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 organizes 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 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 organised, 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 officer 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

- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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)



## FIRE SERVICE FLAG

(See para 6 under 20 Service Motto, Emblem and Flag)



Colour scheme of Fire Service Flag is as follows:

- i) Background Colour Yellow at top and red at bottom.
- ii) Helmet black with crossed firemen's axes in front.
- iii) Axes all black

(Blank will be filled up by the name of the F.S./Organisations)

- v) Betel leaves at lower base Corner black on Flag "B".
- vi) Dimensions 6' by 4'
- vii) Theme of the colour would be Yellow Chivalry/Sacrifice/help Red - Fire/Danger/Destruction
- iii) Other themes Helmet protection
  Axes Rescue
  Bases Firmness

## 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

Nan	ne of Se	Service	
Nan	ne of To	Town	
Dist	rict		
Stat	е		
	200000		
1.		ea in square miles and rateable value.	
2.	0.00	opulation.	
3.	Fire	re Risks Covered.	
	(a)		99.00010000 0.5
	(b)		
	(c)	(1	
	(d)		
	(e)	· · · · · · · · · · · · · · · · · · ·	
	(f)		acture
	(g)	5)	
	(h)		
	(i)	사람들은 사람들은 사람들이 어느 내가 되었다면 하는 것이 되었다면 하는데 얼마를 하는데 살아 없었다면 하는데 없었다면 하는데 없다면 하는데 없다면 하는데 없다면 하는데 없다면 하는데 없다면 하는데 하는데 없다면	
	(j)	Timber and wood workings, paper manufacture	
	(k)	) Chemical works	
	(1)	Gas and Electricity Undertaking	<u> </u>
	(m)	Docks, Railways and Air Port Installations	
	(n)	) Ware-houses, goods yards and goods sheds	
	(0)	) Manufacture of rubber goods	
	(p)	) Other (Give details)	
4.	Fire	re risks around the town (Details to be given)	
5.	Wate	ater 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.	Com	ommunication system.	
	Is the	there any organisation for collection of statistics relat nether such fires are attended to by the Fire Services of	ng to losses due to fires in town irrespective of r not.
7.	If so	so, what statistics, if any are being collected.	
8.	Any	ny other special points not covered by Nos. 1 to 8 abov	e.

## PROFORMA 'B'

## PARTICULARS TO BE COLLECTED FROM ALL FIRE SERVICE IN THE COUNTRY

Nam	e of Service		
Nam	e of Town		
Distri	ct		
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
		(1)	Rescue gears etc.
		(m)	House Laying Lorries
		(n)	Breakdown vans
		(0)	Other vehicles
Note	- In each case give		nber of appliances not in working order in brackets.
2.	Equipment	(a)	Wireless scheme (if in operation) .
		38.5	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 St	103370	
4.	Staff Superintende		Principal Officers Scale of Pay and allowances Whether entitled to free quarters Other terms and conditions of service.

5.	Staff Supervisory	Other Officers Scale of pay and a Whether entitled to Other terms and co	
6.	Fireman	Number of Personr Scale of pay and a Whether entitled to Other terms and co	lowance
7.	Drivers	Number of Personr Scale of pay and a Whether entitled to Other terms and co	lowance
8.	Other personnel if any:	Number of Personr Scale of pay and a Whether entitled to Other terms and co	lowance
9.	Whether reserves are main if so, their conditions of ser		
10.	Whether any auxiliary Fire	Services are mainta	ined. If so, its strength and other details.
11.	Motor cycles/Cars/Cycles	(b) If so, detail (c) Period for	upplied for use of officers/staff. ls. which issued. ny allowances are admissible
12.	Uniform & Personal Equip	Uniform pr	ed free of charge: escribed (in details) ny washing allowance is admissible
13.	Accoutrements	Helmets Leather	Period for which
	Fireman's axe Badges of Rank Buttons (embossed) Whistle Belts Gas Mask Others	or steel	issued issued
14.	Whether the fire service m and/or Ambulance unit; if s		edical and other stores supplied
15.	Training of personnel:	Whether th	nere is training school; If so, supply details of courses, ration of each, courses, drills parades etc.
16.	Medical facilities provided	for staff	
17.	Games and other extra-cu	rricular activites	What are the provisions:
18.	Whether the Fire Service department of the state Go		e state Government direct and if so, state under which
19.	Whether the Fire Service is	s maintained	By the Corporation/Municipality/Local Board or by Private Bodies;
20.	Average annual expenditu	re on the brigade	How the expenditure is met; Is any fire tax being levied (details);
21.	Does the Brigade attend to	fires outside the	If any charges are levied, what are they: Any
	town; if so, whether free of	charge;	mutual Aid in force? if so, give details

- 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:
- Does your fire fighting equipment conform to standard specification of fire appliances and equipment. If not, please supply copies of specifications of your equipment.
- 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.
- 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	50)		
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 preceeding three years.
- (3) Statistics of fires for the year under report.

Types of Fires		No.	of Fires	
	Small	Medium	Serious	Total
(1)	(2)	(3)	(4)	(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, llay 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 casualities 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.

	Types of Fires	of waste sions of grass lands		tion	tion ashes Light	Light	tion ashes Light trical sives Coal origin fire fur-works nance	trical sives origin fire works	trical sives Coal origin fire fur-		iarism	from loco- motion	anical heat or spark	stovess or open fires	moking	diarism from anical stovessmoking aneous reaction neous loco- heat or combus-motion or open tion spark fires	Coal diarism from anical stovessmoking aneous reaction neous fur- loco- heat or combus-nance motion or open tion spark fires	neous		
		-	2	3	4	2	9	7	8	6	10	1	12	13	14	15	16	17	18	19
ε	Household																			
€	Textile, Woollen, silk etc. Mills	etc. Mills																		
	Oil Mills, Factories, ginning &	inning &																		
	Pressing works	,																		
3																				
3		uses.																		
		ds																		
3		s, Match																		
3	<ol> <li>Chemical fires</li> </ol>																			
3	i) Cellulose spraying and lacquor	nd lacquo	L																	
	manufacture																			
$\cong$		σ.																		
×																				
Œ.		rks etc.																		
×		, celluloid																		
×		ailway																		
lvivi	installations  Alice Definition and Oil and Definition	of Dofinia																		
3	installations		ית מכ																	
(xx)		ommercia	=																	
	establishments																			
(XX)		Dance																		
	Halls and places of public	ublic																		
(xx)	) Shops, Offices and commercial actablishments	ommercia	_																	
(XX)	(xvi) Theatres. Cinemas. Dance	Dance																		
	Halls and places of public	ublic																		
	assembly																			
(XVIII)	30	Educational Institutions,	stitutions	s,																
	Libraries, Hospitals etc.	tc.																		
(XVIII)		Gas, Electricity, Water, Sewage	, Water,	Sew	age															
	undertakings																			
×××	(xix) Professional establishments	hments																		
××	(xx) Farm lands, hay stocks, crops	ks, crops																		
XX	(vxi) Forset Plantations																			
(XX)	VICES L'IQUICAN	Rail and Rolling stock	a stock																	
(IIXX)		Refuse and outdoor storages	Idoor st	orada	4															
				0																

## REVISED FORMS FOR COLLECTION OF FIRE STATISTICS

#### PROFORMA RELATING TO FIRE STATISTICS

(For Urban Areas)

	(See para 2 under 2	1 Collection of fire statistic	es)
	F	PART -1	
		General I	Particular
		year _	
		Name of	Town/City
		District _	
Nam	ne 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		
	<ul> <li>Textile, woollen work and artificial silk, Rayon etc. mills (Nos.)</li> </ul>		

- (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?

- 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?
- (a) Average annual expenditure on the Fire Service:
  - (i) Recurring \_\_\_\_\_
  - (b) How the expenditure is met?
  - (c) Is any fire tax being levied (details):
- 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				
SI.	Items	Number	Number	Total	Estimated
No.		in working	not in		requirement
		order	working order		for the next

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

16.	Lado	ders -	Extension					
17.	Lado	ders -	First Floor					
18.	Lado	ders -	Hook					
19.	Lado	ders -	Scaling					
20.	Res	cue ge	ear (give details)					
(2)	Equ	ipmer	nt					
	(a)	Wire	eless Scheme (if in or	peration)				
		Use	rs (Fire Brigade only	or joint scheme)				
			of fixed stations					
			of mobile stations_					
V		No.	of walkie talkie sets t	ype (AM or FM) Fre	equency		Property and the second	
	(b)	Hos	e (total length in feet)					
	(c)		athing apparatus (No.					
	(d)		-Acetylene cutting ou					
	(e)	Ligh	nting Sets:					
		(i)	Electric					
		(ii)	OtherForms					
	(f)		m equipment					
		(No	t extinguishers)					
		(i)						
		(ii)	Foam making Brand (give capacities)	ch pipes				
		(iii)	Foam Compound (g	jallons)				
(3)	Acc	ountre	ements:		Qty.	Perio	d for which issue	
	Firer	man's	Axe.					
	(Тур	e ordi	nary/insulated)					
	Gas	Mask	s (Type)					
	Heln	nets (S	Steel/Leather)					
	Belt	& Pou	ıch					
(4)	Wha	t are t	he arrangements for	repair and mainten	ance of the equi	pment an	d appliances?	
(5)	Com	munio	cations system:					
	(a)	Tele	phone (State 'Yes' or	'No')				
	(b)	Stre	et Fire Alarms (Nos.)					
	(c)	Oth	er facilities					
(6)	Staff	f:						
SI.	Desi No.	ignatio	on Scale of Pay (in Rs.)	Allowances Admissible (in Rs.)	Any other terms of service		tioned Strength lar Leave & trg. ve	Remark
(a)	(b)		(c)	(d)	(e)	(f)	(g)	(h)
(7)			liary Fire Service mai its strength and other					
(8)		ning o syllab	f personnel: Is there ii.	a training school?	If so, give deta	ils of cou	rse, duration of	each course

SI.	Source		er fit for Fire	Approximate Capacity
No.		Fightin		(wherever applicable)
_		1000	nial Seasonal	
1	2 Static Tanks	3	4	5
1.		V		
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			
	2		PART III	
(1)	Statistics of human and animal liv			
SI. N	and the second s	scue work		Number
1	2			3
1.	Persons rescued without injuries			
2.	Persons rescued with burns and/o subsequently recovered.	or injuries	wno	
3.	Persons rescued alive with burns who subsequently died.	and/or inj	uries	
4.	Human lives lost before arrival of	fire brigad	de.	
5.	Casualties amongst fire service p	ersonnel		
6.	Animal rescued alive.			
7.	Animal lives lost			
(2)	Approximate value of property los	st by fire d	uring the year un	der report, classified according to ownership
SI. N	o. Type of Pro	perty	Approximate V	alue 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 F	ires		
SI. N	о Туре	of Alarms		Number
1.	Malicious			
2.	Due to defective alarms			
3.	with good intention			
	Total			

report
re
under
year
the
for
Fires
ō
<ul> <li>Statistics of Fires for the year</li> </ul>

		Firing of	Firing DustRadia- of Explo-tion a	tRad o- fior	ia-H	ring DustRadia- Hot HakerChimElectrExplosiveSasSparktaserMechOvenMedGvenSareSpont-CheMiscelNot Total of Explo- tion ashesbight ney cal Fire workcoal from dia- fromstoveanicatovedessaneousnicalaneknown	edChir ht ney	nElecti	Explo Fire	sive	asSpar al fror	rkase n dia	rMect from	Oven	Mech	Bven dove	Gare dessa	Spont-	Che	iscel	Not Tol	ਰ ਜ਼	Classification	ution	TotaRemarks Esti-
	Types of Fires	wastes or grass	wastesions or grass	S				origin	_	ac ac	furn-loco-vis acesnotives	o-visr	n loco- or heat or smok-com- motivopen or open ing ing firessparksfires	epen fires	or heat or s ppen or open firessparksfires	open	smok ing	furn-loco-vism loco- or heat or smok-com-react-ous acesnotives motivepen or open ing ing ion firessparksfires	ion	sno		Serion	Mediu	mSmall	SeriouMediumSmall Loss
	-	2	6	4	2	9	7	80	6	F	11	12	13	4	15	16	17	10 11 12 13 14 15 16 17 18 19 20	19	20	21	22	22 23	24	25
-	Household																								
N.	Textile woollen, silk etc. mills	, silk e	etc. m	<u>s</u>																					
3	Oil Mills factories, ginning & pressing works	ies, gir	guint	& pre	essin	g work	92																		
	and other manufacturing concerns	nufactu	ring c	once	SE																				
4	Graineries																								
ú	Storages, warehouses, goodsyards and sheds	ehouse	98, 90	odsy	ards	and sh	spec																		
6.	Explosives, fire works match factories	e work	s mat	ch fa	ctorie	80																			
7.	Chemical works	ks																							
œ.	Cellulose spraying and lacquor manufacture	iying ai	nd lac	onbo	man	ufactu	9																		
6	Electrical installation	allation																							
10.	Time & wood works etc.	works	etc.																						

Cinematograph films celluloid plastics etc.

Docks, Airport & Railway Installations

Shops, offices and commercial establishments

Petroleum & Oil and Refining installations

15. 4. 4. 45.

Theatres, cinemas, dances halls & places of

public assembly

Institutions, educational libraries, undertaking

Gas, Electricity, water sewage undertaking

Professional establishment

16. 17. 19.

Farm lands, Hay Stocks, crops hay risks etc.

Oil and Road Vehicles and Rolling Stock

21.

Forest Plantation

20.

Refuse and outdoor storages

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) Electrocution
  - (iv) Sewer accidents
  - (v) Lift accidents
  - (vi) House collapses, earthquakes etc.
  - (vii) Rescue from heights
  - (viii) others
- 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)

- Complete set of Parts I, II & III is to be filled in for each town.
- 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.
- 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).
- The year refers to Calendar year (1 st January to 31 st December) and not the financial year.
- The term "Mutual Aid" in Item No.9 of Part I relates to any aid between Fire Services under two different authorities.
- 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.
- 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 abbrevations 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
- 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.

 If the fire is attended to by more than one brigade. While reporting the value of property lost by fire in a rural area (SI. No.3 of Part III) only that brigade within whose jurisdiction the area falls should reply.

## PROFORMA RELATING TO FIRE STATISTICS

(For rural areas)

(1)	Distr	e of village			
SI.No	an addison	Item	Unit	Estimated Loss In Rs.	Remarks
1.	(a) (b) (c) (d) (e)	Food grains (Specify) Standing Crops Fodder Stocks of harvesting crops Jungle	Mds. Acres. Mds. Mds. Sq. Miles		
2.	Huts		No.		
3.	Cattl		Head		
4.	Othe	ers (Specify)	(1000000000000000000000000000000000000		
(2)	Injur	ualties ed Dead Rescued Remarks an nal			
(3)		fire brigade summoned? If so, who	at help it rendered?		
(4)		ere any source of water supply loachable by a motorable road?	ike well, canal, po	nd, river etc. near the	place of fire and is it

#### PROFORMA RELATING TO FIRE STATISTICS

(For Central Ministries)

Year
Ministry
Department/Office
Place

## (1) Fire Appliances:

SI. No.	Item	Number in working order	Number not in working order	Total	Estimated requirement for the next year
1	2	3	4	5	6

- Motor Fire Engine with capacity (in gallons/litres per minute).
- Water tenders/banks, with capacities (in gallons/litres per minute).
- Trailer pumps with capacities (in gallons/ litres per minute)
- Pump escape with capacities (in gallons/ litres per minute) with size.
- 5. Turn Table Ladders with size.
- Fire Boats with capacities in gallons/litres per minute
- 7. Manual Pumps
- 8. Towing vehicles
- Canteen Vans
- 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)	Equip	ment:						
	(a)	Wireless sch	eme (if in opera	tion)				
					equency)			
	(b)	Hose (total I	ength in feet)	~				
	(c)							
	(d)				****			
	(e)							
							26	
	(f)	Foam equip	ment (not exting					
			52 0 0	- 5				
(3)	What	. 일하면 되었는			ance of the equip		nd appliar	ices?
(4)	Avera	age annual ex	penditure on the	fire service:				
ALLE.	(i)	Recurring _			20			
	(ii)		g					
(5)	Staff							
1.	SI.	Designation	Scale of Pay	Allowances	Any Other	No. o	f posts	Remarks
	No.		(Rs.)	Admissible	terms of	sanct	ioned	
				(Rs.)	service	Regu	lar Leave	&
							Trg	
							Resen	ve
	1	2	3	4	5	6	7	8
-								
(6)	Acco	untrements:	Quantit	yPeriod for which	ch issued			
		nan's Axe (typ						
	Ordin	ary/in sulated						
	Ordin Gas I	ary/in sulated Masks (Type)	)					
	Ordin Gas I Helm	ary/in sulated	)					
	Ordin Gas I Helm Belt 8	ary/in sulated Masks (Type) ets (Steel/Lea & Pouch	)	ghting purposes	:			
	Ordin Gas I Helm Belt 8	ary/in sulated Masks (Type) ets (Steel/Lea & Pouch r resources a	) ither)	ghting purposes	: Number fit for		Appro	ximate
	Ordin Gas I Helm Belt & Wate	ary/in sulated Masks (Type) ets (Steel/Lea & Pouch r resources a	) ther) /ailable for fire fi	ghting purposes			Appro	
(7)	Ordin Gas I Helm Belt & Wate	ary/in sulated Masks (Type) ets (Steel/Lea & Pouch r resources a	) ther) /ailable for fire fi	ghting purposes	Number fit for fire fighting	onal	capaci	
	Ordin Gas I Helm Belt & Wate	ary/in sulated Masks (Type) ets (Steel/Lea & Pouch r resources a	) ther) /ailable for fire fi	84	Number fit for fire fighting	onal 4	capaci	ty
(7)	Ordin Gas I Helm Belt & Wate SI. No.	ary/in sulated Masks (Type) ets (Steel/Lea & Pouch r resources a	) ither) /ailable for fire fi ources	Peren	Number fit for fire fighting		capaci	ty ever applicable)
(7)	Ordin Gas I Helm Belt & Wate SI. No.	ary/in sulated Masks (Type) ets (Steel/Lea & Pouch r resources a	) ither) /ailable for fire fi ources	Peren	Number fit for fire fighting		capaci	ty ever applicable)
(7) 1.	Ordin Gas I Helm Belt & Wate SI. No.	ary/in sulated Masks (Type) ets (Steel/Lea & Pouch r resources a	ther)  vailable for fire fiources  2 6" and above	Peren	Number fit for fire fighting		capaci	ty ever applicable)
(7) 1. 2.	Ordin Gas I Helm Belt & Wate SI. No.	ary/in sulated Masks (Type) ets (Steel/Lea R Pouch r resources a S Tanks ants on mains	ther)  vailable for fire fiources  2 6" and above	Peren	Number fit for fire fighting		capaci	ty ever applicable)
	Ordin Gas I Helm Belt & Wate SI. No.	ary/in sulated Masks (Type) ets (Steel/Lea & Pouch r resources a S Tanks ants on mains ge tanks	ther)  vailable for fire fiources  2 6" and above	Peren	Number fit for fire fighting		capaci	ty ever applicable)

- Canals
- 7. Wells
- Water ponds
- 9. Any other facilities
- (8) Statistics of human and animal lives rescued/lost due to fires in the year under report:

SI. No.	Types of rescue work	Number	
1	2	3	

- Persons rescued without injuries or burns
- Persons rescued with burns and/or injuries who subsequently recovered.
- Perons rescued alive with burns and/or injuries who subsequently died.
- 4. Human lives lost before arrival of fire brigade.
- Casualties amongst fire service personnel
- 6. Animal rescued alive
- 7. Animal lives lost

(9)	Statistic	cs of Fires for the year unde	r report:				
	SI.	Types of fires		No. o	of Fires		Estimated Loss
	No.		-				in classes
			Small	Medi	um Serio	ous Total	of fires
	1	2	3	4	5	6	7

- 1. Household
- 2. Manufacturing and repairing establishment
- Granaries
- 4. Storages, warehouses, goods yards & sheds
- Explosives/Fire works/Factories
- Chemical Works
- 7. Cellulose spraying and lacquer works
- 8. Electrical Installations
- 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.
- Educational institutions, Librariers, Hospitals etc.
- Gas, Electricity, Water-sewage undertakings
- 17. Farm lands, Hay Stocks, Crops, Hayricks etc.
- 18. Forest & Plantations
- 19. Rail & Road, vehicles & rolling stocks
- Refuse and outdoor storages
- 21. Miscellaneous

Total

#### INSTRUCTIONS TO BE FOLLOWED WHILE FILLING IN THE PROFORMAE

(FOR CENTRAL MINISTRIES)

- The year refers to Calendar year (1 st January to 31 st December) and not the financial year.
- 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.
- 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
- 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 0,0001- and below.

Medium fires :- A fire with an estimated loss of over RS.1 0,0001- & upto Rs.50,0001/-

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			
	I - Call			
Called by				
Address of premises involved				
	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			
ш.	- Particulars of Fire			
Description of property, involved, industry, typ	pe of			
construction, area etc.				
Category of fire - Serious/Medium/Small				
Extent of fire				
Supposed cause of fire				
Description of damage				
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Estimated value	of (i)	Property involved					
	(ii	(ii) Surrounding risk, if any					
	(ii	i) Damage to premises	3				
	(in	v) Damage of contents					
Name of last offic	car to laava tha fira						
		hours					
	III	- Persons Escape	d And Rescued				
Escaped without Fire Service		Assisted out by without aid of A			d by Fire Service opliances		
М	<u> </u>	M F		М	F		
Note: Report on	F			art form			
Note: Report on		marked "False" in red ink a	across Part II of the repo	ort form.			
Note: Report on Lives Lo	False Calls should be	marked "False" in red ink a	across Part II of the repo alties	ort form. njured			
2022 - 55	False Calls should be	marked "False" in red ink a	across Part II of the repo alties	10 ×	F		
Lives Lo M F.S.	ı False Calls should be	marked "False" in red ink a	across Part II of the repo alties Ir N	njured	F		
Lives Lo M F.S.	ı False Calls should be	marked "False" in red ink a	across Part II of the repo alties Ir N	njured M	F		
Lives Lo M F.S.	ı False Calls should be	marked "False" in red ink a	across Part II of the repo alties Ir N	njured M	F		
Lives Lo	ı False Calls should be	marked "False" in red ink a	across Part II of the repo alties Ir N	njured M	F		
Lives Lo M F.S.	ı False Calls should be	marked "False" in red ink a	across Part II of the repo alties Ir N	njured M	F		
Lives Lo M	ı False Calls should be	marked "False" in red ink a	across Part II of the repo alties Ir N	njured M	F		
Lives Lo M	ı False Calls should be	marked "False" in red ink a	across Part II of the repo alties Ir N	njured M	F		

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Name of	Type of	Registration	Tir	me	Tim	e of	Trip	Pumping
Fire	Appliance	Number	Turn		Leaving	Return	mileage	
Station			Out	at	Incident	back to		
				incident		home		
						station		
		VI - F.S. Pe	rsonnel	in Atter	ndance			
		(Relief pers	sonnel no	t to be inc	luded)			
		(Relief per	sonnel no	t to be inc	luded)			
	Officer	(Relief per	sonnel no	t to be inc	2004 (FF 2 4 2000 19 <b>4</b> 1)	Personr	nel	
Rank	Officer Nar	20	sonnel no	Rank		Personr Number		Name
Rank		20	sonnel no	2				Name
Rank		20	sonnel no	2				Name
Rank		20	sonnel no	2				Name
Rank		20	sonnel no	2				Name
Rank		20	sonnel no	2				Name
Rank		20	sonnel no	2				Name
Rank		me		Rank				Name
Rank		me	ny other	Rank				Name
Rank		me		Rank				Name
Rank		me		Rank				Name
Rank		me		Rank				Name
Rank		me		Rank				Name
Rank		me		Rank				Name
Rank		me		Rank	ks			Name

## 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		
	Business	
Owner's name and address		
	Time of first turn-out	
	TO THE STATE OF THE PARTY AND	
	II - Particulars of Incident	
Full details of incident		_
Supposed Cause		
Name of the last officer to leave the	he incident	_
Time and date of leaving incident		
	hoursminutes	

# III - Persons Escaped And Rescued

Escaped v	vithout assistance of	Assisted out b	y Fire Service	Rescued by	Fire Service
Fire Service	ce	without aid of	Appliances	using applia	nces
M	F	M	E	M	F

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

## IV - Casualties

Lives	_ost		Injured	
М	F		М	F
F.S.			F.S.	
F.S. Others			Others	
Name	Addresses	Name	Address (	es)
		*Name of injurie	es	

## V - Attendance at Occurrences

Name of	Type of	Registration		Time	Tim	e of	Trip	Pumping
Fire	Appliance	Number	Turn	Arrival	Leaving	Return	mileage	Hours
Station			Out	at	Incident	back to		
			-	incident		home	700	
						station		

<sup>\*</sup>Fire Services numbers will suffice in the case of Service personnel

# VI - F.S. Personnel in Attendance

(Relief personnel not to be included)

0	fficer		Personnel	
Rank	Name	Rank	Number	Name
	1240William			
	VII -	Any other Remarks		
			(Signed)	
			Officer-in-ch	

## STANDARD INSPECTION REPORT FORM

(See para 7 under 22 Reports

			3	See para / u	nder 22 Kept	ons)		
			7-		FIF	RE SERVICE		
				INSPECTI	ON REPOR	RT		
Sub:-					Case N	lo		
Date	of Ins	pectio	on:	Street	Date:			
(1)	Pren	nises	No. & name of building.					
(2)	Occi	upants	s:					
	(a)	Nan	ne of Firm or company o	r business or	factory.			
	(b)	Nan	ne of the Proprietor or O	wner.				
	(c)	Nan	ne of Contact.					
(3)	Desc	criptio	n of:					
	(a)	Nat	ure of business, trade or	process.				
	(b)	Con	nmodities and quantities	applied for.				
	(c)	Pos	ition of storages in relati	on to number	of rooms, flo	or, area, etc.		
	(d)		nmodities already licer vernment). State Licence		er with quar	ntities (by Municipality,	State or	Central
	(e)	Trac	de, Business or Commod	lities applied	for and disap	proved with reasons, if an	y.	
(4)	Build	ling:						
	(a)	Cor	structional, features:					
		(i)	General:					
			Low risk-cement concr	ete or brick-w	alled.			
			Medium risk-brick-walle	ed and timber	r-framed.			
			High risk-most timber-f	ramed, such	as timber-floo	ors, timber roof, timber sta	ircase etc.	
		(ii)	Particulars:					
			No. of storeys and bas	ement, if any.				
			Walls					
			Doors					
			Windows (Barred etc.)					
			Verandahs or Balconie	S				
			Floors					
			(Attics, mezzanine floo	rs, lofts etc.)				
			Ceiling					
			Roof (or terrace)					
			No. of staircase and po	sitions - encl	osed 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)	Obse	ervations:									
	(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. I structures, state shed, building etc.) and proximity.									
	North	n									
	Sout	h									
	East										
	Wes	t .									
		(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)		lled fire fighting equipment, if any (Buckets, sand, fire extinguishers and their types, First-aid hose Private hydrants and hose, Sprinkers, Pumps, etc.)									
(8)	Fire	Detection:									
	(i)	Fire- Directing and alarm system, if any									
	(ii)	Watchman, if any									
(9)	Wate	er supply,other sources, if any and gallonages :									
	Stati	c Tanks, Wells, Ponds etc.									
	Stora	age Tanks (over-head, surface or underground)									
(10)	Reco	ommendation									
	(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 afterdays/months to re-check if the requirements are satisfactorily carried out.									

(11) Noting Events after Inspection :

Records of Fires with dates (1) Commodities involves

(i)

(ii)	Commence of the second of the	S					
	Breach of co	onditions n	oticed on re-	inspection.			
(iii)	Changes in	business o	r occupation	ı, if any			
Acti	on Taken :						
					FIRE SERVICE		
					STATION		
		-	INSPEC	CTION ROL	JTE CARD		
Name of t	he						
Inspecting	Officer						
Date of In:	spection						
Date of Ins	spection Location	С	R	R.I	N.S.	P.A.	
		С	R	R.I	N.S.	P.A.	
		С	R	R.I	N.S.	P.A.	
		С	R	R.I	N.S.	P.A.	
		С	R	R.I	N.S.	P.A.	
No.	Location			R.I	N.S.	P.A.	
	Location	C- C	Complaints	200	N.S.	P.A.	
No.	Location	C- C R- F	Complaints Regular Inspe	ection	N.S.	P.A.	
No.	Location	C - C R - F R. I F	Complaints	ection	N.S.	P.A.	

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## NOTE ON FIRE PREVENTION IN RURAL AREAS

(See para 2 under 24 - FIRE PREVENTION)
RURAL FIRES AND THEIR PREVENTION

#### Introductory

- 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

- 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.
- 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 for 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 enumerate 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 wells 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 form 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 build up atleast 60' apart form 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.
  - Shopping areas and bazars should be built-up with sufficient wide open spaces between groups of shops and not clustered together.

#### Fire Fighting

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 the taken in the case of fire. The fright form 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

- 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)

- 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. MOOSA .......Convener
Shri S. K. BOSE ......Member
Shri SUBIMAL SARKAR ......Member

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 mattes 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 form 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

Acid Manufactures Comb Manufacturers manufacturers

Agricultural Implement Concert Halls Ink(Printing) Manufacturers

Manufacturers Contractors Iron Founders
Ammunition Dealers & Jewellers
Manufacturers Coopers Job Masters

Analysis Cork Merchants Joiners
Artificial flowers Cotton Goods Lace manufacturers

Ammonia Manufacturers Curriers and Tanners Lacquer Manufacturers

Asphalt and Bitumen Decorators Laundries

Auctioneers Drapers Lithographic Printers Marine Stores

Automobile engineers Druggists Meat Salesman

Bag manufacturers Dyers and Cleaners Metal Workers Munitions Makers
Bakers and Confectioners Electrical suppliers Millers

Basket Manufacturers Enamellers Milliners
Bazaars Muslin Clippers Mill wrights
Bedding & Mattress Manufacturers Envelope Makers Motor, works a

Bedding & Mattress Manufacturers

Bill Posters

Biscuit manufacturers

Envelope Makers

Exhibitions

Explosive manufacturers

Motor, works and garages

Musical instrument makers

Offices, Retail shops and stores

Blacksmiths and Ferries Export Packers Oil Merchants

Boarding Establishments Fancy Box Makers and Goods Oilmen and domestic stores

Boat Builders trades Packing case makers
Book Binders Farmers Painters

Boot and Shoe Factory's Factories and workshops Paper Bag and Box Makers

Bottle Merchants Brewers Fish curers and fried fish shops Photographers
Bronze Powder manufacturers Floor cloth manufacturers Plumbers and Gas Fitters Printers

Brush Makers flour Mills 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

Carbide of Calcium Makers
Carmen
Gas Singers and cloth pressers
Carpenters
Glass works
Ship chandlers
Silk
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

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 nvolved in different trades and industries and propose the following broad occupancy grading:-

# Group A - Assembly buildings.

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

## Group B - Trade commercial and industrial buildings.

- Retail shops.
- Department stores-upper floors (except as Group A (8) above).
- Offices.
- Warehouses and wholesale stores.
  - (a) Normal hazard
  - (b) Abnormal hazard
- 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.

- Flats, maisenettes.
- 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 2<sup>rd</sup> 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)	Н.
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	н.
Allyl Alchol	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	Н.
Aluminium supho-Cyanide See Poisons	
Ambari Hemp (Vegetable Fibre)	H.
Amrican Moss fibre	H.
Ammonia (Aquaous solutions or spirits of ammonia exceeding	
30 per cent NH3 (less than 99 S.G.)	н.
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	н
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	н
Amorces (Explosive)	E.H.
Amorphous Phosphorous	Н
Amyl Acetate, F.P. below 24.40 C(iso-from fuel oil)	
F.P. not below 65.50 C	Н
Amyl Alcohol	Н
Amylamine	E.H.
Amyl Butyrate	Н
Amyl Chloride	E.H.
Amylene	E.H.
Amylene Hydrate. See Amyl Alcohol	
Amyl Ether	E.H.
Amyl Formate	Н
Amyl Nitrate	E.H.
Amyl Oxide, See Amyl Ether	
Amyl Propionate	Н
Andansonian Fibre	Н
Anhydrous Ammonia See Ammonia Anhydrous	
Aniline	Н
Aniline Oil	Н
Animal Black	н
Animal Oils, See Oils Animal, Fish etc.	
AnimiH	
Anhydrous denatured Alchohol (Ansol M & Ansol PR)	E.H.
Anthracene	Н
Anthracene Oil	Н
Anti-Corrosive Paint See paints	
Anti-Foulding Paint. See paints	
Antimony-potassium Taartrate See Poisons	
Antimony sulphate See antimony trisulphate	
Antimony sulphate	Н

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	Н
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	н
Asphalt	Н
Asphalted Felt. See Felt	
Asphalted Paper. See paper	
Asphalt Saturated Felt. See Felt	
Asphaltum	н
Begarse.See Bagasee	
Bagassee (Vegetable Fibre)	н
Bagazo See Bagassee	
Bags and Sacks	
Those which have contained nitrates or sugar,	
oily greasy or treacly materials	н
Balata unmanufactured if stored with other goods	н
Balsams, unless packed in bottles in cases or in	
Tins in cases	н
Bamboo Fibre	н
Bamboo Mats	н
Banana Fibre	н
Bamboo Fibre	н
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	

Barium Chromate See Poisons Barium Cyanide See Poisons Barium Ethylsulphate See Poisons Barium Ethylsulphate See Poisons Barium Hudrate See Poisons Barium Hydrate See Poisons Barium Hydrate See Poisons Barium Hydroxide See Poisons Barium Indide See Poisons Barium Manganagte See Poisons Barium Manganagte See Poisons Barium Manganagte See Poisons Barium Mitrate E.H Barium Oxide See Poisons Barium Sulphocyanate See Poisons Bassin (Vegetable Fibre) H Bassin (Vegetable Fibre) H Bassin (Vegetable Fibre) H Battery Acid See Sulphuric Acid (Dilute) Bay Leaves. See Leaves Beeswas H H Beet Pulp H H Belladonna Leaves See Leaves Beeswas Bengal Lights E.H Benjamin H H Benzene E.H Bezine Bezine Bezine Bezine Bezolo Acid H Bezolo See Benzene Benzole Peroxide Berlin Black Berlin Black Berlin Black Bi-Intro-Benzene H Bi-Nitro-Benzene H Bi-Nitro-Benzene H Bi-Nitro-Benzele See Bi-Nitro-Benzene .	Material	Class of Hazard
Barlum Ethylsulphate See Poisons           Barlum Fluoride See Poisons           Barlum Hydrate See Poisons           Barlum Hydroxide See Poisons           Barlum Iodide See Poisons           Barlum Manganate See Poisons           Barlum Manganage See Poisons           Barlum Oxide See Poisons           Barlum Oxide See Poisons           Barlum Bulphote         E.H           Barlum Sulphote         E.H           Barlum Sulphocyanate See Poisons         E.H           Barlum Sulphocyanate See Poisons         Barlum Sulphocyanate See Poisons           Bass. See Bast         H           Bassin (Vegetable Fibre)         H           Bassin (Vegetable Fibre)         H           Bast(Vegetable Fibre)         H           Balsat(Vegetable Fibre)         H           Balsat(Vegetable Fibre)         H           Balsat(Vegetable Fibre)         H           Beeswas </td <td>Barium Chromate See Poisons</td> <td></td>	Barium Chromate See Poisons	
Barium Fluoride See Poisons         Barium Hydrate See Poisons           Barium Hydroxide See Poisons         Barium Indide See Poisons           Barium manganate See Poisons         Barium Manganagte See Poisons           Barium Nitrate         E.H           Barium Oxide See Poisons         E.H           Barium Oxide See Poisons         E.H           Barium Sulphide         H           Barium Sulphocyanate See Poisons         Barium Sulphocyanate See Poisons           Barium Sulphocyanide See Poisons         Barium Sulphocyanide See Poisons           Bassin (Vegetable Fibre)         H           Bast(Yegetable Fibre)         H           Bast(Yegetable Fibre)         H           Battery Acid See Sulphuric Acid (Dilute)         H           Bay Leaves. See Leaves         H           Beeswas         H           Bengal Lights         E.H           Benjamin         H           Benzole Acid         H	Barium Cyanide See Poisons	
Barilum Hydrate See Poisons         Barium Hydroxide See Poisons           Barium Indidice See Poisons         EARTH Managanate See Poisons           Barium Manganate See Poisons         E.H           Barium Nitrate         E.H           Barium Oxide See Poisons         E.H           Barium Peroxide         E.H           Barium Sulphide         H           Barium Sulphocyanate See Poisons         Barium Sulphocyanate See Poisons           Bass. See Bast         F           Bassin (Vegetable Fibre)         H           Bastl(Vegetable Fibre)         H           Battery Acid See Sulphuric Acid (Dilute)         H           Bay Leaves. See Leaves         H           Beeswas         H           Beladonna Leaves See Leaves         E.H           Bengal Lights         E.H           Benjamin         H           Benzone         E.H           Bezine         E.H           Bezine         E.H           Bezone See Benzene         E.H           Bezone See Benzene         E.H           Benzole See Benzene         E.H           Benzole See Benzene         E.H           Benzole See Benzene         E.H           Benzole Potask See Potassium Bichromate	Barium Ethylsulphate See Poisons	
Barium Hydroxide See Poisons         Barium lodide See Poisons           Barium manganate See Poisons         E.H           Barium Manganagte See Poisons         E.H           Barium Oxide See Poisons         E.H           Barium Peroxide         E.H           Barium Sulphoide         H           Barium Sulphocyanate See Poisons         E.H           Barium Sulphocyanate See Poisons         H           Bassin (Vegetable Fibre)         H           Bassin (Vegetable Fibre)         H           Basticy Acid See Sulphuric Acid (Dilute)         H           Bay Leaves. See Leaves         H           Bees Yulp         H           Belladonna Leaves See Leaves         E.H           Bengal Lights         E.H           Benjamin         H           Benzene         E.H           Bezine         E.H           Bezine         E.H           Bezine See Benzene         E.H           Benzole See Benzene         E.H           Benzole See Benzene         Enzole See Benzene           Benzole See Benzene         Enzole See Benzene           Benzole See Benzene         Enzole See Benzene           Berlin Black         E.H           Bichromate of Soda See so	Barium Fluoride See Poisons	
Barium Iodide See Poisons         Earlum manganate See Poisons           Barium Manganagte See Poisons         E.H           Barium Nitrate         E.H           Barium Peroxide         E.H           Barium Sulphide         H           Barium Sulphocyanate See Poisons         Earlum Sulphocyanate See Poisons           Barium Sulphocyanate See Poisons         Barium Sulphocyanate See Poisons           Bass. See Bast         H           Bassin (Vegetable Fibre)         H           Bastery Acid See Sulphuric Acid (Dilute)         H           Bay Leaves. See Leaves         H           Beeswas         H           Beeswas         H           Beeswas Lights         E.H           Benjamin         H           Benzene         E.H           Benzine         E.H           Benzine         E.H           Benzine See Benzene         E.H           Benzole See Benzene         Enzole See Benzene           Benzolen See Benzene         Enzolen See Benzene           Berzine Black         H           Berlin Black         E.H           Berlin Black         H           Berlin Black         H           Berlin Black         H	Bariium Hydrate See Poisons	
Barium manganate See Poisons         E.H           Barium Nitrate         E.H           Barium Oxide See Poisons         E.H           Barium Peroxide         E.H           Barium Sulphide         H           Barium Sulphocyanate See Poisons         Barium Sulphocyanide See Poisons           Bass. See Bast         H           Bassin (Vegetable Fibre)         H           Bast(Vegetable Fibre)         H           Battery Acid See Sulphuric Acid (Dilute)         H           Bay Leaves. See Leaves         H           Beeswas         H           Beeset Pulp         H           Belladonna Leaves See Leaves         E.H           Bengal Lights         E.H           Benjamin         H           Benzene         E.H           Benzene         E.H           Bezine         H           Bezoln         H           Benzole See Benzene         E.H           Benzole See Benzene         Eenzolen See Benzene           Benzole See Benzene         Enzolen See Benzene           Berlin Black         E.H           Berlin Black         H           Beichromate of all kinds         H           Bichromate of Soda Sec sodium Bi	Barium Hydroxide See Poisons	
Barium Manganagte See Poisons         E.H           Barium Nitrate         E.H           Barium Peroxide         E.H           Barium Sulphide         H           Barium Sulphocyanate See Poisons         H           Barium Sulphocyanide See Poisons         H           Bassin (Vegetable Fibre)         H           Bassin (Vegetable Fibre)         H           Basticry Acid See Sulphuric Acid (Dilute)         H           Bay Leaves, See Leaves         H           Beeswas         H           Beeswas         H           Bees Pulp         H           Beladonna Leaves See Leaves         E.H           Benjal Lights         E.H           Benjamin         H           Benzole         E.H           Bezine         E.H           Bezine         E.H           Bezolo See Benzene         E.H           Benzole See Benzene         E.H           Benzole See Benzene         Benzole See Benzene           Berlin Black         E.H           Berlin Black         H           Berlin Black         H           Berlin Black         H           Berlin Black         H           Berlin Black	Barium Iodide See Poisons	
Barium Nitrate         E.H           Barium Oxide See Poisons         E.H           Barium Sulphide         E.H           Barium Sulphocyanate See Poisons         H           Barium Sulphocyanide See Poisons         Sass. See Bast           Bassin (Vegetable Fibre)         H           Bast(Vegetable Fibre)         H           Battery Acid See Sulphuric Acid (Dilute)         H           Bay Leaves, See Leaves         H           Beeswas         H           Beeswas         H           Bengal Lights         E.H           Benjamin         H           Benzole         E.H           Bezine         E.H           Bezolo         H           Bezolo Benzene         E.H           Benzole See Benzene         E.H           Benzole See Benzene         Benzolene See Benzene           Bernolle See Benzene         E.H           Berlin Black         E.H           Berlin Black         H           Berlin Black	Barium manganate See Poisons	
Barium Oxide See Poisons         E.H           Barium Peroxide         E.H           Barium Sulphide         H           Barium Sulphocyanate See Poisons         F           Barium Sulphocyanide See Poisons         F           Bass. See Bast         F           Bassin (Vegetable Fibre)         H           Bast(Vegetable Fibre)         H           Battery Acid See Sulphuric Acid (Dilute)         F           Bay Leaves. See Leaves         H           Beeswas         H           Beet Pulp         H           Belladonna Leaves See Leaves         E           Bengal Lights         E.H           Benjamin         H           Bezzine         E.H           Bezzine         E.H           Bezzine         E.H           Bezzine         E.H           Bezzine         E.H           Bezzine         E.H           Bezzine         Bezzine           Bezzin Beze Benzene         Benzole See Benzene           Benzole See Benzene         Benzole See Benzene           Berlin Black         E.H           Berlin Black         E.H           Berlin Black         E.H           Berlin Black	Barium Manganagte See Poisons	
Barium Peroxide         E.H           Barium Sulphide         H           Barium Sulphocyanate See Poisons         F           Bass. See Bast         F           Bassin (Vegetable Fibre)         H           Bast(Vegetable Fibre)         H           Battery Acid See Sulphuric Acid (Dilute)         H           Bay Leaves. See Leaves         H           Beeswas         H           Bees Pulp         H           Belladonna Leaves See Leaves         E.H           Benjamin         H           Benzene         E.H           Bezine         E.H           Bezoin         H           Bezoic Acid         H           Bezoin         H           Benzol See Benzene         E           Benzole See Benzene         E           Benzole See Benzene         E           Benzolen See Benzene         E           Berlin Black         E.H           Berlin Black         H           Bi-Irromate Potash See Potassium Bichromate         Bi-Irromate Potash See Potassium Bichromate           Bi-Irromate of Soda Sec sodium Bichromate         Bi-Irromate Potash See Potassium Bichromate	Barium Nitrate	E.H
Barium Sulphide         H           Barium Sulphocyanate See Poisons	Barium Oxide See Poisons	
Barium Sulphocyanate See Poisons Barium Sulphocyanide See Poisons Bass. See Bast  Bassin (Vegetable Fibre) H Bast(Vegetable Fibre) H Bast(Vegetable Fibre) H Bastery Acid See Sulphuric Acid (Dilute) Bay Leaves, See Leaves Beeswas H Beest Pulp H Belladonna Leaves See Leaves Bengal Lights E.H Benjamin H Benzene E.H Benzone E.H Benzoic Acid H Benzoic Acid H Benzoic Acid H Benzoic Peroxide Benzene Benzole See Benzene Benzole Se	Barium Peroxide	E.H
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 Benzone E.H Benzoic Acid H Bezoin H Benzoic See Benzene Benzol See Benzene Benzol See Benzene Benzol See Benzene Benzole See Benzene Benzole See Benzene Benzolene See Benzene Benzolene See Benzene Benzolene See Benzene Beriin Black E.H Beirhromates of all kinds H Bi'chromate Potash See Potassium Bichromate Bi-Nitro Benzene H	Barium Sulphide	H
Bass. See Bast         H           Bassin (Vegetable Fibre)         H           Battery Acid See Sulphuric Acid (Dilute)         H           Bay Leaves. See Leaves         H           Beeswas         H           Beet Pulp         H           Belladonna Leaves See Leaves         E.H           Bengal Lights         E.H           Benjamin         H           Benzene         E.H           Bezine         E.H           Bezine         E.H           Benzoic Acid         H           Benzol See Benzene         H           Benzol See Benzene         Benzole See Benzene           Benzole See Benzene         Enzolenzolene See Benzene           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         H	Barium Sulphocyanate See Poisons	
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           Bezine         E.H           Bezine         E.H           Bezoin         H           Bezoin Senzoic Acid         H           Benzoi See Benzene         H           Benzole See Benzene         ***           Benzole See Benzene         ***           Benzole See Benzene         ***           Berin Black         E.H           Beerlin Black         H           Bichromate Potash See Potassium Bichromate         ***           Bichromate of Soda Sec sodium Bichromate         ***           Bi-Nitro Benzene H         ***	Barium Sulphocyanide See Poisons	
Bast(Vegetable Fibre)       H         Battery Acid See Sulphuric Acid (Dilute)       F         Bay Leaves, See Leaves       H         Beeswas       H         Beet Pulp       H         Belladonna Leaves See Leaves       F         Bengal Lights       E.H         Benjamin       H         Benzene       E.H         Bezine       E.H         Bezoine       H         Bezoin Acid       H         Bezoin Benzene       H         Benzol See Benzene       H         Benzole See Benzene       F         Benzole See Benzene       F         Benzolen See Benzene       F         Berlin Black       E         Berlin Black       H         Bichromates of all kinds       H         Bichromate Potash See Potassium Bichromate       F         Bichromate of Soda Sec sodium Bichromate       F         Bi-Nitro Benzene H       F	Bass. See Bast	
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 Bezoin H Benzoic Acid H Bezoin H Benzol See Benzene Benzole See Benzene Benzole See Benzene Benzole See Benzene Benzolene See Benzene	Bassin (Vegetable Fibre)	н
Bay Leaves. See Leaves       H         Beeswas       H         Beet Pulp       H         Belladonna Leaves See Leaves       E.H         Bengal Lights       E.H         Benjamin       H         Benzene       E.H         Bezine       E.H         Bezoine       H         Bezoin Acid       H         Bezoin Benzol See Benzene       H         Benzol See Benzene       Benzole See Benzene         Benzolene See Benzene       Benzolene See Benzene         Benzolyle Peroxide       E.H         Beerlin 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 Benzene H	Bast(Vegetable Fibre)	н
Beeswas         H           Beet Pulp         H           Belladonna Leaves See Leaves         E.H           Bengal Lights         E.H           Benjamin         H           Benzene         E.H           Bezine         E.H           Bezoin         H           Bezoin Acid         H           Benzol See Benzene         H           Benzol See Benzene         H           Benzole See Benzene         H           Benzolene See Benzene         E.H           Berlin Black         E.H           Beerlin Black         H           Bichromates of all kinds         H           Bi'chromate Potash See Potassium Bichromate         H           Bichromate of Soda Sec sodium Bichromate         H	Battery Acid See Sulphuric Acid (Dilute)	
Beet Pulp Belladonna Leaves See Leaves Bengal Lights Benjamin Benzene Benzene Bezine Bezine Bezoin Bezoin Bezoin Bezoin Bezole See Benzene Benzole See Benzene Benzole See Benzene Benzole See Benzene Benzolene See Benzene Berin Black Berlin Black Berlin Black Bichromates of all kinds Bichromate Potash See Potassium Bichromate Bichromate of Soda Sec sodium Bichromate Bi-Nitro Benzene H	Bay Leaves. See Leaves	
Belladonna Leaves See Leaves Bengal Lights E.H Benjamin H Benzene E.H Bezine E.H Bezine E.H Bezoic Acid H Bezoin H Benzol See Benzene Benzole See Benzene Benzole See Benzene Benzolene See Benzene Benzolene See Benzene Benzolene See Benzene Berlin Black E.H Beerlin Black E.H Bichromates of all kinds H Bichromate Potash See Potassium Bichromate Bichromate of Soda Sec sodium Bichromate Bi-Nitro Benzene H	Beeswas	н
Bengal Lights E.H Benjamin H Benzene E.H Bezine E.H Bezine E.H Benzoic Acid H Bezoin H Benzol See Benzene Benzol See Benzene Benzole See Benzene Benzole See Benzene Benzolene See Benzene Benzolene See Benzene Benzoyle Peroxide Berlin Black E.H Beerlin Black E.H Beerlin Black H Bichromates of all kinds H Bichromate Potash See Potassium Bichromate Bichromate of Soda Sec sodium Bichromate Bi-Nitro Benzene H	Beet Pulp	н
Benjamin H Benzene E.H Bezine E.H Benzoic Acid H Bezoin H Benzol See Benzene Benzole See Benzene Benzole See Benzene Benzole See Benzene Benzolene See Benzene Benzolene See Benzene Benzolene See Benzene Berlin Black E.H Beerlin Black H Bichromates of all kinds H Bi'chromate Potash See Potassium Bichromate Bi-Nitro Benzene H	Belladonna Leaves See Leaves	
Benzene E.H Bezine E.H Benzoic Acid H. Bezoin H. Benzol See Benzene Benzole See Benzene Benzole See Benzene Benzolene See Benzene Benzolene See Benzene Benzolene See Benzene Benzoyle 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	Bengal Lights	E.H
Bezine E.H Benzoic Acid H Bezoin H Benzol See Benzene Benzole See Benzene Benzole See Benzene Benzolene See Benzene Benzolene See Benzene Benzolene See Benzene Benzolene See Benzene Berlin Black E.H Beerlin Black H Bichromates of all kinds H Bichromate Potash See Potassium Bichromate Bichromate of Soda Sec sodium Bichromate Bi-Nitro Benzene H	Benjamin	н
Benzoic Acid H Bezoin H Benzol See Benzene Benzole See Benzene Benzolene See Benzene Benzolene See Benzene Benzolene See Benzene Benzoyle 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	Benzene	E.H
Bezoin Benzol See Benzene Benzole See Benzene Benzolene See Benzene Benzoyle Peroxide Berlin Black Berlin Black Beerlin Black Bichromates of all kinds Bi'chromate Potash See Potassium Bichromate Bi-Nitro Benzene H	Bezine	E.H
Benzol See Benzene Benzolene See Benzene Benzolene See Benzene Benzoyle Peroxide Berlin Black Berlin Black Beerlin Black Bichromates of all kinds H Bi'chromate Potash See Potassium Bichromate Bichromate of Soda Sec sodium Bichromate Bi-Nitro Benzene H	Benzoic Acid	н
Benzole See Benzene Benzolene See Benzene Benzoyle 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.	Bezoin	н
Benzolene See Benzene  Benzoyle Peroxide  Berlin Black  Beerlin Black  Bichromates of all kinds  Bi'chromate Potash See Potassium Bichromate  Bichromate of Soda Sec sodium Bichromate  Bi-Nitro Benzene H	Benzol See Benzene	
Benzoyle 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	Benzole See Benzene	
Berlin Black  Beerlin Black  Bichromates of all kinds  Bi'chromate Potash See Potassium Bichromate  Bichromate of Soda Sec sodium Bichromate  Bi-Nitro Benzene H	Benzolene See Benzene	
Beerlin Black Bichromates of all kinds H Bi'chromate Potash See Potassium Bichromate Bichromate of Soda Sec sodium Bichromate Bi-Nitro Benzene H	Benzoyle Peroxide	
Bichromates of all kinds  Bi'chromate Potash See Potassium Bichromate  Bichromate of Soda Sec sodium Bichromate  Bi-Nitro Benzene H	Berlin Black	E.H
Bi'chromate Potash See Potassium Bichromate Bichromate of Soda Sec sodium Bichromate Bi-Nitro Benzene H	Beerlin Black	н
Bichromate of Soda Sec sodium Bichromate Bi-Nitro Benzene H	Bichromates of all kinds	Н
Bi-Nitro Benzene H	Bi'chromate Potash See Potassium Bichromate	
	Bichromate of Soda Sec sodium Bichromate	
Bi-Nitro-Benzol See Bi-Nitro-Benzene .	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:	н
BI-Sulphide of Carbon Carbon Bi-Sulphide	
Birumen(other than emulsified Bitumen containing not less than 45 per	rcent
of water and packed in metal drums)	н
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	Н
Blasting Powders (Explosives)	E.H
Bombax Cotton (Vegetable Fibre)	Н
Bon-bons. Seechristmas Crackers	
Bone Black	н
Bone Oil, See Oils. Animal. Fish etc.	
Borneol	н
Brandy, See Spirits. Portable	
Bran Oil see Oils Animal. Fish etc.	
Brattice Cloth (Terred). See Cloth	
Brewer's Grains, Dried Brimstone See Sulphur	н
Bristile Fibre	Н
Bromelia Fibres	н
Bromine See Poisons	
Bronze Powder	E.H
Broom Corn (Vegetable Fibre)	н
Broom Millett (vegetable Fibre)	н
Brunswick Black	н
Buchu Leaves See leaves	
Butalyde see Butyl Aldehyde	
Butane	н
Butanel, See Butyl Alcohol	
Butyl Acetate	н
Butyl Alochol	н
Butyl Aldehyde	E.H
Butylamine	Н
Butyl Butyraten	н
Butyl Chloriden	E.H
Butyl Lactate	н
Butyl Nitrate	E.H

Material	Class of Hazard
Cahco Nuts	Н
Caboun Nuts	Н
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 mental containers	н
Calcium Cyanide See Poisons	
Calcium Nitrate	E.H
Calcium Permanganate	Н
Calcium Peroxide	E.H
Calcium Phospide	E.H
Calcium Phosphite	E.H
Calcium Resinate	Н
Calcium Silicide	E.H
Calcium Sulpho-Cyanide See Poisons	
Camomile Flowers See Flowers	
Camophene	H.
Camphor	н
Camphor Oil (Light). See Oils, Animal, Fish etc.	
Camphor, Synthetic	н
Canada Balsam, See Balsams	
Candles	н
Cane Fibres	н
Caoutchoue See India Rubber	
Cape Palma Fibre	н
Capivi balsam, See balsams	
Cape for Toy Pistols	E.H
Caraway Chaff	Н
Carbic Cakes - unless packed in tins in cases	E.H
If packed in tins n cases	Н
Carbolic Acid See Phenol	
Carbolic Oils	Н
Carbon	Н
Carbon Bi-Sulphide	E.H
Carbon Black	н
Carbon Di-Sulphide See Carbon Bi-Sulphide	
Carbon Tetrachloride See Poisons	
Carbonyl chloride (Phesgane)	Н
Camaube	Н

Material	Class of Hazard
*Cartridges See Ammunition	
Cassia Leaves	Н
Castor Oil See Oils Animal Fish, etc.	
Cattle Food Cake	Н
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	Н
Cello-solve Butyl	Н
Celloloid Methyl	н
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	
Celulose base articles or waste, non-inflammable excluding	
on-inflammable films on metal spools	Н
Cement, Celluloid	E.H
Cerasine	Н
Caresine See cerasine	
Ceric-ammonium Nitrate	E.H
Casium	E.H
Cesium Nitratee.h.	
Charocoal	Н
Charcoal Black	н
Chemicals, Pharmaceutical See Pharmaceutical Chemicals and drugs	
Chickle	н
Chili saltpeter See Potassium Nitrate	
China Grass (Vegetable Fibre)	н
Chinese wood Oil See Anima,. Fish etc	
Chlorobenzene	Н
Chlorate Mixtures (Explosives)	E.H
Chlorate of Barium See Barium Chlorate	
Chlorate of Calcuium 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	Н
Chloro-Sulphenic Acid	E,H
Christmas Crackers	Н
Chromates of all kinds	Н
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. Between240c	Н
Clean waste. See waste of all kinds	
Choth, Asphalted	Н
Cloth Tarred	Н
Clothing, Oiled unless packed in sealed metallines cases	н
Coal Dust	E.H
Coal Gas	Н
Coal Pitch	Н
Coal Pulverised	E.H
Coal Tar	Н
Coal Tar Dyes (Anilene Dyes) including sulphur Dyes.See Sulphur Dyes	
Coca Leaves See Leaves	
Coca Butter	н
Coca Nut Fibre	Н
Coconut oil See Oils Animal fish etc.	
Hydrogenated Vegetable Oil	
Codilla (Vegetable Fibre)	н
Cod Oil See Oils Animal Fish etc.	
Coir Dust	н
Coir Fibre	н
Coir Matting	н
Coir Rope	н
Coir Yarn	н
Cole Nuts	н
Collodion Cotton and Collodion	E.H
Cloolphony	н
Common Resin	н
Concentrated Sulphuric Acid See Sulphuric Acid (concentrated)	
Confetti except when packed in wooden boxes	Н

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

Material	Class of Hazard
Cubic Nitre See Sodium Nitrate	
Cumene	Н
Cumin See Herbs	
Cumol	Н
Curled Vegetable Hair (Vegetable Fibre)	н
Cus Fibre (Cus Cus Root)	н
Cyanamide See Calcium Cyanamide	
Cyanide of Lime See Poisons	
Cyanogen	н
Cymene P	н
Cymogens	E.H
Cymol	Н
Dammer	н
Damp Course Bituminous	н
Date Plam Fibre	н
D.L.T. Liquid	н
Dead Oil See Cresote	н
Dackance	н
Decorative Moss. See Moss	30.5
Decalin	н
Dessicated Cocoanut dry and Oily fresh and moist	
See Cocoanut Oil	н
Detonators (Explosives)	E.H
Diacetone Alcohol	E.H
Diamylane	н
Diamyl Phthalaten	н
DiatolH	
Dibromacotylene	н
Dibutyl Oxalate n	E.H
Dibutyl Phthalte n	H
Dichlorethylene	н
Dichlore Pontanes (mixed)	н
Dichromate of Potash See Potassium	
Dichromate	E.H
Diethylamine	н
Diethyl Carbinol	н
Diethyl Carbonate	E.H
Dimethyl Katons	н
Dimethylamine	E.H
Di Nitro Amido Phenol	E.H
Di Nitro Aniline	Н
Di Nitro Benzene	H
Di Nitro Benzol See Di Nitro Benzene	3.5
	FН
Di Nitro Napthalene 269	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	н
Disinfectant Liquids (other than Hycol)-	
F.1. below 24.40C	E.H.
F.P. between 24.40C and 55.50C	н
Down Vegetable	н
Dragon's Blood	н
Dried Brewer's Grains See Brevers Grains, Dried	
Dried Glass	Н
Drugs, Pharmaceutical. see Pharmaceutical Chemicals & Durgs'	
Dubbin, unless packed in tins in cases	Н
Dusts. See under specific names	
Dyes, Sulphur. See sulphur Dyes	
Dynamite (Explosives)	E.H.
Earth Nuts (Shelled)	Н
Earth Wax	н
ElemiH	
Edible Oils. See Oils, Animal, Fish etc. enamels -	
F.P. below 24AOC	E.H.
FP. not below 24AOC	н
Esparto Grass (Vegetable Fibre)	Н
Esparto Leaves (Vegetable Fibre)	н
Esparto Two (Vegetable Fibre)	н
Essential Oils, See Oils, Animals. Fish etc.	
Esters. See under specific names	
Ethane	н
Ether. See Ethyl Ether	
Ethyl Acetate	E.H.
ethyl Acetoacetate	н
Ethyl Alcohol -	
S.G. below 0.919 I 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 alcoholic	ol H
Ethyl Benzene	E.H.
Ethyl Bromide	н
Ethyl Butyrate	E.H.
Ethyl Carbonate See Di Ethyl Carbonate	
Ethyl Chloride	E.H
Ethyl Chlorocarbonate	E.H
Ethylene	Н
Ethylene Chloride. See Dichlorethylene	

Material	Class of Hazard
Ethyl Ether	E.H
Ethly Formate	E.H
Ethly Lactate	Н
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	н
Feather Grass (Vegetable Fibre)	Н
Felt -	
Asphalted	
Asphalt, saturated	
Bituminous	н
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	н
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	н
Fish Manure	н
Flares, Aeroplane, Ships etc.	E.H
Flash Powders. Photographic	E.H
Flax, of all kinds (vegetable Fibre)	н
Flax Yarn, except when packed in wooden cases	Н
Flock H	
Flowers, dried of all kinds, in bags, sacks, bales, baskets, made of pockets	s H
Fluoric acid, see Hydrofluoric Acid	
Fodder, /Dried	н
Foots (Oil and Varnish)	н
Formaldehyde. See Poisons	
Possil wax	Н
Frankineense	Н
French Polish	н
Fuel Oils-	

Material	Class of Hazard
F.P. not below 24.40C	Н
Fulminates (Explosives)	E.H.
Furfural	Н
Fuses. See Matches	
FuselOil	Н
Fuses, See Ammunition	
Galibanum	н
GanjaH	
Gas Black	н
Gasoline Petrol	н
Ghee (other than vegetable ghee in this not exceeding 10 Lbs in	weight and/or in bottles) H
Gilsonite	н́
Gilsonite, Superselects in bags	н
Gin. See Spirits, Portable	
Ginnings	н
Glacial Acetic Acid. See Acetic Acid (GlacialO	Н
Glance Pitch	н
'Glycarine	н
Glyco Mono Ethyl Ether	Н
Goora Nuts	н
Grahamite	н
Granulated Cork. See Cork, Granulated	
Graphite Greases and lubricants	н
Grasses (Vegetable Fibres)	н
Grass Mats	н
Grease	н
Greasy Rags. See Rags	
Greasy waste. See Waste	
Green Oil	н
Ground Nut Cake	H
Ground Nut Meal	
	н
Ground Nut Oil. See Oils, Animal, fish etc. Gumatti Fibre	u.
	н
Gums. See under specific names gun Cotton (Explosive)	E.H
*Gunnis (other than in fully pressed bales)	н
Gunpowder (Explosive)	E.H
Gurgan Balsam, See Balsams	<b>L.11</b>
Gutta Jealtong, unmanufactured. If stored with other goods	н
Gutta percha. unmanufactured. If stored with other goods	н
Hard Waste Yam	н
Health for Besoms	н
Hemp. of all kinds (Vegetable Fibres)	н
Hemp seed Oil, Animals Fish ect.	weekler.

Material	Class of Hazard
Hemp Yarn	н
Hennequem (Vegetable Fibre)	Н
Hervs. Dried of all kinds in bags sacks, bales, baskets mats or pokets	H
Hessians (other than in fully pressed bales)	Н
Hexane n	E.H
Hop Fibre	H
Hops. See flowers	
Hops, Spent	н
Hull Fibre	Н
/drobromic Acid	Н
Hydrochloric Acid	Н
Hydrogyanic Acid. See Poisons	
Hydrofluoric Acid	н
Hydrofluosilioic Acid	н
Hydrogen	Н
Hydrogen Cynide	н
Hydrogen Peroxide -	
f exceeding 40 percent peroxide	E.H
f exceeding 6% but not exceeding @ peroxide	Н
Hypochlorous Acid	E.H
celand Moss.Sec Moss	
fc Hemp (Vegetable Fibre)	Н
Illuminating Oils. See Oils, Illuminating	
ndia Rubber. unmanufactured. If stored with other goods	Н
ndoor Fireworks. See Fireworks	
Industrial Alcohol	E.H
industrial Spirits. See spirits.	
ndustrial Inflammable Liquids-	
F.P. below 24.4%	E.H
F.P. between 24.4%	Н
nks, Printing	
F.P. below 24.4%	E.H
F.P. between 24.4%	Н
nodorous Felt. See felt, Indorous	
nsecticides -	
F.P. below 24.4%	E.H
F.P. between 24.4% and 65.5%	Н
rish Moss. See Moss	orac
	u
ron Sulphide	Н
sobutyl Carbinol	H
sopropyl Alocohol	E.H
sopropylamine	E.H
stle Fibre	Н
talian Hemp Godilla	Н
talian Whisk (Vegetable Fibre)	Н

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

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

Material	Class of Hazard
Methyl Chloride	Н
Methylene Chloride. See Dichlomethylene	
Methy Ethyl Ketone	E.H
Methyl Formate	E.H
Mexican Fibre	Н
Millet Stalk (Vegetable Fibre)	н
Mineral Black	н
Mineral Oils, and their liquid products. See Oils Mineral etc.	
Mineral Turpentine, See Turpentine	
Mineral Wax	Н
Mint See Herbs	
Mirbane Oil, See Nitro Benzene	
Molascuit	Н
Molasses Meal	н
Molassine Meal	н
Monkey Bass(Vegetable Fibre)	Н
Monkey Bread tree Fibre	н
Monkey Nuts (Shelled)	н
Monochlor-Acetic Acid	н
Mono Nitramilrue (Nitra Line)	Н
Mono Mitro Aniline, See Mono Nitraniline	
Mono Nitro Naphthalene	Н
Mono Nitor Phenol. See Nitro Phenol (Mono)	
Mono Nitro Toluol See Nitro Toluene (Mouo)	
Moss, dried of all kinds	Н
Mould Coats	Н
Mulberyy fibre	н
Mungo	н
Muriatic Acid. See Hydrochloric Acid	
Murva Fibre	Н
Musa Fibres	Н
Murrah	Н
Mono Nitro Toluil. See Nitro Toluene (Mono)	
Naptha. F.P. below 24.4%	E.H
F.P. not below 65.5C	Н
Naphthalene	н
Neats foot oil. See Oils, Oils animal, fish etc.	
Nettle Fibres	Н
New Zealand Flax (Vegetable Fibre)	н
New Zeland Hemp (Vegetable Fibre)	Н
Nickel Feroxide	Н
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	н
Nitro Benzene	н
Nitro Benzol. See Nitro Benzene	
Nitro Cellulose; Plastic	н
Nitro Chalk	Н
Nitro Compounds (Explosive)	E.H
Nitro Glycerine (Explosive)	E.H
Nitrolim. See Calcium Cyanamide	
Nitro-Mannite	E.H
N itro-Methano	н
Nitro N-Phthalenes. See Mono Di, Tri and Etra Nitro Naphthalene's	
Nitro Phenol (Mono)	н
Nitrose Phenel	н
Nitro Starch (Explosive)	E.H
Nitro Toluene (Mono)	н
Nitro Tolul (Mon. See Nitro Toleuene (Mono))	
Nirrous Ether. See Ethyl Nitrites	
Nitrous Oxide	Н
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	Н
*Oil Cake	н
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)	Н
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	Н
Oils, Vegetable (other than tins not exceeding 10 Lbs in weight and/or bottled	I) H
Oils, Illuminating	E.H.
F.P. below 24,40C	Н
F.P. not below 24.40C	Н
Oils - Mineral, Rock, Schist, Shale Petroleum, Tar and their liquid products (e	xcept medical, packed in bottles in
cases or in tins in cases)	
F.P. below 24,40C	E.H
F.P. not below 24.40C	н
Oil-seed Cake (including Cotton Seed Cake)	Н
Oil Seed Meal. See Meal, Oil Seed	
Oil sheets	Н
Oily Bags. See Bags	
Oily Waste. See Waste	
Oleine	н
Oleo H	
Oleum	Н
Olibanum	E.H
Olive Oil, See Oils, Animal, Fish, etc.	
Opponax	Н
Ortho Nitro Phenol	н
Ortho Nitro Toluene Oxzlic acid. See Poisons	
Oxygen	Н
Ozokerite	н
Paint Removers	
F.P. below 24.40C	E.H
F. P. not below 24,40C	н
Paints	
FP below 24,40C	E.H
FP. not below 24.40C	н
Palm Butter	Н
Palmette Grass	Н
Palm fibres	н
Palm Kernel Oil, See Oils Animal fish etc	
Palm Kemels	н
Palm Leaves. See leaves	100
Palm Nuts	н
Palm Oils, See Oils, Animal, fish, etc.	1575).
Palmyra-Fibre	н
Pampas Plumes	H

Material	Class of Hazard
Paper-	
Asphalted	
Oiled H	
Tarred	
Paper shaving. See shavings, wood or paper	
Papyrus (vegetable fibre)	Н
Paraffin Oil, see Oils, Mineral, etc.	
Paraffin Wax	Н
Paraldehyde	E.H
Paramatta Grass (vegetable fibre)	н
Para-Nitro-Acetanilide	Н
Para-nitro Phenol	Н
Para-nitrosodimethylaniline	н
Patchouli Veaves See Leaves	
Pea Nut Oil. See Oils Animal, Fish etc. Pea Nut (Shelled)	
Peat Dust	н
Peat Moss. See Moss	
Peat Mould	
Pentane	Н
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	Н
Permanganate of Potash-See Potassium permangante	
Permanganate of sods. See Sodium Permanganate Peroxide of all kinds	Н
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	Н
Persulphates of all kinds	
Peru Balsam. See Balsams	
Petrol	E.H
Petroleum, See Oils, Minerals etc.	
Petroleum Ether	н
Petroleum Jelly	Н

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	н
Pharmaceutical Drugs See Pharmauceutical Chemicals and Drugs	
Phenol (Carbolic Acid) see Poisons	
Phosgene See Carbonyl chloride	
Phosphine	E.H
Phosphonium Lodide	E.H
Phosphoric Acid	3B
Phosphorus -	
Amorphous, See Amorphous Phosphorous	
Red See Red Phosphorous	
White. See White Phosphorous	
Phosphorous Pentachloride	Н
Phosphorous Sesquisulphide	E.H
Phosphorous Sulphides (Except Phosphorous sesquisulphide q.v.)	Н
Phosphorous Trichloride	н
Photographic Flash Powders See Flash Powders. Photographic	
Pissava of all kinds (vegetable fibre)	н
Picramic Acid. See Die Nitre amido Phenol	
Picra-tas (Explosives)	E.H
Picric Acid See Tri Nitro Phenol	
Pineapple Grass	н
Pine Bark	н
Pinene	
Pine Oil See Oils Animal, fish etc.	
Pine Tar Oil. See Oils Minerals, Tar etc	
Pita Fibre	Н
Pitch H	
Plantain Fibre	Н
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	н
Pontionac	Н
Poppy seed Oil. See Oils. Anikal, Fish etc.	E,H
Potable Spirits. See Spirits, Potable	E.H
Potassium	E.H
Potassium Bichromate	Н