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1. The History of Japan's Fire Fighting Standards (The Formation and Development of Local Government Fire Services)

(1) Trends in the Reformation of Japan's Fire Services

After the end of the war in the Pacific in August 1945, work progressed on the new constitutional system for the democratization of Japan. At the same time, work also started on reforming important areas of life such as the local government and police systems. The reformation of Fire Services was considered together with the local government and police systems.

① The Report of the Police System Commission

On October 11, 1946, the government established the Police System Commission which examined the need for the reformation of the Police System, including fire services, and which presented its findings on December 23, 1946.

In answering the question as to what steps needed to be taken to strengthen and improve Fire Service functions and the system as a whole, the report basically recommended that fire services be separated from the Police and listed its reasons under eight different topics.

On receiving the findings of the Commission, the Public Security Bureau of the Ministry of Home Affairs gave serious consideration to the Fire Service Law Proposal which determined the structure and function of fire services.

② The Transition from Volunteer Guards to Volunteer Fire Corps

The wartime responsibilities of the Volunteer Guards came to an end at the end of the war and on January 30, 1946 a partial amendment was made to the Volunteer Guard Ordinance eliminating the air-raid duties of the Volunteer Guards and making their primary responsibility that of disaster relief. After the report of the Police System Commission, on April 30, 1947 the Volunteer Fire Corps Ordinance was promulgated and enacted and the Volunteer Guards abolished.

Under the Volunteer Fire Corps Ordinance, the purpose of Volunteer Fire Corps was to prevent civil disasters with a strong regional loyalty, or more specifically to prevent and suppress water and fire-related disasters, and to provide relief and take other precautions in times of water and fire-related disasters and other emergencies. It was also determined that each municipality must establish a Volunteer Fire Corps.

(2) The Beginnings of Local Government Fire Services

① The Establishment of the Fire Services Organization Law

Although the government wanted to reform the police system and fire services at the same time as they reformed the local government system, due to the fact that differences of opinion arose between the Japanese government and the GHQ of the Occupation Forces, it was not possible to formulate a proposal until May 3, 1947 when the Japanese Constitution and the Local Government Law were enforced.

In a letter from General MacArthur to the Japanese Prime Minister dated September 16, 1947, the basic policy regarding the reformation of the Police System was revealed. Then, in a memorandum titled 'Matters regarding the Fire Services Law,' dated October 21, 1947, Angel, the GHQ Public Information Bureau's Public Security Section's Fire Service Administration Officer, directed the Ministry of Home Affairs to formulate a proposal based on the content of that memorandum.

On the basis of this memorandum, the Ministry of Home Affairs formulated the Fire Service Organization Law Proposal. In the initial proposal, the Fire Service Department was to be established under the jurisdiction of individual Municipal Public Security Committees (established under the jurisdiction of the head of the municipality for municipalities with populations of less than 5,000 people). After discussions with GHQ, the Fire Service Department was placed directly under the jurisdiction of each individual municipality. The amended proposal was subsequently submitted to the Diet and was passed in the Upper House on December 9, 1947 and promulgated as Law No. 226 on December 23, 1947. The date of enforcement was set for March 7, 1948 by 'Cabinet Orders regarding the Enforcement of the Fire Services Organization Law,' which was promulgated on March 6, 1948, the same date as the date of enforcement for the Police Law.

With the enactment of the Fire Services Organization Law, the old Imperial Fire Brigade Ordinance was abolished and a new Volunteer Fire Corps Ordinance promulgated in its place. Under the new Volunteer Fire Corps Ordinance, the system of establishing fire brigades changed from a compulsory to an arbitrary basis and the directorship of such passed to the head of each municipality, the Fire Service Chief, or the Fire Station Commander. As regulations regarding the number of personnel for the establishment, etc. of Volunteer Fire Corps and the number of Volunteer Fire Corps personnel were included in amendments to the Fire Service Organization Law later in 1948, the Volunteer Fire Corps Ordinance was also abolished the same year.

② The Establishment of the Fire Services Law

The Fire Services Law Proposal was considered and formulated at the Standing Committee on Public Security and Local Administration and laid before the First Diet together with the Fire Service Organization Law Proposal in December 1947. Despite the fact that the Fire Service Organization Law regarding the organization and management of the Fire Service had been enacted, the Fire Service Law itself, which dealt with practical matters regarding Fire Service activities, was left pending in the Upper House.

After giving further consideration to the Fire Service Law Proposal and making minor changes to such, the Standing Committee on Public Security and Local Administration again laid the proposal before the Diet in May 1948. It was approved on July 5, 1948 and enforced from August 1 of the same year.

The enactment of the Fire Services Law provided significant powers to Fire Fighting Organizations in terms of Disaster Prevention Administration and the simple fire extinguishing activities of municipal fire services were replaced with more significant responsibilities.

③ National Fire Service Structure at the Time of the Inauguration of Local Government Fire Services

After the war, the Public Guard Section of the Ministry of Home Affairs' Public Security Bureau initially had jurisdiction over Fire Service activities, followed by the Public Security Section and then the No.2 Public Security Section. In January 1946, the Fire Service Section was established in the Public Security Bureau and assumed Fire Service activity jurisdiction.

On December 31, 1947, the Ministry of Home Affairs was abolished, and on January 1, 1948, the activities of the Public Security Bureau were assumed by the newly established Internal Affairs Bureau. The Fire Service Section, which was part of the Internal Affairs Bureau, retained jurisdiction over Fire Service activities until March 7, 1948 when the National Fire Defense Agency was officially inaugurated in accordance with the provisions of the Fire Service Organization Law as part of the Standing Committee on National Public Security.

(3) Trends in the early 1950s

In order to contribute to the improvement of municipal fire fighting capabilities, the National Fire Defense Agency revealed “Standards for Standing Fire Fighting Capabilities” in 1949, and “Standards for Volunteer Fire Corps Facilities and Management” in 1952.

Partial amendments were made to the Fire Service Organization Law in 1952. Regulations regarding the fire fighting-related activities of the State and Prefectures were improved, Prefectural Governors were given certain measures of power with regard to fire fighting activities, regulations regarding State institutions were amended, and the National Fire Defense Agency was changed to the National Fire Defense Department.

In 1953, the Law for Promoting the Strengthening of Fire Fighting Facilities was enacted and a system of financial assistance was established with State subsidies for the improvement of existing municipal fire fighting facilities, etc.

In the early 1950s, in the midst of successive fires, the state of fire fighting facilities was especially poor and it became urgently necessary to make improvements. The financial position of municipalities was not good and as it was difficult for them to finance necessary fire fighting facilities with their own limited financial resources, there were strong demands for legislation regarding assistance measure from State subsidies. Under the provisions of the Fire Service Organization Law, the fire fighting responsibilities of municipalities were determined together with the fact that as a rule municipalities were required to bear the burden of independently financing their own municipal fire fighting activities. However, the necessity of financial assistance from state subsidies was also acknowledged and “determined in laws regarding subsidies for costs involved in municipal fire services” (Article 25).

(4) The Establishment of Fire Fighting Standards

① The Findings of the Fire Commission on the “Fire Service System Amendment Outline”

In the late 1950s, problems were pointed out regarding significant differences in the fire fighting standards of municipalities due to differences in the content of fire fighting administration caused by differences in financial capabilities. Therefore, in February 1957, the Standing Committee on National Public Security questioned the Extraordinary Fire Commission established by Cabinet determination as to whether “amendments should be carried out to the existing Fire Service System in order to improve and strengthen fire fighting activities.” In October 1957, discussions were held regarding as to whether or not as a rule the “Fire Service System Amendment Outline” should be used as a requisite for the state of municipal and local government fire services.

When these findings were received, moves were made to amend related laws and ordinances and in April 1959, partial amendments were made to the Fire Service Organization Law whereby matters regarding the research and proposal of standards for personnel and facilities necessary for municipal fire fighting services and matter regarding the research and proposal of standards for Fire Prevention Plans to be formulated by municipalities were newly added to the activities of the National Fire Defense Department. The Fire Service University and Fire Commission were newly attached to the National Fire Defense Department.

Then in June 1960, partial amendments were made to the Ministry of Home Affairs Establishment Law, among which were the establishing of the Fire Defense Agency as a separate entity outside of the Ministry of Home Affairs and the appointing of the head of the Fire Defense Agency as the Director of the Fire Defense Agency, etc. The existing system of government institutions was established at that time.

② The Findings of the Fire Commission on “Standards for Necessary Facilities for Municipal Fire Fighting”

The Director of the Fire Defense Agency requested the Fire Commission to investigate “ideal standards regarding necessary personnel and facilities for municipal fire fighting” and in August 1960, the Fire Commission submitted its findings.

Towards the end of the report, with regard to the implementation of such standards, the matter of necessary financial measures (tax allocated to local governments, subsidies, and local bonds) was raised and it was noted that “it is requested that the government give adequate consideration to such measures.”

③ The Establishment of Fire Fighting Standards

After receiving the findings of the Fire Commission, the Fire Defense Agency formulated detailed new standards, made adjustments with related agencies, and based on the regulations contained in Article 20 of the Fire Service Organization Law, issued "Fire Fighting Standards" in August 1961. These standards replaced "Standards for Standing Fire Fighting Capabilities" and "Standards for Volunteer Fire Corps Facilities and Management."

Reference Fire Fighting Standards

(Summary of Notification from the Director of the Fire Defense Agency)

(August 1, 1961 Attention All Prefectural Governors)

The aim of these standards is to be accurately implemented in accordance with the state of each municipality so that each municipality achieves the same level of fire fighting capability in order to reduce damage from fires, maintain law and order, and contribute to an improvement in the welfare of society.

Although efforts are being made to improve fire fighting capabilities in accordance with these standards in a large number of municipalities, it is regrettable, however, that in other municipalities, even though adequate financial resources are available they are lacking in enthusiasm when it comes to improving fire fighting capabilities. This in turn is having a detrimental effect on the desire of other municipalities to improve their fire fighting capabilities.

It is the desire of this Agency to eliminate this lack of enthusiasm and to see that each and every municipality seeks to improve its fire fighting capabilities. We will also carry out negotiations with related agencies, offer guidance and foster both administration and finance with the aim of achieving this goal. We therefore ask for your understanding and guidance with regard to the implementation of such in municipalities under your jurisdiction. The following points provide a summary of the standards involved.

1. These standards are based on the findings of the Fire Commission and are more suited to the present state of municipalities as compared with previous standards.
2. As these standards represent the bottom line regarding the fire fighting personnel and facilities necessary to prevent the outbreak of major fires in municipalities, further consideration of personnel and facilities, etc. necessary for flood control, etc. is required as they are not included in these standards.
3. The improvement of fire fighting capabilities in accordance with these standards is to be undertaken according to the financial situation of each municipality and not at the expense of causing significant damage to other administration. Annual improvement plans must also be formulated in order to ensure the smooth implementation of such.
4. Water supplies not determined in these standards are covered by existing Fire Fighting Water Supply Standards.
5. If these standards are combined with the education and training of Fire Service staff and Volunteer Fire Corps personnel and the propagation of fire prevention awareness among residents they will be effective in improving the fire fighting capabilities of municipalities.

Trends in Fire Service Capability Standards

	1961	1971	1975	1976	1986	1990	2000
Pump Trucks	<ul style="list-style-type: none"> To be calculated in accordance with the attached chart from the population of urban areas; the average annual wind speed, and the building/land ratio Number of personnel 7	<ul style="list-style-type: none"> Location standards established for cold, snowy areas. The number of location standards is reduced 	<ul style="list-style-type: none"> The building/land ratio is removed from location standards Number of Personnel 5				<ul style="list-style-type: none"> Removal of prerequisite for average annual wind velocity Reduction of the number of location standards on attached chart
Powered Pumps	<ul style="list-style-type: none"> To be calculated in accordance with the attached chart from the population in built-up areas and the building/land ratio. Number of personnel Tractor Pump Trucks 6 Hand Powered Pumps 7 Small Powered Pumps 5	<ul style="list-style-type: none"> Standards established for areas not belonging to urban areas or built-up areas 	<ul style="list-style-type: none"> The building/land ratio is removed from location standards Number of Personnel Hand-Powered Pumps 5 Small Powered Pumps 4				Number of Personnel Hand-Powered Pumps 4 Small Powered Pumps 4
Ladder Trucks	<ul style="list-style-type: none"> One vehicle within a 1.5km radius of built-up areas containing more than 10 buildings over 18m in height 	<ul style="list-style-type: none"> Changed to one vehicle within a 1.5km radius of built-up areas containing more than 10 buildings over 15m in height 	<ul style="list-style-type: none"> One additional vehicle in areas in municipalities containing more than 10 buildings over 15m in height or more than 5 buildings over 15m in height where an unspecified large number of people gather. Number of Personnel 5				<ul style="list-style-type: none"> Unit of placement designated to fire stations with reduction of aid from neighboring stations
Chemical Pump Trucks	<ul style="list-style-type: none"> Calculated by the number of manufacturing plants, storage facilities, or premises handling dangerous goods as determined in the provisions of Article 10 of the Fire Service Law. 	<ul style="list-style-type: none"> Calculated by the number of manufacturing plants, indoor storage facilities, outside tank-type storage facilities, other outside storage facilities, and general facilities handling Class 4 Dangerous Goods 		<ul style="list-style-type: none"> Determined by the location of a 3-point set 		<ul style="list-style-type: none"> Expanded to include facilities handling fuel oil. 	<ul style="list-style-type: none"> Fueling facilities removed from those facilities calculated Pump trucks may be used as a substitute with the attachment of a line proportioner
Rescue Vehicles					<ul style="list-style-type: none"> One vehicle for each Fire Station. 		
Ambulances			<ul style="list-style-type: none"> One vehicle for every 50,000 people in municipalities with a population of less than 150,000 people and three vehicles for municipalities with a population of more than 150,000 people with an additional vehicle being added for every additional 70,000 people 				<ul style="list-style-type: none"> One for every 30,000 people in municipalities with populations of 150,000 or less When the population exceeds 150,000, one for every 60,000 people

2. An Outline of the Content of Fire Fighting Standards (Summary of Enforcement Notifications)

(1) Fire Fighting Standard Trends

Notification No.2 of the Fire Defence Agency (1961)

- a. This document consolidated both of the former standards (“Standards for Standing Fire Fighting Capabilities” and “Standards for Volunteer Fire Corps Facilities and Management”) and clarified what they should both be like.
- b. In order for municipalities to fulfill their fire fighting responsibilities, they must have the personnel and facilities necessary to be able to cope with all types of disasters. This document revealed the thoughts of the Fire Defence Agency regarding necessary personnel and facilities for flood control and forest and field fires.
- c. In urban areas where the fire risk is high and there is a significant danger of fires spreading, in order to shorten the time from when fire breaks out to when water is actually discharged, it is necessary for stations to be in a state of constant readiness.
- d. Adequate consideration needs to be given to the number and location of special facilities, such as ladder trucks, smoke trucks, ambulances, vehicles that can operate in the snow, and other facilities in light of the specific needs of each municipality.
- e. This document also determined the necessary number of both volunteer personnel and other fire department personnel for dealing with fire fighting-related office work.

(2) An Outline of Partial Amendments to Fire Fighting Standards

① First Amendment (June 1971)

- a. Fire fighting capabilities in areas of heavy snowfall and low temperatures were increased in light of the length of time it takes for appliances to reach the scene of a fire in such conditions.
- b. Standards for ladder trucks and chemical trucks, etc. were revised in light of the increase in mid- to high-rise buildings and facilities containing dangerous materials such as oil, etc.
- c. The number of pump trucks located in urban areas was rationalized in accordance with the state of the state of operations, communication system, and road network in each city.

② Second Amendment (May 1975)

After many arguments regarding measures to deal with fires in buildings, largely prompted by the high number of fatalities arising from fires in medium to high-rise buildings where an unspecified number of people gather, such as the Osaka Sennichi Department Store Fire (118 people dead, 81 people injured) in 1972 and the Kumamoto Taiyo Department Store Fire the following year (100 people dead, 124 people injured), etc., in January 1974, the Fire Service Commission submitted its opinions regarding fire prevention measures in department stores, etc. In June of the same year, partial amendments were made to the Fire Service Law whereby measures were applied retroactively regarding the fire prevention equipment of specified buildings, fire management guidance was given, and improvements were made to existing buildings throughout the country.

In the midst of such changes in social and economic conditions, improvements, etc. in fire fighting techniques were introduced in order to establish fire fighting standards which were able to cope with such changes. In April 1974, the Fire Defence Agency established a research group to consider such matters, which subsequently submitted its findings to the Fire Service Commission. In May of the following year, amendments were made to the Fire Service Law after discussions regarding fire fighting capabilities in March.

The main topics covered in the amendment were as follows.

- a. Standards were newly established for emergency facilities and personnel.
Formerly, location standards for ambulances were included in emergency activity implementation standards rather than in Fire Fighting Standards. These two were consolidated into Fire Fighting Standards.
- b. In areas where the number of occurrences of disasters where rescue operations were necessary for high-rise building fires, traffic accidents, labor disasters, maritime disasters, dangerous goods disasters, etc. necessary rescue personnel were located as acknowledged to be necessary according to the needs of the Fire Department and Fire Stations.
Specific standards for rescue facilities and personnel were established in the Fourth Amendment to the Fire Service Law.
- c. In order to ensure the smooth implementation of prevention activities to cope with the increase in dangerous goods, flammable goods, and increasingly important preventative inspection activities, fire fighting personnel involved in the prevention of fires were separated from other personnel and calculated separately.
Such personnel were formerly referred to as "fire fighting personnel in Fire Departments and Fire Stations, apart from volunteer personnel, who are involved in fire prevention and general affairs."
- d. In order to prevent an increase in large scale disasters, such as fires in petroleum complexes or forest and field fires, Prefectures were required to endeavor to assist municipal fire services in the acquisition of necessary resources, equipment, material, and facilities to prevent such disasters through lending such according to the situation in the particular area.
- e. In order for Volunteer Fire Corps to cope with activities in times of natural disaster, such as fires, wind and water damage, and earthquakes, etc., provision was made for them to be able to increase the overall number of volunteer personnel as necessary. Provision was also made for an increase in the number of Fire Brigade staff, separate from volunteer staff, for fire prevention and the guarding of disaster sites, together with staff for post-disaster support, such as contact activities, etc.
- f. The location of fire stations and the deployment, etc. of pump trucks was reviewed due to an increase in the number of fire resistant buildings and improvements in communications, and standards regarding fire service vehicle personnel were rationalized.
- g. The overall number of volunteer staff in Fire Departments and Fire Stations will be considered and determined in light of work shifts, annual holidays, and the number of personnel required for education and training.

③ Third Revision (July 1976)

At the time of the second revision, it was decided to continue to consider the ideal state of comprehensive fire fighting capabilities in areas containing petroleum complexes as the formulation of Laws and Ordinances for the Prevention of Disasters at Petroleum Complexes was still being carried out.

As these laws and ordinances were to be enforced from May 1976, regulations were established to locate large chemical trucks, large high-rise pump trucks, and foam trucks in such areas.

Regulations were also established regarding the storage of foam chemicals.

④ Fourth Revision (October 1986)

The Fire Service Law, which was partially amended in April 1986, was also amended in October of the same year in order to determine the formation of rescue teams and vehicles in response to regulations requiring the location of fire fighting teams with special rescue equipment in municipalities in order to save peoples' lives as necessary

⑤ Fifth Revision (January 1990)

The fifth revision was carried out in January 1990 in order to cope with the increasing demand for chemical trucks in order to cope with changes in the state of production of dangerous goods and a diversification in the type of disasters. This was after the revision of standards for chemical trucks which accompanied the amendment of regulations regarding dangerous goods in 1987.

(3) An Outline of Comprehensive Amendments to Fire Fighting Standards (January 2000)

1. Purpose of the Revisions

Since enactment in 1961, the Fire Fighting Standards have played a major role in the fulfillment and strengthening of fire fighting capabilities by sustaining uniform standards for the preparedness of fire defense in municipalities across the nation. Nevertheless, in light of developments such as:

- a) Changes in the makeup of modern cities (The current standards are based on the premise that the average town is still comprised entirely of single-story wooden bungalow buildings even though in recent years even private residencies are typically of fireproof construction.),
- b) Changes in the demands placed on fire prevention services (In 1975 there were approximately 1,500,000 emergency calls, but by 1997, the number had soared to roughly 3,500,000.), and
- c) B The movement toward decentralization of power.

We thus, find ourselves required to reexamine the standards with a view to finding more realistic ones, the reasoning of which is in line with the times we live in.

To this end, in March of 1999, in sessions of the Fire Service Commission the standards were reviewed, and subsequently revised, based on the findings of that review.

2. Fundamental Thinking Behind the Revisions

① In order to respond positively to the trend towards decentralization, the standards have been clarified as guidelines for determining the appropriate scope for the preparedness of municipal fire fighting and fire prevention activities; and a large-scale introduction of municipal elements in decisions on said preparedness. ② Revisions made to standards for placement of pump trucks and other vehicles, fire stations, and so on, were reached after examination based on the findings of surveys into the realities of fire fighting activities in the field. Moreover, ③ in order to respond to growing demands on ambulance services, revisions were made to the standards for placement of ambulances.

In addition, ④ revisions were made with a view to fulfilling the fire fighting and prevention capacities of volunteer fire corps by building on their organizational capacity—the significance of which was brought home once again in the wake of the Great Hanshin Awaji Earthquake disaster, and by the multiplicity of activities fire corps volunteers are seen to engage in everywhere.

3. Major Points of Revision

- (1) Stipulation for the placement of fire stations and fire departments in order to respond to fire service needs in areas not classified as urban.
- (2) A slight relaxation of the number of pump trucks in the placement standards
- (3) An increase in the number of ambulances in the placement standards
- (4) The organization of fire fighting vehicles into those vehicles used in emergency situations (such as a large scale disaster) and those vehicles used in non-emergency situations.
- (5) Stipulation for the running of two pump trucks in tandem (pair operations) and for efficient deployment through the use of relays, where personnel ride from one vehicle to another and so on.
- (6) Clarification of the unification of fire fighting capabilities of volunteer fire corps with standing fire services in urban areas.
- (7) As regards the duties of volunteer fire corps, in addition to fire fighting and disaster prevention, the explicit stipulation has been made for organizational capability necessary in the event of earthquakes and the prevention of natural disasters such as wind and water damage, as well as such activities as the education of area residents

Placement Standards for Principal Fire Fighting Facilities and Division of Management

Fire Fighting Facility and Apparatus	Corresponding Provision	Essential Elements in Calculation of Placement Standards	Division of Vehicle Management	Municipal Elements in Decisions
Fire Stations	Article 3, 4	Installation of fire stations in urban areas (This includes cold, snowy urban areas, large or small, and applies in all such cases that follow).		All circumstances
	Article 6	Fire station installations are also possible in areas classified as other than urban		Actual regional circumstances
Powered Pumps	Article 3, 4	In urban areas placements are to be shared by standing facilities and volunteer fire corps (in quasi-urban areas with populations under 70,000, pump truck placement is mandatory).	Fire stations or volunteer fire corps	All circumstances
	Article 5	Placement of powered pumps made in semi-urban areas	Volunteer fire corps*	All circumstances
	Article 6	Placement of powered pumps in areas designated as neither urban nor semi-urban.	Volunteer fire corps*	Actual regional circumstances
Ladder Trucks and Collapsible Ladder Trucks	Article 8	Placement according to the number of high- and medium-rise buildings (15 meters or taller).	Fire stations	Aid from neighboring fire stations, etc.
Chemical Pump Trucks	Article 9	Placement according to the number of the 5 facilities (manufacturing, indoor storage, outdoor storage, outdoor tank storage, and general handling) sited in connection with Class 4 Dangerous Goods	Fire stations	Number, scale and type of manufacturer, etc
Large Chemical Trucks, High-Elevation Water Trucks and Foam Solution Trucks	Article 10	Placement in accordance with number of specified businesses maintaining outdoor storage tanks as stipulated in Clause 1, Article 8 of the Law on the Prevention of Petrochemical Complex and Other Disasters.	Fire stations	Aid from other municipalities
Fire boats	Article 13	For the suppression of fires in urban areas bordering on bodies of water, placement shall be made according to the existence of an extended water way or major port at which a fireboat may be docked.	Fire stations	All circumstances
Ambulances	Article 14	In municipalities where emergency activities must be conducted, placement is made according to the populations of the municipalities concerned based of paragraph 5, Article 35 of the Fire Service Law.	Fire stations	Frequency of deployment, time required to the scene, etc.
Rescue Trucks	Article 15	For rescue corps in municipalities with existing fire service facilities, the standard number of locations is in accordance with the stipulations of Article 3 of the ministerial ordinance, which provides for equipping, location, and composition of rescue corps.	Fire departments or fire stations	Stipulation by ministerial ordinance
Special Apparatus	Article 16	For the sake of the control of fire and defense against disaster, etc., placement will be made according to the actual conditions in the communities concerned.	Fire departments or fire stations	Actual regional circumstances

* In cases of the granting of a fire station installation to areas that fall outside of the urban classification, applicable stations are sometimes charged with the management of service vehicles

3. Fire Prevention Standards and Municipal Fire Service Plans

(1) Municipal Fire Service Plan Standards

February 17, 1966

Notification No.1 of the Fire Defense Agency

(Aim)

Article 1. These standards determine necessary matters regarding Fire Service Plans formulated by municipalities.

(Basic Policy)

Article 2. Fire Service Plans are designed to improve the organization and the state of readiness of facilities so as to ensure that Municipal Fire Fighting Institutions are able to cope with disasters, and to emphasize disaster prevention activities.

(An Outline of Fire Service Plans)

Article 3. Fire Service Plans include the following.

- a. Matters regarding the improvement of fire fighting capabilities.
- b. Matters regarding disaster prevention surveys.
- c. Matters regarding disaster prevention education and training.
- d. Matters regarding the prevention of disasters, and post-disaster guarding and protection activities.
- e. Matters regarding evacuation, rescue, and first aid in times of disaster.
- f. Matters regarding other disaster measures.

(The Content of Fire Service Plans)

Article 4. The content of Fire Plans is shown on the attached chart.

(Amendments to Fire Service Plans)

Article 5. Municipalities must reconsider Fire Service Plans every year and must make amendments to such whenever it is acknowledged to be necessary.

Supplementary Provisions

This notification shall be enforced from April 1, 1966.

Attached Chart

Plan Type	Aim	Topic
1. Organization Plan	To formulate plans regarding organization in order to enable municipal fire fighting institutions to cope with disasters.	a. Office Structure <ol style="list-style-type: none">i. The normal structure of fire departments, fire stations, volunteer fire corps and training institutions.ii. The structure of fire departments, fire stations, volunteer fire corps and training institutions in times of emergency and disaster.

Plan Type	Aim	Topic
		b. The structure of fire fighting teams in times of disaster. i. Ordinary Disasters <ul style="list-style-type: none"> • The formation of teams for fire departments and fire stations. • The formation of teams for volunteer fire corps. ii. Emergencies <ul style="list-style-type: none"> • The formation of teams for fire departments and fire stations. • The formation of teams for volunteer fire corps. • The formation of teams for training institutions.
2. Improvement Plans for Fire Fighting Capability, etc.	To gain an understanding of the present state of fire fighting facilities and personnel and to formulate plans for the improvement of facilities and the acquisition of personnel.	1. Present Fire Fighting Capabilities, etc. <ol style="list-style-type: none"> a. Personnel. b. Facilities. c. Resources, equipment, and materials. 2. The Improvement of Fire Fighting Capabilities, etc. <ol style="list-style-type: none"> a. Personnel. b. Facilities. c. Resources, equipment, and materials. 3. The Renewal of Fire Fighting Capabilities, etc. <ol style="list-style-type: none"> a. Facilities. b. Resources, equipment, and materials. 4. Maintenance checks for facilities and resources, equipment, and materials. <ol style="list-style-type: none"> a. Regular. b. After disasters.
3. Survey Plans	To formulate plans regarding surveys in order to enable accurate response to disasters.	1. Survey of the area. 2. Survey of water supplies in the area. 3. Survey of dangerous areas in the area. 4. Formulation of predicted patterns of damage.
4. Education and Training Plans	To formulate plans for the education and training of fire service staff and fire brigade personnel.	1. Education <ol style="list-style-type: none"> a. School education. b. General education. c. Contracted education, etc. 2. Training <ol style="list-style-type: none"> a. Basic training. <ul style="list-style-type: none"> • Legal training.

Plan Type	Aim	Topic
		<ul style="list-style-type: none"> • Vehicle training. • Operation training. <p>b. Fire defense training.</p> <ul style="list-style-type: none"> • Basic training. • Building fire defense training. • Forest and field fire defense training. • Maritime fire defense training. • Vehicle fire defense training. • Other fire defense training. <p>c. Flood defense training.</p> <ul style="list-style-type: none"> • Basic training. • Water defense training. • Fire defense in flooded area training. <p>d. Rescue and first aid training.</p> <ul style="list-style-type: none"> • Rescue training. • First aid training. <p>e. Comprehensive disaster prevention training.</p>
5. Disaster Prevention Plans	To formulate plans for the prevention of disasters and for limiting the amount of damage to the smallest possible degree.	<p>1. Fire Prevention Guidance</p> <ul style="list-style-type: none"> a. Fire Prevention Administrators b. Dangerous Goods Handling Officers c. Fire Equipment Officers d. Various organizations, etc. <p>2. Fire Prevention Surveys</p> <ul style="list-style-type: none"> a. Designation of survey sites. b. Carrying out of surveys. <ul style="list-style-type: none"> • Regular surveys. • Extraordinary surveys. • Special surveys. <p>3. Guidance for preventing wind and water damage.</p> <p>4. Report activities.</p>
6. Plans for Issuing and Transmitting Warnings	To formulate plans for the issuing, cancellation, and transmission of warnings in times of unusual weather patterns.	<p>1. Fire Alarms</p> <ul style="list-style-type: none"> a. Issuance and cancellation of warnings. b. Transmission and notification of warnings. <p>2. Transmission and notification of other warnings.</p>

Plan Type	Aim	Topic
7. Information Plans	To formulate plans for the collection of disaster information, report to related institutions, and issue warnings.	<ol style="list-style-type: none"> 1. Collection of information. 2. Reporting and relaying of information. 3. Broadcasting of information. 4. Recording of information.
8. Fire Prevention Plans	To formulate plans for warning of and suppressing fires.	<ol style="list-style-type: none"> 1. Summoning of Fire Service staff and Volunteer Fire Corps personnel. <ol style="list-style-type: none"> a. When a fire warning is issued b. In ordinary fires. c. In emergency fires d. In other fires. 2. Deployment <ol style="list-style-type: none"> a. Reconnaissance b. Ordinary fires. c. Emergency fires d. Support. e. Other. 3. Readiness <ol style="list-style-type: none"> a. When a fire warning is issued. b. In times of disaster. c. Other. 4. Communications <ol style="list-style-type: none"> a. Standard communications. b. Emergency communications 5. Observation Towers <ol style="list-style-type: none"> a. Designation of observation towers. b. Map of area surrounding observation towers. 6. Fire Prevention <ol style="list-style-type: none"> a. b. Special buildings. c. Dangerous goods. d. Radioactive material. e. Forests and fields. f. Shipping. g. Vehicles. h. Other.

Plan Type	Aim	Topic
9. Wind and Water Damage Warning Plans	To formulate plans to warn of wind and water damage and prevent such	<ol style="list-style-type: none"> 1 Summoning of fire service staff and fire brigade personnel. 2. Deployment. 3. Distribution of resources, equipment, and materials. 4. Monitoring. 5 Methods of directing preemptive measures. 6. Integrated communications. 7. Emergency food supplies
10.Evacuation Plans	To formulate plans regarding evacuation in order to protect the lives and health of residents.	<ol style="list-style-type: none"> 1. Advice and instruction standards. 2. Transmission of advice and instruction standards. 3. Methods of designating and transporting people to shelters. 4. Guarding of shelters.
11.Rescue and First Aid Plans	To formulate plans to carry out appropriate rescue and first aid operations when sickness or injury occurs	<ol style="list-style-type: none"> 1 Emergency summoning. 2 Deployment. <ol style="list-style-type: none"> a. In normal situations. b. In emergencies. 3. Integrated communications. 4. System of cooperation with medical institutions. <ol style="list-style-type: none"> a. In normal situations. b. In emergencies
12.Support and Cooperation Plans	To formulate plans regarding offering assistance and cooperation to other municipalities and related institutions, etc.	<ol style="list-style-type: none"> 1 Cooperating Institutions <ol style="list-style-type: none"> a. Local public entities. b. Related institutions. c. Other organizations. 2. Methods of support. 3. Exchange of materials

(2) Improvement Plans for Fire Prevention, etc.

Improvement Plans for Fire Fighting Capabilities, etc. ascertain the present state of a municipality's fire fighting capabilities and based on Fire Fighting Standards (Notification No.1 of the Fire Defense Agency, January 20, 2000), Fire Fighting Water Supply Standards (Notification No.7 of the Fire Defense Agency, December 10, 1964), and Fire Fighting School Education and Training Standards (Notification No.1 of the Fire Defense Agency, March 18, 1970), etc., and incorporate Strengthening Plans, Renewal Plans, and Inspection Improvement Plans in order to cope with changes within the municipality.

The fire fighting capabilities mentioned here refer to personnel, facilities, and resources, equipment, and materials. This can further be broken down into the following. Personnel: fire service staff and volunteer fire corps personnel; facilities: fire fighting equipment and water supplies, and communications; resources, equipment, and material: hoses, hydrants, chemical fire fighting agents, and the individual equipment of fire service staff and fire brigade personnel, etc.

1. Present Fire Fighting Capabilities

In order to form teams and formulate various prevention plans, strengthening plans, renewal plans, and improvement plans, it is necessary to ascertain present fire fighting capabilities.

(1) Present State of Personnel

The following methods are used to ascertain the present state of fire service staff and fire brigade personnel.

- a. A comparison of existing fire service staff and volunteer fire corps personnel (fire service staff include the fire chief, fire station commanders, volunteer personnel, fire prevention personnel, and rescue personnel, etc. while volunteer fire corps personnel are included within fire service personnel) and Fire Fighting Standards is carried out.
- b. A survey is carried out of the number of fire service staff and volunteer fire corps personnel by the number of years worked.
- c. A survey is carried out of the number of fire service staff and volunteer fire corps personnel by rank.
- d. A survey is carried out of the number of fire service staff and volunteer fire corps personnel by age.
- e. A survey is carried out of retirements and responsibilities of fire service staff and volunteer fire corps personnel.

(2) Present State of Facilities

The following methods are used to ascertain the present state of fire fighting facilities.

- a. A comparison of fire stations and local branches with Fire Fighting Standards is carried out.
- b. A comparison of pump trucks, ladder trucks, chemical trucks, and other pump trucks, fire fighting vessels, ambulances, and dedicated fire service telephone equipment and mobile telephones with Fire Fighting Standards is carried out.
- c. A survey is carried out of fire departments, fire stations and volunteer fire corps and the present number of pumps and vehicles.
- d. A survey is carried out of the number of pump trucks.
- e. A survey is carried out of the number of small powered pumps for both the fire service and volunteer fire corps separately.
- f. A survey is carried out of present water supplies (fire hydrants, fireplugs, tanks, wells, rivers, the sea, ponds, springs, and other sources classified as either private or public).

- g. A survey is carried out of the present state of fire communication facilities (classified as fire service radios, observation towers, alarm bells, or telephones, etc. with detailed classification of both radios and telephones).
- h. A survey is carried out of the present location of fire service facilities (carried out in accordance with the Partial Amendment of Fire Service Symbols, Notification No.22 of the Fire Defense Agency, February 28, 1980).

(3) Resources, Equipment, and Materials

The following methods are used to ascertain the present state of resources, equipment, and materials.

- a. A survey is carried out of the present number of hoses, hydrants and the number of years they have been in use.
- b. A survey is carried out of the present volume of fire fighting chemicals and the number of years they have been in storage.
- c. A survey is carried out of the present number of individual fire fighting kits and the number of years they have been in use.
- d. A survey is carried out of the location of resources, equipment, and materials.

Note: Although resources, equipment, and materials for flood control are to be managed by flood control administrators and do not fall within the scope of such plans, as it is necessary for fire fighting institutions to have access to information regarding the present location of flood control resources, equipment, and materials, these are included in d. above.

2. Strengthening of Fire Fighting Capabilities, etc.

The present state of fire fighting capabilities is to be ascertained and plans for strengthening such are to be formulated and included in regular five year plans formulated for each municipality based on the Fire Fighting Standards.

3. Revision of Fire Fighting Capabilities, etc.

The present state of fire fighting capabilities is to be ascertained and revision plans formulated together with plans to strengthen such, with consideration given to the number of years that facilities, resources, equipment, and materials have been in use.

4. Maintenance inspections are to be carried out of facilities, resources, equipment, and materials
Abbreviated.

(3) Organization Plans and the Formation of Fire Fighting Units

1. Organization Plans

Fire Service Plans specifically determine activities and team formation in order to allow fire fighting institutions to prevent disasters such as flooding, fires, and earthquakes, etc. and to minimize the damage arising from such disasters.

(1) Organization, etc. as Determined by Laws and Ordinances

The organization of fire fighting institutions, such as fire departments, fire stations, and volunteer fire corps is determined by the laws and ordinances of the Fire Service Organization Law as shown below.

- a. The establishment, location and name of fire departments and fire stations, and the jurisdiction of fire stations are determined by ordinances (Fire Service Organization Law, Article 11, Section 1).
- b. The organization of fire departments is determined by municipal regulations while the organization of fire stations is determined by the Director of the Fire Defense Agency after obtaining the approval of the mayor of each municipality (Fire Service Organization Law, Article 11, Section 2).
- c. The number of fire service staff is determined by ordinances (Fire Service Organization Law, Article 12, Section 2).
- d. The location, name, and area of fire brigades is determined by ordinances (Fire Service Organization Law, Article 15, Section 1).
- e. The organization of volunteer fire corps is determined by municipal regulations (Fire Service Organization Law, Article 15, Section 2).
- f. The number of volunteer fire corps personnel is determined by ordinances (Fire Service Organization Law, Article 2, Section 2).

	Fire Department	Fire Stations	Volunteer Fire Corps
Establishment/Name	Ordinances	Ordinances	Ordinances
Location	Ordinances	Ordinances	
Jurisdiction		Ordinances	
Area			Ordinances
Organization	Municipal Regulations	Determined by the Director of the Fire Defense Agency after obtaining the approval of the mayor of each municipality	Municipal Regulations
Number of Fire Service Staff and Volunteer Fire Corps Personnel	Ordinances		Ordinances

(2) Office Structure

As the fire fighting capabilities of each municipality differ, although it is impossible to standardize titles and section names, etc., the activities of fire departments, fire stations, and volunteer fire corps are determined for both normal activities and emergencies.

a. Normal Activities

Fire fighting institutions must be able to smoothly and efficiently deal with day to day activities in addition to dealing with small scale ordinary fires and disasters requiring first aid.

For example, the activities of fire headquarters and fire stations are divided into the General Affairs Section (general affairs and accounting), the Guard Section (equipment and fire fighting), and the Fire Prevention Section (fire prevention, monitoring, and surveys), etc. Each has its own personnel and areas of responsibility.

b. Activities in Times of Emergency or Disaster

In times of emergency or disaster, the disaster defence teams of fire fighting institutions must be able to smoothly and efficiently carry out their activities, report information, and transmit reports and warnings

For example, in emergencies, fire departments are divided into the General Affairs, Fire Prevention, and Volunteer Groups etc., with each group having its own personnel and areas of responsibility.

c. Differentiation Between Normal and Emergency Activities

The standards for differentiating between normal and emergency activities differ according to the ability of fire fighting institutions in each municipality to cope with such disasters

For example, in Osaka City, the first, second, and third, etc. deployment of appliances for successively occurring fires, etc. is perfectly adequate to cope with such situations, however, it is possible that there will be times in smaller towns and villages when all available fire fighting personnel, both on and off duty, will have to be deployed after the second deployment in order to cope with the situation

Therefore, as a rule, if all fire service staff and fire brigade personnel are summoned, and if it is still necessary to request assistance from fire services in other municipalities under agreement of mutual aid, this is deemed to be an emergency.

2. The Formation of Fire Fighting Teams

Although fire fighting teams are formed for both normal and emergency use, consideration must be given to the following matters.

- The inclusion of authority structures.
- The availability of fire fighting equipment and other resources, equipment, and materials.
- The ability to deal with fires, wind and water damage, rescue, and first aid activities.

(1) Fire Fighting Team Formation under Normal Conditions

Fire Fighting Team formation under normal conditions is divided into fire, rescue, and first aid activities.

a. Fires

i. The formation of Fire Fighting Team at Fire Departments and Fire Stations

Under the provisions of Article 22 of the Fire Fighting Standards, the number of personnel required to operate each type of vehicle is determined as follows.

Pump Trucks	5
Ladder Trucks and Hydraulic Ladder Trucks	5
Chemical Trucks	5
Ambulances	3
Rescue Trucks	5

One of the personnel with these vehicles must be a Deputy Fire Commander or a Fire Commander.

ii. The Formation of Units in Volunteer Fire Corps

When forming units within Volunteer Fire Corps, consideration must be given to the present number of volunteer fire corps personnel and the type and number of each kind of equipment managed by the Volunteer Fire Corps.

Pump Trucks	5
Hand-Powered Pumps	4
Small Powered Pumps	4

One of the personnel with these vehicles must be a Group Commander.

b. Rescue and First Aid Activities

Rescue Teams, which deal with man-made disasters in normal conditions, are formed of five members provided with one rescue truck or one fire truck equipped with rescue resources, equipment and materials in accordance with the “Ministerial Ordinance determining standards for Rescue Team equipment and location” (Ministerial Ordinance No.22 of the Ministry of Home Affairs, 1986) and Article 24 of the Fire Fighting Standards.

In accordance with Article 44 of the Fire Service Enforcement Orders (Cabinet Order No. 37, 1961) and Article 23 of the Fire Fighting Standards, First Aid Teams are to be formed of three members and provided with one ambulance.

(2) The Formation of Units in Times of Emergency or Disaster
Abbreviated.

(3) Securing the Required Number of Personnel for Fire Departments and Fire Stations

As fire fighting institutions are on call 24-hours a day, Article 29 of the Fire Fighting Standards determines that personnel for fire departments and fire stations shall be categorized into 6 types with the purpose of attaining the full complement of personnel with the skills of fire fighting vehicle implementation, rescue work, communications and dispatching, safety and prevention, leadership and administration, and general affairs

4. The Present State of the Fire Service System

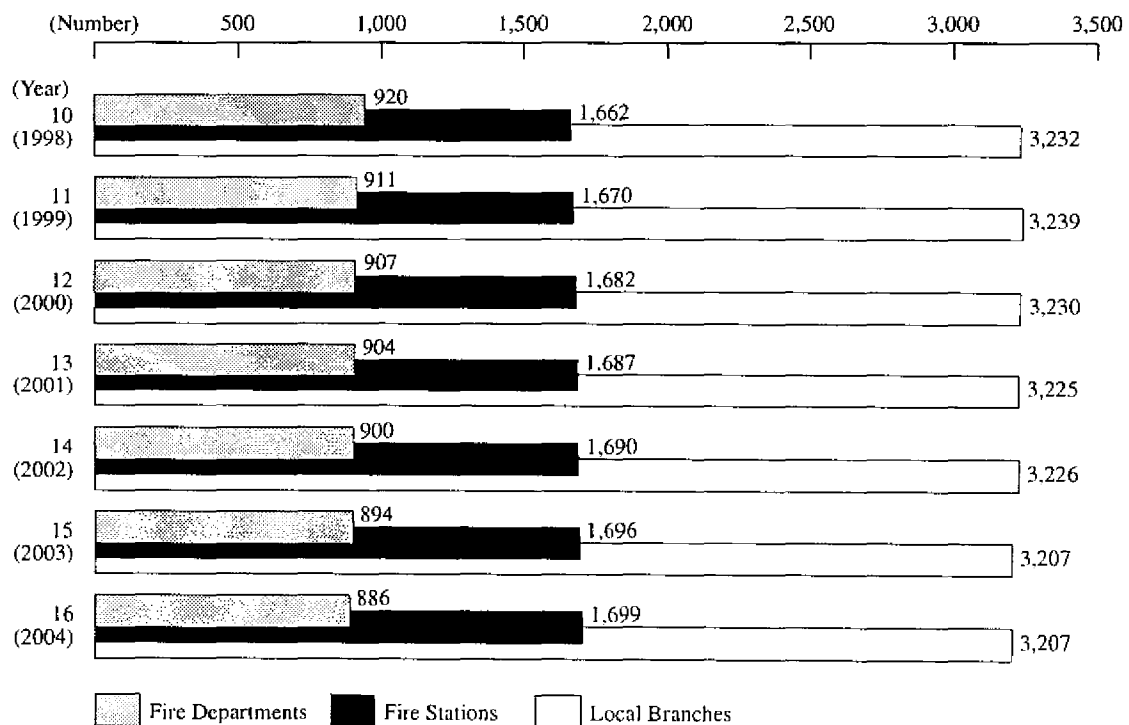
(1) The Present State of Municipal Fire Service Structures

The Present State of Municipal Fire Fighting Services

Category		As of April 1, 2004	As of April 1, 2003	Comparison	
				Change	Rate of Change (%)
Fire Departments	Fire Headquarters	886	894	△ 8	△ 0.9
	Details { Independent { City	338	327	11	3.4
		89	95	△ 6	△ 6.3
		459	472	△ 13	△ 2.8
	Partly Associated				
	Fire Stations	1,699	1,696	3	0.2
	Local Branches	3,207	3,207	—	—
	Fire Service Staff	155,524	155,016	508	0.3
Volunteer Fire Corps	Volunteer Fire Corps	3,524	3,598	△ 74	△ 2.1
	Local Branches	24,852	25,064	△ 212	△ 0.8
	Fire Corps Personnel	919,105	928,432	△ 9,327	△ 1.0

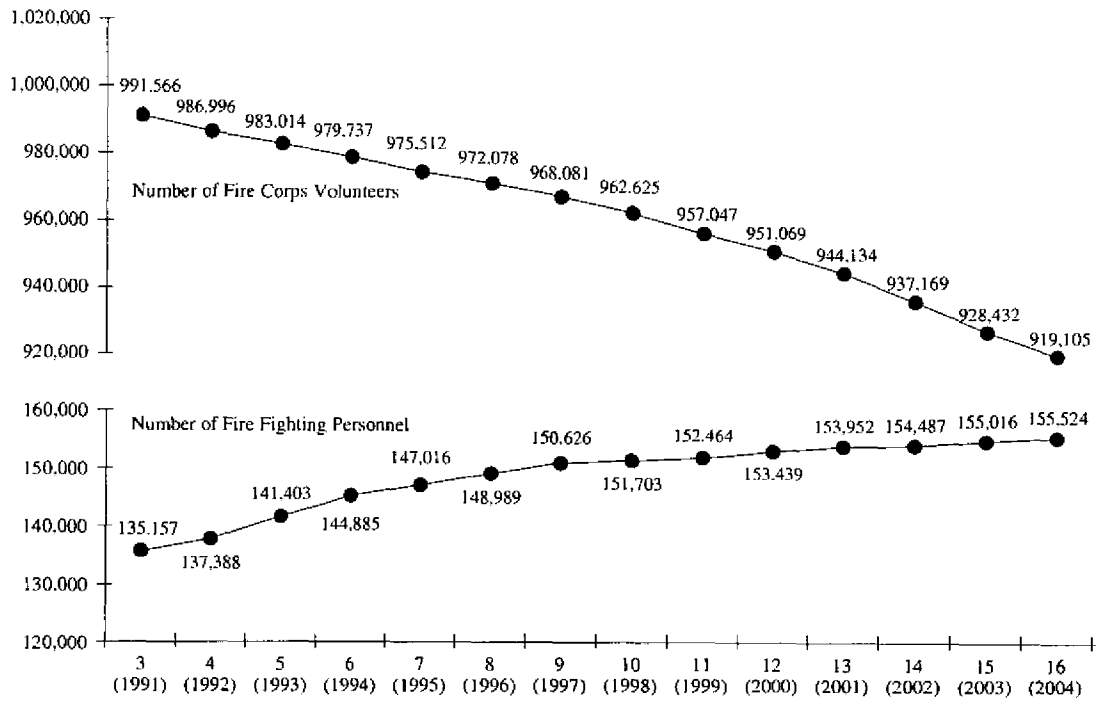
(2) Municipal Fire Prevention Facilities

Number of Fire Departments and Fire Stations



Note: Figures as for April 1 for each year.

Fire Service Staff and Volunteer Fire Corps Personnel



Note: All figures are as of April 1 for each year.

Fire Fighting Equipment

(2004.4.1)

Category	Fire Departments	Fire Brigades	Total
Pump Trucks	4,187	14,205	18,392
Pump Trucks with Tanks	3,738	835	4,573
Ladder Trucks	1,296	1	1,297
Chemical Trucks	1,042	3	1,045
Ambulances	5,636	1	5,637
Command Vehicles	2,065	760	2,825
Fire Fighting Vessels	53	15	68
Rescue Vehicles	1,217	—	1,217
Forest and Field Fire Vehicles	45	56	101
Power and Lighting Vehicles	132	42	174
Vehicles carrying Small Powered Pumps	473	34,019	34,492
Hand-Powered Powered Pumps	828	2,798	3,626
Small Powered Pumps	2,260	17,411	19,671
Other Fire Fighting Vehicles	7,278	1,590	8,868
Helicopters	27	—	27

(3) The Present State of Fire Service Activities

Activities of Fire Fighting and Volunteer Fire Corps Personnel

(2003)

Category		Fire Fighting Personnel	Volunteer Fire Corps Personnel	Total	Component Ratio (%)
Fires	Number	61,158	41,819	102,977	1.3
	People Involved	1,030,038	1,383,694	2,413,732	6.2
Ambulances	Number	4,830,813	555	4,831,368	59.5
	People Involved	14,477,925	1,619	14,479,544	37.1
Rescues	Number	80,796	1,449	82,245	1.0
	People Involved	953,401	20,006	973,407	2.5
Wind/Water Damage	Number	7,011	3,220	10,231	0.1
	People Involved	39,254	123,657	162,911	0.4
Training	Number	236,875	168,042	404,917	5.0
	People Involved	1,308,788	4,800,327	6,109,115	15.7
Public Relations, Guidance	Number	368,900	72,342	441,242	5.4
	People Involved	1,621,388	894,685	2,516,073	6.4
Warnings and Preventative Surveys	Number	495,884	19,325	515,209	6.4
	People Involved	1,744,045	219,825	1,963,870	5.0
Fire Cause Surveys	Number	55,875	67	55,942	0.7
	People Involved	264,106	814	264,920	0.7
Special Precautions	Number	111,281	74,211	185,492	2.3
	People Involved	2,889,102	1,532,535	4,421,637	11.3
Searches	Number	3,899	2,831	6,730	0.1
	People Involved	36,939	114,474	151,413	0.4
Preventative Surveys	Number	885,810	1,667	887,477	10.9
	People Involved	1,852,539	49,107	1,901,646	4.9
False Alarms, etc.	Number	38,758	4,388	43,146	0.5
	People Involved	400,191	69,735	469,926	1.2
Other	Number	429,152	118,319	547,471	6.8
	People Involved	1,686,428	1,495,749	3,182,177	8.2
Total	Number	7,606,212	508,235	8,114,447	100.0
	People Involved	28,304,144	10,706,227	39,010,371	100.0

Note: Figures for personnel dispatches are calculated without consideration of whether or not fire-fighting activities actually took place at the scene.

Fire Fighting Water Supplies (man-made)

Category	As of April 1, 2004	As of April 1, 2003	Comparison	
			Change	Change (%)
Nationwide Figures	2,040,579 (100.0)	1,991,931 (100.0)	48,648	2.4
Fire Hydrants	1,533,594 (75.2)	1,489,162 (74.8)	44,432	3.0
Water Tanks	485,425 (23.8)	481,823 (24.2)	3,602	0.7
20-40m ³	107,975	109,261	△ 1,286	△ 1.2
More than 40m ³	377,450	372,562	4,888	1.3
Wells	21,560 (1.0)	20,946 (1.0)	614	2.9

Note: Figure in parentheses indicate composition ratio by percentage.