who has to work the train around the clock irrespective of weather conditions he has to take many precautions and observations while running the train operations such as speed, signals, track, and punctuality, public/passengers safety along with locomotive (Engine) troubleshooting and possess good knowledge in General & Subsidiary Rules. Formed by the Government of India and Authorized officers. He is the person who doesn't have any fixed time to come and go for duty and perform the duty. The job of the loco pilot needs a great presence of mind, for punctuality and railway safety such as fire on the train, train parting, rail fracture, serious accidents, and unusual occurrences.

Railway accidents are a very lesson on account of the loco pilot's fault. He can avoid accidents and unusual if he is very alert and cautious while on duty. The success of the Indian railway depends on the good performance of the loco pilot. The aim of the loco pilot is railway safety and punctuality, the ultimate goal is to prevent Railway accidents. Data of the present study were collected through secondary sources from numerous books, journals, newspapers, and websites.

Introduction

Indian Railway transport system occupies first place in Asia and fourth-largest in the world. The Indian Railways are more than 167 years old .it is oldest transport system in the world. It has been dealing with 436 departments and 12.27 Lakh employees. First passenger train of the India which operated between Bombay to Thane on the day of 16th April in 1853. the train contained 14 carriages with 400 guests travelled 34 kms, hauled by three steam locomotives namely Sahib, Sindh and Sultan, it was dedicated by Lord Dalhousie. Indian Railways are the principal mode of the safest means of transportation for men and material. It is suitable for all upper-middle-lower class people because fair is moderate compared to other transport, such as Airways, Waterways, and Roadways. To achieve railway safety with higher standards loco pilot role is very crucial.

Review of Literature

Sumit Prakash (2010) and a team of Railway doctors headed by him researched the stress levels of Loco pilots and reasons a detailed study and identified their stress levels and stressors. He explained about job-related stresses in the Railway with the work environment of Loco Pilots.

Devesh Kumar (2011) stated in his paper that tries to keep Loco Pilots from various role stresses, stressors, and also stress management programs should be implemented to the Loco Pilots and he identified stressors through the scientific method and possible ways for reducing of the stress of loco pilots.

Rajesh Ranjan and T. Prasad (2014) presented a paper about the Job description, skills, responsibilities, and work-life balance of Loco Pilots. The author found that the work-life balance of the loco pilot is not good. They expressed that for passenger's and railway safety work-life balance of loco pilot is very important.

T. Srinivas (2016) had examined in his paper that unusual working hours and its impact on the health of loco pilots and safety of railway, the impact of overtime and longer working hours causes an adverse impact on loco pilot's health and working system.

V. S. Ravichandran (2017) had studied the 'Effect of psychological factors on the safety of Railway'. The psychological factors like fatigue, micro sleep, stress is very much effect on the skills of the loco pilots. He stated that Loco Pilots Job required concentration at a high level.

Objectives of the study

- To Study the role of Loco Pilots on Railway Safety
- To know about the skills and duties of Loco Pilots
- To identify the suggestions to improve railway safety.

Methodology

The present study is collected based on secondary source of data. The secondary data is collected through Railway books, Articles published in diverse journals and various websites.

The Job of the Loco Pilots

The designation of Train Drivers has been changed as Loco Pilots. As per Railway Board Letter No. 134 of 14/09/2000 the job of the loco pilot is very important in railways to uphold the railway safety. They transport nearly 844 crore passengers, 123 crore tonnes of goods/commodities with the help of 289185of wagons and 74003 coaches. They handle about 12147 of locomotives of various types.

Skills of Loco Pilots

- Knowledge of locomotive, General Subsidiary rules.
- A responsible attitude
- The judgment of braking distance
- Learning of Road and Signals knowledge
- A good memory powers
- Spontaneous judgement to run the trains at unusual occurrences.

Duties of Loco Pilots

- Obey all signal aspects
- Call out every signal aspect loudly with the hand gesture
- Exchanging of the All Right Signals with guard and station staff
- To follow the shunting precautions
- To perform Loco pilot and Guard check whenever brake power certificate is invalid
- To obey all engineering indicators
- Securing the formation and locomotives.

Role of Loco Pilots

Loco Pilots play a vital role to regulate the speed of the train on observing any obstruction on the track that is bonds, trees, and public bunds mass on track, landslides to save the lives of passengers and public. Some people will cross the track to avoid long-distance than loco pilots will blow the horn and controlling the speed of the trains to avoid an accident. At some non-interlocked gates, the gatemen are opening the gates without notice of the station master on seeing when the gate is open Loco pilot blows the horn and controls the train to avoid the accident. Loco Pilot will exercise extra caution at a route due to heavy rainwater level on the track, banner flag if unsafe conditions noticed while on run, they stop and proceed.

Temporary Single Line Working

Whenever anyone of the line is obstructed on double line due to accident or any other reason the traffic may temporarily work the single line then the loco pilot strictly observes the maximum speed of the first train passing over this Temporary single line working is restricted to 25 kmph. Since the established line is disturbed. Loco Pilot shall follow speed restricted to avoid accidents

Loco pilot experiences Lurch or Rough running

When LP experiences Lurch or Rough running he shall stop his train at the home signal of next station and report to the next train should not enter into the block section without fit certification of the track.

Rail fracture/Rail Breakage/Rail Weld Failure

If there is a rail fracture/rail breakage/rail weld failure loco pilot will stop the train immediately protect the train and examine the track, if considered safe he may proceed. If not, he will inform the authorities and act accordingly.

Train Parting

When the train has parted on run Loco Pilot shall keep the first portion in motion until the rear portion comes to a halt. If feasible subsequently he shall sound the engine whistle code long short-long short to alert the railways stop.

Train Protection

If a train stopped in-between stations on account of accident or failure or obstruction or any other cause the Loco Pilot shall inform the guard of the train by sounding engine whistle code i.e. four short whistles. Loco Pilot shall switch on the engine flasher light and protect the track by placing detonators 600mts one -600mts one-10mts one and 10mts one. Alert the loco pilot of the adjacent line to avoid one more accident.

Train Burst A Detonator

Detonators are used for train protection. Loco Pilot immediately stops the train is guided by hand signals. If it is day proceed cautiously. If it is night Piloted by Asst. Loco Pilot /Guard after proceeding 1.5 kmph if no further detonator is exploded normal speed may be resumed.

Vigilance Control Device

It is a safety device to keep the Loco Pilot alert when the train is in motion, speed above 1.5kms. Loco Pilot has to operate any one of sanders, BPVG acknowledgment button, foot pedal Switch, operate throttle, traction/brake bar/notch up, a notch down (Speed Increase / Speed Decrease), brake application if not operated within 60 seconds train will stop automatically. So, he will not isolate its working without proper reason.

Brake Continuity Test

The test is to check the brake pipe's continuity throughout the train from the engine to guard vehicle/last vehicle, after attaching /detaching the engine or vehicles in the formation.

Brake Power Test

It is conducted by Loco pilot when the speed of the train is

between 50 to 60kmph at the first opportunity to know the braking distance of the train

Brake Feel Test

Loco pilot has to check this test when the train speed is above 15kmph to conform the brake system is working.

Fire on Train

Loco pilot will stop the train immediately and inform the guard then he detaches the fire affected coach /wagon from the train to save the lives of passenger and railway property.

Exchange of All Right Signals

These are exchanged between guard, loco pilot, and station staff to check that the train for a safe and proper manner while on run. If any abnormality is noticed by them loco pilot will stop the train immediately on seeing (stop hand signal) red hand signal.

Trains Working in Foggy Weather

It is very difficult to run the trains in the foggy weather by the loco pilots since they cannot see the signal aspect clearly. Loco pilot should follow the speed restriction of maximum 60 kmph in dense foggy weather in Absolute signalling system and in Automatic signalling system the speed of the train should not exceed maximum 60 kmph in proceed aspect and 30 kmph in attention aspect of signal. There are certain rules for loco pilots to run the trains safely in the rules book but if he fails to follow the rules unusual will occur so role of loco pilot is essential to uphold the railway safety.

Suggestions for Railway Safety

The following suggestions to be implemented by the Administration for Railway Safety

1. Close monitoring duty hours of loco pilot / Asst. loco pilots.
2. Sanctioning of leave and periodically rest.
3. Continuous night duty loco pilot/Asst. loco pilots should be limited to two nights.
4. Providing suggestion box/toll-free number / WhatsApp number at every crew lobby.
5. Loco pilots to be sent for refresher courses on account of locomotive failure and poor knowledge of rules.
6. Safety seminars should encourage loco pilots to expose their views.
7. Assistant Loco Pilots to be utilized on running duties only.
8. Technology to be adopted to remind speed restrictions.

Conclusion

Safety is like a chain system if any link is disconnected the chain will not work. If every railway servant is fully conversant with the rules, instructions, procedures to his duty the accidents will be avoided. To get good results from the loco pilot because of railway safety, railway administration should implement to keep the loco pilots free from various stresses such as longer hours working, long-distance working etc.

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