



# महासुरक्षा पत्रिका

## राष्ट्रीय सुरक्षा परिषद

महाराष्ट्र चॅप्टर

NATIONAL SAFETY COUNCIL  
MAHARASHTRA CHAPTER



मुखपत्र

संपादक  
श्री. ज. अ. सोलंकी

वर्ष १० वे अंक ३९ वा

जानेवारी - मार्च २०१८

सभासदांसाठी विनामूल्य

### अध्यक्षांचे मनोगत



वाचक मित्रांनो,

महासुरक्षाचा हा अंक हाती पडेलो नववर्ष-२०१८, पुढे वाटचाल करू लागेल. त्यामुळे आता गतवर्षाचे सिंहावलोक करणे बरे. गतवर्षाचा विचार केल्यास आपले सुरक्षा व स्वास्थ्याचे भान व मन सुधारतेय असे दिसून येते.

मोठ्या नद्यांची पात्रे व प्रवाह स्वच्छ करण्याचा आपल्या देशाचा कार्यक्रम किती योग्य आहे! अस्वच्छ पात्राचा व प्रवाहाचा धोका केवढा असतो हे गेल्या

महिऱ्यापूर्वीच कृष्णा नदीत विजयवाड्याजवळ बोट उलटून २६ प्रवासी बुडून मेल्यावर लक्ष्यात आले असेलच. ही बोट नदीच्या पात्रात साचून गच्च झालेल्या गाळाला धडकूनच उलटली होती. परन्तु २६ लोकांचा जीव गेल्यावरच आंध्र-प्रदेशाचे शासन जागृत व्हावे ही गोष्ट चांगली नाही. या विषयी प्रसार माध्यमांनी शासनाला जागे केले ही गोष्ट प्रशंसनीय आहे.

दुसरी एक गोष्ट गतवर्षी घडली ती अशी:- बेस्ट बस कंपनीत झालेल्या प्रवाशाच्या अपघाताबाबत वाहतूक न्यायासनाने घोषित केले की बेस्ट बस मधून वाटेल तेथे हळू जाणाऱ्या बस मधून सुद्धा सोयीनुसार उडी घेणाऱ्या प्रवाशास अपघात झाल्यास अशा अपघाताची नुकसान भरपाई केली जाणार नाही. अरे पण मग हेच न्यायासन वा बेस्ट प्रशासन बस-स्टॉप आल्यावरच उघडणारे दरवाजे बसवायची सक्ती सर्व बसेसना का करीत नाही? काही बसेसना तसे दरवाजे आहेतच!

गतवर्षी, समुद्रातल्या वनस्पती म्हणजे "मॅन्ग्रोव्ह" तोडून व कोस्टल-झोनचे सारे नियम झुगारून बांधकामालायक खाडीची जागा निर्माण करायचे काम मीरा भायंदर जवळ झाले. तेथील जागृत जनतेने मात्र मॅन्ग्रोव्ह तोडणाऱ्या शासकीय, निमशासकीय कर्मचाऱ्यां विरुद्ध एफ.आय.आर. दाखल केली व पर्यावरण वाचवण्याची कामगिरी केली. असेच दुसरे उदाहरण म्हणजे नवघर जवळ जेट्टी (धक्का) बांधण्यासाठी मॅरीटाईम बोर्डाने ड्रेजिंग करून मॅन्ग्रोव्ह नष्ट केले. या बाबतीतसुद्धा जागृत जनतेने व सेवाभावी संस्थेने एफ.आय.आर. मॅरीटाईम बोर्ड

विरोधात दाखल केली. ही सुद्धा पर्यावरण सुरक्षेची तत्परता जनतेनेच दाखविली होती. आणखी एक बेदरकारपणा बघा हा! नव्या मुंबईच्या कामोठ्या जवळील खाडीत डेब्रिज (Debris) टाकून-टाकून तेथील मॅन्ग्रोव्ह नष्ट केले जात आहे. या साठी जबाबदार असणाऱ्या निम-सरकारी व उद्योगधंद्याशी संबंधित संघटनांनी एकमेकांवर जबाबदारीची ढकला-ढकल चालवली आहे. ही अत्यंत अयोग्य गोष्ट आहे. पर्यावरण सुरक्षा ही काही कुणा एका संघटनेची नव्हे तर ती सामाजिक व सार्वजनिक जबाबदारी मानली गेली पाहिजे. "कर नाही तर डर कशाचा!" ही घोषणा वास्तवात आणण्यास आपले पंतप्रधान सांगत आहेत. त्यात खरोखर मोठा खोल अर्थ आहे. काही दिवसांपूर्वी, वैष्णोदेवीला जाणाऱ्या भाविकांची संख्या ५० हजार एवढीच मर्यादित करण्याचा व तेथे जाणारे रस्ते सुरक्षित करण्याचा हरित लवाद (Green Tribunal) चा अध्यादेश निघाला. ही चेंगराचेंगरी टाळण्यासाठी व पर्यावरण वाचविण्यासाठी अगदी स्तुत्य खबरदारी आहे.

आपण वाचलेच असेल की एका प्राख्यात शिक्षण संस्थेने आपल्या सर्व विद्यालयांमधले शिक्षक विद्यार्थी व पालक यांच्यामध्ये सुरक्षा व शिस्तबद्धता आणण्यासाठी विशिष्ट प्रमाणपत्रे, ओळखपत्रे व पर्यवेक्षण प्रणाली आमलात आणली आहे. गुरगाव येथील एका नामांकित विद्यालयातील विद्यार्थ्यांच्या हत्येनंतर ही जागृती आली असली तरी ती दुर्लक्षण्यासारखी नाही. "मरे एक त्याचा दुजा शोक वाही" या पेशा "मरे एक त्यातून दुजा बोध घेई" असे होणे सुरक्षेसाठी केव्हाही चांगले.

नुकतेच दिल्लीच्या रस्त्यावरील झालेले वाहन-अपघात व जनतेच्या आरोग्याला निर्माण झालेला धोका यांचा गवगवा झाला होता. वातावरणातील धूर-धूके यांचे प्रदूषण हे या मागचे कारण होते. परन्तु ह्या प्रदूषणाचे, निर्माते होते शेजारील राज्यातील विकास कार्यक्रम. असा 'भकास' करणारा विकास नको! विकास हा विचारपूर्वक व विज्ञाननिष्ठ असावा.

शेवटी, जाता जाता सांगतो या नववर्षात सुध्दा:

**"सुरक्षेचा स्पर्श, देई सर्वानाच हर्ष"**

ही घोषणा पाळू या!

- अरविंद रा. दोशी  
अध्यक्ष



## MAHARASHTRA SAFETY AWARDS COMPETITION

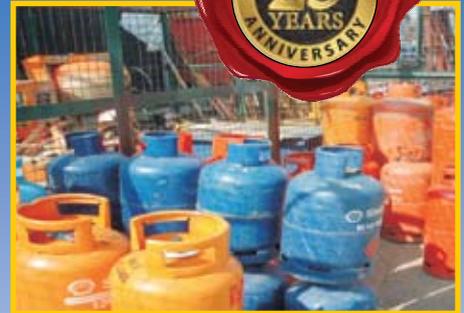
With a view to fostering safety consciousness amongst industrial establishments, we have been organising annually for the last 53 years, a Safety Awards Competition for the best performance in accident prevention in the factories situated in the State of Maharashtra. The competition is open to the members as well as non-members. Industrial establishments in the State, desirous of participating in the Competition are requested to contact chapter office for form and send the duly filled form to our office on or before 31st May, 2018.

Hurry

Last Date for Form Submission

31st May, 2018

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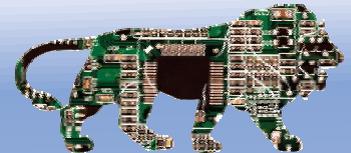
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- IS/IEC 60079-1: 2007
- IS/IEC 60529 : 2001
- **CE Mark :** Conforms with essential requirement of :
- Electromagnetic Compatibility Directive 2014/30/EU,
- Low voltage Directive 2014/35/EU
- EN 50270:2006
- Compliance with the IEC 60945 Standard for Marine application

**Dual Channel Gas Monitor  
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- Approvals :
- Compliance for Flameproof Certified to Ex-d IIA, IIB, T6, IP66
- Standard Compliance :
- IS/IEC 60079-0 : 2004
- IS/IEC 60079-1 : 2007
- IS/IEC 60529 : 2001
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**Smart Gas Transmitter  
Oxygen/Toxic/Combustible  
GT-2500-FLP**



- Standard Compliance :
- IS/IEC 60079-0 : 2004
- IS/IEC 60079-1 : 2007
- IS/IEC 60529 : 2001
- Approval & Compliance for Flameproof :
- Certified to Ex-d IIA, IIB, IIC, T6, IP66

**Programmable 2 wire  
Loop Powered Transmitter  
GT-1000-FLP**



- For
- Oxygen
- Toxic gases
- O/P : 4-20mA
- 2 Wire
- Approval & Compliance for Flameproof Tested Enclosure: Certified to Ex-d IIA, IIB, T6, IP65

**CL<sub>2</sub>, CO, CO<sub>2</sub>, HCL, H<sub>2</sub>S, HCN, NH<sub>3</sub>, NO, NO<sub>2</sub>, O<sub>2</sub>, O<sub>3</sub>, PH<sub>3</sub>, SO<sub>2</sub>, CH<sub>4</sub>, C<sub>3</sub>H<sub>8</sub>, C<sub>4</sub>H<sub>10</sub>, C<sub>2</sub>H<sub>4</sub>, C<sub>3</sub>H<sub>6</sub>, C<sub>2</sub>H<sub>2</sub>, LPG, CNG**

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सड़क सुरक्षा  
जीवन रक्षा

Road Safety

# Road Safety Week Celebration



NATIONAL SAFETY COUNCIL  
MAHARASHTRA CHAPTER



**Waiting for you papa...  
come home safely.**

**Making Roads Safer for Everyone,  
Starts with You, Think & Drive**



# Road Safety Week Celebrations at RCF Thal

1. Road Safety Drawing competition was held on 3rd January 2017 for RCF School students. Nearly 100 students participated in the event with impressive & colorful painting depicting the road safety rules, do's & don'ts on roads, unsafe acts & practices etc.



Drawing Competition at RCF Thal High School

2. On 11.01.2017, Road Safety Counseling was arranged at all Factory Entrance Gates. The persons following all rules were encouraged with Greeting Card & Til Gul (Sweets). Counseling was provided to the employees where any lacuna were observed.



Road Safety Counseling, Greeting Card & Til Gul Distribution & Road Safety Pledge at Administration Gate, Material Gate & Railway Gate of RCF Thal



Greeting Card distributed to Employees along with Til Gul

3. On 12.01.2017, in morning session, training program on "Defensive Driving & Safe Travel" by Shri. J.R. Urganlwar, RTO Pen was conducted at RCF Jr. College for 11th & 12th Students.



Post training, to motivate the students, Road Safety quiz with attractive spot prizes was conducted. The quiz was a success with very active participation from all students. After quiz, Prize



distribution, for drawing competition held on 03.01.17, was done.

In afternoon session, same training program was conducted in RCF Thal Factory, Pragathi Hall for RCF Employees. This was attended by RCF Top Management & around 80 RCF Employees. Safety Quiz was also conducted for Employees.

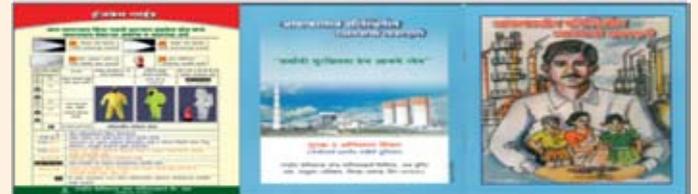
4. On 13.01.2017, Road Safety Awareness training & interactive session was held for the Mathadi workers in Bagging plant. The program was concluded with a Safety quiz with attractive spot prizes.



**Ravi Kiran Vedula**  
Sr. Officer (Safety)  
RCF Thal Unit



5. On 14.01.2017, Training program on "Safe Transportation of Hazardous Chemicals & Emergency Handling" for Raigad Police Department was conducted by RCF Fire & Safety Department. Hazchem cards & Ammonia leakage handling information booklets were distributed to all the police personnel.



HAZCHEM Cards & "Emergency Response Guidelines" Distributed to Police Staff

6. On 17.01.2017, training on "Road Safety & Traffic Rules" by Shri M.R.Mhatre, Raigad Traffic Police Incharge was conducted for RCF Employees.



## Awareness Campaign on Road Safety at Godrej & Boyce Mfg.Co.Ltd, Vikhroli , Mumbai

CII initiative organized the “India@75 National Volunteering Week” for the fourth year in succession from 18 - 24 January 2017.

To support the initiative, in coordination with M/s Bhumi, NGO and Local Police Authorities an Awareness Campaign on Road Safety was being organized by the G&B Management on 21.1.17. The location selected for the campaign was Vikhroli (West) Railway junction road on the Lal Bahadur Shastri Marg.

The Road Safety Campaign was volunteered by 25 persons that includes the employees, representative from Union and Mahila Manch.

Mr. Sunil Kadam, Police Inspector had supported the initiative along with his two colleagues.

The campaign began with group discussion and pledge. Volunteers moved towards the location with placards held high.

The two groups of the volunteers were formed and assigned area (near to Traffic Signals at both the side)

Volunteers started interacting with the two / four wheeler

operators and explained them importance of slowing down when they see the yellow signal, stopping before the stop line. Also requested them to wear their helmets and seat belts if they haven't. Volunteers offered Rose flower to the violators. Also appreciated those who were wearing them already.

Public responded proactively and respected the movement for reminding them the importance of safety and life. Police authorities appreciated the initiative.

M/s Anand Patil, Rishikesh Ahirrao, Ramesh Bhagwani, Pankaj Mishra and Amol Gharpure from Occupational Health and Safety had coordinated the activity.



**Yashpal Singh**  
Head-Corporate Safety  
Godrej & Boyce Mfg. Co. Ltd.



## Road Safety Week Celebration at Emcure, Pune

Everyday many people are involved in road accidents. Some are killed. Many more are injured. So it is important for us to learn to use the roads properly and safely. No same person would like to be involved in an accident.

As the roads are very busy nowadays, We must obey all traffic rules. The important thing is to stay alert at all times while using the roads.

A large number of awareness programme for community

and employees are conducted at Emcure.

This year Emcure has scheduled so many activities for Road safety week awareness drive like Quiz competition (ChaltaBolta), Drawing competition on road safety, Road Safety Awareness film for drivers and employees, Two wheeler Safe driving competition, Four wheeler Safe driving competition, Cycle Rally, Free Four Wheeler inspection, Free PUC check Two & Four wheeler, Drama on Road safety week.



## Road Safety Week celebration at Godrej Prana Project- Pune

### Aim of Road safety week celebration

The aim of this campaign was to accentuate and draw attention to people about the need of safe roads travel by applying simple rules. According to WHO, in 2010 it was estimated that 1.24 million people were killed worldwide and 50 million more were injured in motor vehicle collisions. Young adults aged between 15 and 44 years accounted for 59% of global road traffic deaths as well as it was probable that motor vehicle collisions caused the death of around 60 million people during the 20th century, around the same number of World War II casualties. Such situations especially in India increase the importance and necessity of the road safety measures. With a huge number of road travelers, including two wheelers & four wheelers in India, road safety awareness is of utmost importance and it is to be generated through Road safety campaigns. This requires efforts from various stakeholders as community, Real Estate sector, transport sector, insurance sector, health sector, police, legal sector, educational institutions, highway engineers, vehicle manufacturers, public agencies, NGOs etc. Youths of our country must understand the importance of road safety measures and thus, students are given a big opportunity to participate in the road safety week programme to be the ambassador to change.

Road Safety campaign-2017 @ Godrej Prana address the following issues-

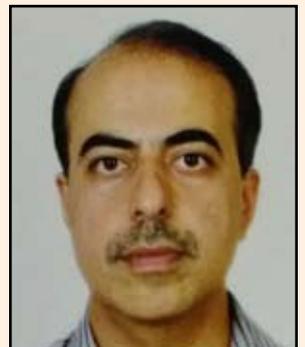
- \* To encourage all the employees & workers to follow the traffic rules and wear helmets while driving two wheelers and seat belts while driving four wheelers.
- \* To make aware the employees & workers about the speed limit of the vehicles to prevent road accidents.
- \* To make aware the employees & workers to maintain the speed and required distance from other vehicles
- \* To bring awareness of the dangers of Drink & driving amongst all workers and employees.
- \* To bring awareness about not driving in a tired / sleep deprived state.
- \* To discourage the employees from using mobile phones while driving.
- \* To keep vehicle in maintained / healthy condition always for safe driving.
- \* To educate and bring awareness about road signs
- \* To apprise them of new initiatives and measures being taken by various agencies and authorities to bring down the injuries or deaths by road accidents.



## Road Safety Week Celebration at Godrej Infinity Project, Pune

Road safety week is observed every year with great joy and enthusiasm by The Godrej Properties Limited in all the projects. This year too, the Road safety week was celebrated by Godrej Infinity, Pune from 11th January to 17th January 2017. A wide range of programs related to road safety were

organized to encourage the people for safely driving on the roads. Road safety week was celebrated by performing the following activities:



**Yogesh Lahori**  
Sr. GM  
Projects

### Activities performed:

1. Display of Road safety celebration banner.
2. Message from Senior Personnel on Importance of Road Safety
3. Wearing of Helmet made compulsory for project team
4. Rally conducted – workers & staff participated in rally
5. Audio Video Training conducted & Case studies shared to all vehicle operators.
6. Competition conducted of slow motion riding to convey message of speed limit
7. Audio Video Training conducted & Case studies on road accident shared with staff.



# Road Safety a Serious Concern

## Introduction to Road Safety :

The government has provided various incentives for private and foreign sector investments in the roads sector. 100% FDI is allowed in the sectors of land transport to promote building of highway bridges, toll roads, and vehicular tunnels; services incidental to transport such as cargo handling is incidental to land transport; construction and maintenance of roads, bridges; and construction and maintenance of roads and highways offered on build-operate-transfer (BOT) basis, including collection of toll.

The report compiled by the Ministry's Transport Research Wing said road accidents killed a large number of people across India in 2017 and road fatalities were reported indicating Indian roads continue to be one of the deadliest in the world.

"This reflects an alarming trend that while the number of accidents has gone down, their severity has increased resulting in many more deaths. One of the main reasons for the high number of fatalities is speeding by drivers.

Almost most of the road fatalities victim in 2017 were in the age-group of 18-35 years. The maximum number of road accidents occurred on two-lane roads.

The accidents are also caused due to poor quality of construction of the roads and their proper maintenance. They are often full of potholes, rough and uneven stretches. In rainy season their conditions becomes the worst. The lack of proper road-light, signs etc. also contribute their portion of the road hazard. The pavements on both sides of the road are not free from encroachments. There are shops, khokas, dhabas, workshops etc. on the pavements meant for pedestrians. The repair shops park their vehicles right on the road space. Poor road and street-drainage further add to the problem of accident.

In recent days we also find many accidents related to who are under legal age driving vehicles and met with accidents. People should be very much concerned about preventing their children, who are under the legal age, to drive their own cars. However, the absence of strong penalty of violations can be the second cause of the huge number of accidents in our country, not to mention that most of the current penalty systems are not applied in the first place. Finally, there are other causes should be mentioned like: neglecting of maintaining the vehicles.

Many people consider the lack of education about road rules is the primary cause of road accidents. People do not seem care about the speeding limit, wearing the seatbelt and respecting the traffic signs. The driving license procedure was not so stringent earlier and there were many agents who does it for money. Now that Government had a strict control on the RTO Procedures which can allow only the eligible to get the licence for driving a vehicle.

## Accidents at Navi Mumbai :

Recently many of the accidents were taken place at /near the curve on the bridge.(Photos of starting of the bridge at many places of Navi Mumbai as on 16 Dec 2017) . In most of the places we can find that the signage and the markings and the lights are not properly placed. At times accidents happen at these places. In a span of three months a number of accidents have taken place in Navi Mumbai itself. Almost 90% of the cases were like the vehicle are on top of the edge of the bridge due to poor visibility. Especially Lorry, Truck carrying containers and Cars during Night..



Belapur bridge



Ghansoli Bridge



Nerul Bridge

Immediate action are to be taken by the authorities concerned to act on this issue as most of the bridges at Navi Mumbai are on the same fashion. After this photograph has taken ,a few places like Ghansoli a temporarily markings are been provided by the authorities.

## Types of Accidents on the Start of the Bridge

### Accidents at a glance



**Vinod Kumar Karikkat**  
Manager HSE & HR  
Oil Field Instrumentation(I) P. Ltd.



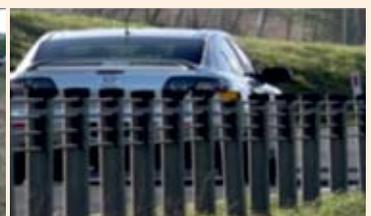
## How to prevent such accidents:

To prevent these accidents, it is imperative that effective long and short term measures are immediately taken. There should be a effective check on speed of the vehicles. Visible signage's, Traffic Lights, Street Lights and markings are to be provided. Maintenance work of such areas shall be given much importance. Regular check on such road safety symbols, markings shall be carried out by the Road safety Engineers. Area of maintenance shall be divided and ensured by means of inspections and audits. Preventive maintenance programme shall be carried out before monsoon.

## Imperative Measures adapted by various Countries:

Impact absorption cushion are specifically designed for the safety of motorcycle riders. It features an outer case manufactured from UV stabilised polypropylene plus inserts of multi-layered press load cushions it is low-cost and suitable for most roadside structures including sign posts, lighting columns and signal poles. Flexible Safety Barriers help to restrain an out-of-control vehicle. Used on medians or down the middle of the road, a Flexible Safety Barrier stops an out-of-control vehicle from crossing into the path of on-coming traffic, preventing head-on crashes. Used at the side of the road, Flexible Safety Barriers prevent out-of-control vehicles from running off the road and colliding with road side hazards such as poles and trees, helping to reduce the severity of the crash.

Flexible Safety Barriers are effective at containing out-of-control vehicles within the road environment. The flexible nature of a Flexible Safety Barrier helps absorb the impact energy, reducing the risk of serious injury and damage in the event a vehicle crashes into the Flexible Safety Barriers.



Experience has found that flexible safety barriers can reduce the likelihood of a crashing vehicle rolling over as the impact of a vehicle is absorbed, rather than 'bouncing off' a more rigid barrier.

## Initiative by Gharda Chemicals Ltd, Lote Parshuram for Road Safety

When we ask school going children what they would be when they grow up every one will say he wanted to become engineer, doctor, teacher etc however no one will say he wanted to become driver. Driver is profession chose by many people as last option where no educational qualification is required. In spite of very skilled job this is neglected profession as compared with other profession. Driver's life is very tough; he gets less pay for more number of hours. Availability of food & time when food is taken by driver is un-certain. For drivers it is impossible to stay with family members, he keeps on moving. Driver has to either find space for sleeping or adjust himself in vehicle. Monotonous life of driver is one of the reason for road accidents.

Road safety is increasingly becoming a major killer and a worldwide concern. Road accidents involving children has become a major cause for concern around the world. Within recent times, there has been a dramatic increase in the number of road accidents involving children. A child is killed in an accident every three minutes. Everyday more than one hundred people are killed due to lack in road safety. Around six thousand people are injured due to these small mistakes of a driver. Many people look at road safety as non-essential, but this is a major topic of accidents occurring every minute nowadays. .

As per the data cited in the report, the country recorded at least 4, 80,652 accidents in 2016, leading to 1, 50,785 deaths. The number suggests that at least 413 people died every day in 1,317 road accidents. Further breaking down the statistics, the data reveals that at least 17 deaths occurred in road accidents in 55 accidents every hour in the given time period. Comparing the new recordings with data from previous year shows that in spite of recording fewer accidents in 2016, more deaths have occurred this year as in 2015. In 2015, 1, 46,133 people had died in 5, 01,423 accidents. The accident severity, which is measured as the number of persons killed per 100 accidents, was recorded at 29.1 in 2015 which is lower than 31.4 in 2016.

Many people are killed, left seriously injured in road accidents. Drivers must be well educated regarding road safety & what to do what not to do. Police officers have a key role in encouraging improved road-user behavior. The main causes of the car accidents are driver distractions, drunken drivers, using cellular phones while driving, speeding, aggressive driving, mechanical failure, road conditions and weather. Lack of discipline of the driver, refusal to follow traffic rules, lack of experience and licensing older drivers also may be a cause of these accidents.

Accidents are generally classified as single vehicle and multiple vehicle accidents. The increase of road accident is closely linked with the rapid growth of population, economics development, industrialization and motorization encountered by the country. It continues to be a growing concern to all those who use the roads. There are many other causes of accident on the road. One reason is that, nowadays people can obtain license easily. But actually, people who want to get the license must have an experience and know the rules on the road. However, we do not have a big number of experienced drivers on the road.

### Why do road accidents occur?

One of the causes of the road accidents is because the road users do not use the overhead bridge available while crossing the busy road. These road users think that using the overhead bridge will waste their time and they tend to take risks by running across the road. Their action is very dangerous to them as they might be hit by the speeding vehicles. So, road users are advised to use the overhead bridge or zebra crossing where available when

crossing the busy road. Riding bicycles side by side in the middle of the road is another cause of road accidents. This is very dangerous because they might be hit from the back by other vehicles.

### DISTRACTED DRIVING

- Distracted driving is a growing problem due to increased use of mobile devices and technology in vehicles.

- Drivers who are using mobile phones typically have slower reaction times to traffic signals and in braking, have trouble staying in their lane and maintain closer following distances.

- Drivers who are using mobile phones are about four times more likely to be involved in a crash.

- Research suggests that hands-free phones are as dangerous as hand-held phones. Using phones while driving can cause drivers to take their eyes and minds off the road and the surrounding situation, causing—in this case—cognitive distraction.

- As this is a new field, new evidence will emerge as more research is conducted. In the meantime, measures to reduce the risks associated with distracted driving can include: adopting and enforcing legislation,

Public awareness campaigns and new technology such as vehicle applications that automatically re-direct calls if they sense a mobile phone in a moving vehicle.

- Text messaging which involves cognitive, manual, and visual distraction results in a significantly increased likelihood of a crash

As we all know, "prevention is better than cure" . So, it is safer to follow these rules than to be sorry. We should remember that safety is our responsibility

Initiative by our organization Gharda Chemicals Limited Lote for Road safety

1. Compulsory use of helmet and seat belt by employee in factory and colony
2. Walkway and zebra crossing marking
3. Installation of speed breaker on connecting road
4. Training to police on transport of hazardous goods.
5. Training to drivers
6. Training to forklift drivers
7. Appreciation to Bus drivers.
8. Road safety week celebrations
9. Health check-up of drivers of company buses and cars on yearly basis
10. Convex mirrors have been strategically installed on road curves in company and residential colony.
11. In factory premises, walk-ways have been marked with yellow strips for pedestrians.
12. Forklifts have been equipped with reverse horn to make the employees alert while taking the vehicles in reverse direction
13. All drivers of hired buses/cars are working on shift basis to avoid over exertion
14. All Ambulance drivers/co-drivers have been exposed to Basic First-aid training.



**Sandesh Parthe**  
DGM-EHS  
Gharda Chemicals Ltd, Lote Parshuram

# Road Safety in Transporting hazardous chemicals by NOCIL, Navi Mumbai



- India with just 1% of the vehicular population accounts for 10% of the Road Fatalities.
- Chemical tanker fatalities accounts for 10% of total road fatalities



## TANKER DRIVER RESPONSIBILITY'S

- Documents like Valid Driving License, Tanker fitness etc.
- TREM card interpretations.
- Emergency Information Panel interpretations.
- First aid box and Extinguishers.
- Driver's training from RTO approved institute regarding transportation of hazardous chemicals.
- Not to stop/park vehicles in crowded area or village.
- Take enough rest during night.
- Regularly check eyesight.
- Get vehicles serviced regularly. Inspect vehicles during stoppages.
- Check break after every start up.
- Follow traffic rules.
- Get battery serviced regularly to avoid battery explosion.
- During emergency inform owner, police station for help.
- Warn onlookers to be away from vehicle in emergency.

## FIRST AID:

It's important to have a well-stocked first aid kit in Driver Cabin so you can deal with minor injuries.

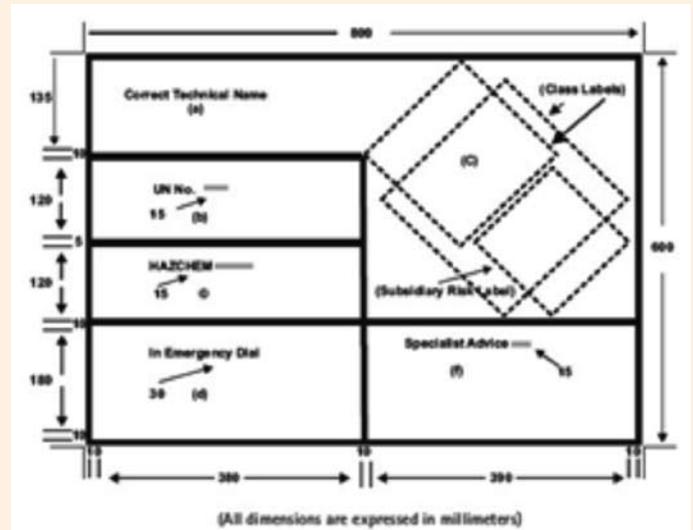
Things to be included in first aid box:

- Antiseptic liquid Solution
- Roller bandage
- Adhesive bandages
- Antibiotic ointment
- Medical Cotton Etc.



## EMERGENCY INFORMATION PANEL (EIP)

- It is mandatory for the vehicles transporting hazardous chemicals to display Emergency Information Panel (EIP) with details and at places as specified under Rule 134 of the Central Motor Vehicles Rules, 1989



- Emergency information panels are used to identify hazardous substances and advise of specialist advice or courses of action in case of emergency.
- An emergency information panel (EIP) is a placard that is 600mm x 800mm and includes warning and emergency information on dangerous goods.

SUBSTANCE	HAZCHEM CODE	HAZCHEM CODE	
1. PETROL	1E	1. UETS	Notes for Guidance FOG: In the absence of fog equipment a fire spray may be used. DRY AGENT: Water must not be allowed to come into contact with the substances at risk. V: Can be violently or even explosively reactive. FULL: Full body protective clothing with BA. BA: Breathing apparatus plus protective gloves. DILUTE: May be washed to drain with large quantities of water. CONTAIN: Prevent by any means available, the spillage from entering drains or water course.
2. METHYL	2FE	2. FOG	
3. LPG	3WE	3. FOAM	
4. MINERAL OILS	4FE	4. DRY AGENT	
5. SULPHUR	5E	P V FULL R X BA S Y BA T BA for FIRE only U BA for FIRE only	DILUTE
6. KEROSENE	6E	W V FULL X Y BA	CONTAIN
		Z BA for FIRE only AA BA BB BA for FIRE only	
		E CONSIDER EVACUATION	



## OVERSPEEDING by Solar Industries India Ltd, Nagpur

Speed has been identified as a key risk factor in road traffic injuries, influencing both the risk of a road crash as well as the severity of the injuries that result from crashes. Excess speed is defined as exceeding the speed limit. Inappropriate speed is defined as driving at a speed unsuitable for the prevailing road and traffic conditions. Excess and inappropriate speed are responsible for a high proportion of the mortality and morbidity that result from road crashes. In high-income countries, speed contributes to about 30% of deaths on the road, while in some low-income and middle-income countries, speed is estimated to be the main contributory factor in about half of all road crashes. Controlling vehicle speed can prevent crashes happening and can reduce the impact when they do occur, lessening the severity of injuries sustained by the victims.

### How does speed affect traffic collisions and injury?

1. The higher the speed of a vehicle, the shorter the time available for the driver to stop and avoid a crash.
2. Speed also contributes to the severity of the impact when a collision does occur.
3. The relationship between speed and injury severity is particularly critical for vulnerable road users such as pedestrians and cyclists.

### What factors affect speed?

Drivers' speed choice is influenced by a number of factors that can be considered as:

1. driver-related factors (age, gender, alcohol level, number of people in the vehicle);
2. those relating to the road and the vehicle (road layout, surface quality, vehicle power, maximum speed);
3. traffic- and environment-related (traffic density and composition,

prevailing speed, weather conditions).

### What have we done in our plant premises of Solar Industries India Limited , Chakdoh plant, Nagpur to manage the adverse effects of overspeeding?

1. Use of Helmet has been made mandatory. No admission to anyone on scooter/ motorcycle without Helmet through our Main gate.
2. Displayed maximum. Speed limit boards at various places along the roads
3. Installed convex mirrors at accident prone ( blind corners) areas
4. Installed speed breakers at strategic locations
5. Displayed awareness posters related to overspeeding
6. Direction boards

### What can we do to make our future Accident free on the road?

1. Educate teenagers about road safety at school level . This will help next generation aware about safe driving.
2. Effects of bad driving to be displayed and discussed.
3. Not to park vehicles in crowded area
4. Use bicycle for good physical health for teenagers and college students which will make our roads less crowded
5. We must think that the Vehicle is for our convenience to make time management not for our adventure or thrill
6. Shed the "Chalta hai/ Marnese kon darta hai" attitude
7. Take personal responsibility to ensure that no one should suffer from our mistakes.

- Prem K Mahtha (DGM, SHE)

- Mr Milind Dakhate (Manager, SHE)  
Solar Industries India Limited

## SELFIE + DRIVING = KILLFIE by Solar Industries India Ltd, Nagpur

Indians are the most reckless mobile users, according to Samsung's survey, as Indians we do know about it, but are purposefully being ignorant.

India tops as the country with most number of selfie-related fatalities in the world, as revealed in research last year, this comes as no surprise. A 2016 report by Carnegie Mellon University, Indraprastha Institute of Information Technology, Delhi and National Institute of Technology, Trichy, found that India accounts for 50 per cent of such deaths worldwide.

Samsung's recent survey reports that nearly 60 per cent of Indian two-wheeler users 'instinctively' answer their mobile phones while riding. Seventy per cent of pedestrian respondents said they regularly answer the phone while crossing a road. Should it be the boss calling, 18 per cent will respond immediately, while 51 per cent will answer by the third call, even if they are in the middle of the road. By the same statistics the recent fad among all the drivers of taking a selfie on a newly purchased vehicle or taking picture of yours while driving along an extremely photo-capturable background is nothing less than participating in extreme adventure sport.

The mobile companies have been coming up with new software updates wherein the phone function disables while it identifies its user is driving or on the road, however very few people know about it and the rest blatantly turn a blind eye towards it. The Government also is making the citizens aware about it through various advertisements on the TV, radio and social media platforms. Both the organisations are coming together to spread the awareness and making the normal person acquainted with the repercussions associated with it. This has been an unwanted nuisance evolved out of the technology originally made to ease the communication and bring people closer.

The question thus arises how do we stop this evil from taking lives, the answer lies in the hands of the individual itself, the selfie taker must ask himself whether the front facing camera which is provided for risk taking while driving or for having face front calls. As Indians we are always considered poor drivers of the vehicle given the traffic jams we see

in nearly all metros. Hence it has been no doubt why lead in the selfie related deaths, our poor driving abilities were taking our lives earlier too and know there has been a new way added to it. We thus now require to dig deep and first make ourselves better drivers of the road. We need more stringent acts from the Traffic department to make our roads free of any jams, wrong side driving and over speeding. The traffic department must give a year just to make people stop before the zebra crossing at the traffic signal, when these kind of small changes will be incorporated by the people themselves the larger issue of selfie deaths will then only be solved. This is the problem for the whole world not just in India but losing the top spot in the list will definitely make our citizens happier and our Safety officer the Happiest of all.



- ANURAG BHOLE

Asst Manager (SHE),  
Solar Industries (I) Ltd.

## रस्ते सुरक्षा सप्ताह

संपूर्ण भारत भर केंद्र व राज्य सरकार यांच्या वतीने प्रतिवर्षी ११ जानेवारी ते १७ जानेवारी या कालावधीमध्ये रस्ते सुरक्षितता सप्ताह मोठ्या प्रमाणात साजरा केला जातो त्यानिमित्ताने आपल्याशी वार्तालाप....

जसे मानवाच्या शरीरात हृदयापासून ते संपूर्ण शरीरभर रक्त पुरवठा करणाऱ्या धमन्या कार्यरत असतात, त्याचप्रकारे रस्ते सर्व गावा-गावांना जोडण्याचे महत्वाचे कार्य करीत असतात. मग या रस्त्यावरून आपण, शाळकरी मुले, कामगार, शेतकरी, महिला वर्ग व सर्व सामान्य नागरिक, वाहने सतत कार्य करीत असतात आणि याचा पुरेपूर उपयोग केला जातो. प्रसंगी रस्त्यावरती बेदरकारपणे मद्यपान करून अनावधानाने अपघात होण्याचे प्रसंग उद्भवतात आणि नाहक जीवित हानी होते. मग हे सर्व आपणांस दूरदर्शन, वृत्तपत्राच्या माध्यमातून व आजकाल स्मार्ट फोन च्या माध्यमातून पोहोचविण्याचे कार्य क्षणात केले जाते, यातून क्षणभर हळहळ व्यक्त करतो आणि दुसऱ्या क्षणी विसरून जातो, पण हे टाळता आले असते का ? याचा कोणी गांभीर्याने विचार करत नाही.

सरकार च्या माध्यमातून यावरती अनेक उपाय योजना, जनजागृती केल्या जातात परंतु आपण त्याचा तितकासा गांभीर्याने विचार करीत नाही. चुकते ते इथेच.

आपणांस एका मागील पंधरा वर्षांच्या प्रसंगाकड घेऊन जातो. आमचे सहकारी मित्र अत्यंत हुशार, प्रामाणिक, होतकरू असणारे सांप्रदायिक सहा. अभियंता श्री रामदास हरिदास ठाकर आमचे येथील साखर कारखान्यातील नोकरी करीत असताना पुढील पदाची संधी मिळाल्याने ते भीमा पाटस येथील कारखान्यात रुजू झाले. हळूहळू त्यांनी कारखान्याच्या कामकाजामध्ये सुसुत्रता यावी या उद्देश्याने काही छोटे मोठे तांत्रिक बदल करून कारखान्याच्या उत्पादनामध्ये मोलाची भर घातली. या गोष्टीची अप्रत्यक्ष दखल तत्कालीन अध्यक्ष यांनी त्यांना भरगोस वेतनवाढ दिली व त्यांच्या कामकाजाबाबत समाधान व्यक्त केले होते. याची परिणती अशी झाली की, उजनी धरणाच्या बँक वॉटर बाजुलाच मकाई साखर कारखान्याच्या निर्मितीच्या हालचाली व कारखाना उभारणीची संपूर्ण जबाबदारी श्री ठाकर साहेब यांच्यावरती सोपवली. ऊस गव्हाण मध्ये उसाचे मोळी पूजन करून कारखान्याच्या गळीत हंगामास प्रारंभ झाला सर्व मान्यवर अधिकारी वर्ग कामगार व श्री ठाकर साहेब यांच्या चेहऱ्यावरती कारखाना उभारणीचे कष्ट घेतल्याचे समाधान दिसून आले. मूळचे ठाकरसाहेब हे भिमानगर उजनी गांव येथील रहिवासी होते. पण या कारखाना उभारणी निमित्ताने इंदापूर



येथे स्थायिक झाले व तेथून त्यांचा हा प्रवास सुरू होता. वेळप्रसंगी कारखाना स्थळी थांबावे लागत असे व एखादा दिवस परिवारास दिला जायचा. त्यांना २ लहान आपत्य होती. एकदा रविवारी सुट्टी असल्याने शनिवारी संध्याकाळी इंदापूर गावी घरी जाण्यास निघाले असता भिगवण येथील सिनारमास पेपर प्रोजेक्ट पाहून थोड्या अंतरावर बंद पडलेल्या पेट्रोल टँकर ला जाऊन जोरात धडक झाली व जागीच गतप्राण झाले. हायवे वरील पुढील वाहनाच्या प्रखर प्रकाशामुळे बंद पडलेला टँकर त्यांना दिसला नाही. दुसऱ्या दिवशी सकाळी अपघाताची बातमी सगळीकडे वाऱ्यासारखी पसरली. सर्वांना खूप दुःख झाले. आमचा अश्रूचा बांध फुटला होता. काय करावे अन काय नाही करावे हे कळनासे झाले. आमचे कारखान्यातील सहकारी मित्रांना घेऊन त्यांच्या गावी पोहोचलो. घरासमोर नुकतीच पोस्ट मार्टम करून बाँडी आणली होती व पुढील तयारी चालू होती. घरासमोर प्रचंड जनसमुदाय शोकसागरात बुडालेला होता. त्यांची मुले आणि पत्नी खुप आक्रोश करीत होती. एक उमदा अभ्यास मुख्य अभियंता आपल्यातून निघून गेला होता मग..... आठवते रस्ते सुरक्षितता.....विमा कंपनी, कारखाना यांनी कुटुंबास आर्थिक मदत केली, पण तो माणूस कायमचा काळाच्या पडद्याआड गेला होता तो पुन्हा न येण्यासाठीच.

आज आपण पाहतो देशाची लोकसंख्या वाढत असताना सर्व क्षेत्रामध्ये होत असलेले अमुलाग्र बदल, त्यांना द्यावयाच्या मुलभूत सुविधा यांचा विचार केला असता मानवी जीवन जगणे मोठे कष्टप्रद झाले आहे. जन माणसांमध्ये अजूनही रस्ते सुरक्षितता विषयी जनजागृती होत असून तितकी परिणामकारक रित्या रुजली जात नाही. त्यामुळे वृत्तपत्रांमध्ये अपघाताच्या बातम्या ह्या दररोज वाचायला मिळतात. याकरीता प्रत्येकाने घरातून निघताना आपले दैनंदिन काम सुरक्षितपणे करून संध्याकाळी आपल्या घरी सुखरूप येणे मोठे धकाधकीचे झाले आहे. मोठमोठी शहरे अत्यंत गर्दीची बनलेली असून कोणत्याही क्षणी रस्त्यावरती, हायवेवरती, दृतगती मार्गावरती अश्या घटना कधी घडतील

याची खात्री देता येत नाही.

शहरे जोडणारी यंत्रणा अधिक सक्षम करणे गरजेचे आहे. अपघात घडण्यासाठी कारणीभूत असणाऱ्या बाबी म्हणजे रस्त्यांच्या उच्चतम दर्जाचे गुणवत्तापूर्ण रस्ते बांधणी नसणे, रस्त्यामध्ये पडलेले मोठे खड्डे वेळीस न बुजवणे, मार्गदर्शक फलकाचा अभाव, दिशादर्शक चिन्हे जागोजागी न लावणे, प्रथमोपचार व्यवस्था न भेटणे, आपत्कालीन व्यवस्था अभाव, रात्रीच्या वेळी हायवे वरती प्रकाश यंत्रणेचा अभाव असणे, सिग्नल्स व पोलीस यंत्रणा सतर्क असणे गरजेचे आहे.

आपण प्रवास करीत असताना आपले वाहन हे योग्य इंधन, हवा, पाणी तपासून खात्री करावी. तसेच सुरक्षिततेच्या दृष्टीने हेल्मेट घालणे गरजेचे आहे. रस्त्यावरून वाहणाऱ्या वाहनांना नियमानुसार परावर्तक पट्ट्या बसवाव्यात. प्रखर प्रकाशाचे दिवे यावरती बंदी



आणून नियमानुसार वाहनांना दिवे बसविणे गरजेचे आहे. वाहनांचा दिशादर्शक प्रकाश योजना कार्यान्वित असाव्यात. वाहन बंद पडल्यास पाठीमागून जाणारी वाहने न धडकतील यासाठी लाल दिवे चालू ठेवावेत. तसेच वाहन कोणत्याही कारणाने बंद पडल्यास रस्त्याच्या एका बाजुला घ्यावे जेणे करून चालू रस्त्याला अडथळा येऊ नये. सर्वात महत्वाचे रस्त्यावरून प्रवास करताना मर्यादित वेग असावा, यासाठी लवकर निघा, वेळेवर जा व सुरक्षित पोहोचा. हि घोषणा सतत स्मरणात ठेवणे गरजेचे आहे. थंडीच्या दिवसामध्ये धुके पडलेले असते, त्यामुळे समोरून येणारी वाहने दिसत नाहीत त्यासाठी वाहन नियमानुसार पिवळ्या रंगाचे दिवे (फॉग लाईट्स) कार्यान्वित ठेवावेत. प्रवासामध्ये वाहन चालकाने आपली औषधे बरोबर घेतलेली असावेत, मद्यपान केलेले नसावे. तसेच दर तीन महिन्यांनी नियमितपणे डोळे तपासणी तसेच आरोग्य तपासणी करून घ्यावी. उत्तरत्या वयामध्ये अवजड वाहने चालवू नयेत. स्वतःचा व वाहनाचा नियमित विमा उतरविलेला असावा. सरकारकडून वेळोवेळी रस्ते व वाहनांसंबंधी सुरक्षितता विषयी तयार केलेले नियम व कायदे कानून यांची अंमलबजावणी होणे गरजेचे आहे. यासाठी सर्वांनी प्रत्येकाच्या सुरक्षित जीवनाची काळजी घेतल्यास रस्ते अपघाताचे प्रमाण नक्कीच कमी होण्यास मदत होईल.

रस्ते विषयी विविध प्रगतिशील देशांमध्ये कश्या पध्दतीने उपाय योजना केलेल्या आहेत व त्याचा वापर कश्या पध्दतीने केला जातो याचा अभ्यास करून सरकारने वेगळा कक्ष निर्माण करून त्याची अंमलबजावणी करावी. यामध्ये लोकप्रतिनिधींचा सहभाग असावा. सामान्य नागरिक व इतरांकडून काही चुका झाल्यास योग्य ती शिक्षा तात्काळ करण्यात यावी. वेळप्रसंगी जलद गती न्याय निवाड्याने कायदेशीर बाबी आणून त्याचा निपटारा करावा. टोलनाक्यावरती वाहन चालक यांना शुध्द पाणी व ऊर्जा प्येय नाममात्र किमतीत उपलब्ध ठेवावेत. याकरीता आपत्कालीन व्यवस्थेस संदेश देऊन अपघात प्रसंगी मदत मिळण्यास मदत होईल “जागरूक नागरिक करे नियमांचे पालन-हातून घडणार नाही अपघातांचे कारण”.

याकरीता सर्वांनी आपली सुरक्षितता लक्षात ठेऊन “जसा आपला प्राण महत्वाचा तसा दुसऱ्याचा हि प्राण” हे सतत लक्षात ठेवावे म्हणजे राष्ट्रीय नुकसान होणार नाही. नाहीतर किड्यामुऱ्यांसारखे आपले आयुष्य होऊन जाईल, मग कोण वाचवायला येणार. म्हणून मी म्हणेन रस्ते सुरक्षितता सप्ताह हा प्रत्येक दिवशी अंमलात आणावा.

“रस्त्यावरची सुरक्षितता नाही जाणवणार कसलीच कमतरता”.

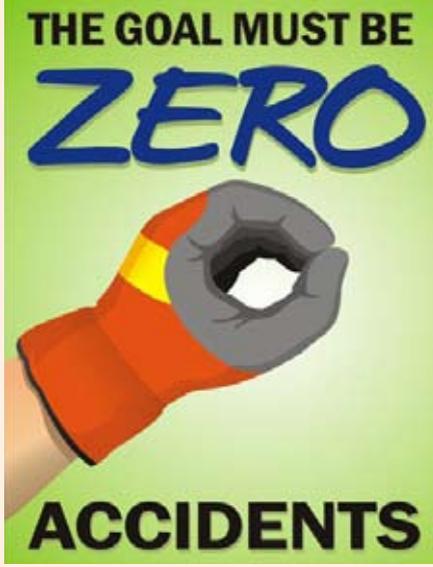
- गजानन कृष्णाजी पिसे

मेकॅ. ड्राफ्ट्समन, इंजि. विभाग

सहकार महर्षि शंकरराव मोहिते-पाटील स.सा.का.लि., शंकरनगर, अकलूज

## रस्ता सुरक्षा:सहा ब्रेक्स पहा

दिवसेन् दिवस रस्त्यावरील अपघातांचे प्रमाण प्रचंड वाढत चालले आहे. दररोज आपण सर्वजण या अपघातांच्या बातम्या वर्तमान पत्रात तसेच टिव्हीवर बातम्यांमधून पाहत असतो, “रस्त्यावरील अपघात” प्रत्येकासाठी खूप चिंतेची बाब झाली आहे. सकाळी घरातून बाहेर पडलेली व्यक्ती पुन्हा घरी परत येईल की नाही याबद्दल नेहमीच मनात धडधड असते. आपल्या देशामध्ये दर सहाव्या मिनिटाला एक व्यक्तीचा रस्ते अपघातात मृत्यु होतो, तर प्रत्येक मिनिटाला एक व्यक्ती जखमी होते. म्हणजेच दररोज जवळजवळ दहा व्यक्ती घरातून बाहेर पडतात पण पुन्हा घरी परतत नाही. त्या रस्ते अपघातात दगावले जातात आणि साधारणपणे १५०० व्यक्ती अपातामुळे जखमी हेऊन दररोज हॉस्पिटलमध्ये दाखल होतात.



वरील आकडेवारी पाहता, वाहन चालविणे किती धोक्याचे अन जबाबदारीचे आहे हे लक्षात येईल. म्हणूनच, “रस्ता सुरक्षा” हा खूप महत्वाचा विषय असून त्या विषयी लोकांमध्ये जागृती करून लोकांचे प्राण वाचविण्याचे काम राष्ट्रीय सुरक्षा परिषद-महाराष्ट्र चॅप्टर दरवर्षी सातत्याने करत आहे. म्हणूनच राष्ट्रीय सुरक्षा परिषद-महाराष्ट्र चॅप्टर चा सर्वांना अभिमान

आहे. हा त्यांचा उपक्रम अतिशय कौतुकास्पद आहे.

या “रस्ता सुरक्षा” अभियानाचा भाग म्हणून अन् अपघातावर मात करण्यासाठी काही टिप्स आपल्यासमोर मांडत आहे.

“चला तर रस्ता सुरक्षा करुया आत्मसात होईल रस्ते अपघातांवर मात”

अपघात आपोआप घडत नसतात, त्यालाही कारणे असतात. अनेक कारणांमुळे अपघात होतात, उदाहरणार्थ वाहन चालक, वाहन, रस्ता, आजुबाजुची परिस्थिती, वातावरण. यामध्ये सर्वात जास्त म्हणजे ७० टक्के अपघात वाहन चालकामुळे होतात. अपघात समयी वाहन चालक आपले वाहन योग्यरित्या नियंत्रित करू शकत नाही, परिणामी अपघात घडत असतात. थोडक्यात काय “तर गाडीवर नियंत्रण तर अपघातांवर नियंत्रण आणि सुटले गाडीवरील नियंत्रण, तर मिळते अपघातास आमंत्रण”.

म्हणूनच गाडीवर नियंत्रण हे फार फार महत्वाचे असून गाडीवर नियंत्रण करण्यासाठी “ब्रेक” हाच उत्तम पर्याय आपल्याकडे असतो. आपल्याकडे गाडी नियंत्रित करण्यासाठी अनेक ब्रेक्स उपलब्ध असतात. परंतु आपल्याला फक्त दोनच ब्रेक माहित असतात अन् त्यामधील फक्त एका ब्रेकवर जास्त अवलंबून असतो. तो म्हणजे

फूट ब्रेक-पायाखालील ब्रेक. खऱ्या अर्थाने गाडी नियंत्रित करण्यासाठी, आपल्याकडे असतात ब्रेक सहा-आहेत कोणते ते पहा.

अपघात होऊ नये म्हणून मोटार गाडीच्या वेगावर व गाडीवर नियंत्रण करण्यासाठी आपल्या प्रत्येकाकडे एक नाही, दोन नाही, तर जवळ जवळ सहा ब्रेक्स असतात. या सहा ब्रेक्सची आपणांस माहिती असेल अन् हे ब्रेक्स योग्य वेळी, योग्य रितीने वापरले तर निश्चितपणे आपण “रस्त्यावरील अपघात टाळू शकतो अन् आपुले अनमोल जीवन वाचवू शकतो”.

पहिले दोन ब्रेक्स सर्वांच्याच परिचयाचे आहेत.

**पहिला ब्रेक:** फुट ब्रेक (पायाखालील ब्रेक) अन् दूसरा हँड ब्रेक. या दोन ब्रेक्स चा वापर करून आपण बरेचशे अपघात टाळतो. या ब्रेकशिवाय आपण गाडी चालवू शकणार नाही. पण हे ब्रेक गाडीत असून सुद्धा अपघात होत असतात. म्हणूनच अजून चार ब्रेक्स आपल्याला अपघातावर मात करण्यासाठी, माहिती असणे फार आवश्यक आहे.

**तीसरा ब्रेक:** अॅक्सेलेटर - परिस्थिती नुसार आपण अॅक्सेलेटर नियंत्रित ठेवले तर वरील दोन ब्रेक्सची सुद्धा आवश्यकता भासत नाही. उदाहरणार्थ - चौकामध्ये, वळणावर गाडीचे अॅक्सेलेटर कमी करून ब्रेक न दाबता गाडीवर छान नियंत्रण करता येते.

**चौथा ब्रेक:** गाडीतील गिअर्स - परिस्थिती नुसार योग्य गिअर्सचावापर केला तर वरील तीनही ब्रेकशिवाय गाडीवर छान नियंत्रण करता येते. उदाहरणार्थ - उतारावर, वळणावर आपण जर गाडी पहिल्या किंवा दुसऱ्या गिअर मध्ये ठेवली तर ती उत्तम नियंत्रित होते अन् अपघाताची शक्यता कमी होते.

**पाचवा ब्रेक:** मनाचा ब्रेक - म्हणतात ना मनाचा ब्रेक, उत्तम ब्रेक. वरील चारहीब्रेक या मनाच्या ब्रेकवर अवलंबून असतात. कारण बऱ्याच वेळा सर्व व्यवस्थित असून सुद्धा मन जागेवर नसणे, ध्यान नसणे हेच अपघाताचे कारण ठरते.

“मन कही, तन कही, दूर्घटना ले जनम वही”

आपले शरीर (तन) जरी ड्रायव्हींग करत असेल आणि आपले मन अन् ध्यान जागेवर नसेल तर निश्चितच अपघात घडू शकतो अन् घडतातही. म्हणूनच मन अन् ध्यान नेहमी रस्त्यावर व गाडीवर असावे.

**सहावा ब्रेक:** फॅमिली ब्रेक - फॅमिली म्हणजे आपल्या परिवारातील प्रिय व्यक्ती-पत्नी, मुलगी, मुला, आई, वडील ज्यांच्यावर आपण मनापासून प्रेम करतो व सतत त्यांची काळजी घेतो, अगदी गाडी चालविताना सुद्धा. फॅमिली आपल्या बाजुला किंवा मागच्या सीटवर असेल तर आपले वरील सर्व पाच ब्रेक्स आपोआप काम करतात अन् संभावित अपघात टाळतात. थोडक्यात काय तर,

“असुद्या या सहा ब्रेक्सची साथ, करुया रस्ता अपघातांवर मात”



**Bajirao Dethle**  
Chief Manager-Corporate EHS,  
Piramal Enterprises Ltd.

## Road Safety Awareness Program for Mumbai Municipal School Students

In January 2018, National Safety Council- Maharashtra Chapter and Safe Kids Foundation collaborated as a joint venture to implement the program in the Municipal Schools in Mumbai to create awareness among children on pedestrian safety, as almost 85% of these children walk to schools every day and are at the risk of road injury.

The program aims to create safer and more walkable communities with emphasis on "Safe Walking" & "Safe Crossing" by conducting interactive classroom education session and

awareness events. The objective of the program is to reduce unintentional injuries among children caused due to road traffic crashes, by increasing awareness on road and pedestrian safety, gathering data through studies and implementing evidence based interventions by engaging and mobilizing various stakeholders to come together to bring about changes in attitudes, behaviors and environment through awareness, training and advocacy to make schools zones and communities safer for child pedestrians.



## Two wheels One life, a Campaign for promoting safe two wheeler riding, organised by United Way Mumbai jointly with NSC-MC

United for Road Safety, is a community impact initiative of United Way Mumbai jointly with NSC-MC which aims to address various aspects related to the promotion of road safety in Mumbai, India. Over a three year period, this project will train 7000 youth in safe riding skills, engage 3000 youth through formation of road safety clubs and train 200 trainers to reach out to 2.5 lakh citizens in Mumbai). India's first mobile two wheeler simulator for safe riding training as part of the 2 Wheels 1 Life campaign was unveiled at the 2 Wheels 1 Life Awards ceremony by the Jt. Commissioner of Police (Traffic), Mumbai - Mr. Amitesh Kumar (IPS) on the 9th of February 2018 . The 2 Wheels 1 Life campaign aims to build awareness and equip youth to be safer, more responsible two wheeler riders. The event was attended by Ms. Jayanti Shukla (CEO – United Way Mumbai) Mr. Sanjay Kale (Vice Chairman, National Safety Council- Maharashtra Chapter), Prof. B.S. Bidve (Program Coordinator, NSS -University of Mumbai) and Dr. Mrs. Indu Shahani (President & Chair - Academics of the Indian School

of Design & Innovation, ISDI-WPP School of Communication & Indian School of Management Entrepreneurship).



## 47th National Safety Week celebration at Finolex Industries Ltd, Ratnagiri

47th National Safety Week from 5th to 10th March 2018 has been celebrated with great enthusiasm with employees' active participation at Finolex Industries Limited, Ratnagiri. On this occasion banners from NSC with theme of the week for year 2018.

"REINFORCE POSITIVE BEHAVIOUR AT WORKPLACE TO ACHIEVE SAFETY AND HEALTH GOALS" were displayed at various locations in the complex. Safety Day badges were distributed to the employees on the opening day, 5th Mar '18 and employees continued its display throughout the safety week.

To focus on PSM implementation at ground level, new competitions were added this time like Housekeeping, case study presentation, Incident reporting system by department.

Other competitions scheduled were Best Safety man of the

year, Best safety behaviour of contractor person, Safety Slogan and Safety poster painting for children. Employees and children enthusiastically participated in the competitions. Contractor workmen were also included in the competitions.

Mr. T K Kakade, Factory Manger and Sr. GM HRD in presence of top management, HODs, employees and contractors inaugurated the Safety week on 5th Mar 18. Mr. Kakade with reference to recent accident in MIDC at Lote – Parshuram, safety precautions are very much important to avoid accident. Small things which we neglect as irrelevant, becomes important part of accident. He appealed all to be a part safety campaign.

During the week different training programs on process safety management like PSM 8.8 – PTW system were organized for employees.



## 47th National Safety Week celebration at Solar Industries India Ltd., Nagpur

Solar Industries India Limited, Chakdoh, Nagpur continued its tradition of celebrating the National Safety week from 4th of March to 10th of March. The week kicked off at the SIIL, factory lawns where the inaugural function was celebrated. Mr. Prem Mahtha, DGM (SHE) welcomed all present through his welcome address.

The function witnessed unfurling the National Safety week flag by Mr.R.K.Guha, Sr. GM (Technical) followed by recital of Safety pledge by Sr. GM (Works) Mr. A.K.Srivastava. We also displayed all PPE's, Emergency equipment and fire fighting equipment to educate the people. After this function various competitions were organized throughout the week which saw excellent participation from the plant employees, the details of

which are as follows;

The week celebration concluded with the valedictory function held at New Training Center on 12th of March 2018. Shri A.K. Jain, Director, Solar Industries India Limited, Nagpur graced the occasion as Chief guest along with Mr.R.K.Guha, Mr.A.K.Srivastava & Mr. M.K. Singh .

The dignitaries shared their thoughts on Safety with their inspiring speeches. The award winners of the various events were gifted with handsome prizes and were given thunderous applause. The prize winning entries were displayed for inspection .The function though ended on an official note but the safety week will continue throughout the year as per the tagline given by SIIL i.e. "A WEEK THAT LASTS ALL YEAR"



## 47th National Safety Week Celebration at Material Organization of Indian Navy, Ghatkopar, Mumbai

Material Organization of Indian Navy, requested Maharashtra Chapter to depute senior faculty to deliver Lecture during the Safety Week celebration. Shri A. S. Karmarkar, representative of Maharashtra Chapter has delivered a lecture on Industrial Safety on 7 March 2018 on the occasion of 47th National Safety Week organized at Material Organization, Ghatkopar (west). The event was presided by Commodore A.G. Raut, Chairman of Safety Committee. Apart from that, many notable dignitaries including

Commander Hitendra S. Mutalik, Commander Satyanath Bhosale, Lt Cdr Karanjit Singh (Safety coordinator), Shri. Mukul Kumar (Safety Officer) and all elected Safety Committee Members attended the event. More than 100 participants attended the session. Shri A. S. Karmarkar truly moved the crowd and was deeply applauded by the audience for his thoughtful words as he gave inside on various methods to be followed for Industrial Safety.



## Marathwada Action Center: Seminar on "Industrial Safety and Exhibition of Safety Equipments"

The Marathwada Action Center had organized jointly with Joint Director, Industrial Safety and Health, Marathwada Region and Mutual Aid Response Group (MARG) organised a Seminar on "Industrial Safety and Exhibition of Safety Equipments" on Saturday, the 17th February, 2018 and Exhibition on Sunday, the 18th February, 2018 at Auto Cluster, MIDC, Waluj, Aurangabad from 9.30 AM. To 5.30 P.M.

The Hon'ble Shri S.P.Rathod, Director, Industrial Safety and Health, Government of Maharashtra inaugurated the Seminar and launching State Safety Policy.

The Hon'ble Shri Sambhajirao Patil, Nilangerkar, Minister for Labour, Earthquake Rehabilitation, Skill Development, Ex-servicemen Welfare, Labour, Government of Maharashtra delivered key-note address on the theme of Seminar.

The Hon'ble Shri Rajesh Kumar (I.A.S.), Principal Secretary (Labour) presented the Key-Note on the theme of Seminar.

In the Seminar the following experts from industries were presented papers and there were lively discussion in the questions and answers session.

Introduction on Amendment's in Factories Act, 1948

**Shri R. B. Poray,**  
Retd. From DISH

Fire Safety

**Shri D.K.Ghosh,**  
Technical Expert

Process Safety in Chemical Industries

**Shri Milind Kulkarni**  
Reliance Industries

Safety Measures in Power Press Machine

**Shri Sagar Bhosle,**  
Managing Director,  
Schmersal India, Pune

Vote of Thanks proposed by

**Shri Amit Dagade,**  
Chairman, MARG, Aurangabad.

The manufactures of Safety Equipment participated in the exhibition. The Seminar and Exhibition was grand success. 150 Officers participated in the Seminar from Marathwada Region.



# Municipal Corporation of Greater Mumbai Worker's Training Programme

To create safety awareness and to sensitize all workers/technical staff of Hydraulic Engineers department of Municipal Corporation of Greater Mumbai, Forty (40) In House Practical Training Programs on Safety were organized by National Safety Council – Maharashtra Chapter. To accommodate all working staff,

said training programs were organized at various sections located at various places namely Pise Panjarpur Complex, Bhandup Complex, Ghatkopar Yard, Kapurbawadi, Jamboli, Tansa & Vaitarna Dam. In total 1277 workers were trained so that safe work culture can be promoted in Municipal Corporation of Greater Mumbai.





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**N95**

## Bowtie Analysis—An Effective Risk Management Tool (3) - Murthy VSSNM, Manager -SHE

### d. Consequences

Consequences are the result from the Top Event. There can be more than one Consequence for every Top Event. As with the Threats, people tend to focus on generic categories instead of describing specific events. Try not to focus on Injury/fatality, Asset damage, Environmental damage, Reputation damage or financial damage. Those are broader categories of damage rather than specific Consequence event descriptions. Try to describe events like “Car roll over”, “Oil spill into sea” or “Toxic cloud forms”. Besides containing more specific information, you’re also helping yourself to think more specifically when coming up with Barriers. Think how you want to prevent “Environmental damage” versus “Oil spill into sea”. The second is an actual scenario which makes it much easier to come up with specific Barriers

### e. Control and Recovery Barriers

Any measure taken that acts against some undesirable force or intention in order to maintain a desired state; Proactive Controls prevent an event (left side of bow-tie diagram), Reactive Controls minimize consequence (right side of bow-tie diagram). Barriers in the Bowtie appear on both sides of the Top Event. Barriers interrupt the scenario so that the threats do not result in a Loss of Control (the Top Event) or do not escalate into an actual impact (the consequences). There are different types of Barriers, which are mainly a combination of human behaviour and/or hardware/technology. Once the Barriers are identified, you have a basic understanding about how risks are managed. You can build on this basic barrier structure further to deepen your understanding of where the weaknesses are. After that you can look at the activities you have to implement and maintain your Barriers. This essentially means mapping your Safety Management System on the Barriers. Also determining who is responsible for a Barrier and assessing the criticality of a Barrier.

### f. Escalation factors & Escalation factor barriers

Barriers are never perfect. Anything that will make a Barrier fail can be described in an Escalation factor. Even the best hardware barrier can fail. Given this fact, what you need to know is why a Barrier will fail. Escalation factor is a condition that leads to increased risk by defeating or reducing the effectiveness of a control. For instance, a door that opens and closes automatically using an electrical mechanism might fail if there’s a power failure. You do not describe all the potential failure modes. Only describe the real weaknesses of your control framework and how you want to manage that. The logical next step to manage Escalation factors is to create Barriers for your Escalation factors.

### 5. Application of Bowtie analysis:

The bowtie analysis is applied as a risk assessment tool that is designed to generate a link between the management system of the site or production unit to the necessary controls of high risk or critical tasks. Bowtie diagrams of critical tasks provide protocol for auditing by internal depts. and focuses on what people are actually doing rather than physical systems.



### 6. Benefits of Bowtie:

#### a. Clear communication and improved understanding:

Bow-ties keep sight of the big picture and can capture the sequence of events that may cause top events and controls available to present consequence.

#### b. Greater ownership:

When people feel involved they tend to ‘buy-in’ the process; Bowtie enables an organisation to demonstrate necessity of competence and supervision can be achieved. Management can focus on vulnerable areas of control and escalation barriers to achieve desired level of safety.

#### c. Efficiency gains:

The method is less labour intensive than many other traditional techniques, it identifies where resources should be focused for risk reduction. It facilitates effective monitoring and availability of controls.

#### d. Practical approach:

Focusing on risk management by people on a day-to-day basis, rather than analytical studies by a technical risk specialist;

#### e. Logical structured approach:

Considering all aspects of the management of risk, from initial cause to final consequence in a sequential manner, this logical approach often identifies gaps and issues that are missed by other techniques;

#### f. Auditable trail:

The diagrams and critical task lists help internal or regulators’ auditing since they can focus on what people are actually doing rather than the condition of physical systems.

### 7. Limitations:

The Bow-tie model is not applicable to quantify your level of risk and to identify individual safeguards. There are other techniques that are more suitable for these purposes. Bowtie Concept is not a suitable basis for conducting common cause analysis.

### 8. Summary:

The Bow-tie Diagram is a user-friendly, graphical illustration of how hazards are controlled and provides visible links are made to HSE-critical systems and competencies and auditing. It is an effective risk management tool to understand and assign responsibilities for controls via HSE-Critical Tasks.

### 9. Literature cited:

1. Optimising hazard management by workforce engagement and supervision, Health and Safety Executive 2008
2. Centre for Chemical Process Safety (CCPS), Guidelines for Hazard Evaluation Procedures, 3rd Ed., Wiley, Hoboken, New Jersey, 2008.
3. UK Health and Safety Executive, Developing Process Safety Indicators, HSG254, 2006.
4. Competence assessment for the hazardous industries, Prepared by Green Street Berman Ltd, Research Report 086.

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## 220<sup>th</sup> Training Programme on Industrial Safety in collaboration with CLI

The Chapter in collaboration with Central Labour Institute, Safety Division DGFASLI, Ministry of Labour & Employment, Government of India organised 220th training course on Industrial

Safety from 3rd to 5th January 2018 at the conference room, Central Labour Institute, Mumbai. 24 participants from various industries took advantage of the training course.



## 221<sup>st</sup> Training Programme on Industrial Safety in collaboration with CLI

The Chapter in collaboration with Central Labour Institute, Safety Division DGFASLI, Ministry of Labour & Employment, Government of India organised 221st training course on Industrial

Safety from 26th to 28th March 2018 at the conference room, Central Labour Institute, Mumbai. 18 participants from various industries took advantage of the training course.



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### ARTICLES & SUGGESTIONS

Members are requested to forward their articles in Marathi, Hindi & English on the theme connected with health, safety and environment for publishing the same in the forthcoming issue of the newsletter, at least 30 days in advance of previous month of issue.

Please write to:

**The Hon. Secretary**

**NATIONAL SAFETY COUNCIL-MAHARASHTRA CHAPTER**

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Please write to: **The Hon. Secretary, NATIONAL SAFETY COUNCIL-MAHARASHTRA CHAPTER**

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## Mighty



**The Product:**  
Industrial safety helmet is made from high impact absorption, washable sweat band and chin strap. Engineered for minimum weight and maximum comfort ensures as promised on the performance.

**Material:** HDPE/ABS  
**Certified BIS:** 2925:1984  
**Size:** 52-63 cms  
**SweatBand:** Brushed cloth on foam

### Key features Design :

- Unique central brim design for impact load division
- Corrugation on the helmet for stronger surface strength for additional safety
- Adjustable ergonomic head band between 56-63 cms
- HDPE / ABS suspension distributes higher impact
- UV resistant and head resistant helmet
- Passes insulation test.

## Air Vent



**The Product:**  
Industrial safety helmet is made from high impact absorption, washable sweat band and chin strap Engineered for minimum weight and maximum comfort ensures as promised on the performance. Unique arrangement for ear muff / face shield and chemical splash goggles attachment

**Material:** ABS Certified EN-397 CE  
**Size:** 50-62 cms  
**SweatBand:** Brushed cloth on foam

### Key features Design :

- Sturdiness and resistance to head
- Extended nape provides increased neck protection
- Front portion can accept very wide company logo

**Ventilation :** Cross ventilation with unique Exhaust give optimum airflow and makes it more comfortable.  
**Add-ons :** Easy to attach with ear muff.

## Ventilator



**The Product:**  
Industrial safety helmet is made from high impact absorption, washable sweat band and chin strap. Engineered for minimum weight and maximum comfort ensures as promised on the performance. Unique arrangement for ear muff / face shield and chemical splash goggles attachment  
**Material:** HDPE/ABS  
**Certified BIS:** 2925:1984  
**Size:** 52-63 cms  
**SweatBand:** Brushed cloth on foam

### Key features Design :

- Sturdiness and resistance to head
- Extended nape provides increased neck protection
- 6-point nylon suspension distributes higher impact
- Front portion can accept very wide company logo.

### Key features Design :

- Unique central brim design for impact load division
- Corrugation on the helmet for stronger surface strength for additional safety
- Adjustable ergonomic head band between 56-63 cms
- HDPE / ABS suspension distributes higher impact
- UV resistant and head resistant helmet
- Passes insulation test.

**Ventilation :** Cross ventilation with unique Exhaust give optimum.  
**Add-ons :** Easy to attach with ear muff.



## Punch



**The Product:**  
Industrial safety helmet is made from high impact absorption, washable sweat band and chin strap. Engineered for minimum weight and maximum comfort ensures as promised on the performance. Unique arrangement for ear muff / face shield and chemical splash goggles attachment

**Material:** HDPE/ABS  
**Certified BIS:** 2925:1984  
**Size:** 52-63 cms  
**SweatBand:** Brushed cloth on foam

### Key features Design :

- Unique central brim design for impact load division
- Corrugation on the helmet for stronger surface strength for additional safety
- Adjustable ergonomic head band between 56-63 cms
- HDPE / ABS suspension distributes higher impact
- UV resistant and head resistant helmet
- Passes insulation test.

**Comfort:** Comfortable and soft head harness for easy size adjustable high absorption and sponge padded sweat band.  
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