



Minutes of the 2nd Meeting of the Standing Fire  
Advisory Committee held from the 3rd July, 1956  
to the 6th July, 1956 at the National Fire Service  
College, Rampur (U.P.)

PRESENT:-

1. Shri M.G. Pradhan, Commandant, National Fire Service College, Rampur - Chairman.
2. Shri S.K. Bose, Chief Fire Officer, Allahabad.
3. Shri N.M. Karanjia, Fire Superintendent, Office of the Security Officer, Central Railways, Bombay.
4. Shri John Koshi, District Fire Officer, Vellore, Madras.
5. Shri S.F. Lakhani, Fire Adviser, Ministry of Defence, New Delhi.
6. Shri P.N. Mehrotra, Fire Officer, Civil Aviation Department, Ministry of Communications, Allahabad.
7. Shri Syed Sayeed Hassan, State Fire Force Commander, Hyderabad (Deccan).
8. Shri S.G. Vengsarkar, Chief Fire Officer, Bombay Fire Brigade, Bombay.
9. Shri A.B. Advani, Chief Fire Officer, Delhi State Fire Service, New Delhi.

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1. Capt. C.M. Gogerly, Director, West Bengal Fire Services Calcutta, Shri C.S. Chandrasekhara, Deputy Director, Indian Standard Institution, Delhi, and Command. Genl. M.J.B. Maneckji Fire Adviser to the Government of Bombay, informed their inability to attend and expressed their good wishes for the success of the Meeting.

2. The Chairman then stated that he was glad to inform the Members of the Standing Fire Advisory Committee that they had amongst themselves Shri Syed Sayeed Hassan, State Fire Force Commander, Hyderabad State, who had been specially coopted to this Standing Fire Advisory Committee Meeting and on the Committee's behalf the Chairman extended him a welcome to the meeting.

3. The Committee agreed to postpone item Nos. 1, 2, and 4 till the arrival of Shri S.F. Lakhani, Fire Adviser to the Ministry of Defence.

4. ITEM NO: 3 Standardisation of fire stations in the country.

The Committee Members discussed the question of standardisation of fire stations in the country and went through the various plans that were put before them.

After discussing the matter the members stated that it would not be possible for any particular plan for a fire station to be standardised since this would depend on the lay-out of the plot in each individual case.

Members brought out the question of the two types of duty-system that were prevalent in the Fire Service in the Country, namely the 24 hours continuous duty system and the shift system. They felt that if a particular plan was finalised for standardization of a Fire Station, it might not work out for the two separate duty systems, and also that actual design would vary in each case according to the layout and location of the plot. They, therefore, decided that instead of recommending a specific design for fire stations, it would be advisable to give the general idea of the requirements of a one-pump, two-pump, 3 pump, 4 pump and more-than-four-pump fire stations separately for each system.

Following minimum dimensions were recommended for each of the requirements of Fire Stations:-

REQUIREMENTS OF AN AERODROME FIRE STATION

1. Type of accommodation station.	One appliance station.	Two appliance station.	Three appliance station.	Four appliance station.	Five appliance and over station.
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1. Appliance room, with doors according to local requirements. Height will depend on the type of ladders/overall height of appliance in use but will not be less than 12 ft.)

36'x16'x14' high

The floor area should be double of the one appliance station.

The floor area given under one appliance station should be multiplied by 3.

The floor area given under one appliance station should be multiplied by 4.

Multiply the floor area given under one appliance station by the no. of pumps.

2. Office	120 sq. ft.	120 sq.ft.	130 sq.ft.	180 sq. ft.	240 sq. ft.
*3. Watch room	120 sq. ft.	120 sq.ft.	120 sq.ft.	120 sq.ft.	180 sq. ft.
4. Store	130 sq. ft.	180 sq. ft.	200 sq.ft.	200 sq.ft.	300 sq. ft.
5. Work room (For minor repairs)	150 sq.ft.	200 sq. ft.	200 sq.ft.	250 sq.ft.	300 sq.ft.
6. Rest room/ Recreation Room.	200 sq.ft.	200 sq.ft.	250 sq.ft.	300 sq.ft.	300 sq.ft.

Appliance means all Fire Service Vehicles, including ambulances.

1 2 3 4 5 6 7

7. Drill tower-cum-hose drying tower. 15'x15'x40' high. 15'x15'x40' high. 15'x15'x40' high.

8. Petrol Store. According to existing Petroleum Regulations.

9. Static Tank. 5000 galls. Cap. with parapet wall not exceeding 3' and a depth not less than 3' with a sump of 2'x2'x2'. 10,000 galls. Cap. with parapet wall not exceeding 3' and a depth not less than 3' with a sump of 2'x2'x2'. 10,000 galls. Cap. with parapet wall not exceeding 3' and a depth not less than 3' with a sump of 2'x2'x2'. Two tanks of same capacity as for one pump station.

10. Hose Washing Trough. 40x3'x2' deep. 40x3'x2' deep. 40'x3'x2' deep.

11. Smoke Chamber 8'x8'x8' high. 8'x8'x8' high. 8'x8'x8' high. 8'x8'x8' high.

12. Hydrants. One of each type. One of each type. One of each type. One of each type.

\* The watch Room should be on top of the Station. % In case of upper floors, separate sliding poles should be fitted between each floor.

	1	2	3	4	5	6	7
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13. Record Room	Nil	Nil	Nil	Nil	150 sq.ft.	150 sq.ft.	180 sq.ft.
14. Class Room	Nil	Nil	Nil	Nil	225 sq.ft.	225 sq.ft.	300 sq.ft.
15. Drill Ground	200ft.x50 ft.	200 ft.x 50 ft.	200 ft.x 50 ft.	200 ft.x 50 ft.	200 ft.x 50 ft.	200 ft.x 50 ft.	200 ft.x50 ft.

16. Dormitories / An area of 10 ft. x 5 ft. per person for the total number of persons on duty at a time.

17. Sanitary facilities.

To be provided at a scale of one lavatory and one bathroom for each 5 persons on duty at any time subject to a minimum of 1 set.

18. Residential accommodation.

(a) At training centre - Single accommodation, messing facility and other connected services for 100 persons should be provided as close as possible to the Aerodrome.

(b) At all Station - Residential accommodation for all Fire Service Staff should be provided as close to the Aerodrome as possible.

The Committee unanimously approved the suggestion that administrative authorities should be asked to earmark sufficient land for fire stations in the sub urban localities under development.

5. The Committee confirmed the minutes of the First Standing Fire Advisory Committee meeting held from 9th to 11th February, 1956 at 20-Travancore House Hutments, New Delhi.

6. Item No. 2. IMPROVEMENT OF THE FIRE SERVICE IN THE STATES.

The members took up item No. 2 for consideration which pertained to improvements of Fire Services in the States. The detailed recommendations proposed by the Government of India were carefully considered and members generally approved of the formula put up by the Government, namely to provide for 100-gallons per minute pumping capacity for every 10,000 population and a water reserve of one gallon per head for fire fighting purposes only for towns and cities having a population of two lakhs and over. The members, however, further stated that since factors like accessibility to fire engines, types and construction of buildings, communication system and special fire risk in built-up areas would be required to be inspected by fire experts, they felt that such recommendations as would be made by the fire experts after a survey should be considered separately at a later stage when appropriate.

It was, however, pointed out by the members that where piped water supply was provided, the sizes of mains for industrial and residential areas should be as follows:-

- (a) For industrial and commercial areas the main pipe line should not be less than 6" in dia. and should be capable of supplying a minimum of 1,000 gallons per minute at a pressure of not less than 10 lbs. per sq. inch.
- (b) For residential areas, the main pipe line should not be less than 4" in dia. and should be capable of supplying a minimum of 500 gallons per minute at a pressure of not less than 10 lbs. per sq. inch.

As regards the normal types of ladders to be used in fire fighting in relation to the height of the building (para 15(b) of the notes relating to item No. 2 of the agenda), the members recommended that 35 ft. extension ladders should be provided in places where the buildings have a ground and two upper floors only, and that where there are more than two upper floors, 50-60 ft. fire escapes and hook ladders should be used. They further recommended that the use of

turnable ladders may be considered where the height of the buildings exceeds 60 feet.

Regarding the communication system for cities and towns with a population of 2 lacs and over (para 15(c) of the notes relating to item No. 2 of the agenda), the Committee recommended that installation of street fire alarm system on the lines of those in use in Bombay and Calcutta may be considered. As an alternative the Committee recommended that the number of public call offices should be increased and that these should be located at strategic points.

A further improvement can be achieved by introducing radio telephony for communication between the Fire ground and the fire control room.

The Committee further recommended that a coordination between the fire services and other works brigades should also be established for mutual help.

As regards special fire risks which should be specifically attended to (para 15(d) of the notes relating to item No. 2 of the agenda), the members felt that a list of all such special fire risks would be too large. The Committee, therefore, agreed to consider a comprehensive list of such fire risks which could be elaborated. The members, however, considered certain special fire risks, a list of which is appended herewith (Appendix I).

As to the rate of water supply for fire fighting purposes (para 15(e) of the notes relating to item No. 2 of the agenda), this has already been dealt with in para 6(a) of the minutes.

Regarding augmentation of water supply available from the city water works (para 15(f) of the notes relating to item No. 2 of the agenda), the Committee approved the suggestion made by the Government so far as the provision of water fountains and water ponds were concerned. It was, however, felt necessary to add to this list static water supply owned by private industrial establishments, with proper approaches for fire fighting machines.

As regards the augmentation of water supply in rural areas (para 15(g) of the notes relating to item No. 2 of the agenda) the Committee members felt that natural resources in rural areas, such as, wells, ponds, creeks, rivers and rivulets should be made approachable by Fire Engines by suitable constructions.



Regarding the question as to which cities should be given priority for development of fire fighting services (para 15(h) of the notes relating to item No. 2 of the agenda), the Committee agreed that such cities and towns which have a population of two lakhs and over should be given priority for development of fire fighting services; and preference should be given to the cities which have industrial establishments of National importance.

7. Item 6 Levy of Fire Tax.

The Committee then took up item No. 6, namely levy of fire tax for consideration. The Chairman explained to the members that apart from the question of constitutional legality for the levy of the fire tax, the sources of revenue of all State Governments and local authorities were already being fully tapped for the implementation of the Five Year Plan. After discussion the members felt that it may not, perhaps, be appropriate to levy such a tax at this stage. They, however, unanimously decided to recommend that a fire tax should be levied on all fire protected areas, agricultural and farm lands and vacant and waste lands, and that the rate of fire tax should not be less than half percent of their rateable value. While making this recommendation, the members fully realised that it would not meet the full cost of the maintenance of the fire services.

As regards the areas where such fire tax should be levied, the Committee recommended that all existing fire protected areas and towns and cities, with a population of two lakhs and over, should be included, for such a levy.

8. Item 4. Scheme for the improvement of fire fighting arrangements in industrial establishments.

The Committee next took up for consideration Item No. 4, namely, Scheme for the Improvement of Fire Fighting Arrangements in Industrial Establishments:-

The variables mentioned in paragraph 2 of the note namely:-

- 1) Number of Workers employed.
- 2) Area covered.
- 3) Accessibility from outside and within the installation.
- 4). Degree of fire risk involved in the different types of Industrial installations, e.g. textile factories, explosive factories, rubber works, paint factories, distilleries etc.
- 5) Water Supply available from all sources within a reasonable distance of the factory.

were discussed and the committee unanimously approved of the following general formulae:-

Re: (1) Number of workers employed:- The Committee felt that the number of workers in a factory had no bearing on the fire risk of the factory. It was only indicative of the extent of the factory and therefore the Committee felt that the number of workers need not be considered for determining the extent of fire protection required.

Re: (2) Area covered:- The Committee recommended that the area should be considered under four categories, namely (A) the total area in Sq. ft. of all floors including galleries in all buildings of the factory.

(B) The total area in Sq. ft. in all floors and galleries inclusive of open spaces in which combustible materials are handled or stored.

(C) The total area of all floors over 50 ft. above ground level.

(D) The total area of all floors of combustible construction.

The number of gallons of water per minute required should be worked out as  $A + B + C + D$  divided by 1000.

NOTE I:- If any of the areas under B, C, or D, is protected by permanent automatic fire fight-installation, the same should be halved for the purposes of the calculation.

NOTE II:- Where the fire risk involved does not require use of water, such areas may also be halved for the purposes of the calculation.

Based on the above formula, the number of fire pumps required for the premises should be worked out as follows:-

Less than 120  
Galls. per minute

No power driven pump required. First Aid Fire Appliances should be provided as recommended by the local Fire Officer.

120 to 200 Galls.  
per minute.

One Light Trailer Pump required.

Over 200 Gallons  
per minute

Two or more power driven pumps which will give the required capacity.

WATER SUPPLY:- The water supply requirements should be based to give 100 minutes working supply at the rate of the pumping capacity worked out as above. 50% of this water supply or 1 Lac of gallons, whichever is less, should be in the form of static supply. Where piped supply is provided, the size of the mains should not be less than 6 inches in diameter and it should be capable of supplying a minimum of 1000 gallons per minute at a pressure of not less than 10 lbs. per sq. inch.

In working out the number of pumps required, in the formula given above, the pumping capacity may be reduced by 25% in cases where outside aid from an established city or town fire service is available within 5 minutes of the outbreak of fire. But this, should not reduce the total water storage capacity recommended for 100 minutes work.

Sarvshri S.F.Lakhani and P.N. Mehrotra pointed out to the Committee that the formula worked out above for Industrial Establishment will not work out for the Defence and Civil Aviation Installations as they stated that the pumping capacities and water requirements for such installations would be much higher and their respective departments have their own scales laid down in this connection. It is, therefore proposed that the above formula should not be made applicable to such installations.

The Committee considered the question of gradation of fire risk as proposed by the Government in para 6 and decided that with the formula proposed above, gradation is not necessary. As regards the suggestion of the Government that expenditure incurred on essential fire fighting appliances and their maintenance be treated as Revenue Expenditure for the purpose of assessment of Income Tax, Super Tax etc., the Committee unanimously endorsed this proposal. The Committee also unanimously agreed that necessary amendments under the Factories Act of 1948 may be carried out.

9. Item No. 5.(e) Suggestion from Delhi State Government for modifications regarding ranks of fire services.

The Committee next took up item No. 5(a) for consideration which related to the ranks for fire services personnel in India. Observations made by the Chief Fire Officer, Delhi were fully considered and the Committee after discussion came to the conclusion that the following ranks should be adopted for fire services in the country:-

- 1) Fire Force Commander.
- 2) Deputy Fire Force Commander or Chief Divisional Fire Officer.
- 3) Divisional Fire Officer.
- 4) Assistant Divisional Fire Officers.
- 5) Station Officer.
- 6) Sub-Officer.
- 7) Leading Fireman.
- 8) Driver Operator.
- 9) Fireman (inclusive of selection grade).

As regards the ranks of Deputy Fire Force Commander and Chief Divisional Fire Officer it was felt that these two should be considered of equal ranks with the distinction that Deputy Fire Force Commander will assist the State Fire Force Commander at his headquarters while the Chief Divisional Fire Officer would be an officer stationed in the mofussil exercising control over Divisional Officers.

Although the Committee recommended the above ranks for the fire Services, they felt that it might not be necessary for several small fire services to have officers of some of the intermediary ranks in which case the discretion for filling up these ranks should be left to the authorities concerned.

10. Item 5 (b) Suggestions from the Director W. Bengal Fire Services for modifications of the badges of the ranks of fire services.

While considering item No. 5(b) pertaining to the standardisation of Badges of ranks, the Committee considered the observations made by the Director, West Bengal Fire Services, and after discussion, came to the conclusion that the Officer's Peak cap Badge, as recommended by the Fire Experts Committee of 1950, should be retained. They further recommended the following shoulder markings for the various ranks:-

1. Fire Force Commander:

Large impeller 1" dia. in a semicircular wreath surmounted by two small impellers each 2" dia. placed in line with the large impeller, made out of white metal worn on both shoulders straps.

2. Deputy Fire Force Commander or Chief Divisional Fire Officer:

Large impeller 1" in dia. in a semicircular wreath surmounted by one small impeller  $\frac{3}{4}$ " dia. placed above, made of white metal worn on both shoulder straps.

3. DIVISIONAL Officer:

Large impeller 1" in dia. in a semicircular wreath made out of white metal worn on both shoulder straps.

4. ASSISTANT Divisional Fire Officers:

Three small impellers  $\frac{3}{4}$ " in dia. made out of white metal placed one above the other worn on both shoulder straps.

5. STATION Officer:

Two small impellers  $\frac{3}{4}$ " in dia. placed one above the other, made out of white metal worn on both shoulder straps.

6. SUB-Officer:

One small impeller  $\frac{3}{4}$ " in dia. made out of white metal worn on both shoulder straps.

7. LEADING Fireman:

One bar  $\frac{1}{2}$ " wide and  $1\frac{1}{2}$ " long with a semi-circular cross-section with flat bottom surface and round surface on the top made out of white metal to be worn  $\frac{1}{2}$ " from the bottom end of both shoulder straps.

8. DRIVER Operator:

2" dia. three spoked steering wheel embroidered in white on blue background worn on the right sleeve half way between the shoulder and the elbow.

11. Item No. 7: Consideration of the material for producing certain documentary films.

The Committee considered the proposal for the production of documentary films, as proposed by the Government of India and suggested that these films should only confine to the aspects of fire prevention for householders and first aid for everybody as put up in the material for the production of these films. The Committee, further suggested that some documentary films, should also be produced for

showing the elementary fire fighting operations for householders and also educating the public with regard to their co-operation with the fire services in the matter of keeping fire hydrants free from any obstruction or misuse, giving the 'right of way' to fire fighting vehicles while attending the calls, keeping note of nearest fire alarm, telephone or fire station with the telephone number of the Fire Service etc.

12. Item No. 8. Consideration of the final proforma for the collection of fire statistics, as recommended in the first meeting.

The Committee next took up for consideration the final proforma for the collection of fire statistics as recommended in the first meeting of the Standing Fire Advisory Committee. The forms were considered item by item and with certain modifications and minor additions were duly approved by the Committee.

The modified forms as approved by the Committee are appended here-to (Appendix II).

13. Item No. 10. Production of articles by the members of the S.F.A.C. for publication during the ensuing "FIRE WEEK".

After this the Committee took up for consideration Item No. 10 relating to the production of articles by members for publication during the 'Fire Prevention Week'.

Several Members stated that publication of articles through Newspapers is not likely to bring about the desired fire consciousness amongst the public since it would be of interest to a very limited section of the public. They also stated that it would be very difficult to convey to the general public, particularly to children and illiterate masses the message of fire prevention and fire fighting through publication of such articles. The members, therefore, recommended that instead of publishing articles on these subjects, supplements to newspapers should be published containing sketches, cartoons, drawings, pictures, slogans and rhymes, which would certainly be more interesting to convey the objects of fire prevention and fire fighting.

Shri A.B. Advani, Chief Fire Officer, Delhi produced before the Committee several pictures which he had prepared for Cinema slides and publicity posters through his fire service.

The Committee also recommended that some of the pictures produced by the Ministry in the book entitled "Fire Safety in Home" as improved according to suggestions given by Shri John Koshi, should also be considered for such publicity.

Several picture posters prepared by the Ministry were put up before the members when it was suggested that, where the pictures depict 'the wrong way', it should show 'the right way' also side by side. The Members recommended that the posters and publicity material prepared on these lines should be circulated to various ministries and state governments in advance for distribution during the Fire Prevention Week.

A suggestion was put forward by Shri N.M. Karanjia, that the Post and Telegraphs Department may be requested to consider the possibility of issuing special postage stamps during the 'fire prevention week' and to deface the mail by special seal bearing a Fire Prevention Slogan.

14. The Members of the Committee were requested to point out specific cases of procurement of fire fighting equipment through the Directorate General of Supplies and Disposals where such equipment was not according to the indents or specification and also to point out specific cases and the nature of difficulties experienced by them in procuring the equipment. The Members were of the opinion that enquiries in this respect should be made officially from the various State Governments as they said that they had no authority to furnish this information. Members again put forward their request that the consumer should have the opportunity to scrutinize the tenders and offer his comments and also to inspect the equipment as far as possible.

15. ITEM NO. 9:- Consideration of the item postponed from the last meeting regarding booklet "RESCUE".

The Committee next took up for consideration item No.9, namely, 'Booklet in Rescue Technique'. The booklet termed "Elementary Principles of Rescue" was gone through item by item by the Committee and certain corrections and modifications, as proposed by the Members, where necessary, were incorporated in the same (Appendix III).

The Committee, however, made following recommendations relating to the booklet:-

- (1) The title should be 'Elementary Rescue'.
- (2) The book should be re-written in 3rd person singular.
- (3) Portion on "How to Rescue a Drowning Person," (page 34, Section 13), is sketchy and requires more details.

- (4) Consistent with the introduction, the book should also deal with rescue from floods, and location and rescue of marooned persons. Details of such rescues should be had from agencies who undertake such works else-where.
- (5) The book should be divided into sections, so that there is a separate section for each type of rescue.
- (6) Provision for establishing Leadership at the initial stage of rescue operations should be made.

16. The Committee next considered the matter of introduction of Hindi Words of command for fire services drills. Various Hindi words were proposed by members for different fire fighting operations. It was pointed out by Shri S.F. Lakhani, Fire Advisor, Defence Ministry, that Hindi Words of command for the Defence Forces were being worked out by the Ministry of Education. The Committee thereupon recommended that this work of framing Hindi words of Command for the fire services should in the first instance be referred to the Ministry of Education to be later reviewed by this Committee.

17. A suggestion was put up at this Committee meeting that a service motto and emblem should be prescribed for the Indian Fire Services. This matter was considered by members at length. Since some members requested some time for consideration, the Committee decided that this subject be taken up at their next meeting.

18. The Chairman, before concluding the meeting read out to the members letter No. BDC/SFAC, dated 25th June, 1956, from Shri C.S. Chandrasekhara, Deputy Director (Buildings), Indian Standards Institution, to apprise members of the progress made in the drawing of Indian Standards specifications for fire fighting equipment.

19. Shri A.B. Advani, Chief Fire Officer, Delhi, in his D.O. No. 39/G-894, dated the 20th June, 1956, had submitted certain observations as regards the new fire drills. These were generally considered by Members and it was decided that a sufficient trial should be given to the fire drills as finalised in the 'Drill Manual' before making any modifications in them.

#### RESOLUTION NO. 1

20. The Members of the Committee feel that it would be of great advantage if the future meetings of the Committee are held in rotation at important Fire Service Centres, Such as,



1. Madras
2. Hyderabad.
3. Bombay
4. Calcutta.
5. Allahabad.
6. Delhi.

This will give an opportunity to the members of the Committee to gain first hand knowledge of the working of the Fire Service Organisation in those centres and thus equip them better to deal with the varied problems pertaining to the 'Service' and will also keep the interest of the members alive. It will also afford an opportunity for discussions on important matters between the members of the Committee and the Senior Officers of the various Fire Services on the 'Service' problems. The feasibility of convening the next meeting at Hyderabad is recommended to be taken up for consideration.

21. The Members of the Committee thanked Shri Syed Sayeed Hassan, State Fire Force Commander, Hyderabad, for his valuable advice and assistance in the deliberations of the Committee. The Members felt that with his vast fire service experience, his services should be sought for future deliberations of the Committee.

The Members, therefore, unanimously proposed that he be included as a full member of the Standing Fire Advisory Committee.

The meeting came to a close at 5.30 P.M. on 6th July, 1956, with a vote of thanks to the Chair.

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LIST OF TRADES INVOLVING SPECIAL  
FIRE RISKS

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Acetylene Engineers.	Cork Merchants.
Acid Manufacturers.	Cotton Goods.
Agricultural Implement.	Curriers and Tanners.
Manufacturers.	Decorators.
Ammunition Dealers and Manufacturers	Drapers.
Analysis	Druggists.
Artificial Flowers	Dyers and Cleaners.
Armonia Manufacturers.	Electrical Supplies.
Asphalt and Bitumen.	Enamellers.
Auctioneers.	Muslin clippers.
Automobile Engineers.	Envelope Makers.
Bag Manufacturers.	Exhibitions.
Bakers and Confectioners.	Explosive Manufacturers.
Basket Manufacturers.	Export Packers.
Bazaars.	Fancy Box Makers and Goods Trades.
Bedding and Mattress Manufacturers.	Farmers.
Billposters.	Factories and Workshops.
Biscuit Manufacturers.	Fish Curers and Fried Fish Shops
Blacksmiths and Farriers.	Floorcloth Manufacturers.
Boarding Establishments.	Flour Mills.
Boat Builders.	Forage Merchants.
Bookbinders.	Founders.
Boot and Shoe Factors.	French Polishers.
Bottle Merchants.	Furriers.
Brewers.	Galvanizers.
Bronze Powder Manufacturers.	Gas Singers and Cloth Pressers.
Brush Makers.	Glass Works.
Builders and Applied Trades.	Glovers.
Butchers and Tripe Boilers.	Glue Merchants.
Cabinetmakers.	Gramophone and Record Trade.
Cap and Hat Makers.	Grocers, Coffee Roasters.
Carbide of Calcium(Makers)	Gunsmiths.
Carmen.	Hairdressers.
Carpenters.	Hatters.
Carriers.	Hay and Straw Dealers.
Case Makers.	Hops.
Caterers.	Hosiery.
Celluloid Goods Manufacturers.	Hospitals.
Cement Manufacturers.	Hotels.
Chair Makers.	Hot Pressers.
Chemical Manufacturers.	Incandescent Mantle Makers.
Chemists.	India rubber and Guttapercha
Cinemas and Cinematograph Stores.	Manufacturers.
Clothiers and Outfitters.	Ink(Printing) Manufacturers.
Coach Builders.	Iron Founders.
Coal and Coke Merchants.	Iron mongers.
Colour Manufacturers.	Jewellers.
Comb Manufacturers.	Job Masters.
Concert Halls.	Joiners.
Contractors.	Lace Manufacturers.
Coopers.	Lacquer Manufacturers.

Laundries.  
Lithographic Printers.  
Marine Stores.  
Meat Salesman.  
Metal Workers.  
Munition Makers.  
Millers.  
Milliners.  
Millwrights.  
Motors, works, and Garages.  
Musical Instrument Makers.  
Offices, Retail Shops, and Stores.  
Oil Merchants.  
Oilmen and Domestic Stores.  
Packing Case Makers.  
Painters.  
Paper Bag and Box Makers.  
Photographers.  
Piano Manufacturers.  
Plumbers and Gas Fitters.  
Printers.  
Rag and Waste Dealers.  
Restaurants.  
Rubber Goods.  
Sack and Bag Manufacturers.  
Saw Mills.  
Ship builders.  
Ship Chandlers.  
Silk.  
Skin Dressers.  
Soap Boilers.  
Spice Grinders.  
Stables.  
Stationers.  
Tanners.  
Tarpaulin Makers.  
Theatres.  
Timber Merchants.  
Tobacco Trades.  
Turkish Baths.  
Upholsterers.  
Varnish Manufacturers.  
Waterproofers.  
Wharfingers.  
Wheelwrights.

PROFORMA 'A'

Particulars to be collected from all Fire Services in the country.

Name of Service \_\_\_\_\_

Name of Town \_\_\_\_\_

District \_\_\_\_\_

State \_\_\_\_\_

1) Area in square miles and rateable value:

2) Population.

- 3) Fire Risks covered )
- a) Textile, woolen, silk and artificial silk Mo. (Rayen etc. Mills). \_\_\_\_\_
  - b) Ginning Mills. \_\_\_\_\_
  - c) Cotton Presses. \_\_\_\_\_
  - d) Oil Mills \_\_\_\_\_
  - e) Petrol and Oil Storages and refineries. \_\_\_\_\_
  - f) Match Factories, Fire Works and Explosives manufacture. \_\_\_\_\_
  - g) Explosives Stores. \_\_\_\_\_
  - h) Processes involving dangerous petroleum products. \_\_\_\_\_
  - i) Cinematograph films, celluloid, Plastics and bakelite work. \_\_\_\_\_
  - j) Timber and Wood Working, paper manufacture. \_\_\_\_\_
  - k) Chemical works. \_\_\_\_\_
  - l) Gas and Electricity Undertakings. \_\_\_\_\_
  - m) Docks, Railways and Air Port Installations. \_\_\_\_\_
  - n) Ware-houses, goods, yards and goods sheds. \_\_\_\_\_
  - o) Manufacture of rubber goods. \_\_\_\_\_
  - p) Others (Give details). \_\_\_\_\_

4) Fire risks around the town ) (Details to be given).

- 5) Water facilities:
- i) Hydrants. \_\_\_\_\_ No. and approximate capacity \_\_\_\_\_
  - ii) Water ponds. \_\_\_\_\_
  - iii) Refilling places \_\_\_\_\_
  - iv) Wells, Rivers and Canals. \_\_\_\_\_
  - v) Other facilities like \_\_\_\_\_  
Static, tanks, storage tanks, etc.

6. Communication system.

7. Is there any organisation for collection of statistics relating to losses due to fires in the town irrespective of whether such fires are attended to by the Fire Services or not.

8. If so, what statistics, if any, are being collected.

9. Any other special points not covered by Nos. 1 to 8 above.

.20.  
PROFORMA 'B'

particulars to be collected from all Fire Services in the Country.

Name of the service. \_\_\_\_\_

Name of Town \_\_\_\_\_

District \_\_\_\_\_

State \_\_\_\_\_

1) Fire appliances:

- i) Motor Pumps with capacities \_\_\_\_\_
- ii) Water Tenders -do- \_\_\_\_\_
- iii) Trailer Pumps -do- \_\_\_\_\_
- iv) Manual Pumps \_\_\_\_\_
- v) Towing vehicles \_\_\_\_\_
- vi) Canteen Vans. \_\_\_\_\_
- vii) Fire Boats. \_\_\_\_\_
- viii) Fire Escape Ladders, Extension ladders etc. (with max. heights). \_\_\_\_\_
- ix) Turntable ladders. \_\_\_\_\_
- x) Foam and Crash Tenders. \_\_\_\_\_
- xi) Emergency Tenders. \_\_\_\_\_
- xii) Control Post Vans. \_\_\_\_\_
- xiii) Rescue gears etc. \_\_\_\_\_
- xiv) House Laying Lorries. \_\_\_\_\_
- xv) Breakdown vans. \_\_\_\_\_
- xvi) Other Vehicles. \_\_\_\_\_

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

- 2) Equipment: (a) Wireless Scheme (If in operation).  
Users (Fire Brigade only or joint scheme). \_\_\_\_\_  
No. of fixed stations. \_\_\_\_\_  
No. of mobile stations. \_\_\_\_\_
- (b) Hose (total length in feet) \_\_\_\_\_
- (c) Breathing apparatus (no. of sets) \_\_\_\_\_
- (d) Oxy-Acetylene cutting outfits (no. of sets) \_\_\_\_\_
- (e) Lighting sets: (i) Electric \_\_\_\_\_  
(ii) Other forms \_\_\_\_\_
- (f) Foam Equipment (i) Generators. \_\_\_\_\_  
(not exting. - (ii) Foam Making Branch pipes. \_\_\_\_\_  
uishers.) (Give capacities).
- (g) Street Fire Alarms (total No.). \_\_\_\_\_

3) Number of Fire Stations.

4) Staff Superintendence:

Principal Officers  
Scale of pay and allowances.  
Whether entitled to free quarters.  
Other terms and conditions of service.

- 5) Staff-Supervisory      Other Officers  
Scale of pay and allowances.  
Whether entitled to free quarters.  
Other terms and conditions of service.
- 6) Firemen                      Number of personnel  
Scale of Pay and allowances.  
Whether entitled to free quarters.  
Other terms and conditions of service.
- 7) Drivers.                      Number of personnel.  
Scale of pay and allowances.  
Whether entitled to free quarters.  
Other terms and conditions of service.
- 8) Other personnel if      Number of personnel  
any:                              Scale of pay and allowances.  
Whether entitled to free quarters.  
Other terms and conditions of service.
- 9) Whether reserves are maintained.  
if so, their conditions of service.
- 10) Whether any Auxiliary Fire Services are maintained. If so, its  
strength and other details.

- 11) Motor cycles/Cars/Cycles (a) Whether supplies.  
for use of officers/staff  
(b) If so, details:  
(c) Period for which issued  
(d) Whether any allowances are  
admissible.

12) Uniform and personal equipment.

Whether provided free of charge:  
Uniform prescribed (In detail):  
Whether any washing allowance is  
admissible:

Accountments:	Material	Period for which issued.
Fireman's axe	Steel	
Badges of Rank		
Buttons(embossed)		
Whistle		
Belts.		
Gas Masks.		
Others.		

- 14) Whether the fire Service maintains First Aid and/or Ambulance unit;  
if so, staff:                      Medical and other stores supplied:

- 15) Training of personnel: Whether there is training school:  
if so supply details of course,  
Slabi, duration of each, Courses,  
drills parades etc.
- 16) Medical Facilities provided for staff.
- 17) Games and other extra-curricular activities:  
What are the provisions:
- 18) Whether the Fire Service is maintained by the State Government  
direct and if so, state under which department of the State Govt.
- 19) Whether the Fire Service is maintained:  
By the Corporation/Municipality/Local Board or by  
Private Bodies:
- 20) Average annual expenditure on the brigade:  
How the expenditure is met:  
Is any fire tax being levied(details):
- 21) Does the Brigade attend to fires outside the town: if so,  
whether free of charge:  
  
If any charges are levied, what are they:  
  
Any mutual Aid in force?  
  
If so, give details
- 22) Whether the fire services are also used for such purposes  
as watering roads, supplying water to public, pumping water  
due to floods, etc.  
  
If so on what conditions:
- 23) Does your fire fighting equipment conform to standard  
specification of fire Appliances and equipment. If  
not, please supply copies of specifications of your  
equipment.
- 24) Which of your fire fighting equipment are obtained  
from manufacturers in India or procured from  
foreign countries:
- 25) State your estimated annual requirements of all  
equipment.
- 26) Any other special points not covered by Nos. 1  
to 25 above.

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PROFORMA 'C'

Statistics of annual loss of life & property due to fire.

For the year 19      to      19

Name of service: \_\_\_\_\_

Name of town: \_\_\_\_\_

District: \_\_\_\_\_

State: \_\_\_\_\_

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

Types of Fires.	No. of Fires.				Estimated loss in 3 classes of fires.
	Small	Medium	Serious	Total	
(1)	(2)	(3)	(4)	(5)	(6)
i) House hold.					
ii) Textile woollen, Silk etc. Mills.					
iii) Oil Mills, Factories, ginning & Pressing works & manufacturing concerns					
iv) Graneries.					
v) Storages, Warehouses, Goods Yards & Sheds.					
vi) Explosives/Fire Works/Match factories etc.					
vii) Chemical Fires.					
viii) Cellulose spraying & Lacquer Manufacture.					
ix) Electrical fires.					
x) Chimney fires.					
xi) Timber & Wood works etc.					
xii) Cinematograph films, celluloid, plastics, etc.					
xiii) Docks, Air port & Ry. installations.					
xiv) Petroleum/Oil/refining installations.					



(1)	(2)	(3)	(4)	(5)	(6)
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, Hay stocks, Crops Hay ricks etc.					
xxi) Forest & Plantations.					
xxii) Rail & Road vehicles & Rolling stock.					
xxiii) Refuse and out door storages.					
xxiv) Miscellaneous.					
Total					

Note: 'Small' fire-a fire with an estimated loss of Rs.10,000/- and below.

"Medium" fire-a fire with an estimated loss of over Rs.10,000/- and upto Rs.50,000/-

"Serious" fire - a fire with an estimated loss of over Rs.50,000/-

Any fire, where in there are human casualties or deaths, to be considered as "Serious Fire" even if the estimated loss may be anything upto Rs.50,000/-

Total number of False Alarms of Fires:-

Malicious	Due to defective alarms.	With good intention	Total.
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Supposed Causes of Fires:

Total	61
Unknown	18
Miscellaneous	17
Chemical reaction.	16
Spontaneous Combustion	15
Careless smoking	14
Ovens, stoves or open fires.	13
Mechanical heat or spark.	12
Sparks from locomotion	11
Incendiarism.	10
Gas, Coal furnace	6
Explosives	8
fire works,	
Electrical origin.	7
Chirney.	5
Naked light.	5
Hot Ashes.	4
Radiation.	3
Dust Explosions.	2
Careless burning of waste or grass lands.	1

Types of fires.

- i) House hold.
- ii) Textile, woolen, silk etc. Mills
- iii) Oil Mills, Factories, spinning and Pressing works, and manufacturing concerns.
- iv) Graineries.
- v) Storages, and Warehouses, Goods yards, and sheds.
- vi) Explosives, Fire Works, Match Factories etc.
- vii) Chemical fires.
- viii) Cellulose spraying and Lacquer Manufacture.
- ix) Electrical installations.
- x) Chimney fires.
- xi) Timber and Wood works etc.
- xii) Cinematograph films, celluloid, plastics, etc.
- xiii) Docks, Air Port, and Rly. installations.
- xiv) Petroleum and Oil and refining installations.
- xv) Shops, Offices and Commercial Esttte.
- xvi) Theatres, Cinemas, Dance halls and places of public Assembly.

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xvii) Institutions  
Ed. caton, Libreries,  
Hotels etc.  
xviii) Gas,  
Electricity, Water,  
Sewage and buildings.  
xix) Professional  
establishments  
xx) Farm lands, hay  
stocks, crops, hay  
ricks etc.  
xxi) Forest plantations.  
xxii) Rail and  
Road vehicles &  
Rolling stock.  
xxiii) Refuse and  
cut door storages.  
xxiv) Miscellaneous.