

# FIRE PREVENTION

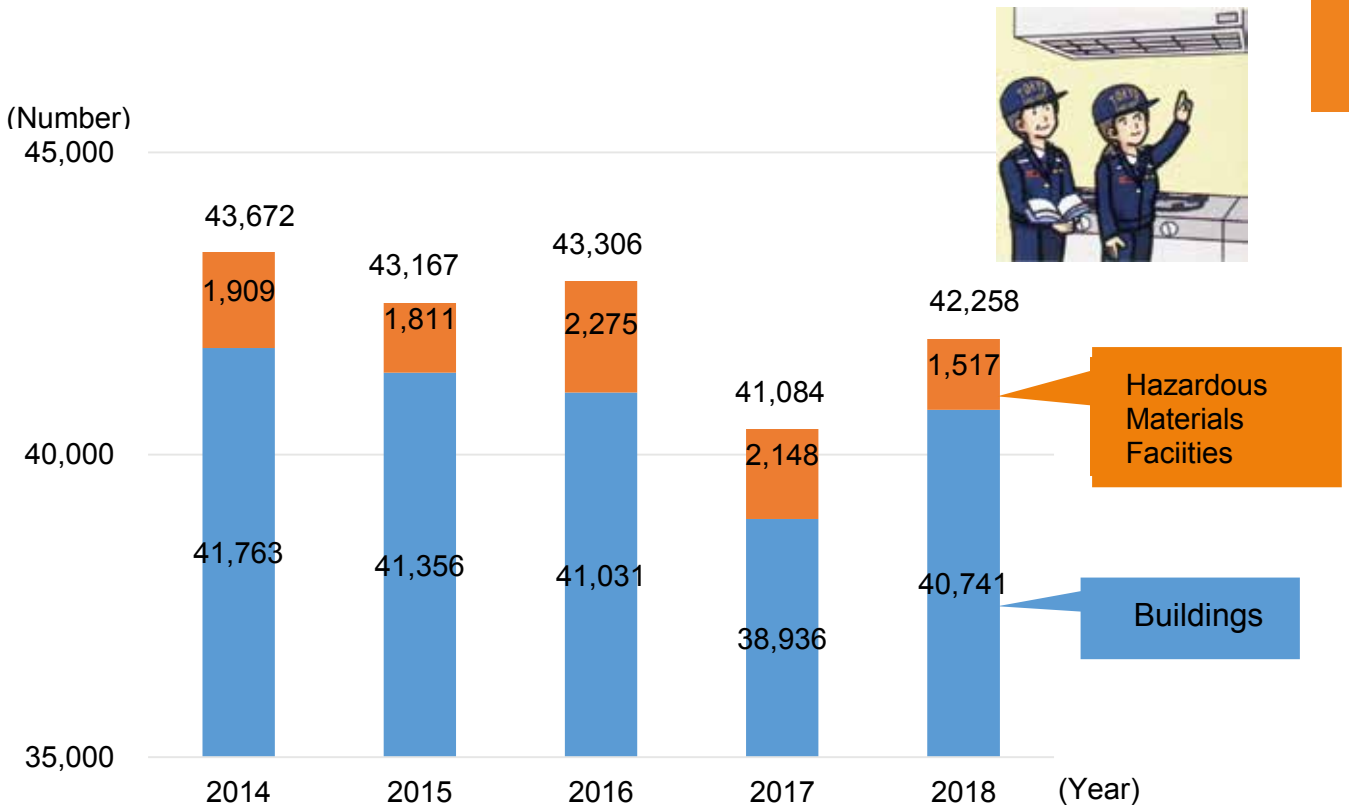
## 1. Fire Prevention Inspection

Chart 1. Number of Fire Prevention Inspections (2014-2018)

On-site inspections are based on the Fire Service Act, where firefighters enter buildings and hazardous materials facilities, and conduct inspections from the viewpoint of fire prevention.

The number of on-site inspections conducted at buildings (excluding residences and tenements) and hazardous materials facilities (e.g., gas stations) was 42,258 in 2018, which was basically flat for the past five years. The number of hazardous materials facilities inspections (e.g., gas stations) was 1,517, a decrease of approximately 600 from the previous year. In addition, the TFD conducted 11,607 on-site inspections after disasters, 5,185 confirmation inspections, 3,722 downtown inspections, and 436 venue management inspections (e.g., events).

On-site inspections were conducted by 808 inspectors and 1,285 pumper teams.



## 2. Administrative Measures against Violations

Chart 2-1. Number of Issued Warnings and Orders (2014-2018)

When the TFD confirms a violation of the Fire Service Act at buildings or hazardous materials facilities that have undergone on-site inspections, the TFD instructs the violators to rectify the buildings or facilities.

The TFD strongly instructs and warns violators who are not willing to refurbish their buildings or facilities, as necessary, and issues orders in accordance with the Fire Service Act.

The following graph shows the changes in the number of the warnings and orders issued. In 2018, the TFD issued 422 warnings and 74 orders.

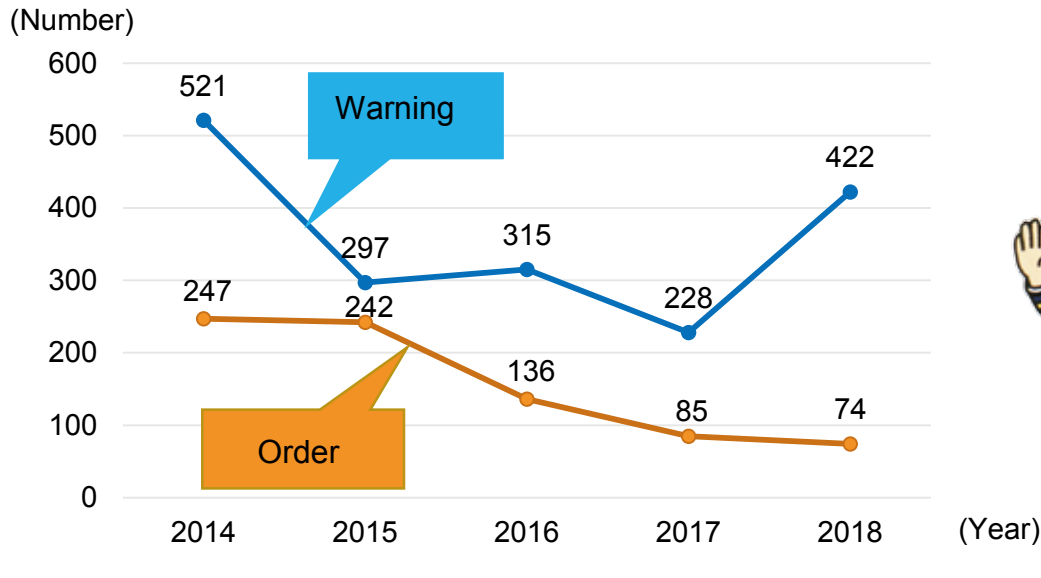
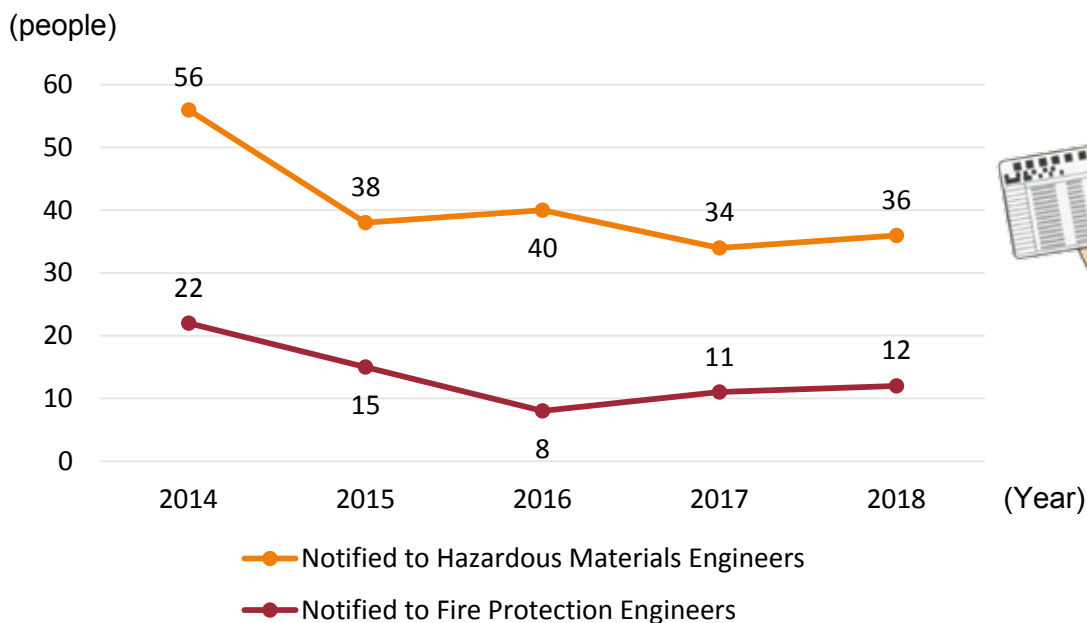


Chart 2-2. Number of Violation Notifications (2014-2018)

If the TFD has confirmed that licensed hazardous materials engineers or fire protection engineers engaged in acts in violation of the Fire Service Act, the TFD shall notify them of the violations and instruct them not to reoccur.

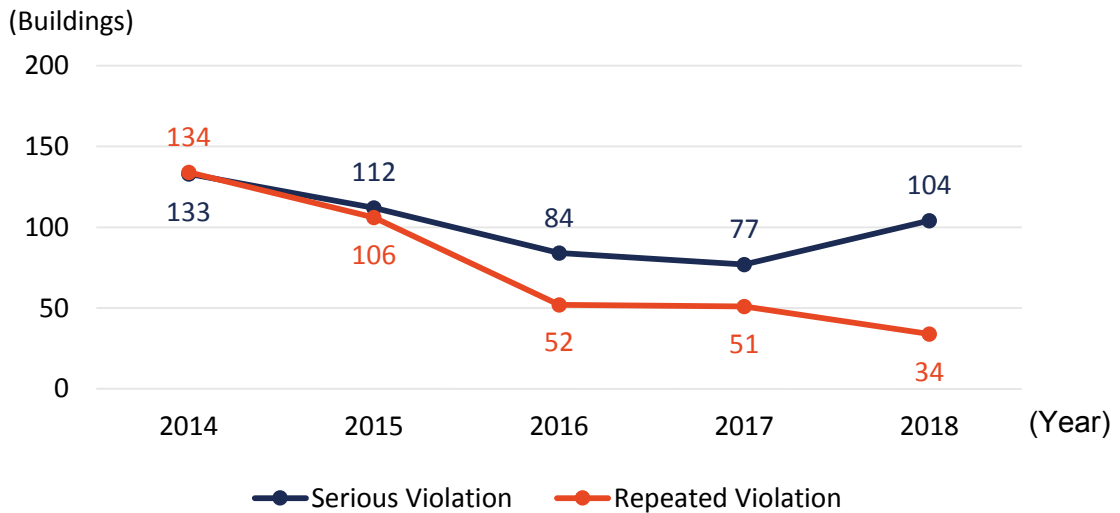
The graph below shows the transition of the qualified personnel in receipt of violation notifications.



### Chart 2-3. Number of the Buildings with Publicly Announced Violations (2017)

The public announcement system provides information on violations that the TFD grasped through on-site inspections so that people who use the buildings (excluding residences and tenements) can obtain safety information about the buildings and judge their use by themselves. Violations subject to public announcements include the violations of installation obligations (major violations) due to the absence of indoor fire hydrants, sprinklers, or automatic fire alarms, and the repeated violations (multiple management obligation violations) related to building managers' fire prevention management and maintenance of firefighting equipment.

The graph below shows the changes in the number of the buildings publicly announced each year. The TFD provides thorough guidance to facilitate quick correction of the announced violations, and the number of buildings that have been in violation is decreasing.

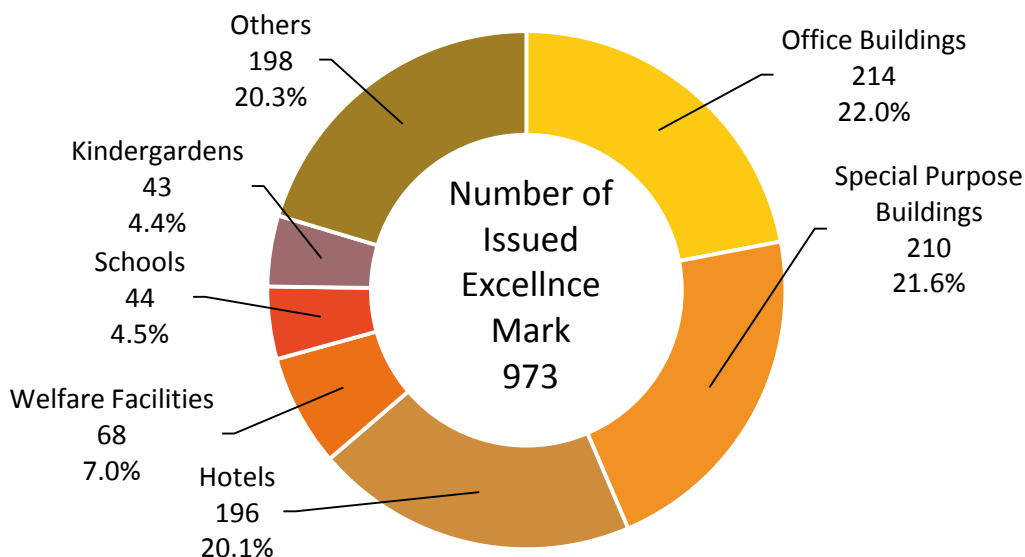


## 3. Excellence Mark

### Chart 3. Provision of Fire Safety Building Certification (Excellence Mark) (2018)

The fire safety building certification (Excellence Mark) system issues a fire safety building certificate to be displayed on a building if Fire Station Chief recognizes the high fire safety level of the building based on the application from the party concerned with the building.

As of December 31, 2018, there were 973 buildings with certification (an increase of 32 from the previous year), and the following graph shows a breakdown of the buildings classified by usage.



## 4. Inspection Report System

Chart 4-1. Number of Firefighting Equipment Inspection Reports (2014- 2018)

The inspection reporting system for firefighting equipment enables the parties concerned with buildings to inspect or have qualified personnel inspect firefighting equipment, such as fire extinguishers, automatic fire alarms, and sprinklers installed in the buildings, and to report the result to Fire Station Chief.

As of the end of December 2018, the number of the buildings requiring inspection was 339,399, and the number of reports was 235,102 (with a reporting rate of 69.3%). The number of the buildings that require inspection is increasing year by year.

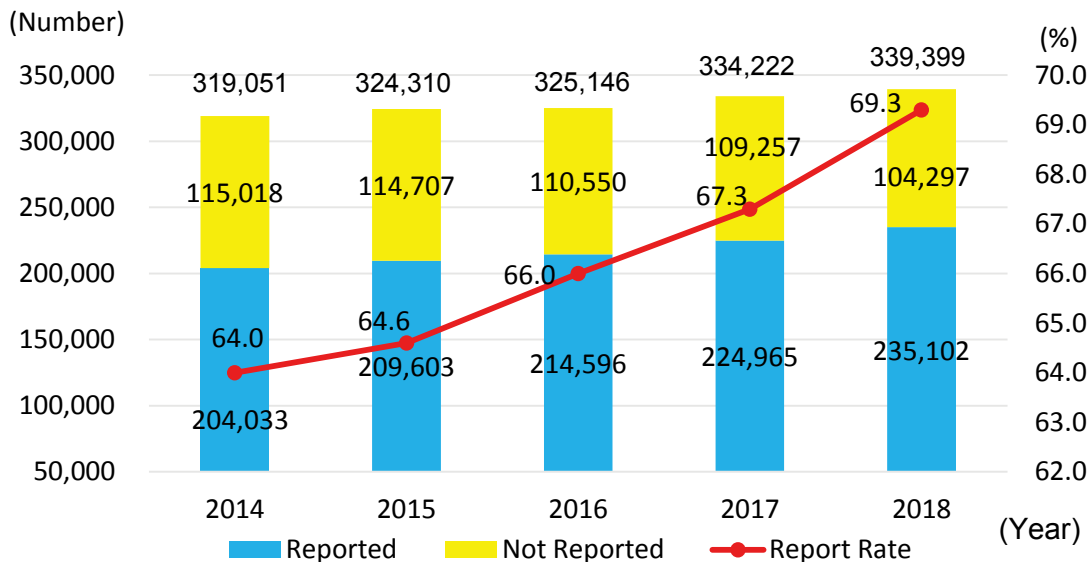
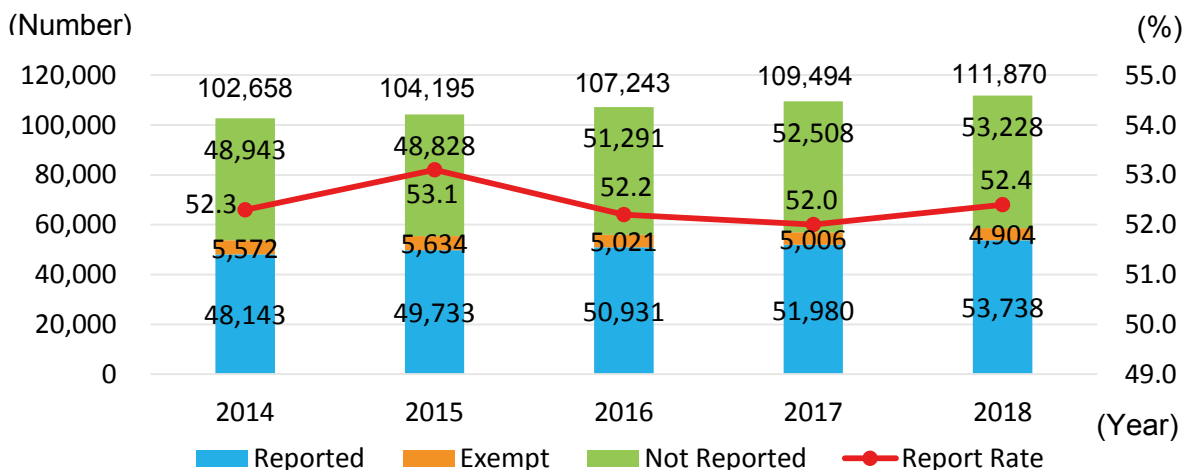


Chart 4-2. Number of Fire Prevention Management Inspection Reports (2014-2018)

The inspection reporting system for fire prevention structures was based on the lessons learned from the Shinjuku Kabukicho fire in 2001. The system enables the administrators of buildings that meet institutional requirements and the managers of the tenants occupying the buildings to have qualified personnel inspect items related to fire prevention management and to report the result to Fire Station Chief. If the result of the inspection is excellent for three consecutive years and their applications are approved, the building facilities will be exempted from the inspection for the next three years. This is called a special exception.

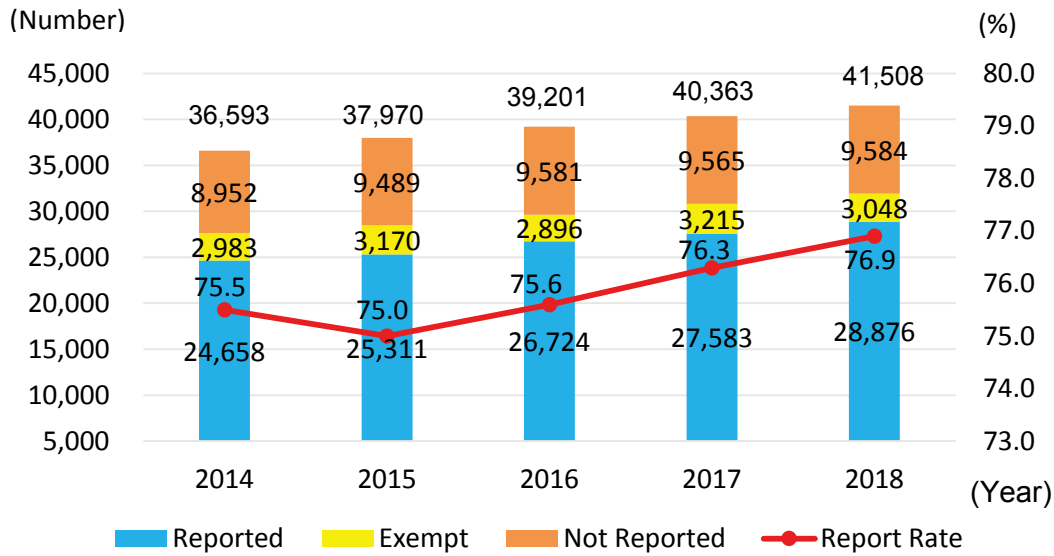
As of the end of December 2018, the number of the buildings requiring inspection was 106,966 (excluding the number of buildings with special exemptions), and the number of reports was 53,738 (with a reporting rate of 52.4%). The number of the buildings that require inspection is increasing year by year, but the inspection reporting rate is almost flat.



### Chart 4-3. Number of Disaster Prevention Management Inspection Reports (2014- 2018)

The inspection reporting system for disaster prevention management enables the managers of the large-scale buildings stipulated by laws and regulations to have qualified personnel inspect items related to the mitigation of the damage caused by earthquakes and terrorist attacks, and to report the result to Fire Station Chief. If the result of the inspection is excellent for three consecutive years and their applications are approved, the building facilities will be exempted from the inspection for the next three years. This is called a special exception.

As of the end of December 2018, the number of the buildings requiring inspection was 38,460 (excluding the number of buildings with special exemptions), and the number of reports was 28,876 (with a reporting rate of 76.9%). The number of the buildings that require inspection is increasing year by year, but the inspection reporting rate is basically flat.

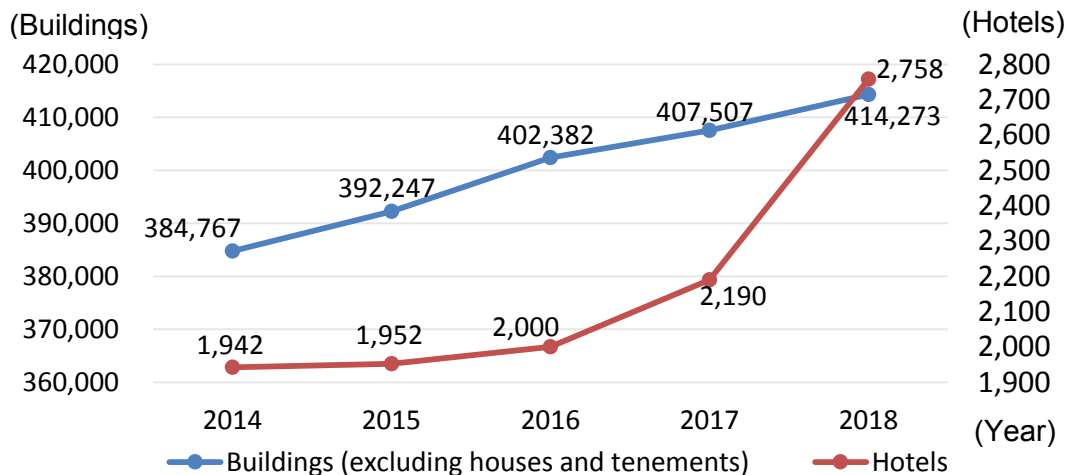


## 5. Buildings and Fire Prevention Managers

### Chart 5-1. Number of Buildings and Hotels (2014-2018)

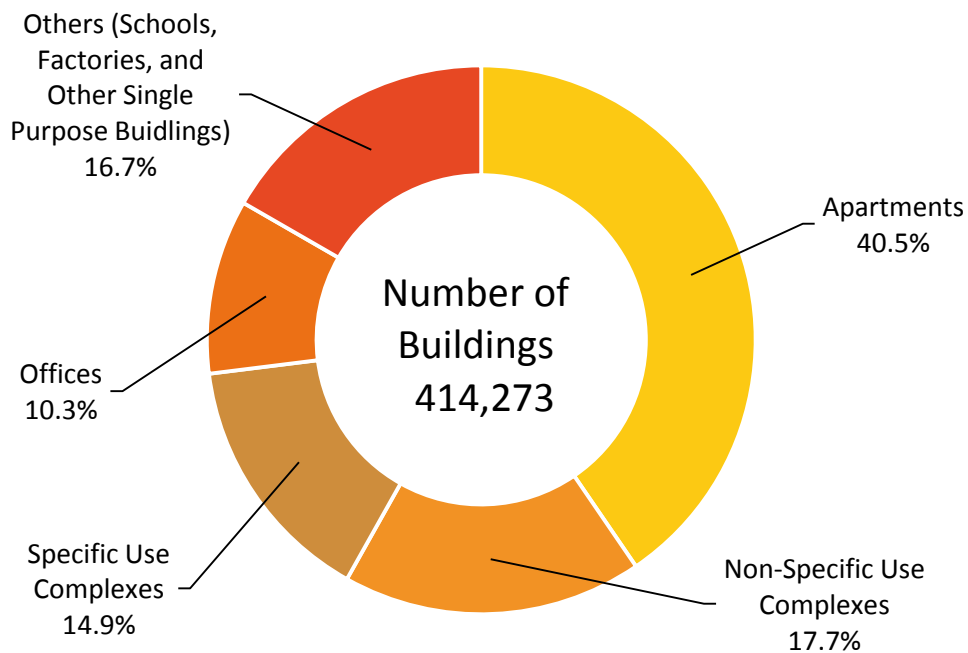
As of the end of December 2018, there were 414,273 buildings (excluding houses and tenements) and 2,758 hotels within the TFD’s jurisdiction. Compared with 384,767 buildings and 1,942 hotels in 2014, the number of buildings and that of hotels increased by 29,506 (7.7%) and 816 (42.0%), respectively.

Overseas tourists are expected to increase for the 2020 Tokyo Olympic Games and sightseeing tours, and as a result, the number of hotel facilities has increased in recent years. Furthermore, the Private Lodging Business Act came into effect in June 2018, and a private accommodation system started. The number of hotel facilities is expected to increase continuously.



### Chart 5-2. Breakdown of Buildings by Building Type (2018)

Of the 414,273 buildings in the following graph, 167,705 apartment buildings (40.5%), 73,358 non-specific use complexes (e.g., condominiums combined with offices) (17.7%), and 61,723 specific use complexes (commercial and restaurant complexes) buildings (14.9%) accounted for 70% of the total.

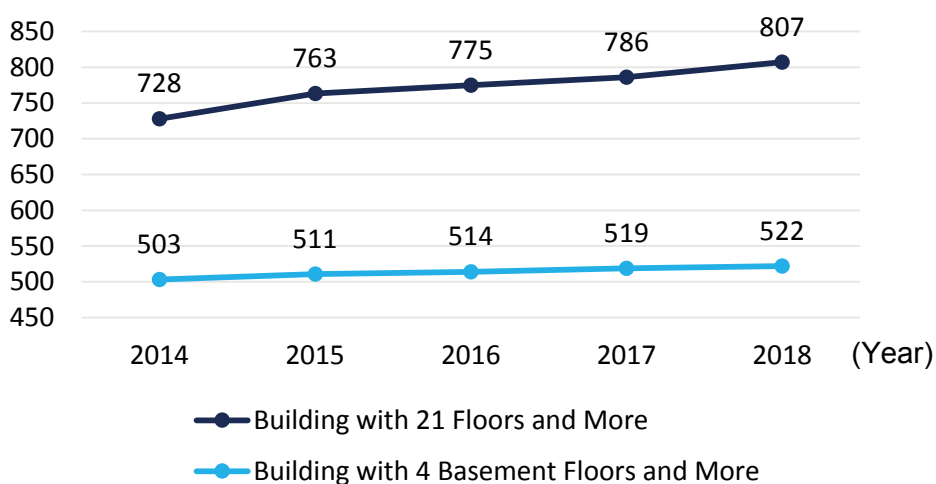


### Chart 5-3. Number of High-Rise Buildings and Basement Floors (2014- 2018)

High-rise, large-scale and multi-layered buildings with underground floors are increasing within the TFD's jurisdiction. Currently, several redevelopment plans are underway in Tokyo, where large buildings are newly being constructed. As the 2020 Tokyo Olympic Games approaches, the construction of large-scale facilities related to the Olympics, such as competition venues, is also underway.

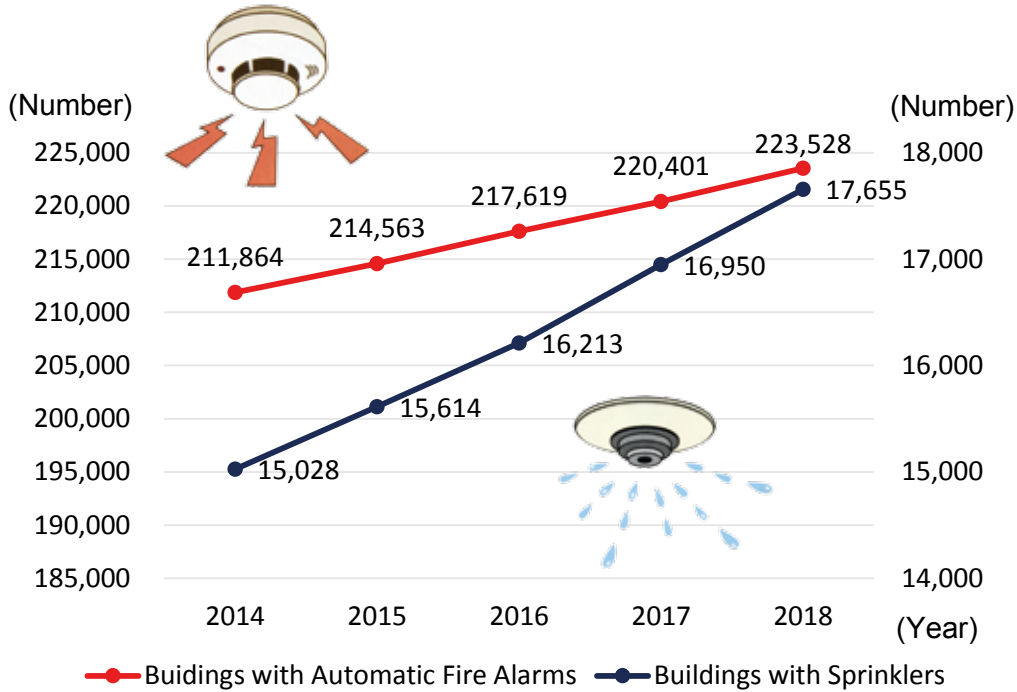
\*The Fire Service Act defines high-rise buildings as buildings which are over 31m in height, but in order to express higher buildings, the following graph includes the number of the buildings with 21 stories and more (generally 60 meters).

(Number)



### Chart 5-4. Number of the Buildings with Sprinklers and Automatic Fire Alarm Systems (2014-2018)

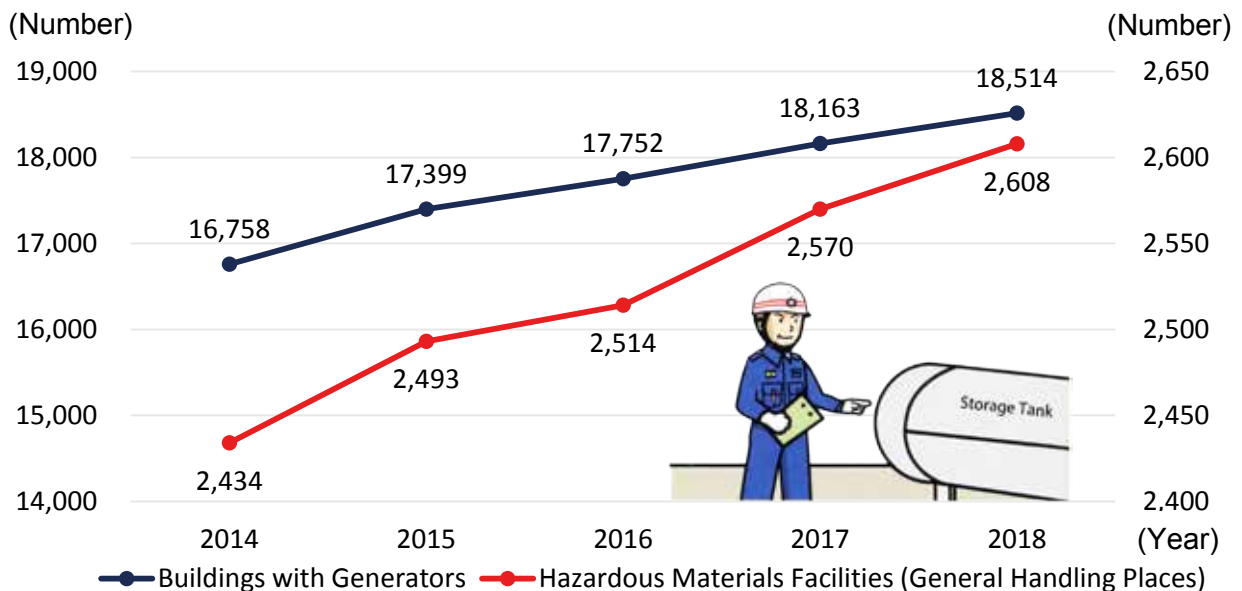
The number of the buildings equipped with sprinklers and automatic fire alarms has been increasing. This is because of an increase in the buildings with 11 stories or more or over 31m, which require sprinklers by law, and due to the installation of automatic fire alarms and sprinklers at small social welfare facilities, automatic fire alarms at small hotels, and sprinklers at small clinics in accordance with recent revisions to fire laws and regulations.



### Chart 5-5. Number of the Buildings with Generators and Hazardous Materials Facilities (General Handling Places) (2014-2018)

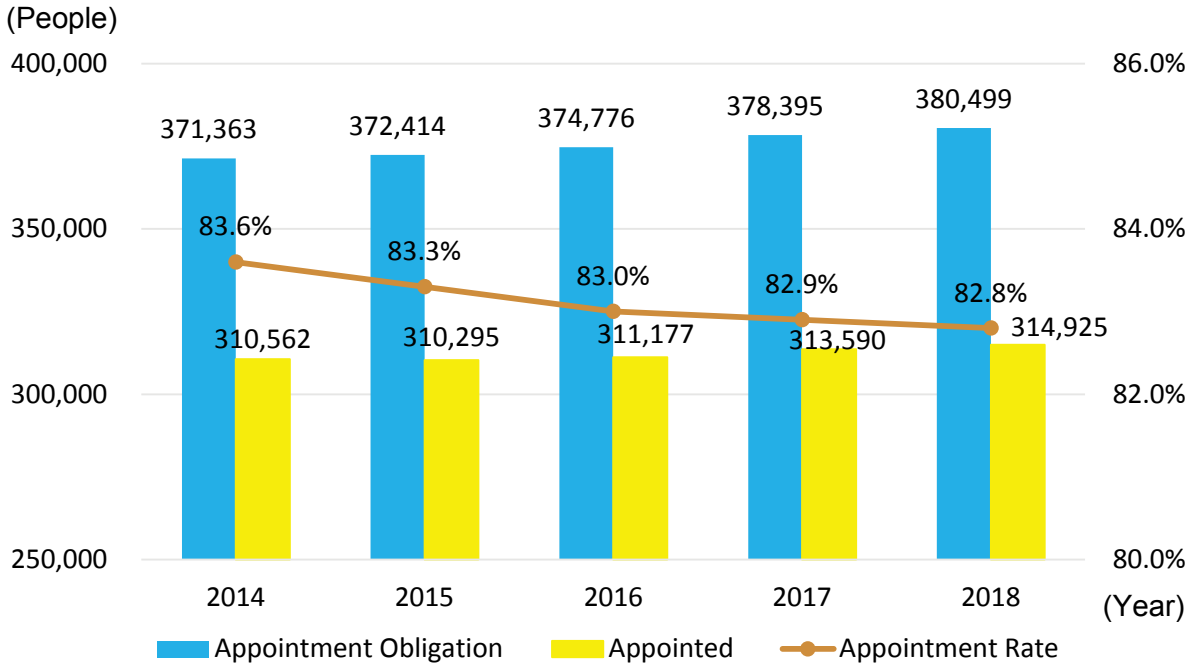
General handling places are power generation facilities, boiler facilities, painting plants, etc. that consume or use more than a specified quantity of hazardous materials.

An increasing number of companies have installed emergency power generation facilities and fuel storage tanks for the purpose of business continuity and early recovery in the event of disaster since the Great East Japan Earthquake.



## Chart 5-6. Number of Fire Prevention Managers (2014-2018)

As of the end of 2018, there were 380,499 establishments obligated to appoint fire prevention managers. In recent years, the number of the establishments obligated has been increasing. The appointment rate of fire prevention managers at the end of 2018 was 82.8%. Compared to the previous year, the number of mandatory establishments increased by 2,104, and the appointment rate decreased by 0.1%. In recent years, the appointment rate has been around 83%.



## 6. Self-Defense Firefighting Training

### Chart 6-1. Number of Self-Defense Firefighting Training (2014-2018)

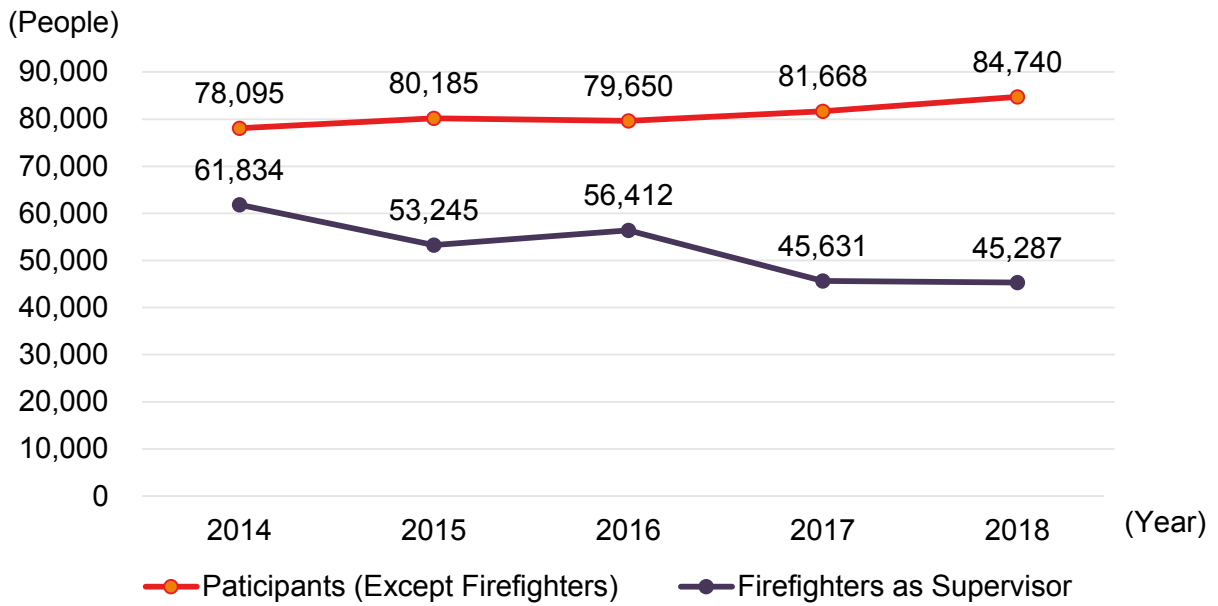
Self-defense firefighting training is mandatory at least twice a year at business establishments where an unspecified number of people visit, such as department stores, hospitals, hotels, theaters and underground station buildings.

Factors that have increased the number of drills can be attributed to the increased awareness of business establishments due to the earthquakes that occurred in Kumamoto Prefecture in 2016 and in northern Osaka Prefecture in 2018.

	2014	2015	2016	2017	2018
Comprehensive Training	87,186	88,303	90,499	94,792	99,515
Emergency Call Procedures	2,533	2,452	2,426	2,713	2,781
Firefighting	9,319	9,472	9,897	10,800	11,572
Evacuation	19,228	19,501	20,690	21,335	22,159
Others	11,116	9,138	11,775	8,083	8,069
<b>TOTAL</b>	<b>129,382</b>	<b>128,866</b>	<b>135,287</b>	<b>137,723</b>	<b>144,096</b>



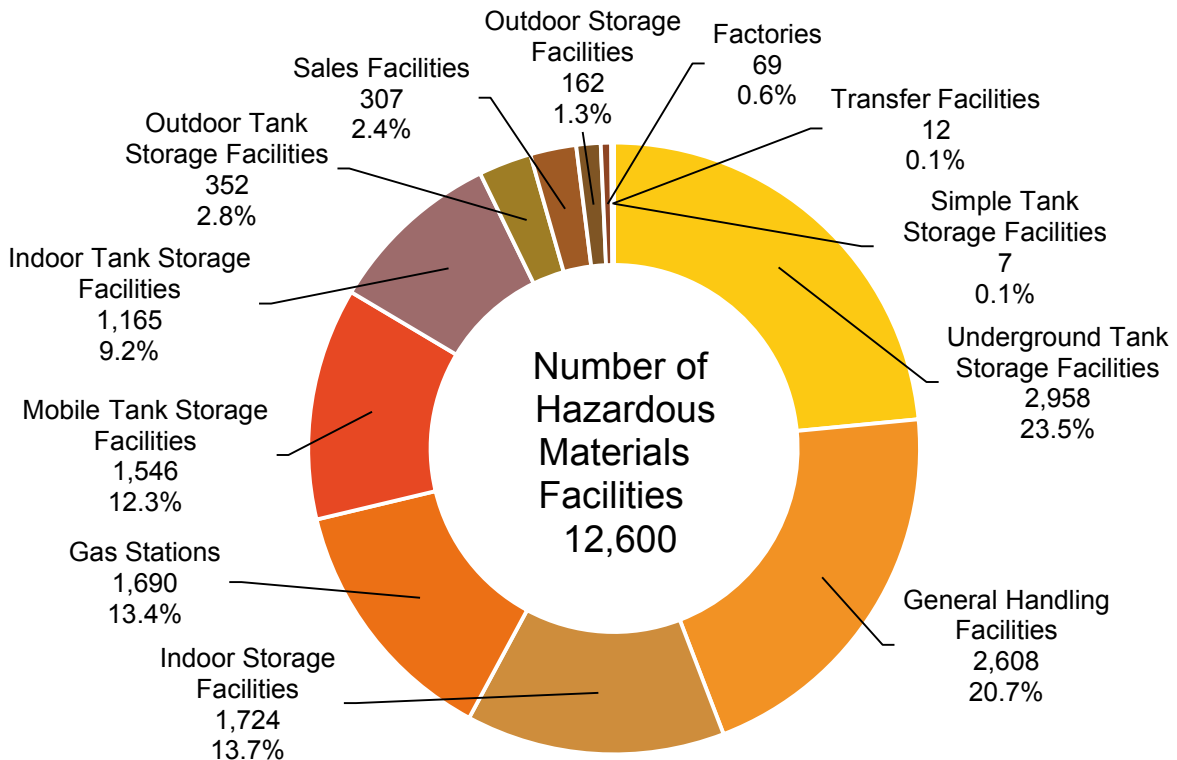
Chart 6-2. Number of Self-Defense Firefighting Training Participants (2014-2018)



## 7. Hazardous Materials Facilities

Chart 7-1. Number of Hazardous Materials Facilities (2018)

Hazardous materials facilities are classified according to each facility type. In terms of each facility type, the number of underground tank storage facilities was the largest with 2,958 facilities, followed by 2,608 general handling facilities and 1,724 indoor storage facilities as of the end of 2018.

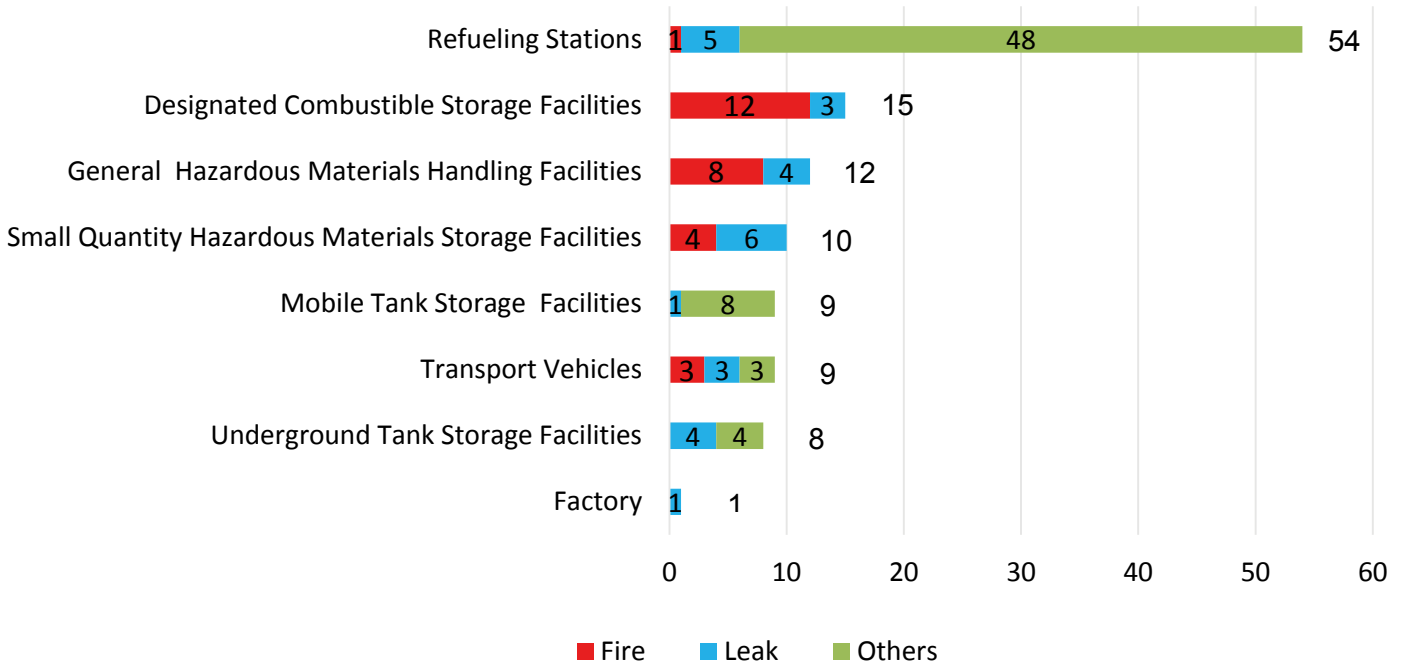


### Chart 7-2. Number of Hazardous Materials Facilities Accidents (2018)

In terms of the occurrence of accidents by facility types in 2018, there were 54 refueling stations, which accounted for more than 40% (44.6%, in fact, a decrease of 17 from the previous year), followed by 15 designated combustible storage facilities (12.4%, an increase of 8 cases), 12 general hazardous materials handling facilities (9.9%, an increase of 3 cases), and 10 small quantity hazardous materials storage facilities (8.3%, a decrease of 2 cases). Many accidents at gas stations (refueling stations) are caused by property damage accidents during driving or by the wrong stepping on the accelerator and brake.

Be sure to drive safely on the premises of gas stations.

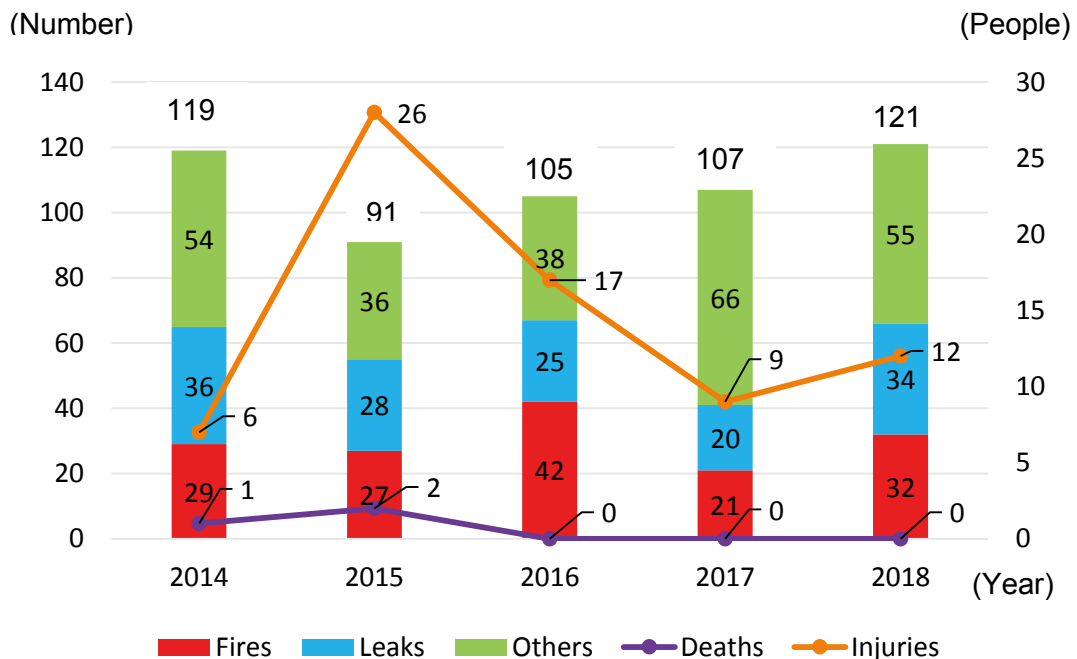
(Number)



### Chart 7-3. Number of Hazardous Materials Facilities Accidents and Casualties (2014-2018)

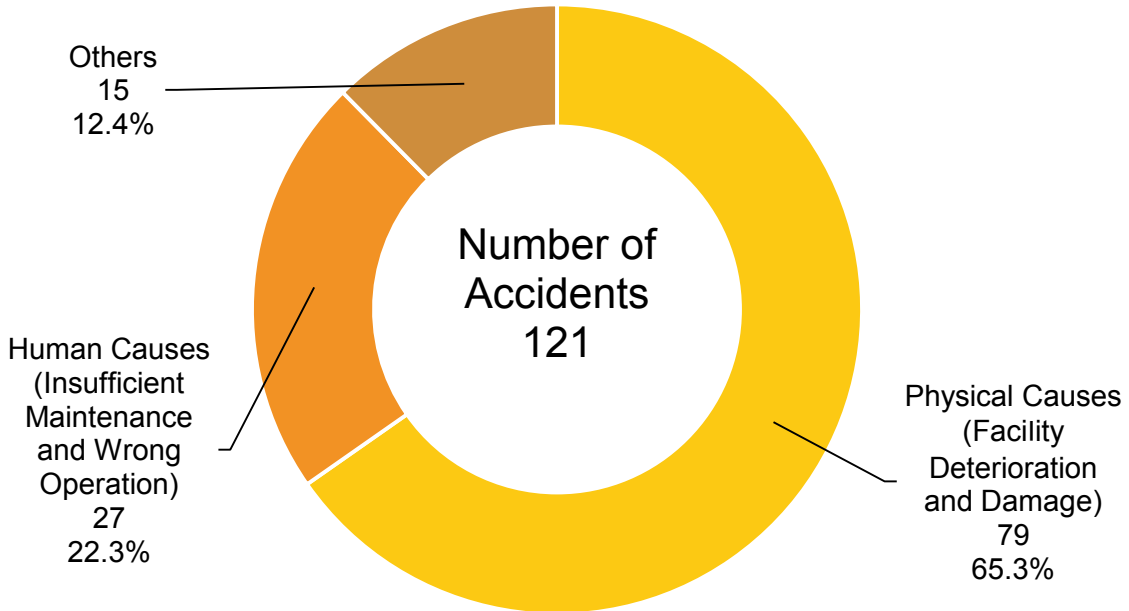
The number of hazardous materials facilities accidents was 121 in 2018, an increase of 14 from the previous year. There were 32 fires (26.4%, an increase of 11 from the previous year), 34 leaks (28.1%, an increase of 14), and 55 other accidents (45.4%, a decrease of 11).

Although there were no deaths in these hazardous materials facilities, 12 people were injured (an increase of 3 people).



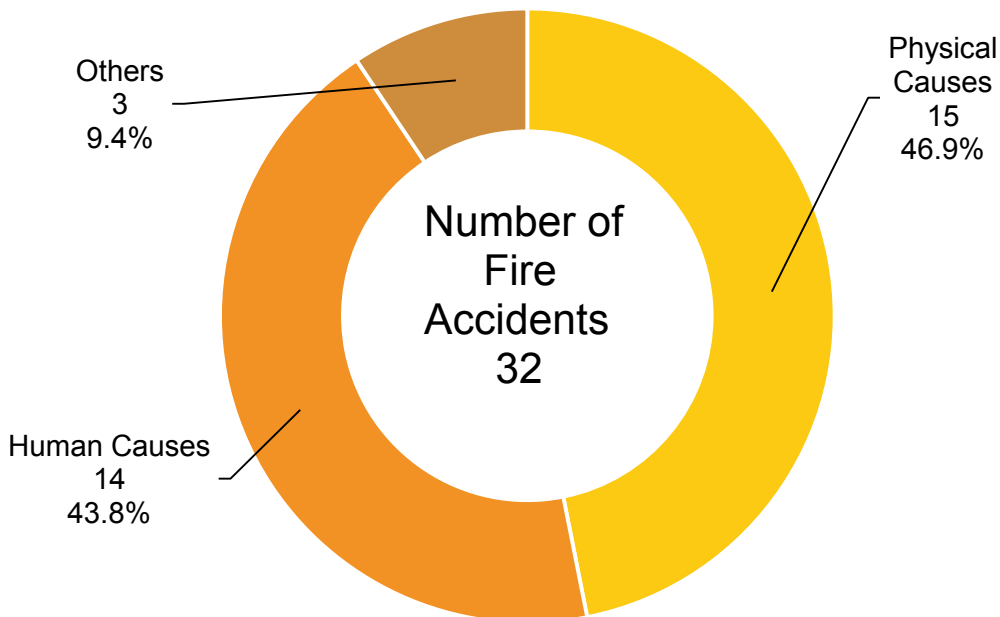
### Chart 7-4. Causes of Hazardous Materials Facilities Accidents (2018)

The graph below shows a breakdown of the causes of hazardous materials facilities accidents. The largest causes were physical ones, such as facility deterioration and damage, which resulted in 79 accidents (65.3%), followed by human causes with 27 accidents (22.3%) such as insufficient maintenance and wrong operation, and other causes with 15 accidents (12.4%).



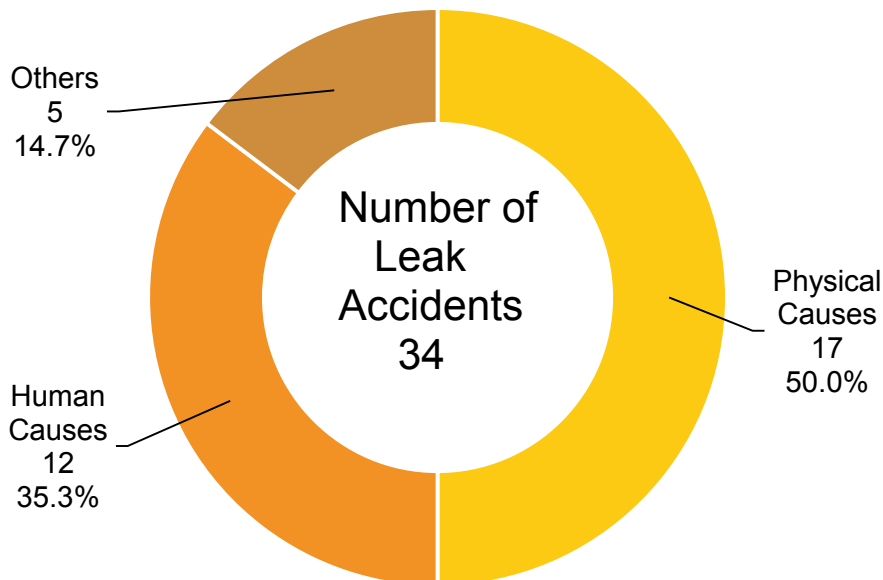
### Chart 7-5. Causes of Hazardous Materials Facilities Fires (2018)

The graph below shows a breakdown of the causes of 32 hazardous materials facilities fires. The largest causes were physical ones, which resulted in 15 fires (46.9%), followed by human causes with 14 fires (43.8%), and other causes with 3 fires (9.4%).



### Chart 7-6. Causes of Hazardous Materials Facilities Leak Accidents (2018)

The graph below shows a breakdown of the causes of the 34 leak accidents at hazardous materials facilities. The largest causes were physical ones, which resulted in 17 accidents (50.0%), followed by human causes with 12 accidents (35.3%), and other causes with 5 accidents (14.7%).



### Chart 7-7. Causes of Other Hazardous Materials Facilities Accidents (2018)

The graph below shows a breakdown of the causes of the 55 other accidents at hazardous materials facilities. The largest causes were physical ones, which resulted in 47 accidents (85.5%), followed by other causes with 7 accidents (12.7%), and human causes with 1 accident (1.8%).

