



*Ministero delle Infrastrutture e dei
Trasporti*

**DIREZIONE GENERALE PER LE INVESTIGAZIONI FERROVIARIE
Italian National Investigation Body**

NATIONAL EXPERIENCE FROM ITALY

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**The Railway National Investigation Bodies
of the Member States of the European Union
fulfill their mandate of investigation
on railway accidents as required by EU Directive
49/2004/CE**



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After each investigation on railway accidents are issued “recommendations” addressed to the involved subjects and the national investigation bodies try also to disseminate the contents of these recommendations within the European Union or in a more wide contest.



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**These following are the main recommendations
issued in 2012/2013 as a result of the
investigations on accidents at level crossings in
Italy and of a systematic study of accidents at
level crossings conducted in collaboration with
the First University of Rome**



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1) Visibility and recognizability of level crossings

**Improve the visibility and recognizability
of level crossings for drivers of road vehicles that
come from all different directions of approaching to
the intersection also providing the repetition of the
signaling systems**



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The user of the road vehicle must be put in the best conditions to perceive with absolute clarity the presence and the hazard of level crossing in order to be able to adjust its behavior accordingly and minimize the risk of erroneous actions.



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The national legislations may indicate more explicitly or prescribe this specific need of visibility and recognizability which is sometimes regarded as secondary problem forgetting that the main incidents occurred because of failure to perceive from the driver the presence of the level crossing itself



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**2. Vehicles stuck for bad maneuver between the
barriers of a level crossing with the consequent risk
of impact of the oncoming train**



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***The expected behavior for road drivers in this situation
(national and international rules) :***

- 1. in the event of a forced shutdown try to take off the vehicle off the rails***
- 2. do everything possible to avoid any danger to persons***
- 3. ensure that train operators are alerted in time of the existence of the danger***



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Often it is not clear that the current rule implicitly includes the possibility for the driver of the vehicle to break down the barriers to free the intersection instead of leaving the vehicle on the tracks .

The regulations implementing of national or international rule could make it more explicit also describing this action of breaking down barriers in the condition of the vehicle stuck between them as "highly desirable". This good practice could to be included as part of driver training



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At the same time in many level crossings the action to force manually barriers automatically causes the activation of the control systems of rail traffic and thus promote whenever possible the arrest of oncoming trains. The possibility / obligation of the these actions could be reported with an information panel directly placed on the inner side of the barriers.



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3) Behavior of pedestrians and cyclists.



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**Fatalities - also at the same level crossing - occurred for
the crossing of pedestrians and cyclists of barriers
regularly closed.**



Solutions

- **Education**
- **Change the morphology of the barriers in order to create an impediment to the passage of pedestrians and cyclists under the same barriers when lowered**
- **Study the timing of the closure of level crossings and take the appropriate solutions so that closure times become normally contained within a “maximum time value” that does not induce weak road users (pedestrians and cyclists) in incorrect behavior and / or hazardous.**



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Thank you

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