## Accident

Unusual Occurrence of dragging of one lady passenger by train at Inderlok, line-1 on 14.12.2023

# **Cause of the Accident**

Due to unforeseen event of entanglement of water bottle of deceased passenger, one end of bottle strap made of nylon tied with passenger's hand remained outside the coach door and another end with the bottle remained inside coach door. The entanglement occurred while hurriedly deboarding the train by the passenger at the time of door closing and possibly ignoring the door closing alarm and then dragging of passenger occurred due to system lapses/inadequacy both in Standard Operating Procedures and available technology to deal such unforeseen events.

### Para IX. RECOMMENDATIONS

Para No.	Description of Para	Compliance/Action Plan
No. Para 9.1	A drive for passenger awareness highlighting safety precautions during boarding/deboardin g the train shall be launched through various means such as playing the short video clips at stations and inside trains, signages at stations and inside trains and use of electronic and print media etc.	An awareness drive to educate passengers regarding safe travel through metro has been launched to make them aware about safe boarding and de-boarding on Delhi metro trains. A special safety video for creating safety awareness among passengers is being displayed through digital screens at stations and inside trains, screen shot is as below:-  Pri में यदते और उत्तरते क्या है के स्पीट कर रखें  The official social media channels of DMRC are being utilized to raise awareness about this issue. The first post on the issue
		was done on 20th December 2023. More such awareness posts both in Hindi and English have been planned and are being posted on the social media platforms/print media from time to time:-  Mind The Gap: Metro Reminds Commuters Obstruction Of Coach Gates Will Cost You Under Metro Railway Act, Punishable With Imprisoringent Or A Fine Of Up To 1/10,000 Or Both Will SAFTY 1/105 & DAGS 1/105 Page 1/10





Various Public Information Websites and News Websites are being utilized to raise awareness and explained precautions to be taken by the passengers for a safe journey.

# Delhi Metro: New Signages, Videos, and Digital Screens Aim to Prevent Tragic Accidents After Woman's Saree Mishap



Delhi Metro launches a safety campaign after a woman's

@ Goggle Hens

## Delhi Metro launches safety campaign! Digital screens and signages installed to promote Metro travel awareness

Among the several measures, the DMRC has installed digital screens at major stations and even inside trains which are showing awareness videos.









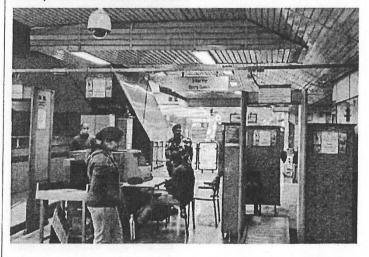


Mind the gap: With new signage and social media messages, Delhi Metro starts travel safety drive

At the Central Secretarial and the Chandri Chowk metro stations, digital screens are playing videos seeking to build awareness amony passengers on metro travel safety

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In order to reinforce safety precautions during the boarding and de-boarding processes, in addition to present signage, special signages have been prepared and placed at stations, including 358 at CISF frisking point, 1018 at stairs to platform, 9216 at Platform Screen Doors, and 2080 at Platform Areas. Beside the available signage, an additional 1426 large size signage have been placed on Platform Areas.



Following additional announcement has been added: -

## a. At Stations: -

Press the emergency panel provided at platform, in case some object or person stuck in train doors or any other emergency. किसी वस्तु या व्यक्ति के ट्रेन दरवाजों में फंसे होने या अन्य आपात स्थिति

मेंप्लैटफ़ार्मे पर उपलब्ध आपातकालीनपैनल दबाएँ।

### b. In Trains:

i. For all Rolling stocks except RS-3:

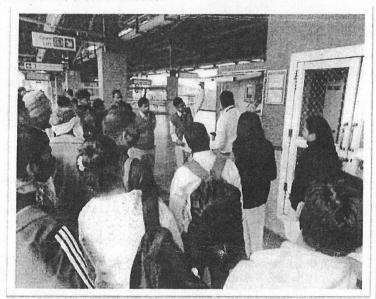
Press the emergency alarm button, in case some object or person stuck in train doors or any other emergency. किसी वस्तु या व्यक्ति के ट्रेन दरवाजों में फंसे होने या अन्य आपात स्थिति मेंआपातकालीनअलार्म बटन दबाएँ।

#### ii. For RS-3:

Pull the emergency handle, in case some object or person stuck in train doors or any other emergency.

किसी वस्तु या व्यक्ति के ट्रेन दरवाजों में फंसे होने या अन्य आपात स्थिति में आपातकालीन अलामहैं डलखीचें।

In the Safety week observation, March-2024, Interaction with passengers was carried out at 10 Interchange stations wherein about 5000 passengers were briefed about various safety facilities provided inside trains & at the stations.



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A safety drive shall be launched immediately for counselling of train operators to correctly perform platform duty as laid down in the SOP of train operator (SOP No 5.6 & 5.9). SOP of train operator should clearly mention that before start of the train, the train operator through available means should ensure that there is no infringement at the train doors. Further train operators should be intimated the minimum dwell time to be observed during peak and non-peak hours

With the focus on SOP compliance, correct performance and risk mitigation, counseling drive was carried out to counsel Train Operators to sensitize them for their duties with respect to platform duty & door closure.

Appropriate instructions have been issued regarding action by Train Operator during door closure at interchange & noninterchange stations with curved or straight platform. All TOs have been counseled to apply EB in case PEA operated in the train while departing from a platform. SOP for train operators has been revised with suitable instruction mentioning that before start of the train, the train operator through available means should ensure that there is no infringement at the train doors. The information regarding minimum dwell time during peak and non-peak hours has been advised through the time table.

## Para 9.3

Adequate number of **CFA/Security** Guards shall be provided at busy/crowded stations to ensure proper boarding dispersal crowd built up near escalators/stairs. **CFA/Security Guard** given shall be proper training and competency issued by DMRC. Duty roaster of CFA/Security staff shall be maintained in such a way that CFA/Security Staff is available at all time during revenue hours Irrespective

- 1. Training Module of CFA has been implemented. This will help them to take prompt action in case of any emergency.
- 2. On Job familiarization training is being provided to the CFAs. The training program includes facilitating proper boarding/de-boarding of commuters from metro trains and to disperse crowd build up near escalators/stairs at crowded platforms of the stations.
- 3. CFAs are awarded competency after the familiarization program.
- 4. Now the Duty roster of CFAs at Metro stations is prepared in such manner that at critical points such as Platforms, Escalators etc., CFAs must be available all the times (as per the requirement of concerned station) irrespective of break/lunch etc.
- 5. Do's and Don'ts for CFAs have been defined in system familiarization training of CFAs.
- 6. Additional CFAs are deployed platforms at busy/crowded locations of metro stations.

## 9.3 Cont.

of breaks/lunch etc. **Further** communication system shall be established between train operator CFA/security guard that train operator stops the train on getting message from CFA/security guard about any untoward incidence.

7. A visual alarm system has been Installed to alert Train Operator through CFA/Guard at platform. In this arrangement, a flashing light has been installed at 63 locations on Line-1 & 3/4 which will be visible to Train Operator while standing at PF NSP.

## Para 9.4

The monitors & camera provided at platform level shall be earmarked as **Safety Critical** equipment and any defect in these equipments shall be promptly attended. There shall be periodical joint inspection by team of Civil, Electrical, Signaling, Telecom, Operation and Safety for all the safety critical items.Further **Additional CCTV** monitors (Digital type) in redundant configuration shall be provided to cover all the eight coaches.

Necessary instruction have been issued for identification of CCTV monitors and cameras platform as safety critical items and any defect in these equipments shall be promptly attended by concerned department. AM/Mgr level joint inspection of the entire network shall be done annually. Status of TO monitor installation is as follows:

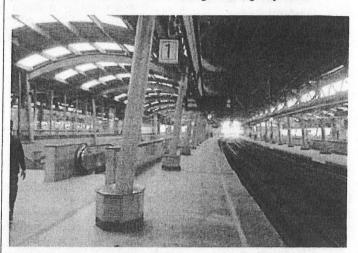
- 49 inch display monitors have been installed in redundant configuration at 34 stations having curved and interchange platform on line 1 & Line 3&4.
- A 24 station with straight platform of line 1 and 3/4
  where no CCTV monitor is available, CCTV monitor of
  49 inch is being installed. Total 13 stations have been
  completed and 11 stations are remaining where work is
  in progress and will be completed by January' 25

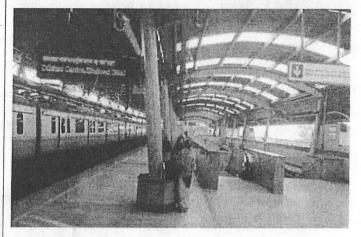


# Para 9.5

There is darkness on the platform near 4th, 5th and 6th coach. Few corrugated GI sheets provided on the PEB roof shall be replaced with transparent polycarbonate sheets to allow sunlight during day time. It will also aid proper view by CCTV monitor

Corrugated GI sheets of roof of the stair case have been replaced with transparent corrugated polycarbonate sheets as per recommendation to allow sun light during day time.





# Para 9.6

Volume of Audio alarm for door openIng/closIng should be increased to medium level i.e. 72db to 76db. And Signages/Stickers inside trains

The current progress according to recommendations is as follows:-

- Drive to increase Audio level of the door opening/closing announcements/chimes has been completed in all the trains of all the stocks (348 Trains) including RMGL and Airport Line.
- Display of signage/stickers inside the trains: PAB/PECU/PEAH and Door Leaf signage/stickers pasting have been completed in all the trains of all the stocks (348 Trains) including RMGL and Airport Line

Para 9.7	Various modifications in the Rolling Stock of 2002 vintage design, to enhance the safety features, are being carried out by DMRC. These are required to be expedited and completed at the earliest.	The state of the triber of the	
Para 9.8	Retrofitment of existing door with anti-drag feature shall be explored and completed at the earliest if found technically feasible	Mitech on 11.10.2024, for 05 Trains of RS-1 (3 trains of line-1 8 2 trains of line-3); target date of completionis Jan-2026.	
Para 9.9	Presently 800mm diameter rear view mirror has been provided on the platform to aid train operator for viewing train door status. Since the train length have increased to 8 car, higher diameter preferably 1200mm, with rigid foundation to avoid wavering during wind, shall be provided.	Earlier,800 mm diameter rear view mirror (1 no. at UP Line & 1 no. at DN Line) were replaced with 1000 mm diameter rear view mirror. Now, as per recommendation, 1200mm diameter mirrors have been fixed in place of 1000mm diameter rear view mirror at Interchange stations and on the stations with Curved Platform. The rear-view mirrors have been fixed from the Preengineered Building (PEB) structure instead of Platform foundation, to make it more rigid.  At all 64 identified locations, work has been completed.	

Para 9.10	Presently only one ESP has been provided on each platform. Since the platform length is more to accommodate 8 car train, feasibility to provide additional ESP preferably three ESP on each platform shall be explored	Policy for provision of ESP has been reviewed and it is decided to provide one ESP at each platform for lines for 3/4 cars and two ESPs at each platform for 6/8 car lines for all new lines under construction (L-10) and for all future works. Feasibility of providing ESPs as per above guidelines on existing line, is being explored.
Para 9.11	If a passenger Emergency Alarm (PEA) is operated in the platform zone while the train is departing, the Train Operator must stop the train using Emergency Brakes (EB) and restart after ensuring that there is no danger to the passengers. Accordingly Rule 32 sub rule 12 of MRGR 2020 shall be modified.	Appropriate instructions have been issued to Train Operators to apply EB in case PEA operated in the train while departing from a platform. They have been counselled and their assurance taken for the compliance. This feature is available in UTO trains. Presently this feature is implemented manually. Feasibility to provide is under exploration.  Proposal for modification in rule 32 sub rule 12 of MRGR 2020 has been submitted to the Ministry of Housing & Urban Affairs.
Para 9.12	DMRC is not having their own medical facilities for treatment of staff and passengers. However, DMRC is having tie up with several Govt. and Pvt. Hospital for treatment of their own staff. This facility should also be extended for passengers Injured during travel. Further HR department handling the medical facilities in DMRC should be sensitized to take care of passengers.	Medical facility to the injured person may be provided in DMRC empanelled hospital subject to willingness & consent of the family member of injured person. Further, HR officials dealing with medical related facilities shall facilitate in coordination with the Operations Dept.

-End of Report--