

required to provide reasonable fire safety measures within a specified time.

- (d) I.S.I. should take up the formulation of National Fire codes which should be enforced by law.

2. Development & Expansion of Fire Services

Immediate steps should be taken for the development and expansion of fire services. The following measures are recommended for achieving this:

- (a) The State Governments should enact the Fire Force Bill, take over the fire services and organize them as a separate department of their respective States, with a professional Head of Service. All Union Territories should be treated as a single cache for this purpose and their fire services should be controlled by the Ministry of Home Affairs.
- (b) Development and expansion of fire services should be included in Five Year Plans of respective States.
- (c) General Insurance directly benefits if the fire service is efficient and well organized. The General Insurance Corporation should, therefore, share the cost of development and expansion of fire services including the research Programme.
- (d) Facilities for training fire officers with a view to prepare them for higher responsibilities should be expanded.
- (e) There should be a 'System approach' to the development of fire services so that all facets of the service receive equal and simultaneous attention.

RECOMMENDATIONS

SESSION 2

WATER FOR FIRE, FIGHTING

1. Managements of all high rise buildings (over 15m high) and industrial premises should be required to provide stored water supply for the use of fire service for fighting fire in their premises. The requirements should be assessed by the local Fire Chief. The local Tariff Advisory Committee representative, where available, should also be associated with such assessment.
2. Railways, Airports, Port Trusts and Public Sector Undertakings should provide their own stored water supplies for fire fighting in addition to piped supplies.
3. All possible steps should be taken for conservation of water for fire fighting. The following measures are recommended:
 - (a) Arrangements should be made for early detection and expeditions reporting of outbreaks of fire to the fire brigade.
 - (b) Fire stations should be judiciously sited and their number increased.
 - (c) Fire appliances, proceeding to a call, must get the right of way.
 - (d) Mixing of additives to water to make it more effective and to reduce its requirements should be practiced. The Fire Research Division of Central Buildings Research Instituted and Defence Institute of Fire Research should develop these additives and the techniques of their use on a high priority basis and make the additives available to the fire services at economical rates.
 - (e) Fire Service should make increasing use of agents, like form, light water, high expansion foam, etc. and should be equipped for this purpose.
4. All possible efforts should be made for the utilization of natural sources of water.
5. The guidelines given in IS : 6070 - 1971 should be adopted for normal fire fighting needs, ISI should be requested to specify definite scales in this standard. For Civil Defence towns and high risk areas, the scales should be doubled that of the normal risks. For high hazard occupancies, the requirements of water supply should be worked out on the merits of each case.

RECOMMENDATIONS

SESSION 3

INDIGENOUS DEVELOPMENT OF FIRE FIGHTING EQUIPMENT

1. Fire Service Equipment must be of the highest quality and must be readily available.
2. To assist the manufacturers in achieving high standards and in effecting timely deliveries, they should be given a positive estimate of the country's requirements over the next five years.
3. Research & Development efforts should be strengthened, both at the C.S.R.I. and D.I.F.R. and in the manufacturing organisations, with a view to effectively tackle the problems of development of improved equipment and techniques.
4. A Central purchase and holding organisation should be set up. This organisation should assess the overall requirements of the country, purchase the equipment as per this assessments and stock it in one or more Central Depot(s). The Fire Services can then draw equipment from the Central Depot. If necessary, Financial Regulations should be suitably amended.
5. Proper testing facilities should be provided and all equipment procured by the Central Purchase and holding organisations should be subjected to strict quality checks.
6. A Central Inspectorate of Fire Services should be set up in the Ministry of Home Affairs to assist the State Governments in assessing the requirements of their fire services and to guide them in all matters concerning the development, expansion and maintenance of standards of their fire services. Such an Inspectorate should also co-ordinate the requirements of training, research and development and similar matters.
7. General Insurance Corporation should accept only certified/approved fire appliances for the purposes of granting insurance rebates.

FIRE SERVICE EMBLEM

(See para 4 under 20 Service Motto and Emblem)



FORMS FOR COLLECTION OF FIRE STATISTICS

(See para 1 under 21- collection of Fire Statistics)

PROFORMA 'A'

PARTICULARS TO BE COLLECTED FROM ALL FIRE SERVICES IN THE COUNTRY

Name of Service _____
 Name of Town _____
 District _____
 State _____

1. Area in square miles and rateable value.
2. Population.
3. Fire Risks Covered.
 - (a) Textile, woolen, silk and artificial silk No. (Rayon etc. Mills)
 - (b) Ginning Mills _____
 - (c) Cotton Dresses _____
 - (d) Oil Mills _____
 - (e) Petrol and Oil storages and refineries _____
 - (f) Match factories, Fire Works and Explosives manufacture _____
 - (g) Explosive stores _____
 - (h) Processed involving dangerous petroleum products.
 - (i) Cinematograph films, celluloid, plastics and bakelite work _____
 - (j) Timber and wood workings, paper manufacture _____
 - (k) Chemical works _____
 - (l) Gas and Electricity Undertaking _____
 - (m) Docks, Railways and Air Port Installations _____
 - (n) Ware-houses, goods yards and goods sheds _____
 - (o) Manufacture of rubber goods _____
 - (p) Other (Give details)
4. Fire risks around the town (Details to be given)
5. Water facilities : No and experiments
 - (i) Hydrants _____ capacity _____
 - (ii) Water ponds _____
 - (iii) Refilling places _____
 - (iv) Wells, Rivers and Canals _____
 - (v) Other facilities like static tanks, storage tanks, etc. _____
6. Communication system.
 Is there any organisation for collection of statistics relating to losses due to fires in town irrespective of whether such fires are attended to by the Fire Services or not.
7. If so, what statistics, if any are being collected.
8. Any other special points not covered by Nos. 1 to 8 above.

PROFORMA 'B'

PARTICULARS TO BE COLLECTED FROM ALL FIRE SERVICE IN THE COUNTRY

Name of Service _____

Name of Town _____

District _____

State _____

1. Fire appliance
- (a) Motor pumps with capacities _____
 - (b) Water Tender with capacities _____
 - (c) Trailer pumps with capacities _____
 - (d) Manual Pumps _____
 - (e) Canteen Vans _____
 - (f) Fire Boats _____
 - (g) Fire Escape Ladders, Extension ladders etc (with max. heights).
 - (h) Turn table ladders _____
 - (i) Foam and Crash tenders _____
 - (j) Emergency Tenders _____
 - (k) Control Post vans _____
 - (l) Rescue gears etc. _____
 - (m) House Laying Lorries _____
 - (n) Breakdown vans _____
 - (o) Other vehicles _____

Note:- In each case give the number of appliances not in working order in brackets.

2. Equipment
- (a) Wireless scheme (if in operation) .
Users (fire Brigade only or joint scheme).

No. of fixed stations _____
No. of mobile stations _____
 - (b) Hose (total length in feet) _____
 - (c) Breathing apparatus (No. of sets) _____
 - (d) Lighting sets:
 - (i) Electric _____
 - (ii) Other forms _____
 - (e) Oxy-Acetylene cutting outfits (No. of sets) _____
 - (f) Foam Equipment (Not extinguishers)
 - (i) Generators _____
 - (ii) Foam making branch piles. (Give capacities)
 - (g) Street Fire Alarms (Total No.) _____

3. Number of Fire Stations

4. Staff Superintendence:
- Principal Officers
 - Scale of Pay and allowances
 - Whether entitled to free quarters
 - Other terms and conditions of service.

22. Whether the fire services are also used for such purposes as watering roads, supplying water to public, pumping water due to floods, etc.
If so on what conditions:
23. Does your fire fighting equipment conform to standard specification of fire appliances and equipment. If not, please supply copies of specifications of your equipment.
24. Which of your fire fighting equipment are obtained from manufactures in India or procured from foreign countries.
25. State your estimated annual requirements of all equipments.
26. Any other special points not covered by Nos. 1 to 25 above.

PERFORMA 'C'

STATISTICS OF ANNUAL LOSS OF LIFE AND PROPERTY DUE TO FIRE

For the year 19 to 20

Name of Service _____
 Name of Town _____
 District _____
 State _____

- (1) No. of fires annually and amount of fire losses each year for the preceding three years.
- (2) No. of lives lost and saved due to first each year for the preceding three years.
- (3) Statistics of fires for the year under report.

Types of Fires (1)	No. of Fires			
	Small (2)	Medium (3)	Serious (4)	Total (5)
(i) Household				
(ii) Textile, Woollen, silk etc. Mills				
(iii) Oil Mills, Factories, ginning & Pressing works & Manufacturing concern				
(iv) Graineries				
(v) Storages Warehouses, goods Yards and Sheds				
(vi) Explosives, Fireworks, Match Factories etc.				
(vii) Chemical fires				
(viii) Cellulose spraying and lacquar manufacture				
(ix) Electrical fires				
(x) Chimney fires				
(xi) Timber and wood works etc.				
(xii) Cinematograph films, celluloid plastics etc.				

- (xiii) Locks, Airport and Railway installations
- (xiv) Petroleum and Oil and Refining installations
- (xv) Shops, Offices and commercial establishments
- (xvi) Theatres, Cinemas, Dance Halls and places of public assembly
- (xv) Shops, Offices and commercial establishments
- (xvi) Theatres, Cinemas, Dance Halls and places of public assembly
- (xvii) Educational Institutions, Libraries, Hospitals etc.
- (xviii) Gas, Electricity, Water, Sewage undertakings
- (xix) Professional establishments
- (xx) Farm lands, Ilay stocks, crops Hay ricks etc.
- (xxi) Forest Plantations
- (xxii) Rail and road Vehicles & Polling stock.
- (xxiii) Refuse and outdoor storages
- (xxiv) Miscellaneous

TOTAL

Note: "Small fire" - a fire with an estimated loss of Rs. 10,000 and below.
 "Medium" fire with an estimated loss of over Rs. 10,000 and upto Rs. 50,000
 "Serious" fire - a fire with an estimated loss of over Rs. 50,000
 Any fire where in there are human casualties or deaths to be considered as "Serious Fire" even if the estimated loss may be anything upto Rs. 50,000.

- | | | | |
|-----|--|---|-------|
| (4) | Total number of False Alarms of Fires :- | | |
| | Malicious | Due to defective alarms with good intention | Total |
| (5) | Supposed causes of fires. | | |

APPENDIX "21-B"

REVISED FORMS FOR COLLECTION OF FIRE STATISTICS

PROFORMA RELATING TO FIRE STATISTICS

(For Urban Areas)

(See para 2 under 21 Collection of fire statistics)

PART -1

General Particular

year _____

Name of Town/City _____

District _____

State _____

Name of Fire Service _____

No. of Stations in the Town/City _____

Details	Town/City	Adjoining Rural Areas covered, if any
1	2	3

- (a) Area in sq. miles
- (b) Rateable value in Rs.
- (c) Population
- (d) Fire Risks covered
 - (i) Textile, woollen work and artificial silk, Rayon etc. mills (Nos.)
 - (ii) Ginning mills
 - (iii) Cotton Presses
 - (iv) Oils Mills
 - (v) Petrol & Oil Storages and Refineries
 - (vi) Match factories, Fire Works and explosives manufacture
 - (vii) Explosive stores
 - (viii) Processes involving dangerous petroleum product
 - (ix) Cinematograph films, celluloid, plastics and bakelite work
 - (x) Timber and wood working paper manufacture
 - (xi) Chemical Work
 - (xii) Gas and Electricity Undertakings
 - (xiii) Docks, Railway and Airport Installations
 - (xiv) Warehouses, goods, yards and goods sheds
 - (xv) Manufacture of rubber goods
 - (xvi) Other goods (given details)

2. Is the Fire Service maintained by the State Government? If so, under which Department of the State

Government?

3. If the Fire Service is not maintained by the Government, state the Authority, e.g. Corporation/Municipality/Local Board or by Private Bodies by which it is maintained.
4. Does the Fire Service maintain First Aid and/or Ambulance unit?
5. (a) Average annual expenditure on the Fire Service:
 - (i) Recurring _____
 - (ii) Non-Recurring _____
- (b) How the expenditure is met?
- (c) Is any fire tax being levied (details) :
6. Does the Brigade attend to fires outside the area covered by it (see Item No.1) If any charges are levied, what are they:
Give details of any mutual aid scheme in force.
7. Are the fire services used for purpose such as watering road, supplying water to public, pumping water due to floods, etc. ? If so, on what conditions?
8. Is there any organisation for collection of statistics relating to fires? If so, what statistics are being collected?
A copy of proforma used to be enclosed.

PART - II

(1) Fire Appliances

Sl. No.	Items	Number in working order	Number not in working order	Total	Estimated requirement for the next
---------	-------	-------------------------	-----------------------------	-------	------------------------------------

1. Motor Fire Engine with capacities (in gallons/ litres per minute)
2. Water tenders/Tanks with capacities (in gallons/ litres per minute)
3. Trailer Pumps with capacities (in gallons/litres per minute)
4. Pump scape with capacities (in gallons/litres per minute) per size.
5. Turn Table Ladders with size.
6. Fire Boats with capacities (in gallons/litres per minute)
7. Manual Pumps
8. Towing vehicles
9. Canteen Vans
10. Foam & Crash Tenders with total capacity and discharge rates.
11. Emergency Tenders
12. Control Post Vans
13. Hose Laying Lorries
14. Breakdowns Vans
15. Other vehicles (staff cars, motor cycles and cycles etc.)

16. Ladders - Extension
17. Ladders - First Floor
18. Ladders - Hook
19. Ladders - Scaling
20. Rescue gear (give details)

(2) Equipment

- (a) Wireless Scheme (if in operation)
 Users (Fire Brigade only or joint scheme) _____
 No. of fixed stations _____
 No. of mobile stations _____
 No. of walkie talkie sets type (AM or FM) Frequency _____
- (b) Hose (total length in feet) _____
- (c) Breathing apparatus (No. & type of sets) _____
- (d) Oxy-Acetylene cutting outfits (No. of sets) _____
- (e) Lighting Sets:
 (i) Electric _____
 (ii) Other Forms _____
- (f) Foam equipment
 (Not extinguishers)
 (i) Generator/Inductors _____
 (ii) Foam making Branch pipes _____
 (give capacities)
 (iii) Foam Compound (gallons)

(3) Accountments: Qty. Period for which issue

- Fireman's Axe.
 (Type ordinary/insulated)
 Gas Masks (Type)
 Helmets (Steel/Leather)
 Belt & Pouch

(4) What are the arrangements for repair and maintenance of the equipment and appliances?

(5) Communications system:

- (a) Telephone (State 'Yes' or 'No')
- (b) Street Fire Alarms (Nos.)
- (c) Other facilities

(6) Staff:

Sl. No.	Designation	Scale of Pay (in Rs.)	Allowances Admissible (in Rs.)	Any other terms of service	Sanctioned Regular Leave & trg. reserve	Strength	Remark
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)

(7) If any auxiliary Fire Service maintained?
 If so, give its strength and other details.

(8) Training of personnel: Is there a training school? If so, give details of course, duration of each course and syllabi.

Sl. No.	Source	Number fit for Fire Fighting		Approximate Capacity (wherever applicable)
		Perennial	Seasonal	
1	2	3	4	5
1.	Static Tanks			
2.	Hydrants (on Mains 6" and above)			
3.	Hydrants (on mains below 6")			
4.	Storage tanks			
5.	Rivers			
6.	Canals			
7.	Wells			
8.	Water Ponds			
9.	Any other facilities			

PART III

(1) Statistics of human and animal lives rescued/lost due to fires in the year under report:

Sl. No	Types of rescue work	Number
1	2	3
1.	Persons rescued without injuries or burns	
2.	Persons rescued with burns and/or injuries who subsequently recovered.	
3.	Persons rescued alive with burns and/or injuries who subsequently died.	
4.	Human lives lost before arrival of fire brigade.	
5.	Casualties amongst fire service personnel	
6.	Animal rescued alive.	
7.	Animal lives lost	

(2) Approximate value of property lost by fire during the year under report, classified according to ownership.

Sl. No.	Type of Property	Approximate Value of Property Lost(in Rs.)
1.	Government	
2.	Local Bodies	
3.	Private	
	(a) Mainly Industrial	
	(b) Mainly Residential	
	(c) Other including rural	
Total		

(3) Total number of False alarms of Fires

Sl. No	Type of Alarms	Number
1.	Malicious	
2.	Due to defective alarms	
3.	with good intention	
Total		

(4) Statistics of Fires for the year under report

Types of Fires	Firing of Explosions or grass																							Total Estimated Loss		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		24	25
1. Household																										
2. Textile woollen, silk etc. mills																										
3. Oil Mills factories, ginning & pressing works and other manufacturing concerns																										
4. Graineries																										
5. Storages, warehouses, godiyards and sheds																										
6. Explosives, fire works match factories																										
7. Chemical works																										
8. Cellulose spraying and lacquer manufacture																										
9. Electrical installation																										
10. Time & wood works etc.																										
11. Cinematograph films celluloid plastics etc.																										
12. Docks, Airport & Railway Installations																										
13. Petroleum & Oil and Refining installations																										
14. Shops, offices and commercial establishments																										
15. Theatres, cinemas, dances halls & places of public assembly																										
16. Institutions, educational libraries, undertaking																										
17. Gas, Electricity, water sewage undertaking																										
18. Professional establishment																										
19. Farm lands, Hay Stocks, crops hay risks etc.																										
20. Forest Plantation																										
21. Oil and Road Vehicles and Rolling Stock																										
22. Refuse and outdoor storages																										
23. Miscellaneous																										
Total																										

5. Total Emergency or Special Service Calls attended during the year.
 - (i) Leakage of noxious or dangerous gases e.g. Ammonia, Chlorine, Formaldehyde etc.
 - (ii) Drowning, floods etc.
 - (iii) Electrocutation
 - (iv) Sewer accidents
 - (v) Lift accidents
 - (vi) House collapses, earthquakes etc.
 - (vii) Rescue from heights
 - (viii) others
6. Any other points of special importance not covered by Parts I, II, and III above.

**INSTRUCTIONS TO BE FOLLOWED WHILE FILLING IN PARTS, I, II AND III
(FOR URBAN AREAS ONLY)**

1. Complete set of Parts I, II & III is to be filled in for each town.
2. When the information for any item is 'Nil' it should clearly be written 'Nil' and if not available the word N.A. should be mentioned.
3. Designation by which the particular service is known may be shown against the item "Name of fire service". (It may comprise of more than one station).
4. The year refers to Calendar year (1 st January to 31 st December) and not the financial year.
5. The term "Mutual Aid" in Item No.9 of Part I relates to any aid between Fire Services under two different authorities.
6. Reporting of capacities for items such as motor pumps, water tenders and Trailer pumps as is very important and should not be lost sight of while filling in the proform.
7. All classes of staff including class IV should be mentioned and it should also be clearly stated in the remarks column, as and where the class IV staff is utilised for fire fighting purposes. If employees other than those engaged in fire service, are utilized for fire fighting purposes, a mention of the same should be made. An account of those who are employed part time, if any, should be given.
8. While reporting the pay scale of the staff, the basic pay of a category of staff should be given exclusive of other allowances, for reporting of which the following abbreviations may be used.
 - D.A. - Dearness Allowance
 - C.A. - Compensatory or City Allowance
 - H.R. - House Rent Allowance
 - S.P. - Special Pay, if any
 - U.A. - Uniform Allowance or Uniform Supplied
9. While filling in different types fires i.e. small, medium and serious the following points may be kept in view:-
 - Small fires:** A fire accident with an estimated loss of Rs.1 0,000/- and below.
 - Medium Fire:** A fire with an estimated loss of over Rs.1 0,000/- and upto Rs.50,000/-.
 - Serious fire:** A fire with an estimated loss of over Rs.50,000/-.

Any fire irrespective of extent of damage, should however, be classified as serious if there are any deaths.
10. If the fire is attended to by more than one brigade. While reporting the value of property lost by fire in a rural area (Sl. No.3 of Part III) only that brigade within whose jurisdiction the area falls should reply.

PROFORMA RELATING TO FIRE STATISTICS

(For rural areas)

Name of village
District

Year
Tehsil
No. of fires

(1) Extent of damage to property

Sl.No	Item	Unit	Estimated Loss In Rs.	Remarks
1.	(a) Food grains (Specify)	Mds.		
	(b) Standing Crops	Acres.		
	(c) Fodder	Mds.		
	(d) Stocks of harvesting crops	Mds.		
	(e) Jungle	Sq. Miles		
2.	Huts	No.		
3.	Cattle	Head		
4.	Others (Specify)			

(2) Casualties

Injured Dead Rescued Remarks

Human

Animal

(3) Was fire brigade summoned? If so, what help it rendered?

(4) Is there any source of water supply like well, canal, pond, river etc. near the place of fire and is it approachable by a motorable road?

PROFORMA RELATING TO FIRE STATISTICS

(For Central Ministries)

Year

Ministry

Department/Office

Place

(1) Fire Appliances:

Sl. No.	Item	Number in working order	Number not in working order	Total	Estimated requirement for the next year
1	2	3	4	5	6
1.	Motor Fire Engine with capacity (in gallons/litres per minute).				
2.	Water tenders/banks, with capacities (in gallons/litres per minute).				
3.	Trailer pumps with capacities (in gallons/ litres per minute)				
4.	Pump escape with capacities (in gallons/ litres per minute) with size.				
5.	Turn Table Ladders with size.				
6.	Fire Boats with capacities in gallons/litres per minute				
7.	Manual Pumps				
8.	Towing vehicles				
9.	Canteen Vans				
10.	Foam & Crash tenders with total capacity and discharge rates.				
11.	Emergency tenders				
12.	Control Post Vans				
13.	Hose Laying Lorries				
14.	Breakdown Vans				
15.	Other vehicles (staff cars, motor cycles & cycles etc.)				
16.	Ladders - Extension				
17.	Ladders - First Floor				
18.	Ladders - Hook				
19.	Ladders - Scaling				
20.	Ladders - Rescue gears (give details)				

(2) Equipment:

(a) Wireless scheme (if in operation)

Users (Fire Brigade only or joint scheme) _____

No. of fixed stations _____

No. of mobile stations _____

No. of walkie-talkie sets (type - AM or FM Frequency) _____

(b) Hose (total length in feet) _____

(c) Breathing apparatus (No.2 type of sets) _____

(d) Oxy-Acetylene cutting outfits (No. of sets) _____

(e) Lighting Sets: (i) Electric _____

(ii) Other Forms _____

(f) Foam equipment (not extinguishers)-

(i) Generator/Inductors _____

(ii) Foam making Branch Pipes _____

(iii) Foam compound (gallons) _____

(3) What are the arrangements for repair and maintenance of the equipments and appliances?

(4) Average annual expenditure on the fire service:

(i) Recurring _____

(ii) Non-recurring _____

(5) Staff

Sl. No.	Designation	Scale of Pay (Rs.)	Allowances Admissible (Rs.)	Any Other terms of service	No. of posts sanctioned	Regular Leave & Trg Reserve	Remarks
1	2	3	4	5	6	7	8

(6) Accountments: QuantityPeriod for which issued

Fireman's Axe (type
Ordinary/in sulated)
Gas Masks (Type)
Helmets (Steel/Leather)
Belt & Pouch

(7) Water resources available for fire fighting purposes:

Sl. No.	Sources	Number fit for fire fighting		Approximate capacity (whenever applicable)
		Perennial	Seasonal	
1	2	3	4	5

1. Static Tanks
2. Hydrants on mains 6" and above
3. Hydrants on mains below 6"
4. Storage tanks
5. Rivers

6. Canals
7. Wells
8. Water ponds
9. Any other facilities

(8) Statistics of human and animal lives rescued/lost due to fires in the year under report:

Sl. No.	Types of rescue work	Number
1	2	3
1.	Persons rescued without injuries or burns	
2.	Persons rescued with burns and/or injuries who subsequently recovered.	
3.	Persons rescued alive with burns and/or injuries who subsequently died.	
4.	Human lives lost before arrival of fire brigade.	
5.	Casualties amongst fire service personnel	
6.	Animal rescued alive	
7.	Animal lives lost	

(9) Statistics of Fires for the year under report:

Sl. No.	Types of fires	No. of Fires				Estimated Loss in classes of fires
		Small	Medium	Serious	Total	
1	2	3	4	5	6	7
1.	Household					
2.	Manufacturing and repairing establishment					
3.	Granaries					
4.	Storages, warehouses, goods yards & sheds					
5.	Explosives/Fire works/Factories					
6.	Chemical Works					
7.	Cellulose spraying and lacquer works					
8.	Electrical Installations					
9.	Timber & Wood Works etc.					
10.	Cinematograph films, celluloid, Plastics etc.					
11.	Docks, Airports & Railway Installations					
12.	Petroleum/Oil Refining installations					
13.	Shops, offices and commercial establishments.					
14.	Theatres, cinemas, dance halls & places of public assembly.					
15.	Educational institutions, Librarians, Hospitals etc.					
16.	Gas, Electricity, Water-sewage undertakings					
17.	Farm lands, Hay Stocks, Crops, Hayricks etc.					
18.	Forest & Plantations					
19.	Rail & Road, vehicles & rolling stocks					
20.	Refuse and outdoor storages					
21.	Miscellaneous					
Total						

INSTRUCTIONS TO BE FOLLOWED WHILE FILLING IN THE PROFORMAE
(FOR CENTRAL MINISTRIES)

1. The year refers to Calendar year (1 st January to 31 st December) and not the financial year.
2. When the information for any item is 'Nil', should be clearly written 'Nil' it and if not available, the word 'N.A.' should be mentioned.
3. Reporting of capacities for items such as motor pumps, water tenders and trailer pumps is very important and should not be lost sight of while filling in the proformae.
4. All classes of staff including Class IV should be mentioned and it should also be clearly stated in the remarks column, as and when the Class IV staff is utilized for fire fighting purposes. If employees of Municipal Committee, other than those engaged in fire service, are utilised for fire fighting purposes, a mention of the same should be made. An account of those who are employed part time, if any, should be given.
5. While reporting the pay scale of the staff, the basic pay of category of staff should be given exclusive of other allowances, for reporting of which the following abbreviations 'may be used:
 - D.A. - Dearness Allowance
 - C.A. - Compensatory or City Allowance
 - H.R. - House Rent Allowance
 - S.P. - Special Pay, if any
 - U.A. - Uniform Allowance or Uniform Supplied
9. While filling in different types of fires i.e. small, medium and serious, the following points may be kept in view :-

Small fires :- A fire accident with an estimated loss of RS.1 0,000/- and below.

Medium fires :- A fire with an estimated loss of over RS.1 0,000/- & upto Rs.50,000/-

Serious fire :- A fire with an estimated loss of over Rs.50,000/-.

Any fire irrespective of extent of damage, should however, be classified as serious if there are any deaths.

STANDARD FORM FOR REPORT ON ATTENDANCE OF FIRES

_____ FIRE SERVICE
(See para 4 under 22 Fire Report)

FIRE REPORT

Division _____ Fire Report No. _____
Station _____ Date of incident _____
Officer-in-charge at fire _____

I - Call

Called by _____
Telephone/Fire Alarm No. _____
Address of premises involved _____
Occupier's name _____ Business _____
Owner's name and address _____
Time of Call _____ Time of first turn-out _____
Time of arrival at incident _____
Distance from station to incident _____ miles

II - Particulars of Fire

Description of property, involved, industry, type of
construction, area etc.
Category of fire - Serious/Medium/Small _____
Extent of fire _____
Supposed cause of fire _____
Description of damage _____

Estimated value of (i) Property involved _____
(ii) Surrounding risk, if any _____
(iii) Damage to premises _____
(iv) Damage of contents _____

Name of last officer to leave the fire _____

Time and date of leaving fire _____

Total time employed _____ hours _____ minutes _____

III - Persons Escaped And Rescued

Escaped without assistance of Fire Service		Assisted out by Fire Service without aid of Appliances		Rescued by Fire Service using appliances	
M	F	M	F	M	F

Note : Report on False Calls should be marked "False" in red ink across Part II of the report form.

IV - Casualties

Lives Lost		Injured	
M	F	M	F

F.S.
Others

F.S.
Others

V - Attendance at Occurrences

Name of Fire Station	Type of Appliance	Registration Number	Time		Time of Trip		Pumping Hours
			Turn Out	Arrival at incident	Leaving Incident	Return back to home station	

VI - F.S. Personnel in Attendance

(Relief personnel not to be included)

Officer		Personnel		
Rank	Name	Rank	Number	Name

VII - Any other Remarks

(Signed) _____
Officer-in-charge

APPENDIX "22-B"

STANDARD FORM FOR REPORT OF ATTENDANCE AT SPECIAL SERVICE CALLS

(See para 4 under 22 Reports)

..... FIRE SERVICE

Special Service Report

Division _____ Incident Report No. _____
Station _____ Date of incident _____
Officer-in-charge at incident _____

I - Call

Called by _____
Telephone/Fire Alarm No. _____
Address of premises involved _____
Occupier's name _____ Business _____
Owner's name and address _____
Time of Call _____ Time of first turn-out _____
Time of arrival at incident _____
Distance from station to incident _____ miles

II - Particulars of Incident

Full details of incident _____
Supposed Cause _____
Service rendered _____
Name of the last officer to leave the incident _____
Time and date of leaving incident _____
Total time employed _____ hours _____ minutes _____

III - Persons Escaped And Rescued

Escaped without assistance of Fire Service		Assisted out by Fire Service without aid of Appliances		Rescued by Fire Service using appliances	
M	F	M	F	M	F

Note : Report on False Calls should be marked "False" in red ink across Part II of the report form.

IV - Casualties

Lives Lost		Injured	
M	F	M	F

F.S.
Others
Name

Addresses

Name
*Name of injuries

F.S.
Others
Address (es)

*Fire Services numbers will suffice in the case of Service personnel

V - Attendance at Occurrences

Name of Fire Station	Type of Appliance	Registration Number	Time Turn Out	Time Arrival at	Time of Leaving Incident	Trip Return back to	Pumping mileage home Hours station
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VI - F.S. Personnel in Attendance

(Relief personnel not to be included)

Officer		Personnel		
Rank	Name	Rank	Number	Name

VII - Any other Remarks

(Signed) _____
Officer-in-charge

STANDARD INSPECTION REPORT FORM

(See para 7 under 22 Reports)

_____ FIRE SERVICE

INSPECTION REPORT

Sub:- _____ Case No. _____
Date of Inspection : _____ Street _____ Date : _____
Ward : _____

- (1) Premises No. & name of building.
- (2) Occupants:
 - (a) Name of Firm or company or business or factory.
 - (b) Name of the Proprietor or Owner.
 - (c) Name of Contact.
- (3) Description of:
 - (a) Nature of business, trade or process.
 - (b) Commodities and quantities applied for.
 - (c) Position of storages in relation to number of rooms, floor, area, etc.
 - (d) Commodities already licensed together with quantities (by Municipality, State or Central Government). State Licence Number.
 - (e) Trade, Business or Commodities applied for and disapproved with reasons, if any.
- (4) Building:
 - (a) Constructional, features:
 - (i) **General :**
 - Low risk-cement concrete or brick-walled.
 - Medium risk-brick-walled and timber-framed.
 - High risk-most timber-framed, such as timber-floors, timber roof, timber staircase etc.
 - (ii) **Particulars:**
 - No. of storeys and basement, if any.
 - Walls
 - Doors
 - Windows (Barred etc.)
 - Verandahs or Balconies
 - Floors
 - (Attics, mezzanine floors, lofts etc.)
 - Ceiling
 - Roof (or terrace)
 - No. of staircase and positions - enclosed or open

No. of lifts - enclosed or open Emergency Escapes, if any

(b) Other occupancies-

Shops, godowns, factories, workshops, hotels, departmental stores, schools, hospitals, residences, offices etc .

(5) Observations:

(i) Width of road/street/lane

(ii) Accessibility for Fire Engines

(iii) Nearest Fire Hydrant

(iv) Bounded on (if open space, state width and whether road, lane, by-lane or sweeper's lane. If structures, state shed, building etc.) and proximity.

North

South

East

West

*In relation to (ii) and (iii) above, state proximity - distance in feet-form the premises under consideration.

(6) Nearest means of communication:

(i) Telephone

(ii) Street Fire alarm

(iii) Fire Station

(iv) Police Chowki or Station.

(7) Installed fire fighting equipment, if any (Buckets, sand, fire extinguishers and their types, First-aid hose reel. Private hydrants and hose, Sprinklers,Pumps, etc.)

(8) Fire Detection:

(i) Fire- Directing and alarm system, if any

(ii) Watchman, if any

(9) Water supply,other sources, if any and gallonages :

Static Tanks, Wells, Ponds etc.

Storage Tanks (over-head, surface or underground)

(10) Recommendation

(a) **Particulars**

(i) Commodities and quantities

(ii) Locations

(iii) Storage arrangements

(iv) Precautionary measures

(v) Structural recommendations

(vi) Protective measures (Fire Fighting equipments)

(b) **General**

(c) Submit this case papers after _____days/months to re-check if the requirements are satisfactorily carried out.

(11) Noting Events after Inspection :

(i) Records of Fires with dates

(1) Commodities involves

- (2) Causes
- (ii) Breach of conditions noticed on re-inspection.
 - (iii) Changes in business or occupation, if any

Action Taken :

_____ FIRE SERVICE
 _____ STATION
INSPECTION ROUTE CARD

Name of the

Inspecting Officer

Date of Inspection

No.	Location	C	R	R.I	N.S.	P.A.
-----	----------	---	---	-----	------	------

Abbreviations:

- C - Complaints
- R - Regular Inspection
- R. I. - Re-inspection
- N. S. Notice served
- P. A. Personally abated-hazard

The Route Card to be used both by the Officers of the Fire Service and Inspecting Officers of the Licencing Authority.

NOTE ON FIRE PREVENTION IN RURAL AREAS

(See para 2 under 24 - FIRE PREVENTION)

RURAL FIRES AND THEIR PREVENTION

Introductory

1. India's millions of population, illiterate, half-starved, half naked and extremely poor, lives primarily on agriculture and farming. It is these people, the rural inhabitants of India, who toil hard and sweat to the bone, to produce food for the hungry millions of our country and to keep the cities and towns to live and prepare. And yet, these are the people living in huts in the innumerable villages and hamlets of the country, who have been denied the most vital and necessary protection to their lives and property namely protection from hazards of fire.
2. Every year thousands of fires occur in villages, farms both amount the crops and the ricks, and in farm buildings resulting in losses of not only lakhs of rupees worth of goods but the most valuable and vitally required harvested crop for saving the countries teeming millions from starvation. In many a cases. Even lives are lost in such fires and added to this, this the possible deaths due to starvation, brings forth to us a most grim picture of India's helplessness in tackling this dangerous problem.
3. Nothing can be more heart-breaking to the farmers who have toiled hard towards reaping a good harvest, when suddenly in front of their eyes they see that every thing that they hoped and worked for has gone up in flames. If a careful survey of the causes of such disasters is made, it will be found that many of these fires can be easily avoided or atleast the damage could be minimized to a considerable extent

Characteristics Disadvantages:

4. Villages and rural areas usually suffer from certain characteristics disadvantages, such as (i) highly combustible nature of village thatched dwellings. (ii) scarcity of water, particularly during summer, (iii) high wind velocity due to vast open areas ground. (iv) improper road conditions leading to the village and farm lands unpassable by fire fighting vehicles and (v) ignorance of freight on the part of villagers to call Fire service for help through village revenue officials or Police. Added to this, the natural human habit of inhabitation by close clusters affords ideal conditions for a very rapid spread of a small fire, which can throw a trail of disaster in its fury.

Common Causes

5. If we analyse the common caused of such fire disasters in villages and rural areas we find that these are normally:-
 - (a) Use of open cooking fires in kitchen with fire wood as fuel, the burning embers of which, shoot up too high igniting the thatched or split-bamboo-roof or wooden self above the kitchen fires.
 - (b) Most careless and inattentive use of naked flame oil lamps as well as kitchen fires, which are left burning while retiring to bed. These are either upset by animal pets or carried away by pests like rodents, cockroaches etc. thus starting fires during lying human lives.
 - (c) Careless smoking and disposal of burning bidi or cigarette buds near about stocks of hay or grain or such other places where fire can thrive and spread.

- (d) Sparks from chimneys or crude domestic heating and cooking arrangements or from near by rail locomotives.
 - (e) Intention burning of grass lands without proper precautions.
 - (f) Spontaneous combustions which starts in newly cut straw or hay stocks due to its moisture contents which transform into heat in very hot climatic conditions of summer.
6. Apart from above there are causes like display of fire works at festival times, village fair resulting in arson and due to lightening which also account for many such fires.

Preventive Measures

7. It is not easy to have organised fire Services in rural India to attend to such fires, specially at places situated far off from towns and cities where Fire Services might be available. The solution to this problem therefore would be to follow some of the fire preventive measures enumerated below so as to minimize the occurrences of such fires :-
- (a) The dwellings and huts should be constructed as far as possible with non-combustible materials' such as thick mud walls bricks or stones with roofs of metal or asbestos sheets or tiles particularly the portions around the kitchen fire and the roof above it. If split bamboo is used in construction, the same would be covered with thick mud plaster on both sides and lime washed to make it a little fire resistant.
 - (b) Naked oil lamps or kitchen fires should never be allowed to burn while retiring to bed. It is much safer to keep a match box handy during night in order to light the lamp, whenever necessary.
 - (c) Cigarettes or bidis ends as well as burning match sticks or cooking fire should be fully extinguished before disposal.
 - (d) Stocks of straw and hay should be built up at short distances away from village roads or railway lines to avoid burning sparks falling on them. If fields are situated next to roadway or railway necessitating the building of stacks in them plough a belt or land atleast 15' wide along side the road-way or railway and utilize it in growing green crops.
Hay stacks not more than 500 mounds in capacity and about 25 ft in height, should be built up atleast 60' apart from each other or from other/farm building or combustible structure and the open spaces between them should be kept clear of any combustible material.
 - (e) Whenever waste material grass land-rubbish stubble etc. are to be burnt such burning should always be done away from residences or from hay stacks on calm day leaving 15' area around the burning ploughed up to serve as a fire break and the burning operations should be carefully supervised.
 - (f) To avoid spontaneous combustion in newly cut hay the same should be stacked from sides keeping a vertical opening through the center which before the stack is sufficiently high should be filled in with loose straw to the top of the opening. This will allow the internal heat to escape out through the loose straw and dissipate it thus reducing the chances of spontaneous combustion.
 - (g) The line of building the hay stacks should be across the line of prevailing wind direction to avoid sparks being carried from one stack to the other.
 - (h) All combustible storages such as fuel wood, oils, paints, spirits etc. should be kept in separate rooms detached from the dwellings.
 - (i) Shopping areas and bazars should be built-up with sufficient wide open spaces between groups of shops and not clustered together.

Fire Fighting

8. Observations of precautions mentioned above do not ensure complete safety from occasional accidental fires in rural India. Therefore it would be quite necessary to arrange for organized actions to be taken in case of a fire to put out the same.

9. Due to the very nature of highly combustible materials likely to be involved in a village fire and due to the inherent disadvantages which the village areas are placed the only solution to this problem is to persuade the villagers to organized action by "Self Help" even though the village may be within the call zone of a Fire Service in a nearby town. A beginning should be made by educating the villagers about the steps to be taken in the case of fire. The fright from their minds has to be removed as regards calling the Fire Service through the Police or the village Revenue officials, assuring them that they would in no way be punished for such actions on their part. They should, on the contrary, be taught to consider this as their sacred duty to help their fellow villagers in their hour of peril.
10. As soon as a fire has occurred immediate alarm should be raised for people around to hear and all efforts should be made to put out the fire by such means as (a) fire buckets with water, (b) dry sand and earth (c) fire beaters or brooms or fire bats using green twigs of trees (d) shovels or spades and (e) isolation of all combustible material from the path of the fire. A few dwellings or huts around the fire may even have to be pulled down to achieve this object. A number of the group of workers should run up to the village Police Post or Revenue official and give information to enable him to call the nearest available Fire Service. If possible, in the meantime a band of active local Villagers should be organized to make a concerted effort to put out the fire or atleast to localize it till the arrival of the Fire Service by preparing chains of water bucket suppliers, fire beaters shovel and spade workers as also for isolation of the burning material. Removal of inhabitants from around the fire, especially women and children to place of safety should also be undertaken simultaneously.
11. Water is most essentially needed to extinguish fire and therefore the villagers should be educated to maintain all sources of water such as wells, ponds, streams, canals, lakes, rivers etc. in good condition and approachable by fire fighting pumps with hard surfaced roads and without any obstructions. Sufficient quantity of ropes and buckets should also be handy to draw water from deep levels.

Fire Fighting Implements

12. Following fire-fighting implements are usually useful in fighting fires in rural areas :-
 - (a) Fire Beaters or Fire Bats.
 - (b) Forks-Drag hook or Pitch fork types (commonly known as rakes).
 - (c) Hay-knife
 - (d) Stack-Drag
 - (e) Shovels and Spades.
 - (f) Bill hook or Slashers
 - (g) Pulaski Tool (useful for forest fires)
 - (h) Stirrup or hand pumps.
 - (i) Manually operated portable pumps.
 - (j) Back harnessed portable tank hand pumps with spray guns (for forest fires)

Village Fire Parties

13. It would be worth-while to consider the question of setting up small fire parties or fire squads in villages with the above implements.
14. The villagers may be persuaded to make efforts to see that at least about 1000 gallons of water is available at all times within a reasonable distance around.
15. As regards requirement for communications between the village and the nearest town where fire service might be available perhaps it might be possible to establish contact to secure aid by dispatch of cycle-messenger if the nearest town is within reasonable distance - say about 10 to 15 miles. Beyond this range it would be of little use to call for aid through a despatch rider.

FIRE PREVENTION MEASURES IN THATCHED HUTMENTS

(See para 3 under 24 Fire Prevention)

1. Bearing in mind that such hutments belong to the low income groups, it was agreed that it was not possible to ensure that such hutments were constructed of non-inflammable material or in a pattern to ensure adequate fire lanes. In view of this the SFAC recommended the following measures should be adopted in such areas :-
 - (a) Inhabitants should be given adequate education in fire prevention measures.
 - (b) Inhabitants should be encouraged to mud lipai on both sides of the thatch and then to white wash it on the inside. This is not in-expensive and can be done by self-help locally, but considerably reduces the inflammability of the thatch.
 - (c) The inhabitants should be trained in elementary fire fighting methods, and if necessary supplied with simple fire fighting appliances such as buckets, stirrup pumps and hill hooks.

**MINUTES OF THE SUB COMMITTEE ON THE ESTABLISHMENT OF FIRE
PREVENTION WING IN THE FIRE SERVICES**

(See para 10 under 24 Fire Prevention)

Composition

Shri P. E. MOOSAConvener
Shri S. K. BOSEMember
Shri SUBIMAL SARKARMember

Shri R. S. GUPTA and Shri R. S. SUNDARAM were also co-opted as members at the instance of the Chairman.

Recommendations

"The fire prevention wing of a Fire Service or brigade will be under the overall charge of a senior officer of suitable designation preferably a Divisional Officer or above. The jurisdictions of convenient number of fire stations will be grouped to be designated as District/Division/Zone. Each such unit will have one Fire Prevention Officer of the rank of a Station Officer who has put in service for a period of not less than 5 years as an operational service incharge of the Fire Station. He will be assisted by a Sub-Officer with similar experience of 5 years. Further one Leading Fireman with a minimum of 3 years experience and two Firemen and a Clerk typist will be attached to each Zone".

"The Station Officer Incharge of the Wing as stated above should preferably be provided with some vehicle/conveyance to facilitate spot inspections of various places whenever required. Provision of conveyance to enable the Wing to be highly mobile for speedy disposal of the work entrusted to them should be made".

Charter of Duties of Fire Prevention Officer

"The Fire Prevention Officer in the rank of Station Officer will be responsible for discharging the following duties:-

- (a) He will be responsible for the smooth and efficient operation of the fire prevention section under his charge.
- (b) He is to conduct goodwill inspection whenever requested for assistance by the various statutory authorities in all matters connected with fire prevention/protection under the various Acts, Statutes, Rules, Bye Laws, Regulations etc. such an execution of provisions of requirements laid down in this regard in Petroleum Act. Cinematograph Rules etc.
- (c) He is to inspect places of public entertainment like cinema houses, theatres etc. as and when required.
- (d) He is to carry out the testing of various first aid fire fighting appliances they have like the extinguishers fixed installations in any premises whenever requested/required to do so.
- (e) The Fire Prevention Officer is to submit report on his inspection to the fire authority for onward transmission to the appropriate authority.
- (f) He will also be responsible for effective fire prevention propaganda from time to time throughout the year in consultation with the fire authority in order to minimize the loss of life and property due to fires.

"The Sub Officer is to assist the Station Officer Incharge of the Fire Prevention Section of a district or zone in all respects towards the efficient discharge of his duties. He will also be most mobile for outdoor inspection of the various hazardous localities".

"The Leading Fireman and Fireman attached to the Fire Prevention Section will be required to render all assistance to the Station or Sub-Officer in testing the various first-aid fire appliances such as fixed installations etc. where required in different occupancies and during such other duties, in connection with fire prevention as may be given to by the Officer Incharge".

"The Clerk/typist will be responsible for the office work and in maintaining diary of reports/inspections".

ABRIDGED LIST OF TRADES INVOLVING SPECIAL FIRE RISKS

(See para 1 under 27 SPECIAL RISKS)

Acetylene Engineers	Color Manufacturers	India rubber & gutta-percha manufacturers
Acid Manufactures	Comb Manufacturers	Ink(Printing) Manufacturers
Agricultural Implement Manufacturers	Concert Halls	Iron Founders
Ammunition Dealers & Manufacturers	Contractors	Jewellers
Analysis	Coopers	Job Masters
Artificial flowers	Cork Merchants	Joiners
Ammonia Manufacturers	Cotton Goods	Lace manufacturers
Asphalt and Bitumen	Curriers and Tanners	Lacquer Manufacturers
Auctioneers	Decorators	Laundries
Automobile engineers	Drapers	Lithographic Printers Marine Stores
Bag manufacturers	Druggists	Meat Salesman
Bakers and Confectioners	Dyers and Cleaners	Metal Workers Munitions Makers
Basket Manufacturers	Electrical suppliers	Millers
Bazaars	Enamellers	Milliners
Bedding & Mattress Manufacturers	Muslin Clippers	Mill wrights
Bill Posters	Envelope Makers	Motor, works and garages
Biscuit manufacturers	Exhibitions	Musical instrument makers
Blacksmiths and Ferries	Explosive manufacturers	Offices, Retail shops and stores
Boarding Establishments	Export Packers	Oil Merchants
Boat Builders	Fancy Box Makers and Goods trades	Oilmen and domestic stores
Book Binders	Farmers	Packing case makers
Boot and Shoe Factory's	Factories and workshops	Painters
Bottle Merchants Brewers	Fish curers and fried fish shops	Paper Bag and Box Makers
Bronze Powder manufacturers	Floor cloth manufacturers	Photographers
Brush Makers	flour Mills	Plumbers and Gas Fitters Printers rag and Waste dealers Restaurants
Builders and applied trades	Forage Merchants	Rubber Goods
Butchers and tripe boilers	Founders	Sack and Bag Manufacturers
Cabinet Makers	French Polishers	Saw Mills
Cap and Hat Makers	Furriers	Ship Builders
Carbide of Calcium Makers	Galvanizers	Ship chandlers
Carmen	Gas Singers and cloth pressers	Silk
Carpenters	Glass works	skin Dressers
Carriers	Glovers	Soap Boilers
Case makers	Glue Merchants	Spice grinders
Caterers	Gramophone and Record Trade	Stables
Celluloid Goods Manufacturers	Grocers coffee roasters	Stationers
Cement Manufacturers	Gun Smiths	Tanners
Chair Makers	hair dressers	Tarpaulin makers Theatres
Chemical Manufacturers	Hatters	Timber Merchants Tobacco trades
Chemists	Hay and straw dealers Hops	Turkish baths Upholsterers
Cinema and Cinematograph stores	Hosiers	Varnish manufacturers
Clothiers and outfitters	Hospitals	Water Proffers
Coach builders	Hot Pressers	Whar fingers
Coal and coke Merchants	Incandescent mantle makers	Wheel wrights

CATEGORISED LIST OF TRADES INVOLVING SPECIAL FIRE RISKS-REPORT ON THE CLASSIFICATION OF OCCUPANCIES ACCORDING TO LIST OF HAZARDOUS AND EXTRA HAZARDOUS GOODS AND THE GENERAL PRINCIPLES FOR RECOMMENDING FIRE PRECAUTIONS

(SEE PARA 3 UNDER 27 SPECIAL RISKS)

The Sub Committee considered the various types of occupancies as well as the hazardous goods involved in different trades and industries and propose the following broad occupancy grading :-

Group A - Assembly buildings.

1. Theatres and cinemas
2. Other halls with a closely seated audience.
3. Exhibition halls.
4. Dance halls.
5. Restaurants.
6. Club rooms and similar minor assembly occupancies.
7. Non-residential schools
8. Department stores-ground floor sales basements and any upper floor used for bazaars or special sales displays.

Group B - Trade commercial and industrial buildings.

1. Retail shops.
2. Department stores-upper floors (except as Group A (8) above).
3. Offices.
4. Warehouses and wholesale stores.
 - (a) Normal hazard
 - (b) Abnormal hazard
5. Factories-except large single-storey buildings.
 - (a) Normal hazard
 - (b) Abnormal hazard
6. Large area single storey factories ..
 - (a) Normal hazard
 - (b) Abnormal hazard

Group C - Residential and institutional buildings.

1. Flats, maisonettes.
2. Hotels, boarding houses, hostels.
3. Residential schools institutions
4. Hospitals, nursing homes, homes for old people
5. Places of detention, jails asylums.

Considering groups A and C it will be seen that within each group the contents of all buildings will be of a fairly well-defined and standardized type coming within the low normal fire load category. In residential buildings for example the contents will be ordinary domestic furniture and the fire hazard involved will not vary

substantially from one building to another.

In Group B occupancies there is a considerable variation in the contents of different buildings of the same type. In anyone of these i.e. offices, are the contents substantially similar. Warehouses, shops and factories all show a wide variation according to the quantity and nature of the goods involved or the processes carried on. In warehouse and factory buildings it is particularly necessary to draw a distinction according to contents and in these cases sub-division into the two types, normal and abnormal hazard is required.

Out of the above three groups, the Sub Committee was of the opinion that no extra fire precautionary measures other than those that work out as recommended vide item 4 of the Standing Fire advisory Committee minutes of the 2nd meeting for industrial establishments will be necessary for the occupancies coming under Group A and Group C. The Sub Committee however, felt that additional fire precautionary measures will have to be taken in case of occupancies coming under Group B.

While working out the fire precautionary measures for the extra hazardous and hazardous goods in trades and industries the Sub Committee felt that the following factors are required to be taken note of:-

- (a) Structure housing the industry or the trade.
- (b) Area covered
- (c) Material stored or under process.
- (d) Machinery likely to start a fire.
- (e) Exposure hazard

As regards the factors at (a) and (b) the Sub-Committee felt that these have been well covered in the formula recommended under item 4 of Standing Fire Advisory Committee minutes of 2nd meeting or working out the normal fire precautions. However for taking into account the extra hazard and fire risk created by items 3, 4 and 5 the Sub-committee is of the opinion that the value B of the formula should be multiplied by a coefficient Q of appropriate value.

A list of hazardous and extra hazardous goods of materials that are likely to be involved in the manufacture process storage or handling in trades in industries showing their classification as H = Hazardous and EH = Extra Hazardous is given below.

Regarding the assessment of risk due to the Exposure Hazard a reference to the Indian Standard Code of Practice for Fire Safety of Buildings - Exposure Hazard may be made.

Material	Class of Hazard
Absolute Alcohols	E.H.
Accelerine	H.
Accumulator Acid (See Sulphuric Acid dilute)	E.H.
Accumulator Cases, Celluloid	E.H.
Acetal	E.H.
Acetaldehyde	E.H.
Acetates, See under specific names	
Acetic Acid (Glacial)	H.
Acetone, See De Methyl Ketone	
Acetone Oils	E.H.
Acetylene (dissolved)	H.
Acetylene (Liquid)	E.H.
Acetyloid	E.H.
Acetyloid	E.H.
Acid See under specific names	
Aconite Leaves See Leaves	
Acrylonitrile	E.H.
Aeroplane Flares See Flares	
African Fibre	H.
Agava Fibre	H.
Aguardiente See Spirits Portable	
Alcohol See under specific names	
Alfa (Vegetable Fire)	H.
Algerian Fibre	H.
Allyl Alcohol	H.
Aloe Fibre	H.
Alpha (Vegetable Fibre)	H.
Aluminium Carbide	E.H.
Aluminium Dust	E.H.
Aluminium Paste	E.H.
Aluminium Powder	E.H.
Aluminium Resinate	H.
Aluminium supho-Cyanide See Poisons	
Ambari Hemp (Vegetable Fibre)	H.
American Moss fibre	H.
Ammonia (Aqueous solutions or spirits of ammonia exceeding 30 per cent NH ₃ (less than 99 S.G.))	H.
Ammonia, Anhydrous	H.
Ammonium Bichromate	H.
Ammonium Chloride	E.H.

Material	Class of Hazard
Ammonium Cyanide	E.H.
Ammonium Nitrate	E.H.
Ammonium Picrate	E.H.
Ammonium Perchlorate	E.H.
Ammonium Persulphate	H
Ammonium Sulphate Nitrate	E.H.
Ammonium Sulpho Cyanide, See Poisons	
Ammunition, including Cartridges and Fuses, other than safety cartridges and safety fuses	E.H.
Safety Cartridges and safety fuses	H
Amorces (Explosive)	E.H.
Amorphous Phosphorous	H
Amyl Acetate, F.P. below 24.40 C(iso-from fuel oil) F.P. not below 65.50 C	H
Amyl Alcohol	H
Amylamine	E.H.
Amyl Butyrate	H
Amyl Chloride	E.H.
Amylene	E.H.
Amylene Hydrate. See Amyl Alcohol	
Amyl Ether	E.H.
Amyl Formate	H
Amyl Nitrate	E.H.
Amyl Oxide, See Amyl Ether	
Amyl Propionate	H
Andersonian Fibre	H
Anhydrous Ammonia See Ammonia Anhydrous	
Aniline	H
Aniline Oil	H
Animal Black	H
Animal Oils, See Oils Animal, Fish etc.	
AnimiH	
Anhydrous denatured Alcohol (Ansol M & Ansol PR)	E.H.
Anthracene	H
Anthracene Oil	H
Anti-Corrosive Paint See paints	
Anti-Fouling Paint. See paints	
Antimony-potassium Taartrate See Poisons	
Antimony sulphate See antimony trisulphate	
Antimony sulphate	H

Material	Class of Hazard
Antimony trisulphate	E.H.
Antimony trisulphate	E.H.
Aqua Fortis See Nitric Acid	
Aqua Regia	E.H.
Aarachis Oil See Oils, Animal, Fish etc	
Archangel Mats See Mats Archangel or Russian	
Arca Nuts complete with husk or shell	H
Areca Nuts without husk or shell i.e. shelled	E.H.
Arnica Flowers. See Flowers	
Arrack, See Spirits, portable	
Article made from non-feam. Cellulose base excluding non-flam.	
Films on metal spools. See cellulose base articles or waste.	
Artificial silk fibre See Rayon fibre	
Artificial silk waste See Rayon Waste	
Asafetida, unless packed in bottles in cases or In tins in cases	H
Asphalt	H
Asphalted Felt. See Felt	
Asphalted Paper. See paper	
Asphalt Saturated Felt. See Felt	
Asphaltum	H
Begarse. See Bagasee	
Bagassee (Vegetable Fibre)	H
Bagazo See Bagassee	
Bags and Sacks Those which have contained nitrates or sugar, oily greasy or treacly materials	H
Balata unmanufactured if stored with other goods	H
Balsams, unless packed in bottles in cases or in Tins in cases	H
Bamboo Fibre	H
Bamboo Mats	H
Banana Fibre	H
Bamboo Fibre	H
Barium Acetate. See poisons	
Barium Binozide, See Barium Peroxide	
Barium Bromate	E.H.
Baromide See Poisons	
Barium Carbonate Se Poisons	
Barium Chlorate	E.H.
Barium Chloride See Poisons	

Material	Class of Hazard
Barium Chromate See Poisons	
Barium Cyanide See Poisons	
Barium Ethylsulphate See Poisons	
Barium Fluoride See Poisons	
Barium Hydrate See Poisons	
Barium Hydroxide See Poisons	
Barium Iodide See Poisons	
Barium manganate See Poisons	
Barium Manganate See Poisons	
Barium Nitrate	E.H
Barium Oxide See Poisons	
Barium Peroxide	E.H
Barium Sulphide	H
Barium Sulphocyanate See Poisons	
Barium Sulphocyanide See Poisons	
Bass. See Bast	
Bassin (Vegetable Fibre)	H
Bast(Vegetable Fibre)	H
Battery Acid See Sulphuric Acid (Dilute)	
Bay Leaves. See Leaves	
Beeswas	H
Beet Pulp	H
Belladonna Leaves See Leaves	
Bengal Lights	E.H
Benjamin	H
Benzene	E.H
Bezine	E.H
Benzoic Acid	H
Bezoin	H
Benzol See Benzene	
Benzole See Benzene	
Benzolene See Benzene	
Benzoyl Peroxide	
Berlin Black	E.H
Beerlin Black	H
Bichromates of all kinds	H
Bi'chromate Potash See Potassium Bichromate	
Bichromate of Soda Sec sodium Bichromate	
Bi-Nitro Benzene H	
Bi-Nitro-Benzol See Bi-Nitro-Benzene .	

Material	Class of Hazard
Binoxalate of Potash See Poisons	
Biri Leaves (Dry) known as "Tembri" "Apta" and "Kuda:	H
Bi-Sulphide of Carbon Carbon Bi-Sulphide	
Birumen(other than emulsified Bitumen containing not less than 45 per cent of water and packed in metal drums)	H
Bituminous Damp Course. See damp Course	
Bituminous Bituminous Felt. See Felt	
Bituminous Paint. See Paints	
Blacking See Cleaning and Polishing	
Liquids creams and pastes	
Black of all kinds	H
Blasting Powders (Explosives)	E.H
Bombax Cotton (Vegetable Fibre)	H
Bon-bons. Seechristmas Crackers	
Bone Black	H
Bone Oil, See Oils. Animal. Fish etc.	
Borneol	H
Brandy, See Spirits. Portable	
Bran Oil see Oils Animal. Fish etc.	
Brattice Cloth (Terred). See Cloth	
Brewer's Grains, Dried	H
Brimstone See Sulphur	
Bristile Fibre	H
Bromelia Fibres	H
Bromine See Poisons	
Bronze Powder	E.H
Broom Corn (Vegetable Fibre)	H
Broom Millett (vegetable Fibre)	H
Brunswick Black	H
Buchu Leaves See leaves	
Butalyde see Butyl Aldehyde	
Butane	H
Butanel, See Butyl Alcohol	
Butyl Acetate	H
Butyl Alochol	H
Butyl Aldehyde	E.H
Butylamine	H
Butyl Butyraten	H
Butyl Chloriden	E.H
Butyl Lactate	H
Butyl Nitrate	E.H

Material	Class of Hazard
Cahco Nuts	H
Caboun Nuts	H
Cake, Oil Seed, See Oil Seed Cake	
Calcium	E.H
Carbide	E.H
Calcium Chlorate	E.H
Calcium Cyanamide, unless certified to contain not more than 0.3 per cent of carbide and packed in air-tight metal containers	H
Calcium Cyanide See Poisons	
Calcium Nitrate	E.H
Calcium Permanganate	H
Calcium Peroxide	E.H
Calcium Phospide	E.H
Calcium Phosphite	E.H
Calcium Resinate	H
Calcium Silicide	E.H
Calcium Sulpho-Cyanide See Poisons	
Camomile Flowers See Flowers	
Camophene	H.
Camphor	H
Camphor Oil (Light). See Oils, Animal, Fish etc.	
Camphor, Synthetic	H
Canada Balsam, See Balsams	
Candles	H
Cane Fibres	H
Caoutchoue See India Rubber	
Cape Palma Fibre	H
Capivi balsam, See balsams	
Cape for Toy Pistols	E.H
Caraway Chaff	H
Carbic Cakes - unless packed in tins in cases	E.H
If packed in tins n cases	H
Carbolic Acid See Phenol	
Carbolic Oils	H
Carbon	H
Carbon Bi-Sulphide	E.H
Carbon Black	H
Carbon Di-Sulphide See Carbon Bi-Sulphide	
Carbon Tetrachloride See Poisons	
Carbonyl chloride (Phesgane)	H
Carnaube	H

Material	Class of Hazard
*Cartridges See Ammunition	
Cassia Leaves	H
Castor Oil See Oils Animal Fish, etc.	
Cattle Food Cake	H
Caustic Potash See Potassium Hydroxide	
Caustic Soda. See Sodium Hydroxide	
Cellophane papers or (Loose)	E.H
Cellophane papers or sheets in rolls	E.H
Cello-solve See Chyco Mono Ethyl Ether	
Cello-solve Acetate	H
Cello-solve Butyl	H
Celluloid Methyl	H
Celluoid	E.H
Celluloid Articles and preparations	E.H
Celluoid Cases Accumulators See Accumulators	
Celluoid cased	
Celluloid cement See Cement, Celluloid	
Celluloid scrap	E.H
Celluloid Solutions	E.H
Celluoid Waste. See Waste	
Cellulose base articles or waste, non-inflammable excluding non-inflammable films on metal spools	H
Cement, Celluloid	E.H
Cerasine	H
Caresine See cerasine	
Ceric-ammonium Nitrate	E.H
Casium	E.H
Cesium Nitratee.h.	
Charocoal	H
Charcoal Black	H
Chemicals, Pharmaceutical See Pharmaceutical Chemicals and drugs	
Chickle	H
Chili saltpeter See Potassium Nitrate	
China Grass (Vegetable Fibre)	H
Chinese wood Oil See Anima,. Fish etc	
Chlorobenzene	H
Chlorate Mixtures (Explosives)	E.H
Chlorate of Barium See Barium Chlorate	
Chlorate of Calcuim See Calcium Chlorate	
Chlorate of Potash See Potassium Chlorate	
Chlorate of Soda. See Sodium chlorate	

Material	Class of Hazard
Chlorate of Zinc. See Zinc Chlorate	
Chlorates of all kinds	E.H
Chlorides of Sulphur See Sulphur Chlorides	
Chlorine	H
Chloro-Sulphenic Acid	E.H
Christmas Crackers	H
Chromates of all kinds	H
Chromic Acid See Chromic anhydride	
Chromic Anhydride	E.H
Cinnabar See Poisons	
Cleaning and Polishing liquids Creams and Pastes	
F.P. below 24.40C	E.H
F. P. Between 240c	H
Clean waste. See waste of all kinds	
Choth. Asphalted	H
Cloth Tarred	H
Clothing, Oiled unless packed in sealed metallines cases	H
Coal Dust	E.H
Coal Gas	H
Coal Pitch	H
Coal Pulverised	E.H
Coal Tar	H
Coal Tar Dyes (Anilene Dyes) including sulphur Dyes. See Sulphur Dyes	
Coca Leaves See Leaves	
Coca Butter	H
Coca Nut Fibre	H
Coconut oil See Oils Animal fish etc.	
Hydrogenated Vegetable Oil	
Codilla (Vegetable Fibre)	H
Cod Oil See Oils Animal Fish etc.	
Coir Dust	H
Coir Fibre	H
Coir Matting	H
Coir Rope	H
Coir Yarn	H
Cole Nuts	H
Collodion Cotton and Collodion	E.H
Coolphony	H
Common Resin	H
Concentrated Sulphuric Acid See Sulphuric Acid (concentrated)	
Confetti except when packed in wooden boxes	H

Material	Class of Hazard
Confetti Bombs	H
Congo Fibre	H
Copaiba balsam See Balsams	
CopalH	
Copal Varnish	H
Copper Chlorate	E.H
Copper Cyanide See Poisons	
Copper Fluoride see Poisons	
Copper Hydroxide See Poisons	
copper Nitrate	E.H
Copper Sulphide	H
Copper Sulpha Cyanide See Poisons	
CopraH	
Copra Bags See Bags and Sacks	
Copra Cake	H
Copra Meal	H
Cordage Sisel Loose and/or in bags	H
Cordite (explosive)	E.H
Coriander See Herbs	
Cork Dust	H
Cork. Granulated unless in the form of hard pressed bales blocks or slabs	H
Corrosive Sublimate. see Poisons	
Cossaques See Christmas Crackers	
Cotton (whether in fully pressed bales or otherwise)	H
Cotton Flock See Flock	
Cotton Grass	H
Cotton Linters See Linters	
Cotton Seed Cake	H
Cotton Seed Oil. see oils Animal Fish etc.	
Cotton Seed Screenings	H
Cotton Straw	H
Cotton Waste See Waste	
Cowrie	H
Creosote	H
Creosote Oils	H
Cresols	H
Cresylic Acids	H
Crin (Vegetable Fibre)	H
Crotonaldehyde	H
Crude Petroleum See Oils Mineral etc.	
Cubra Bast	H

Material	Class of Hazard
Cubic Nitre See Sodium Nitrate	
Cumene	H
Cumin See Herbs	
Cumol	H
Curled Vegetable Hair (Vegetable Fibre)	H
Cus Fibre (Cus Cus Root)	H
Cyanamide See Calcium Cyanamide	
Cyanide of Lime See Poisons	
Cyanogen	H
Cymene P	H
Cymogens	E.H
Cymol	H
Dammer	H
Damp Course Bituminous	H
Date Plam Fibre	H
D.L.T. Liquid	H
Dead Oil See Cresole	H
Dackance	H
Decorative Moss. See Moss	
Decalin	H
Dessicated Coconut dry and Oily fresh and moist See Coconut Oil	H
Detonators (Explosives)	E.H
Diacetone Alcohol	E.H
Diamylane	H
Diamyl Phthalaten	H
DiatolH	
Dibromacotylene	H
Dibutyl Oxalate n	E.H
Dibutyl Phthalte n	H
Dichlorethylene	H
Dichlore Pontanes (mixed)	H
Dichromate of Potash See Potassium	
Dichromate	E.H
Diethylamine	H
Diethyl Carbinol	H
Diethyl Carbonate	E.H
Dimethyl Katons	H
Dimethylamine	E.H
Di Nitro Amido Phenol	E.H
Di Nitro Aniline	H
Di Nitro Benzene	H
Di Nitro Benzol See Di Nitro Benzene	
Di Nitro Napthalene	E.H

Material	Class of Hazard
Di Nitro Phenol	E.H.
Di Nitro Toluene	E.H.
Di Nitro Toluol, See di Nitro toluene	
Dioxane	E.H.
Dipentane	H
Disinfectant Liquids (other than Hycol)- F.1. below 24.40C	E.H.
F.P. between 24.40C and 55.50C	H
Down Vegetable	H
Dragon's Blood	H
Dried Brewer's Grains See Brevers Grains, Dried	
Dried Glass	H
Drugs, Pharmaceutical. see Pharmaceutical Chemicals & Durgs'	
Dubbin, unless packed in tins in cases	H
Dusts. See under specific names	
Dyes, Sulphur. See sulphur Dyes	
Dynamite (Explosives)	E.H.
Earth Nuts (Shelled)	H
Earth Wax	H
ElemiH	
Edible Oils. See Oils, Animal, Fish etc. enamels - F.P. below 24AOC	E.H.
FP. not below 24AOC	H
Esparto Grass (Vegetable Fibre)	H
Esparto Leaves (Vegetable Fibre)	H
Esparto Two (Vegetable Fibre)	H
Essential Oils, See Oils, Animals. Fish etc.	
Esters. See under specific names	
Ethane	H
Ether. See Ethyl Ether	
Ethyl Acetate	E.H.
ethyl Acetoacetate	H
Ethyl Alcohol - S.G. below 0.919 l or more than 97% by volume of absolute alcohol	E. H.
S.G. not below 0.919 and of not more than 57% by volume of absolute alcohol	H
Ethyl Benzene	E.H.
Ethyl Bromide	H
Ethyl Butyrate	E.H.
Ethyl Carbonate See Di Ethyl Carbonate	
Ethyl Chloride	E.H
Ethyl Chlorocarbonate	E.H
Ethylene	H
Ethylene Chloride. See Dichlorethylene	

Material	Class of Hazard
Ethyl Ether	E.H
Ethyl Formate	E.H
Ethyl Lactate	H
Ethyl Nitrate	E.H
Ethyl Nitrite	E.H
Eucalyptus Oil. See Oils, animals, Fish etc.	
*Explosives generally (see also ammunition and specific names)	
Fats, excluding butte and margarzie	H
Feather Grass (Vegetable Fibre)	H
Felt -	
Asphalted	
Asphalt, saturated	
Bituminous	H
Roofing	
Rarred	
Felt, Inodorous	E.H
Ferric Nitrate	E.H
Ferrocyanide of Potash. See Poisons	
Ferro silicon -	
30 per cent to 70 per cent silicos	E.H
15 per cent to 30 per cent and 70 per cent to 805 silicos	H
Fibres, Vegetable, of all kinds. See Vegetable Fibres	E.H
Films, Non-Safety	E.H
Fire Balsam See Balsams	
Fire Lighters	E.H
Fireworks of all kinds	E.H
Fish Oils See Oils, Animal, Fish etc.	
Fish Guano	H
Fish Manure	H
Flares, Aeroplane, Ships etc.	E.H
Flash Powders. Photographic	E.H
Flax, of all kinds (vegetable Fibre)	H
Flax Yarn, except when packed in wooden cases	H
Flock H	
Flowers, dried of all kinds, in bags, sacks, bales, baskets, made of pockets	H
Fluoric acid, see Hydrofluoric Acid	
Fodder, /Dried	H
Foots (Oil and Varnish)	H
Formaldehyde. See Poisons	
Possil wax	H
Frankineense	H
French Polish	H
Fuel Oils-	
F.P. below 24.40C	E.H.

Material	Class of Hazard
F.P. not below 24.40C	H
Fulminates (Explosives)	E.H.
Furfural	H
Fuses. See Matches	
FuselOil	H
Fuses, See Ammunition	
Galibanum	H
GanjaH	
Gas Black	H
Gasoline Petrol	H
Ghee (other than vegetable ghee in this not exceeding 10 Lbs in weight and/or in bottles)	H
Gilsonite	H
Gilsonite, Superselects in bags	H
Gin. See Spirits, Portable	
Ginnings	H
Glacial Acetic Acid. See Acetic Acid (GlacialO	H
Glance Pitch	H
*Glycarine	H
Glyco Mono Ethyl Ether	H
Goora Nuts	H
Grahamite	H
Granulated Cork. See Cork, Granulated	
Graphite Greases and lubricants	H
Grasses (Vegetable Fibres)	H
Grass Mats	H
Grease	H
Greasy Rags. See Rags	
Greasy waste. See Waste	
Green Oil	H
Ground Nut Cake	H
Ground Nut Meal	H
Ground Nut Oil. See Oils, Animal, fish etc.	
Gumatti Fibre	H
Gums. See under specific names	
gun Cotton (Explosive)	E.H
**Gunnis (other than in fully pressed bales)	H
Gunpowder (Explosive)	E.H
Gurgan Balsam. See Balsams	
Gutta Jealtong, unmanufactured. If stored with other goods	H
Gutta percha. unmanufactured. If stored with other goods	H
Hard Waste Yam	H
Health for Besoms	H
Hemp. of all kinds (Vegetable Fibres)	H
Hemp seed Oil, Animals Fish ect.	

Material	Class of Hazard
Hemp Yarn	H
Hennequem (Vegetable Fibre)	H
Hervs. Dried of all kinds in bags sacks, bales, baskets mats or pokets	H
Hessians (other than in fully pressed bales)	H
Hexane n	E.H
Hop Fibre	H
Hops. See flowers	
Hops, Spent	H
Hull Fibre	H
ydrobromic Acid	H
Hydrochloric Acid	H
Hydrogyanic Acid. See Poisons	
Hydrofluoric Acid	H
Hydrofluosilioic Acid	H
Hydrogen	H
Hydrogen Cynide	H
Hydrogen Peroxide -	
If exceeding 40 percent peroxide	E.H
If exceeding 6% but not exceeding @ peroxide	H
Hypochlorous Acid	E.H
Iceland Moss.Sec Moss	
Ifc Hemp (Vegetable Fibre)	H
Illuminating Oils. See Oils, Illuminating	
India Rubber. unmanufactured. If stored with other goods	H
Indoor Fireworks. See Fireworks	
Industrial Alcohol	E.H
Industrial Spirits. See spirits.	
Industrial Inflammable Liquids-	
F.P. below 24.4%	E.H
F.P. between 24.4%	H
Inks, Printing	
F.P. below 24.4%	E.H
F.P. between 24.4%	H
Inodorous Felt. See felt, Indorous	
Insecticides -	
F.P. below 24.4%	E.H
F.P. between 24.4% and 65.5%	H
Irish Moss. See Moss	
Iron Sulphide	H
Isobutyl Carbinol	H
Isopropyl Alocohol	E.H
Isopropylamine	E.H
Istle Fibre	H
Italian Hemp Godilla	H
Italian Whisk (Vegetable Fibre)	H

Material	Class of Hazard
Ita Palm Fibre	H
Ivory Black	H
Ixthe Fibre	H
Japanese Moss. See Moss	H
Jaumave (vegetable fibre)	H
Joss Paper and Sticks	H
Jumiper	H
Junk H	
Jute (in fully pressed bales or otherwise)	H
Jute Cuttings	H
Jute Yarn (other than in full pressed bales)	H
Kapok(Vegetable Fibre)	H
Kapol Oil. See Oils, animal, Fish etc.	
Kapok Seed	H
Kaur H	
Kerosene, See Oils, Mineral etc.	
Kittol (Vegetable Fibre)	H
Lacquers	
F.P. below 24.4%	E,H
F.P. not below 24.4%	H
Lamp Black	H
Lamp Oil. See Oils. Illuminating	H
Lard	
Lard Oil See Oils, Animal, Fish etc.	
Laughing Gas. See Nitrous Oxide	
Laurel Leaves. See Leaves	
Lavender. See Herbs	
Lead Carbonate. See Poisons	
Lead Chloride see Poisons	
Lead Dioxide	H
Lead Oxice, See Poisons	
Lead Peroxide. See Lead Dioside	
Lead Respinate	H
Leather Pickers (Oily)	H
leaves. Dried of all kinds (except tobacco) in bags, sacks, bales, baskets, mats or pockets	H
Lechugill (Vegetable Fibre)	H
Lime, unslaked	H
Linen Fibre	H
Linen Yarn. See Flax Yarn	
Linseed Oil. See Oils. Animal, Fish etc.	
Linters	H
Liquid Acetylene. See Acetylene (Liquid) Lithium	

Material	Class of Hazard
Lubricating Oils, See Oils Lubricating	E.H
Lycopodium Powder except when packed in tins incases	H
Lythene	E.H
Madagascar Fibre	H
Magnesium Bromate	H
Magnesium Candles	H
Magnesium Nitrate	E.H
Magnesium Peroxide	E.H
Magnesium Powder	E.H
Magnesium Pibbon	H
Magnesium forches	H
Magnesium Wire	H
Magney Fibre	H
Maguey Fibre	H
Maize Oil. See Oils Animal, Fish etc.	
Manganese Dixoide	H
Manganese Peroxide. See Maganese Dioxide	
Manganese Resinate	H
Manilla Hamp (Vegetable Fibre)	H
Manilla Yarn	H
Manilla Pope Tarred	H
Manjak	H
Marsh Fas. See Methane	
Matches of all kinds	H
Mats, Archangel or Russian	H
Matting, used	H
Maxphalt	H
Meal Oil see	
Medicinal Oils. see Oils Animal, Fish etc.	
Message See Megasse	
Menthol	H
Mercuric Chloride	H
Mercurio Sulphide. See Poisons	
Mercury Fulminate	E.H
Metallic Powders. See under specific names	
Metallic Potassium	E.H
Methane	H
Methyl Acetate	E.H
Methyl Acetone. See Diamethyl Ketone	
Methyl Alcohol	E.H
Methylated Spirit	H
Methyl Cellosolve	H

Material	Class of Hazard
Methyl Chloride	H
Methylene Chloride. See Dichloromethylene	
Methyl Ethyl Ketone	E.H
Methyl Formate	E.H
Mexican Fibre	H
Millet Stalk (Vegetable Fibre)	H
Mineral Black	H
Mineral Oils, and their liquid products. See Oils Mineral etc.	
Mineral Turpentine. See Turpentine	
Mineral Wax	H
Mint See Herbs	
Mirbane Oil. See Nitro Benzene	
Molascuit	H
Molasses Meal	H
Molassine Meal	H
Monkey Bass(Vegetable Fibre)	H
Monkey Bread tree Fibre	H
Monkey Nuts (Shelled)	H
Monochlor-Acetic Acid	H
Mono Nitramilrue (Nitra Line)	H
Mono Nitro Aniline. See Mono Nitraniline	
Mono Nitro Naphthalene	H
Mono Nitro Phenol. See Nitro Phenol (Mono)	
Mono Nitro Toluol See Nitro Toluene (Mouo)	
Moss, dried of all kinds	H
Mould Coats	H
Mulberyy fibre	H
Mungo	H
Muriatic Acid. See Hydrochloric Acid	
Murva Fibre	H
Musa Fibres	H
Murrah	H
Mono Nitro Toluil. See Nitro Toluene (Mono)	
Naptha. F.P. below 24.4%	E.H
F.P. not below 65.5C	H
Naphthalene	H
Neats foot oil. See Oils, Oils animal, fish etc.	
Nettle Fibres	H
New Zealand Flax (Vegetable Fibre)	H
New Zeland Hemp (Vegetable Fibre)	H
Nickel Feroxide	H
Nitraniline See Mono Nitraniline	
Nitrate Mixtures	E.H

Material	Class of Hazard
Nitrates of all kinds	E.H
Nitrate of Ammonia. See Amonium Nitrate	
Nitrate of Iron. See Ferric Nitrate	
Nitrate of Lime. See Calcium Nitrate	
Nitrate of Soda. See Sodium Nitrate	
Nitre, Sweet Spirits of	E.H
Nitric Acid	E.H
Nitrites of all kinds	E.H
Nitrite of Potash. See Potassium Nitrite	
Nitrite of Soda See Sodium Nitride	
Nitro Anilines. See Mono Oi, Tri and Tera	
Nitro Anilines	H
Nitro Benzene	H
Nitro Benzol. See Nitro Benzene	
Nitro Cellulose; Plastic	H
Nitro Chalk	H
Nitro Compounds (Explosive)	E.H
Nitro Glycerine (Explosive)	E.H
Nitrolim. See Calcium Cyanamide	
Nitro-Mannite	E.H
Nitro-Methano	H
Nitro N-Phthalenes. See Mono Di, Tri and Etra Nitro Naphthalene's	
Nitro Phenol (Mono)	H
Nitrose Phenel	H
Nitro Starch (Explosive)	E.H
Nitro Toluene (Mono)	H
Nitro Tolul (Mon. See Nitro Toleuene (Mono))	
Nirrous Ether. See Ethyl Nitrites	
Nitrous Oxide	H
Non-flammable cellulose. Base articles or waste. See Cellulose base articles or waste	
Nordhausen Sulphuric Acid. See Sulphuric Acid .Nordausen	
Nut Oil, See Oils, animal, Fish, etc.	
Nuts See under specific names	
Oakum	H
*Oil Cake	H
Oiled Clothing. See clothing, Oiled	
Oiled Paper. See paper	
Oiled Sheets, See Sheets, Oiled	
Oiled textile-materials. See textile materials, oiled	
Oil Foots. See foots (Oil and Varnish)	H
Oil Gas	
Oil of Mibbane See Nitro Benzene	

Material	Class of Hazard
Oil of Vitriol See sulphuric Acid (Concentrated)	
Oils, Animals, Fish and Essential, other than medicinal, edible and essential oils packed in bottles in case or in tins in cases	H
Oils, Vegetable (other than tins not exceeding 10 Lbs in weight and/or bottled)	H
Oils, Illuminating	E.H.
F.P. below 24.40C	H
F.P. not below 24.40C	H
Oils - Mineral, Rock, Schist, Shale Petroleum, Tar and their liquid products (except medical, packed in bottles in cases or in tins in cases)	
F.P. below 24.40C	E.H
F.P. not below 24.40C	H
Oil-seed Cake (including Cotton Seed Cake)	H
Oil Seed Meal. See Meal, Oil Seed	
Oil sheets	H
Oily Bags. See Bags	
Oily Waste. See Waste	
Oleine	H
Oleo H	
Oleum	H
Olibanum	E.H
Olive Oil, See Oils, Animal, Fish, etc.	
Opponax	H
Ortho Nitro Phenol	H
Ortho Nitro Toluene Oxzlic acid. See Poisons	
Oxygen	H
Ozokerite	H
Paint Removers	
F.P. below 24.40C	E.H
F. P. not below 24.40C	H
Paints	
FP below 24.40C	E.H
FP. not below 24.40C	H
Palm Butter	H
Palmette Grass	H
Palm fibres	H
Palm Kernel Oil. See Oils Animal fish etc	
Palm Kemels	H
Palm Leaves. See leaves	
Palm Nuts	H
Palm Oils, See Oils, Animal, fish, etc.	
Palmyra-Fibre	H
Pampas Plumes	H

Material	Class of Hazard
Paper-	
Asphalted	
Oiled H	
Tarred	
Paper shaving. See shavings, wood or paper	
Papyrus (vegetable fibre)	H
Paraffin Oil, see Oils, Mineral, etc.	
Paraffin Wax	H
Paraldehyde	E.H
Paramatta Grass (vegetable fibre)	H
Para-Nitro-Acetanilide	H
Para-nitro Phenol	H
Para-nitrosodimethylaniline	H
Patchouli Veaves See Leaves	
Pea Nut Oil. See Oils Animal, Fish etc. Pea Nut (Shelled)	
Peat Dust	H
Peat Moss. See Moss	
Peat Mould	
Pentane	H
Pentene See Amylene	E.H
Peppermint Oil. See Oils Animal, Fish Etc.	
Perchlorate of ammonia see Ammonium Perchlorate	
Perchlorate Mixtures (Explosive)	E.H
Perchlorates of all kinds	E.H
Perchlorate of Potash. See Potassium Perchlorate	
Perchlorate of Soda. See Sodium Perchlorate	
Percussion Caps (Explosive)	E.H
Permanganates of all kinds	H
Permanganate of Potash-See Potassium permangante	
Permanganate of sods. See Sodium Permanganate Peroxide of all kinds	H
Peroxide of Benzoyl. See Benzoyl Deroxide	
Peroxide of Hydrogen. See Hdrogen	
Peroxide Peroxide of Lead. See lead Dioxide	
Peroxide of Manganese. See Manganese Dioxide	
Peroxide of Potassium See Potassium Peroxide	
Peroxide of Zinc. See Zinc Peroxide	H
Persulphates of all kinds	
Peru Balsam. See Balsams	
Petrol	E.H
Petroleum, See Oils, Minerals etc.	
Petroleum Ether	H
Petroleum Jelly	H

Material	Class of Hazard
Petroleum Oils and their liquid products	
See Oil. Mineral, etc.	
Pharmaceutical Chemicals and Drugs -	
Liquid or solid, consisting or containing or made up with substances listed as Hazardous. Unless packed in bottles not exceeding one Minchester quart in capacity or in tins or jars containing not more than 10 Lb and packed in cases	H
Pharmaceutical Drugs See Pharmaceutical Chemicals and Drugs	
Phenol (Carbolic Acid) see Poisons	
Phosgene See Carbonyl chloride	
Phosphine	E.H
Phosphonium Iodide	E.H
Phosphoric Acid	3B
Phosphorus -	
Amorphous. See Amorphous Phosphorous	
Red See Red Phosphorous	
White. See White Phosphorous	
Phosphorous Pentachloride	H
Phosphorous Sesquisulphide	E.H
Phosphorous Sulphides (Except Phosphorous sesquisulphide q.v.)	H
Phosphorous Trichloride	H
Photographic Flash Powders See Flash Powders. Photographic	
Pissava of all kinds (vegetable fibre)	H
Picramic Acid. See Di Nitro amido Phenol	
Picra-tas (Explosives)	E.H
Picric Acid See Tri Nitro Phenol	
Pineapple Grass	H
Pine Bark	H
Pinene	
Pine Oil See Oils Animal, fish etc.	
Pine Tar Oil. See Oils Minerals, Tar etc	
Pita Fibre	H
Pitch H	
Plantain Fibre	H
Poisons, if stored on the same floor as or on floors-above foodstuffs H	
Polishing Liquids. Creams and Pastes. See cleaning and polishing liquids creams and pastes	H
Pontionac	H
Poppy seed Oil. See Oils. Animal, Fish etc.	E.H
Potable Spirits. See Spirits, Potable	E.H
Potassium	E.H
Potassium Bichromate	H