



Safe Sense

A NEWSLETTER FROM THE
NATIONAL SAFETY COUNCIL
TAMILNADU CHAPTER

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From the Chairman's Desk



Greetings to all our Members!

We are preparing for celebrating the 48th National Safety Day (4th March 2019).

This day being observed as Safety Day, Safety Week and Safety Month.

The theme of this year is **“CULTIVATE AND SUSTAIN SAFETY CULTURE FOR BUILDING NATION”**.

The Industries will conduct various promotional activities Competitions, Training Programmes, Awareness Programmes and other initiatives. The objective of the celebration is to involve all employees and participate in the Safety activities. By doing so, the accident and incident will be reduced and by we can Create Safe Working Environment.

The Directorate of Industrial Safety and health , Govt. of Tamilnadu initiates Promotional activities during the month. Awareness and Training Programmes are planned. Guest lectures and special sessions related to safety will be conducted during the week and month.

The National Safety Council - Tamilnadu Chapter is also well prepared for the celebrations. The office bearers and members will deliver safety lectures and training programmes. The in-house training programmes are also planned. 48th National Safety day on 4th March 2019 is approaching and we will rededicate to the cause of Safety, the promotional activity materials catalogue will be reached you. The sample of Promotional materials is also available in our office. The members are requested to make use of the same.

The Directorate of Industrial Safety and health, Govt. of Tamilnadu present “Safety Awards” and “Uyarndha Uzhaippalar Virudhugal” to those industries and employees who make significant contributions in promotion of Safety, Productivity and Health. The awards and prizes are presented

to those industries whose performance is assessed as the best among the participating industries and employees comparatively by the Awards & selection Committee.

National Safety Council- Tamilnadu Chapter present "Occupational Health and Safety Awards" to the industries who make significant contributions in promotion of Occupational Health, Safety and Environment, and also Safety Competitions are conducted for encouraging the employees and their families. Panel of judges determine the winners and awards are presented to the Industries and Employees and their family members.

I am glad that the Directorate of Industrial Safety and Health, Government of Tamilnadu, the National Safety Council - Tamilnadu Chapter and the Regional subcommittees of Tamilnadu Chapter is jointly working very active and has contributed effectively for generating, developing and maintaining safety awareness among industrial workers.

As Chairman of National safety Council - Tamilnadu Chapter, I desire to put forth my best efforts to the well being of the Industrial workers in Tamilnadu, I am very much thankful all the DISH officials and the members of National safety Council - Tamilnadu Chapter for their continued cooperation and support.

We shall also concentrate on unorganized sectors and small-scale industries where concerted efforts are still lacking. Safety should reach the grass-root worker.

I would like to congratulate all the employees working in Factories for observing safety rules in total, and ensuring safer working environment for achieving the zero accident.

Once again, I extend my greetings and best wishes to all employees on the occasion of 48th National Safety Day.

K. Manoharan

Director of Industrial Safety and Health
Government of Tamilnadu

&

Chairman - National Safety Council - Tamilnadu Chapter

Synopsis of the Executive Committee Meeting on 15-11-2018

Mr P. Rajmohan, Secretary, National Safety Council-Tamilnadu Chapter welcomed all the members.

As Chairman, Mr. K.Kaliannan was not able to attend due to certain personal reasons, Mr P. Rajmohan, Secretary, National Safety Council-Tamilnadu Chapter requested Mr T. Baskaran, Vice Chairman-Admin, to take over the proceedings.

Mr T. Baskaran, Vice Chairman-Admin, conducted the proceedings and initially he requested Mr. K. Manoharan, Director of Industrial Safety and Health, Govt. of Tamilnadu to be the New Chairman with the concurrence of the Committee. Accordingly, Mr. K. Manoharan, Director of Industrial Safety and Health, Govt. of Tamilnadu, name was proposed by Mr. T.Baskaran, Vice Chairman, and seconded by Mr K.R.Ravichandiran.

All the members of Executive committee duly accepted the same and Co-opted Mr. K. Manoharan as the Chairman for National Safety Council-Tamilnadu Chapter.

After formal greetings by the Office Bearers and the members, Mr. K. Manoharan, Chairman of National Safety Council-Tamilnadu Chapter and Director of Industrial Safety and Health, Govt. of Tamilnadu chaired the meeting and conducted the proceedings as per agenda.

**“INTERNATIONAL VISION ZERO CONFERENCE”
FROM SAFETY AND HEALTH PROBLEMS TO PRACTICAL SOLUTIONS
HELD AT CHENNAI ON 15TH-16TH OCTOBER 2018**

**Organised by Directorate of Industrial Safety and Health, Government of Tamilnadu,
DGVU, ISSA & INDO GERMAN FOCAL POINT**



DISH Officials received the Chief Guest and Honourable Minister for Labour Dr. Nilofer Kafeel



Thiru K Manoharan, Director of Industrial Safety and Health, Govt. of Tamil Nadu, presents memento to the Honourable Minister



Thiru Sunil Paliwal, IAS, Principal Secretary to Government, Labour & Employment, Govt. of Tamil Nadu delivering the Closing speech



Thiru K Manoharan, Director of Industrial Safety and Health, Govt. of Tamil Nadu, delivered the Welcome Address



Thiru Sunil Paliwal, IAS, Principal Secretary to Government, Labour & Employment, Govt. of Tamil Nadu and other dignitaries on dias



DISH Officials, DGFASLI, Organizers and International Technical Speakers



BELT CONVEYOR SAFETY

What is conveyor Belt?

A horizontal, inclined, or vertical device for moving or transporting bulk material, packages or objects and having points of loading and discharge fixed or selective.

Possible Hazards

- 1) Entanglement; 2) Fall of material; 3) Collapse of structure or loose material; 4) Fire; 5) Others

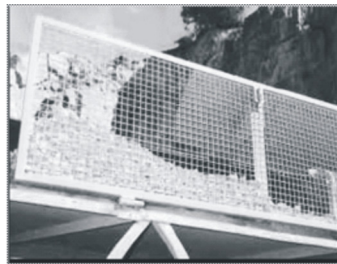
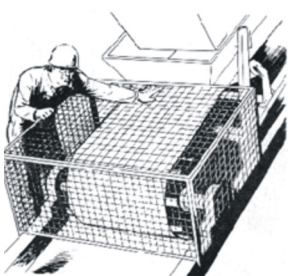
Preventive Measure

Belt Guarding

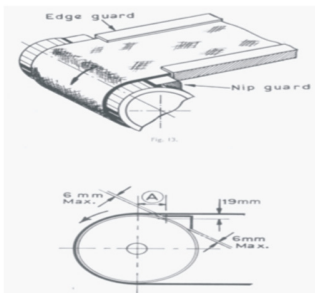
Chains, pulleys, sprockets, couplings and other parts of conveyor drives should be enclosed.

There are 3 key points that should always be considered when designing and fitting guards:

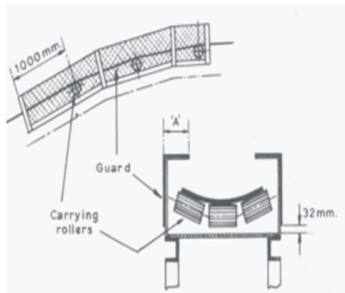
- (1) The guards must actually make access to the nip point physically impossible
- (2) The guard must not impede the operation of the plant:
- (3) The guard itself must not create a new manual handling risk:



Tail End Fully Guarded. Example of a hinged guard which swings downwards



Edge & Nip Guard

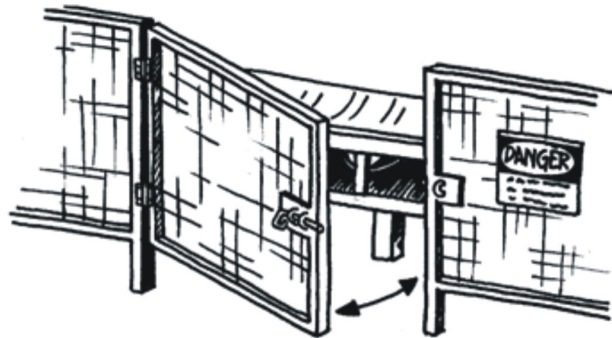


Idler Roller Nips Guard

At bends or at positions where directional changes to the belt take place the loading between the belt and the idler rollers increases. Where these areas are within reasonable reach secure fencing of the idler roller nip will be necessary.

Belt Conveyor Tail Drum Guard Interlocking Arrangement

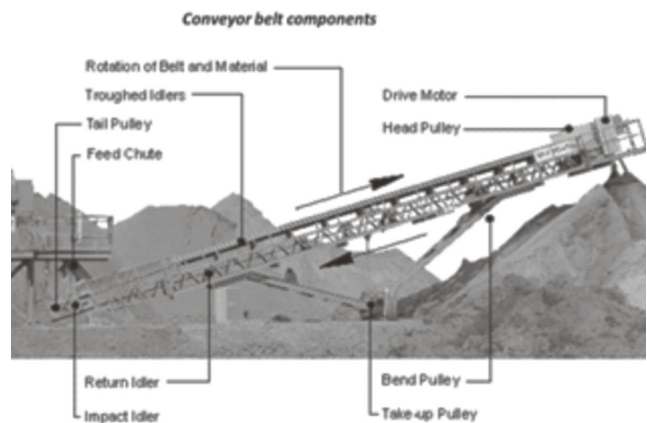
Most of the time after maintenance work Guards are not put back, to avoid this provide one proximity



- Gate dimensions so that people can't reach over the top or slide underneath to reach conveyor
- Mesh size correctly so people can't climb
- Padlock or interlock mechanism
- Appropriate danger signs (for example: no entry while plant is running)



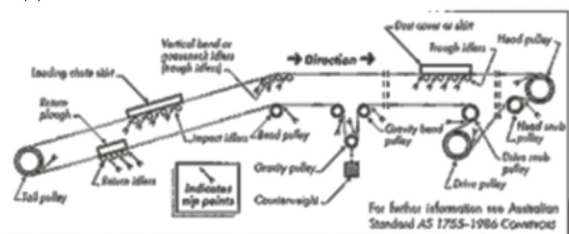
Pull Chord System Main Safety Protection in Conveyor

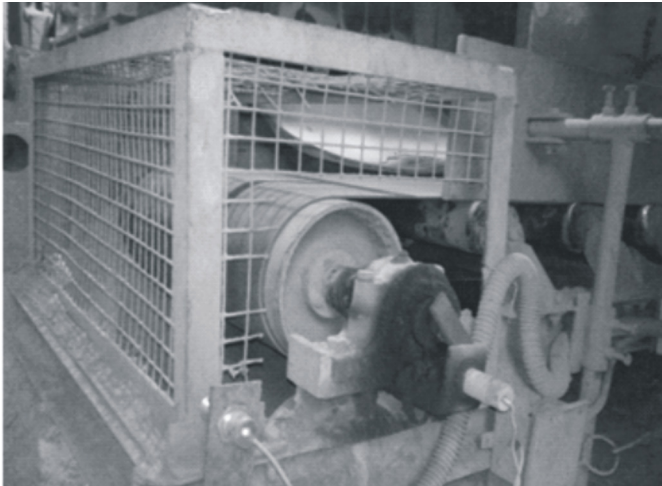


DANGER-NIP POINTS

The most important danger points on belt conveyors are the nip points marked with arrows (see diagram below).

Any nip point that is within 2.5 meters of any walkway or access way (i.e. Within reach) must be guarded to prevent accidental contact with nip points





switch and make interlock between Guard and Conveyor. Without Guard conveyor should not run.

Safe Operating Procedure

The following operating procedures apply to all conveyor installations:

- Ensure all START/STOP and emergency controls are clearly marked.
- Keep the area clean and tidy. Good housekeeping eliminates hazards of tripping, slipping & falling.
- Lockout, isolate, provide danger tag, or use some other control measure before working on a bogged or overloaded conveyor
- Isolate and provide danger tag on the power source before working on a bogged or overloaded conveyor.
- DO ensure persons working near a conveyor are aware of the location of STOP/START and emergency controls.
- DO wear appropriate clothing-avoid loose clothing near moving Conveyors
- DON'T walk under a moving conveyor unless the access is guarded against spillage.
- DON'T clean belts, pulleys, drum, trough or return idlers while aconveyor is moving.

- DON'T ride on a moving conveyor.
- DON'T repair or maintain a conveyor while in motion.



SOP

Always use Crossover conveyor to cross the conveyor for any reason at designated and approved locations.

Twelve Fundamental Conveyor Safety

1. Don't perform service on conveyor until motor disconnect is Locked Out!
2. Service conveyor with only authorized maintenance personnel.
3. Keep clothing, fingers, hair, and other parts of the body away from conveyor!
4. Don't climb, step, sit or ride on conveyor at any time!
5. Don't load conveyor outside of the design limits!
6. Don't remove or alter conveyor guards or safety dividers!
7. Know location and function of all stop/start controls.
8. Keep all stopping/starting control devices free from obstructions.
9. All personnel must be clear of conveyor before starting.
10. Operate conveyor with trained personnel only!
11. Keep area around conveyors clear of obstructions.
12. Report all unsafe practices to your supervisor!



EIGHT TIPS FOR CHEMICAL SAFETY

These tips allow laboratories to maintain effective chemical hygiene plans that will minimize spills, leaks, and potentially harmful chemical exposure.

Chemical hygiene plans are written documents that outline the hazards present in a laboratory and explain the processes, protocols, tools, and equipment that are available to help workers guard against those hazards. Like many safety plans, chemical hygiene plans are living documents that need to be reviewed and updated often.

Although plans are often specific to each laboratory, its chemicals, and its processes, OSHA does specify certain elements that must be contained within the plan. The following tips can help minimize chemical exposure in laboratories, round out a chemical hygiene plan, and promote worker safety.

Use General SOP

Each chemical has a unique set of hazards and needs to be handled properly to ensure worker safety. However, for laboratories that handle a wide variety of chemicals, establishing a separate protocol for each chemical complicates training and increases the likelihood of mishandling and exposure.

A standard operating procedure (SOP) that addresses the use of correct personal protective equipment, safe handling, safe use, and proper disposal can cover all chemicals in a laboratory. Flip charts, signs, or other literature can then be used to remind workers of specific chemical hazards.

Air Flow

Air quality can quickly become compromised in laboratories, making ventilation an important factor in minimizing exposure. When determining whether the local exhaust system is adequate, a good rule of thumb is that the system should be capable of at least eight to 10 air changeouts per hour when the space is occupied.

In addition to the general exhaust system for the laboratory, exhaust hoods are another tool to increase safety. The National Research Council's *Prudent Practices for Handling Hazardous Chemicals in Laboratories* recommends "2.5 linear feet of hood space per person should be provided for every 2 workers if they spend most of their time working with chemicals. Each hood should have a continuous monitoring device to allow convenient confirmation of adequate hood performance before use."

Housekeeping

Keeping floors clean and dry will help prevent slip and fall injuries — the third-leading cause of worker injury and lost work time. Stocking absorbent mat pads and wipers in spill-prone locations helps employees clean up spills quickly, so the chance of a slip-and-fall incident is reduced and exposure is minimized. Providing a proper receptacle for spent cleanup materials also helps to minimize exposure.

Cleaning work surfaces throughout the day keeps work spaces uncluttered, decreasing the likelihood of reactions and spills due to counter space being overcrowded. Likewise, storing excess chemicals on countertops should be discouraged so workers will have adequate space to perform their duties properly.

Waste disposal procedures should also be established, with wastes being removed from labs to a central storage area on a regular basis. Workers should be taught not to pour liquids down drains or use hoods to get rid of volatile chemicals.

Storeroom Safety

A well-organized stockroom promotes safety and is more efficient. Putting one person in charge of the stockroom can help to facilitate proper organization and storage within the area. This person may also help to ensure that proper inventory levels are kept, duplicate orders aren't being placed, and expired chemicals are disposed of properly.



Even when storage space is at a premium, segregating incompatible chemicals in storerooms and providing containment for shelves are both important factors for worker safety.

Establish a plan for new chemicals. Before a chemical enters a lab, have a plan for properly handling, storing, and disposing of it.

Tools

Using damaged glassware can be just as dangerous as using the wrong chemicals. It doesn't take much for a hairline crack to fail and create a spill. Using containment trays will help to control the mess, but avoiding it in the first place helps save time and money and minimizes exposure.

Checking glassware and equipment prior to each use should be part of the SOP. Workers also should know how to properly handle, tag, or discard of any article that is damaged so it is not reused or put back into service until it has been repaired.

Spill Response

Even seasoned technicians can spill chemicals occasionally, so it's important to know how to properly handle spilled chemicals. Spill response plans should address spill prevention strategies, containment procedures, proper ventilation, when to evacuate, how to obtain medical care, and reporting requirements. Regular drills will help to reinforce the details of response plans.

Having a spill kit readily available in each laboratory helps trained workers contain and control a spill quickly, further helping to minimize exposure.

Safety Equipment

Signs and container labels reinforce safety and serve as a constant reminder of specific handling, use, and disposal procedures. It is equally important to properly maintain eyewash stations, drench showers, fire extinguishers, and first aid kits so that workers who are exposed to chemicals can quickly access these tools in an emergency to lessen the effects of their exposure.

Training

Having a chemical hygiene plan and making sure that workers understand the plan and how it helps them to avoid exposure to hazardous chemicals are essential requirements of OSHA's laboratory standard.

Training is required for all workers prior to their assignment in a laboratory, but education should not stop there. An annual presentation may not be enough to reinforce safety; training should be a regular activity that addresses the many different aspects of avoiding exposure.

Workers should know:

- the location of the chemical hygiene plan
- the location of MSDS and other educational literature
- how personal protective equipment is selected, its location, how to use each piece properly, and how to determine when it needs to be replaced
- the hazards presented by each chemical and procedure in the laboratory
- how to handle chemicals properly to avoid exposure
- how to label containers correctly
- proper laboratory hygiene and conduct, such as never eating, drinking, or chewing gum in a laboratory; confining loose hair and clothing; and avoiding horseplay and practical jokes
- how to use the "buddy system" to avoid working alone
- how to evaluate the procedure or process they'll be performing so that they take only the amount of chemicals necessary for the job they're doing
- how to handle waste materials

Although each laboratory comes with its own set of unique challenges, addressing known hazards and planning for anticipated ones will help to minimize chemical exposure and ensure a safer workplace for everyone.

PLANT TRAFFIC MANAGEMENT

Plant Traffic Management – Introduction

- In 2016 - 5 lacs Road accidents occurred in India, 1.5 lacs personnel died and 5 lac personnel injured
- 21% related with Truck, Tanker and Articulated vehicles
- Unsafe act of Driver accounted for 84% of accidents
- Truck /Tanker Drivers exhibit the same behaviour whilst in Plant premises, there is no difference
- Though many good companies have Safety induction for Employees/ contractor/ visitors, Truck crew are not given priority
- Managing Traffic in some plants are difficult due to huge influx of Trucks (Cement Plants / Power Plants etc)
- Lack of clarity on licensing requirements for Plant Mobile equipment - Ex, FLT, Excavator etc.
- All Fatalities / Reportable injuries / Dangerous occurrences in a factory are reported to DISH but vehicle accidents are seldom reported, unless resulted in a Reportable injury.

Plant Mobile Equipment

Mobile Equipment: A Mobile equipment includes any machinery with wheels and tracks in motion, such as trucks, forklifts, switch engines, front-end loaders, portable pallet jacks, tractors, excavators, as well as cars, motorcycles and other passenger vehicles.



Risks including collision, rollover and entrapment whenever operate or work near mobile equipment.

Common Causes of vehicle accidents in Plant

- Drivers not familiar with Plant layout
- Drivers unaware of Plant Hazards
- Over speeding
- Unauthorised use - Cleaner driving vehicles
- Not following Road Safety rules
- Use of Mobile phones
- Sleeping Under vehicles
- Smoking
- Reversing
- Use of Alcohol / Drugs
- Vehicle Maintenance defects
- Fatigue

Mobile Equipment Safety

Mobile Equipment (Regular): Mobile equipment employed regularly in the plant premises such as forklifts, Front end loaders in coal yard, Tractor or any vehicle for internal material movement etc. purchased or leased by the company.

Mobile Equipment (Non Regular): Mobile equipment which comes to the plant on non-regular basis such as Oil/ Chemical tankers, Trucks for Raw materials / finished goods, Vehicles for scrap removal, Delivery trucks for stores etc.

Mobile Equipment Safety Coordinator: The Plant HR Manager will be acting as a Mobile Equipment Safety Coordinator who shall ensure the implementation of Mobile equipment safety.

- The Service provider/Transporter shall ensure all mobile equipment / vehicles are insured,

registered, licensed in accordance with local traffic regulations and this will be part of agreement

- All vehicles shall be of adequate capacity and design and suitable for the work for which it is allocated
- All mobile equipment / vehicles shall be inspected prior to operation and approved for use within the plant premises
- Maintain all vehicles in a safe and roadworthy condition. The Standard inspection checklist shall be completed on weekly basis by the concerned Process owner
- Routine maintenance shall be in accordance with the vehicle manufacturers recommended schedule

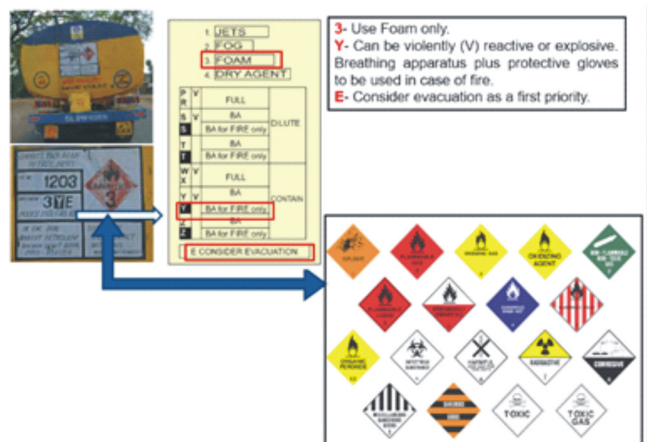
Driver Qualifications, Training and Competence

- Drivers shall have a current legal driving license valid for the vehicle type. Drivers shall be a minimum of 21 years of age and not be more than 60 years of age and having at least 2 years of driving experience. Physical fitness of satisfactory standard.
- No drivers shall drive under the influence of alcohol, drug, medication whilst driving
- Drivers MUST undergo Plant safety Induction and Defensive Driving program for regular vehicles and 10 minutes safety briefing for Non regular vehicles.
- Drivers must not carry unauthorized passengers. Driver shall wear the seatbelt provided, and ensure that all passengers wear their seat belts.

- Drive defensively, obey the Plant Road safety rules observe posted speed and reduce speed in inclement conditions.
- Ensure clear communication or line of sight between vehicle operators and nearby workers, spotters, flaggers, and pedestrians
- Properly secure all cargo. Obtain assistance when needed, including flaggers or spotters to Assist with clearances.
- Use Wheel choke block while parking vehicle. Park only in designated areas; do not obstruct walkways.
- Do not use cell phones or mobile devices and avoid other distractions.

Transportation of Hazardous substances

- Vehicle shall have validity to carry the hazardous goods
- The driver should have successfully passed a course on Transport of hazardous goods.
- The driver shall keep TREM CARD (Transport Emergency Card)
- The vehicle is equipped with necessary First-aid, Safety equipment and antidotes as may be necessary.
- Hazchem Plate on type of dangerous goods.



HAZARDOUS CHEMICAL TANKER SAFETY



Fork Lift & BOPT Operation Training - Kandla



ROAD SAFETY IMPROVEMENTS

Convex mirror provided in blind spots and intersections for better visibility, signage posted and speed humps installed



DON'T SLEEP UNDER VEHICLE



SLEEPING UNDER THE VEHICLE
PROHIBITED



வாகனத்தின் கீழ்
உறங்கக் கூடாது

TRAINING PROGRAMME ON “SAFETY AND HEALTH IN ENGINEERING INDUSTRIES” HELD AT COIMBATORE ON 24.11.2018



Thiru K Manoharan, Director of Industrial Safety and Health, Government of Tamil Nadu & Chairman, National Safety Council-TN Chapter, lighting the Kuthuvilakku during the Inaugural session.



Thiru K R Ravichandiran, Coordinator-CRSC, Thiru K Jegadeesan, Chairman CRSE & Addl. Director of Industrial Safety and Health, Govt. of TN, Coimbatore, Thiru K Manoharan, Director of Industrial Safety and Health, Govt. of TN & Chairman, National Safety Council-TN Chapter, Thiru K Ramasamy, Chairman, Roots Group of Companies and Thiru T Baskaran, Vice Chairman, National Safety Council-TN Chapter



Release the course material during the inaugural session



Inaugural speech of the Director of Industrial Safety and Health, Government of Tamil Nadu & Chairman, National Safety Council-TN Chapter



Thiru K Jegadeesan, Chairman CRSE & Addl. Director of Industrial Safety and Health, Government of Tamil Nadu, Coimbatore, delivered the welcome speech



A view of the participants

48TH NATIONAL SAFETY DAY

4th March 2019

THEME OF THE YEAR

**“CULTIVATE AND SUSTAIN SAFETY CULTURE
FOR BUILDING NATION”.**

TRAINING PROGRAMME ON “VISION ZERO ACCIDENT IN PROCESS INDUSTRIES” HELD AT TRICHY ON 22-12-2018



Thiru K Manokaran, Chairman-TRSC & Adtl. Director of Industrial Safety and Health, Trichy Government of Tamil Nadu, welcoming Thiru K Manoharan, Director of Industrial Safety and Health, Government of Tamil Nadu & Chairman, National Safety Council-TN Chapter.



Thiru K Manoharan, Director of Industrial Safety and Health, Government of Tamil Nadu & Chairman, National Safety Council-TN Chapter and the dignitaries lighting the Kuthuvilakku during the Inaugural session.



Thiru A Narayanan, Coordinator, TRSC, honouring Thiru K Manoharan, Director of Industrial Safety and Health, Government of Tamil Nadu & Chairman, National Safety Council-TN Chapter during the Inaugural session.



Thiru K Manokaran, Chairman TRSC & Adtl. Director of Industrial Safety and Health, Trichy, Government of Tamil Nadu, honouring Thiru K. Thangaraj, Chief General Manager (Prod), TNPL, Karur during the Inaugural session.



The Director of Industrial Safety and Health, Government of Tamil Nadu & Chairman, National Safety Council-TN Chapter, Thiru K Manoharan delivered the Inaugural speech.



Thiru K Manokaran, Adtl. Director of Industrial Safety and Health, Trichy, Government of Tamil Nadu & Chairman, National Safety Council - TRSC, TN Chapter delivered the Vote of thanks.