

President: Mr. GAUTAM ROY
Managing Director
Chennai Petroleum Corporation Ltd,
Manali, Chennai 600068

Vice President: Mr. V. SEKAR
Sr.Vice President (Operations)
SRF Ltd.,
Manali, Chennai 600068

Secretary: Mr. D.SENTHI KUMAR
Director (Operations),
Tamilnadu Petroproducts Ltd,
Manali, Chennai 600068.

Jt. Secretary: Mr. A.NARAYANAN
DGM (Safety & Admin)
SRF Ltd.,
Manali, Chennai 600068

Treasurer: Mr. R. MADHAVAN
Senior Finance Superintendent
Indian Additives Ltd,
Manali, Chennai 600068

Contribution to flood affected people

In the month of December, 2015, the whole of Chennai was affected badly and many people lost their property and even basic amenities.

At this time of crisis, MIA distributed sarees and Lungies for people who were affected in Flood.

The following are the few villages where MIA distributed flood relief items.

- Periyar Nagar village (500 families approx.)
- Andarkuppam, Manali New Town, Manali. (350 families approx.)
- Burma Nagar, Manali New Town, Manali. (750 families approx.)
- Sadayankuppam, Manali New Town, Manali. (300 families approx.)
- Erular Kuppam, near Sadayan Kuppam, Manali (50 families approx.)
- Chinnambedu village, Sholavaram ondriyam. (100 families approx.)



Secretary's Message

Dear Friends,

I am glad to reach you through the MIA newsletter. The industries in Manali industrial area and also in many other parts of Chennai suffered severe damage due to the inundate rain and floods in the first week of December 2015. I believe that all member industries in Manali has recovered from the damages and the units are re-started and stabilized.

Disaster and its consequence never wait for a convenient time to happen. We are expected to prepare ourselves to face disaster when it strikes. The intensity of the recent flood that affected Manali is after a gap of nearly 100 years. However, the emergency was handled very well by all the industries without any escalation of off-site emergency. This action, by itself, is a demonstration for the effectiveness of the available systems and procedures. As this is the first time experience for most of the industries, let us not forget to learn from the experience and strengthen the system further.

MIA takes this opportunity to thank and appreciate all the team members and volunteers who helped day and night in serving the public to bring normalcy in the society.

National Safety Day/week is being celebrated from 4th March to improve the safety awareness and to reiterate our commitment towards Safety.

As emphasized in the NSD theme, focus is on zero harm concepts i.e., "No harm to anyone, anytime while at work". We can achieve zero harm by adopting Three E's of safety – Engineering, Education and Enforcement and strengthening of safety activities. Let us practice this enjoy the benefit.

Mr.D.Senthikumar, Secretary-MIA



NEWSLETTER COMMITTEE

Mr. N Devendiran, CM-EHS, Piramal Enterprises Limited – Convenor, Mr. T.K. Srivatsan, Sr. Mgr. (TQM & HR) – Member, Mr. R R Srinivasagam, Manager-EHS, Coromandal International Ltd. – Member, Printed by Mr. Senthikumar, on behalf of Manali Industries Association, 536, Anna Salai, Chennai-18 .

Say No to Plastic

Article by : Mr. A. Rajkumar
Deputy Manager Safety, Tamilnadu Petroproducts Ltd



Plastics are synthetic substances produced by chemical reactions. Almost all plastics are made from petroleum, except a few experimental resins derived from corn and other organic substances.

Plastic is a very common material that is now widely used by everybody in this world. Plastic has many advantages as it is compact and light in weight. Common plastic items that are used are bags, bottles, containers and food packages. The ease of use of plastic items has made plastic a great success.

THE PLASTIC HAZARDS

Though plastic is a very useful material that is flexible, robust and rigid they become waste after their use and they pollute the atmosphere.

The greatest problem with plastic is its disposal. Once plastic is produced, the harm introduced is almost permanent.

Plastic defies any kind of attempt at disposal, be it through recycling, burning or land filling. When you recycle a hazard, you pave way for another hazard. Recycling of a plastic merely puts it back into the market place and eventually into the environment, thereby making no reduction in its use.

Plastic will not decompose when it is buried.

When plastic is burnt it emits harmful chemicals.

The plastic wastes being dumped into rivers, streams and sea contaminate the water, soil, marine life and also the air we breathe. The land gets littered by plastic bag garbage presenting an ugly and unhygienic scene.

The "Throw away culture" results in these bags finding their way in to the city drainage system, the resulting blockage causes inconvenience, difficulty in maintaining the drainage with increased cost, creates unhygienic environment, resulting in health hazard and spreading of water borne diseases.

This littering also reduces rate of rain water percolating, resulting in lowering of already low water levels in our cities.

The soil fertility deteriorates as the plastic bags form part of manure remains in the soil for years.



FACTS

- 8% of the world's oil is used for plastic production.
- The world uses anywhere from 500 billion to 1.2 trillion plastic bags a year.
- 24 million gallons of oil are needed to produce a billion plastic bottles.
- It takes about 72 billion gallons of water a year just to make the empty plastic bottles.
- At least 80% of plastic bottles are not recycled.
- Almost every piece of plastic ever made still exists today.
- Plastic wastes are non-biodegradable. The decomposition takes about 1000 years
- Plastic bags and other plastic garbage thrown into the ocean kill as many as 1 million sea animals each year.
- The United Nations Environment Programme estimates that there are 46,000 pieces of plastic litter floating in every square mile of ocean.
- An estimated 14 billion pounds of trash, much of it plastic is dumped in the world's oceans every year.
- At least 267 marine species are known to have suffered from getting entangled in or ingesting marine debris. Nearly 90% of that debris is plastic.

WHAT CAN WE DO?

The only way to overcome the deadly and lasting danger of plastic pollution is to cut down the use of plastic, if possible avoid it altogether.

Plastic bags should be re-used as many times as possible to avoid entering the waste stream, but ultimately avoiding plastics all together is crucial to reduce our footprint on this earth.

Carry own jute or cloth bag for shopping, and start saying NO to carry bag when we can carry things in our hand.

Keep a set of bags always in bike/car.

Avoid packing goods in multiple plastics which can be packed in a single jute or cloth bag

Let us contribute our part, save our environment from plastic pollution and make it a better environment and it will be a REAL BENEFIT for our grand children.

Say NO to plastic whenever and wherever we can.

பாதுகாப்பின் ஆட்சி

கண்ணாடி (Goggles)
கண்களுக்கு அரணானபோது
விபத்து சரணடைந்தது.

கையுறைகள் (Gloves)
கைகளுக்கு கவசமானபோது
விபத்து
விலங்கிடப்பட்டது.

காலணிகள் (Safety Shoes)
கால்களில் கட்டப்பட்டபோது
விபத்து
நாடுகடத்தப்பட்டது.

தலைக்கவசம் (Helmet)
தலைதனில் மகுடமேறியபோது
பாதுகாப்பு
அரியணையேறியது.

Global Environmental Issues

By Mr. AJAY INBARAJ, Asst. Manager-EHS, NATCO ORGANICS LTD.



One of the most important characteristics of global environmental issues is that it affects all mankind on a global scale without regard to any particular country or region. These environmental issues have global significance and need to be addressed through international effort.

One of the key environmental issues of global significance are

- ❖ Acid rain
- ❖ Ozone layer depletion
- ❖ Global Warming & climatic change

Acid Rain:

Acid rain is caused by release of Sulphur oxides and Nitrogen oxides from combustion of fossil fuels, which then mix with water vapour in atmosphere to form Sulphuric acid and nitric acid respectively.

Effects of Acid rain:

- Acidification of lakes, streams and soils.
- Direct and indirect effects (release of metals, example: Aluminum which washes away plant nutrients)
- Killing of wildlife (Trees, crops, aquatic plants and animals)
- Decay of building materials and paints, statues and sculptures
- Health problems (respiratory, burning-skin and eyes)

Ozone Layer Depletion

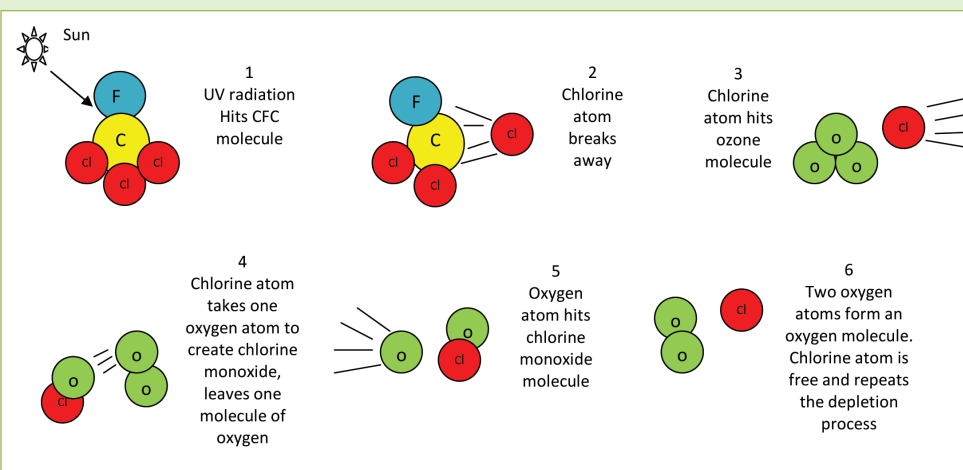
Ozone layer is a thin layer of ozone (O₃) present in stratosphere which extends from 10 – 50 Km from the earth. The ozone layer is highly beneficial to life on earth as it blocks the sun's ultraviolet radiations (UV-B) from reaching the earth.

Ozone is formed when oxygen molecules absorb UV radiation with wavelengths less than 240 nanometers and is destroyed when it absorbs UV radiation with wavelengths greater than 290 nanometers.

Ozone Depletion Process:

In recent years, scientists have measured a seasonal thinning of the ozone layer primarily at the southpole. This is called ozone layer depletion. It was found that ozone is easily broken down by man made chlorine and bromine compounds. The main chemical responsible for the problem is identified as Chloro Fluro Carbons (CFC). It is estimated that one chlorine atom can destroy from 10,000 to 1000,000 ozone molecules before it is finally removed from the stratosphere.

Chemistry of Ozone Depletion



Effects of Ozone Layer Depletion:

Increased penetration of solar UV-B radiation is likely to have high impact on human health with potential risks of eye diseases and skin cancer. Increased radiation is likely to change species composition in forest and grassland thus altering the bio-diversity in different ecosystems.

Increased solar UV radiation could affect aquatic bio-geo-chemical cycles. Reduction of stratospheric ozone and increased penetration of UV-B radiation result in higher photo dissociation rates of key trace gases that control the chemical reactivity of the troposphere.

Global Warming & Climatic Change

The earth is surrounded by a blanket of gases including greenhouse gases. The six major greenhouse gases are

- Carbon dioxide
- Methane
- Nitrous oxide
- Hydrofluorocarbons
- Perfluorocarbons
- Sulfur hexafluoride

These gases trap some of the outgoing energy and retain heat in the atmosphere, which results in an increase in the earth atmospheric temperature. This warming of the earth called the greenhouse effect.

Global Warming Potential (GWP):

The different types of greenhouse gases all have different properties. For example, the amount of time they reside in the atmosphere and the amount of heat they trap can vary widely.

Increasing Concentration of Atmospheric Greenhouse Gases

Greenhouse Gas	Baseline	Current Level	Life time in atmosphere (years)
Carbon dioxide	280 ppm	370 ppm	5 – 200
Methane	770 ppb	1720 ppb	12
Nitrous Oxide	275 ppb	314 ppb	114
Perfluorocarbons	40 ppt	80 ppt	50000
Sulfur hexafluoride	0.01 ppt	3 ppt	3200

1 ppm = 1g in 1000kg, 1 ppb = 1g in 1000 tonnes, 1ppt = 1g in 1000 000 tonnes

Global Warming & Climatic Change Impacts

- Global temperature will rise by about 6°C by the year 2100.
- Increase in sea level of 10 to 20 cm by year 2030 & up to 1 Meter by year 2100 is predicted.

- Snow & ice melting will disturb the ocean ecosystem.
- Rainfall patterns would be altered.
- Heat waves and periods of unusually warm weather are already happening and are expected to increase with global warming.
- A higher sea level also means salty water can infiltrate fresh groundwater in coastal areas reducing the supply and also making it undrinkable. ■

A close look at close calls

By **D.Shanmugasundaram**, Joint Manager, IOT Infrastructure & Energy Services Ltd,
Bulk LPG Terminal/Bottling Plant, Manali, Chennai-600103



We've all become familiar – perhaps too familiar – with the violent episodes on the TV or movie screen, complete with buckets of gore and dreadful screams of pain. They may raise our pulse rate momentarily, but by the time the next program or feature begins, we've forgotten all about it. After all, it wasn't "real."

By contrast, anyone unfortunate to have experienced or witnessed a serious accident, on the road or at their workplace, won't forget the real blood, screams, and tears for a long time, if ever.

There is a serious real-life danger, though, in accidents that don't result in damage to persons or property, because we may tend to think of them like the movie massacre: scary for a few minutes there, but no real harm done.

This is a dangerous attitude because if we don't notice and correct whatever condition or behavior caused that close call, it's likely to be a closer call the next time, then closer yet, and so on. Eventually, we get the real thing with all the pain and suffering that goes with it – for the victim and for co-workers and family.

A close call or "near miss" accident, therefore, should be regarded as a red warning flag or a high fever – a sign that something is very

wrong and requires attention. If we accept the warnings and look for the causes, we may be able to prevent similar situations from developing. . The difference between an accident and a near-miss is often a fraction of a second in timing, or a fraction of an inch in distance, and the next time the difference may not be there. . Ignoring the conditions that lead to near-accidents is an open invitation to an actual accident.

Obviously every close call is a call for action. Sometimes it's something you can fix right away yourself; other times it requires specialized attention. In either case, the close call should never be ignored and should always be reported. That way the next "real" accident may not happen after all.

Let's regard near-accidents the same as bad accidents and weed out the causes while we have the opportunity.

Remember: Don't Disregard Warnings!!



World Environmental Day - 2015 Celebrations

Coromandel International limited, Ennore, Chennai-57



Flag Hoisting by Mr. M.Gnanasundaram, Sr.General Manager-Operations & Unit Head



Competition of 5 Minutes talk on the Environmental Theme-2015



Gathering during Tree Plantation



Tree Plantation By Mr. R. Shanmugam DGM-Production



Winners were awarded moments by our Executive Vice President-Manufacturing

- We celebrated the World Environment Day - 2015 as week-long celebration.
- Mr. M. Gnanasundaram, Sr. General Manager (Operations) hoisted the flag and delivered Environment day message followed by Environmental pledge taken by all the employees.
- Tree saplings were planted near old R&D building area by all HODs and employees.
- Environmental Quiz, Slogan, Drawing, Essay, OPL, Idea and Kaizen competitions were conducted for employees and contractors.
- Environment Talk competition on the theme, 'Seven billion dreams, One Planet, Consume with care' was conducted for the employees.
- Environmental related quiz programme was conducted to contract workmen
- Gate meeting was conducted for contractors to enhance their awareness on Environment.
- Mr.AmirAlvi, Executive Vice President - Manufacturing awarded mementos to the winners of the environment day competitions

*Practice safety On the Job
and OFF the Job*