



ENVIS CENTRE, CHANDIGARH

# NewsLetter

P a r y a v a r a n - P a t r a

## Chandigarh State of Environment

### ★ EDITORIAL

Fire, one of the most widely used phenomenon, is friendly to human since he has learnt to control it. It has been bitter enemy of environment and life since its conceptualization under the uncontrolled conditions. You must have seen/heard the damage the fire cause. Examples include major fire at BSNL, Chandigarh that kept BSNL office out of business for several days and Indian Oil Depot fire at Jaipur gutted over 300 crore. Fire not only takes material but environment also.

There are many indirect and hidden dangerous related to fire. Fire inside your house may be acting a silent killer or may be smoking your health to cancer with the aid of fire. Look at pictures. To escape the wrath of this mighty, prevention is always better than cure. You should make sure that you are in control of this otherwise uncontrolled demon. Chandigarh Administration has a helping hand for you and you may extend your support by saying No to crackers, proper fire safety checks, and awareness. The efforts of Fire Department, Chandigarh Administration, are acknowledged.

Additional Director, Environment



Indoor Air Pollution Due to Fire



Misuse of Fire

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## FIRE

Rapid oxidation of material which results in by products i.e. heat and flame is known as fire.

Characteristics of Fire:

1. Fire is characterized by Heat and Flame is produces
2. Fire brings changes in shape and structure of the material under combustion
3. Fire produces gases and heat which are irreversible by products
4. Fire needs oxygen to continue. Absence of oxygen means absence of Fire

Fire has been friendly to human since the first time he took control of it. At the same time it has been destructive enemy since the time it was encountered. Everyday everyone use fire directly or indirectly to fulfill basic needs; and everyday somewhere in world fire accidentally or naturally adds pollutants to environment.





## CLASSES OF FIRE

**Class A:** This type of fire is encountered in ordinary combustible like bedding, wood and paper. This type of fire rekindles if not handled properly. It should be handled by cooling the embers below ignition temperature.

**Class B:** This type of fire occur in combustible stuff like gasoline, oil, grease, and tar etc. Chemical Foam and mechanical foam are examples of fire extinguisher for Class B type of Fire.

**Class C:** The fire which breaks out in flammable gases is class C type of Fire. Solid stream of water in class B and C type of fires can scattered the fuel and spread the fire. The most effective way to extinguish such fires is inhibit chemical reaction of fire. Halon, the fire extinguish agent is banned because it is counted for ozone depletion.

**Class D:** Fire which breaks out in combustible metals such as sodium and calcium etc. It has been reported that lithium batteries are susceptible to ignition. Explosion in mobiles and laptops batteries are example. Though water and other common fire extinguisher can tackle class D fire but 'dry powder' extinguishing agent is recommended. The most common dry powder agents are sodium chloride granules, graphite powder, and powdered copper.

Fire Extinguisher Chart						
Extinguisher		Type of Fire				
Colour	Type	Solids (wood, paper, cloth, etc)	Flammable Liquids	Flammable Gasses	Electrical Equipment	Cooking Oils & Fats
	Water	✓ Yes	✗ No	✗ No	✗ No	✗ No
	Foam	✓ Yes	✓ Yes	✗ No	✗ No	✓ Yes
	Dry Powder	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✗ No
	Carbon Dioxide (CO2)	✗ No	✓ Yes	✗ No	✓ Yes	✓ Yes





## FIRE, YOU SHOULD KNOW ABOUT

Fire risk at Home

Electrical Equipment

Short circuit is the most common cause of Fire in Chandigarh. Don't use stream of water to fight class E fire. It can get you electric shock.

Cooking oil or Fat Fire

This is the most common type of fire at home. The risk of Class F fire is everyday and every time cooking oil is used. This type of fire enrages if you try to throw water on it. Hence, you need to learn the following:

1. Don't throw water on it : Water would turn fire of pan to fire balls
2. Don't move it : Let pan rest where it is and get oil burnt completely



- No combustible material should be stored in the vicinity or inside the pandal.
- No synthetic materials or synthetic ropes should be in temporary structure.
- Don't dispose off lighter cigarette ends carelessly.
- Don't plug too many electric appliances in one socket.
- Don't paint fire detectors/ sprinklers heads.
- Don't use substandard fixtures, appliances.
- Don't lay wires under carpet, mats or door ways.
- Avoid over loading/ temporary loose electric wiring.
- Don't place obstructions in exit points.
- No structure should be erected underneath any live electric wire/ line.

FIRE, DO NOT TRUST KEEP IN CONTROL

## FIRE CALLS STATISTIC OF CHANDIGARH

Chandigarh witness hundreds of fire calls every year due to poor fire safety arrangement because of negligence or ignorance. Year 2009 has been costlier in comparison. 1736 fire calls were received. Property worth 72.95 Lakhs was gutted and 7 lives were claimed by fire. Electric short circuit has been a major cause responsible for 135 calls. Other calls include minor and major fire accidents e.g. Due to fire crackers etc.



Fire Call	2007	2008	2009
Number of Fire Calls	1362	850	1736
Electric Short Circuit	309	138	135
Gas/Oil Leakage	64	31	131
Rescue/Special Calls	26	24	18
Other Fire Calls	963	657	1446
Loss of Property (In Lacs)	58	27.05	72.95
Number of Injured Persons	23	27	34
Number of Casualties in Fire	4	4	7
Number of Casualties in Buried	-	-	7

Chief Fire Officer, MC, Chandigarh

The fire branch of MC, Chandigarh started as full time function under the capital project Chandigarh in the month of June 1956 with the motto Valour, Abnegation & Sacrifice. It aims at "Kill The Fire Before It Kills".

Chandigarh Administration has setup of seven fire Stations spread across the city. The head quarter is located at Sector 17. With 141 leading firemen and firemen, the total man power with fire department is 211. It has 10 fire tenders and 2 hydraulic platform cum turntable ladders. Along with 4 water bouser of capacity 18000 liter each fire department has one recovery van and 3 ambulances as well. It has 7 motor cycle also.

### Existing Fire Stations

Fire Station Sector-17(H.Q),Chandigarh
Fire Station Sector-11,Chandigarh
Fire Station Sector-38,Chandigarh
Fire Station Sector-32,Chandigarh
Fire Station Industrial Area Phase-1,Chandigarh
Fire Station Industrial Area Phase-II,Chandigarh
Fire Station Manimajra,Chandigarh

Chief Fire Officer, MC, Chandigarh

Manpower	2009
Leading Firemen & Firemen	141
Total Man Power	211

Chief Fire Officer, MC, Chandigarh



## Fire Brigade in Chandigarh

Vehicles	2009
Fire Tenders	10
Hydraulic Platform Cum Turntable Ladder	2
Water Bouser	4
Capacity of Water Bouser Each	18,000 Liter
DCP Multipurpose Tenders	3
Advance Emergency Rescue Tender Without Water	2
Multipurpose Emergency Rescue Tender	1
Recovery Van	1
Ambulance	3
Gypsy	1
TATA-207 (AFT- 600 Liter)	3
Motor Cycle	7

Chief Fire Officer, MC, Chandigarh



### Direct Loss that a fire accident cause

1. Loss of property by burning
2. Loss of Life
3. Loss of Water if used as fire extinguisher
4. Loss of Environment by pollution
5. Loss of deployed resources

### Indirect Loss that a fire accident cause

1. Loss of natural resource: Building infrastructure again
2. Ozone depletion e.g. due use of halon
3. Health Hazard
4. Loss of monuments: Acid rain formation
5. Smoke cause accidents as well and disrupt normal life

Fire Brigade, Chandigarh

Equipment	2009
AFT 600 Ltr.Water Mist Based Machine Mounted on TATA-207	2
AFT 9 Ltr.Water Mist Based Back Pack	7
Thermal Imaging Camera	2
Hydraulic RCC Cutter	2
Inflatable Emergency Lighting System	7
High Pressure Breathing Air Compressor	2
Breathing Apparatus Sets	42
Fire Proximity Suits	14
Fire Entry Suits	16
Power Operated Cutter & Spreader	2
Flame Proof Torches	22
Water Gel Blanket	7
Electrical Operated Chain Saw	2
Multi Purpose Nozzle	7
Multi Gas Detector	2
Bullet Proof Jackets	5
Pneumatic Boat	2

Chief Fire Officer, MC, Chandigarh

Fire Safety Tips

Prevention Tips

1. Don't let it happen
2. Beware of short circuits
3. Teach everyone at home to respect fire
4. Careful cooking
5. Careful and safe use of heaters
6. Install smoke detectors
7. Quit Smoking
8. Keep the fire brigade's number in reach
9. Mock or drill practice for future
- 10.Keep match box and lighter away from children

Curing Tips

1. Assess the situation and act accordingly
2. Don't lose time in dressing or taking valuables
3. Use fire extinguishers
4. Call fire brigade immediately you lose control
5. Take everybody outside keeping low to ground
6. Use fire exits and no lift please
7. If burnt, put it under water for 10-15 minutes
8. First aid as soon as possible
9. Try to lend hand saving lives if possible
- 10.Let the firemen do their duty



Dear Information Seeker,

ENVIS CENTRE, Chandigarh furnishes you with the services to collect and disseminate information related to environment of Chandigarh. To share information with us you are requested to fill up the form given below.

Your feedback is valuable to us and will be highly appreciated



- Name \_\_\_\_\_
- Designation \_\_\_\_\_
- Department \_\_\_\_\_
- Address \_\_\_\_\_
- \_\_\_\_\_ City \_\_\_\_\_
- State \_\_\_\_\_ Country \_\_\_\_\_ Pin \_\_\_\_\_
- Phone \_\_\_\_\_ Fax \_\_\_\_\_
- Email \_\_\_\_\_

Your views on scope of improvement :

- Interest Area \_\_\_\_\_

I would like to have information on following :





#### ENVIS CENTRE TEAM

**Mr. Santosh Kumar**  
(Director, Environment)

**Mr. P.J.S. Dadhwal**  
(Project Coordinator)

**Er. Arun Bansal**  
(Sr. Programme Officer)

**Mr. Surinder Kumar**  
(Data Entry Operator)

#### Fire, Pollution that we cause unknowingly

1. Burning of Dumped Waste
2. Burning of Leaves
3. Burning of Agricultural Waste
4. Burning of fuel in close room
5. By preferring vehicle over cycle or pedestrian
6. By ignoring the fire safety measures installation
7. Smoking
8. Inefficient cooking techniques
9. Delay in causing calling Firemen
10. Letting others pollute

#### Smoke

Smoke one of the byproduct of fire, you can see it. But what you can't see is, its constituents. It has invisible gases like CO<sub>2</sub>, CO, SO<sub>2</sub>, NOx, and Ozone. These gases, directly or indirectly, are hazardous to living being. The smoke forms smog in combination with fog which is poisonous by nature. Co<sub>2</sub> added to environment enhances greenhouse effect. In Chandigarh, Fire department can be reached at the following numbers:

Fire Control Room: 101

Fire Branch: 5021619

Also, keep in touch with department for mock drills and fire safety measures installation.

### Smoke The Killer You Let Breath



SPO, ENVIS, Chandigarh

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To,

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