

# The 13th Occupational Safety & Health Program

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## Introduction

The first occupational safety & health program was formulated in 1958 to cope with soaring occupational accidents and diseases in the postwar years of spectacular economic growth. Since then, 12 programs have been launched, in line with socioeconomic situations, technological innovation and changes to work approaches, etc.

The safety and health level in Japan has significantly improved since those days, during which safety and health activities were accelerated through suggestions of specific operations and setting targets by parties concerned aiming to prevent occupational accidents and occupational diseases, including the government, employers, workers and other relevant parties.

However, considering the circumstances of recent years, despite the fact the number of deaths (“fatalities”) caused by occupational accidents is declining, the level of fatalities remains too high, particularly for fatalities and injuries (“casualties”) due to occupational accidents resulting in at least four days of sick leave and a reduction as before cannot be expected; due partly to the rapid increase in the number of workers in tertiary industries as well as aging of workers. Measures from new and different perspectives or approaches may be required in the future.

As karoshi (death from overwork) and mental health disorders have come to the fore as social problems, efforts should be made and measures taken to ensure the health of workers, both physically and mentally, while promoting studies on karoshi and applying an outcome according to the Action Plan for the Realization of Work Style Reform (decided by the Council for the Realization of Work Style Reform on March 28, 2017). Efforts are also required to support medical treatment and work-life balance. There is also a need to prevent serious health disorders such as bile duct and bladder cancers caused by chemical substances and reinforce measures for demolition of buildings containing asbestos, which may increase in the future.

In addition, awareness of citizens on safety and health can be raised nationwide through the Tokyo 2020 Olympic and Paralympic Games, as well as the rehabilitation and reconstruction from damage caused by large-scale natural disasters and assurance of safety and health in decommissioning work at the Fukushima Dai-ichi Nuclear Power Plant of TEPCO.

With these circumstances in mind, the 13th Occupational Safety & Health Program was launched. This five-year program, starting from FY2018, specifies the goals and priority activities to be achieved by the government, employers, workers and other relevant parties to minimize occupational accidents and realize safe and healthy

workplaces.

## 1 Aims of the Program

### (1) Society targeted by the program

Every worker is irreplaceable and to realize a society where each worker can work with good future prospects while upholding the basic principle of preventing any loss of human life or injury, we must strive ceaselessly to ensure daily work remains safe and healthy.

Amid the transition to a society where everyone can select diversified and flexible work styles according to the resolution, ability and specific reasons of individuals, safety and health must be assured for all workers, whether regular or non-regular employees, pursuing a unilinear career path or with a side job, additional work or personal contract.

We must realize a society adaptive to changes in the employment structure and make it a given that safety and health are assured for aging workers, non-regular employees, foreign workers and handicapped workers.

### (2) Program period

The program lasts five years from FY2018 to FY2022.

### (3) Program goals

To achieve the basic principles of the program, namely, preventing any loss of human life or injury due to occupational accidents, the government, employers, workers and other relevant parties must strive to accomplish the following goals in an integrated manner during the program:

- 1) Considering that fatal accident is irrevocable, reduce fatalities by at least 15% (relative to the 2017 level) by 2022.
- 2) Reduce the casualties (due to occupational accidents that require at least four days of sick leave; hereafter the same) by at least 5% (relative to the 2017 level) by 2022 by taking measures focusing on the types of accident and industries in which casualties significantly increase.
- 3) The goals of major industries are listed below:
  - Construction, manufacturing and forestry industries: Reducing fatalities by at least 15% (relative to the 2017 level) by 2022
  - Land transportation industry, retailers, social welfare facilities and restaurants: Reducing casualties by at least 5% at the accident rate per 1,000 persons of

casualties (relative to the 2017 level) by 2022

4) Goals other than the above are as follows:

- Job-related anxiety, distress and stress: Increase the percentage of workers who have access to a consultant, including resources outside the workplace, to at least 90% (71.2% in 2016).
- Increase the percentage of business establishments that take mental health measures to at least 80% (56.6% in 2016).
- Increase the percentage of business establishments that conduct group analyses of stress check results and utilize the result to at least 60% (37.1% in 2016).
- Increase the percentage of sellers and suppliers of chemical substances who provide labeling or safety data sheets (SDS) for all chemical substances classified as hazardous or toxic by the Global Harmonized System ("GHS"), authorized for the classification and indication of chemical substances to at least 80% (labeling: 60.0%, SDS: 51.6% in 2016).
- Reduce casualties due to occupational back pain in tertiary and land transportation industries by at least 5% at the accident rate per 1,000 persons of casualties (relative to the 2017 level) by 2022.
- Reduce fatalities due to heat stroke at the workplace by at least 5% over the five years from 2018 to 2022 relative to the level during the five-year period from 2013 to 2017.

(4) Evaluation and review of the program

To ensure efforts can be implemented based on the program, the implementation status should be confirmed and evaluated each year and the evaluation results reported to the Occupational Safety and Health Subcommittee of the Labor Policy Council. The program should be reconsidered as required.

Analysis of the program should include not only any increase/decrease in casualties and indexes, as set out in the goals, but also any background, indexes possibly affected and socioeconomic changes.

2 Present situation and direction of safety and health

(1) Onset of fatal accidents and direction of measures

In the first half of the 1960s, nearly 7,000 invaluable lives were lost by occupational accidents, but the number has since declined and even gone below 1,000 a year in recent years.

However, as for the five-year annual average of fatal accidents for 20 years from 1998, in accord with the five-year occupational safety & health program, the reduction rate in the manufacturing industry, which was a priority area, fell short of the average reduction rate in all industries and the reduction rate in another priority industry, namely construction, exceeded the average rate of all industries, but fatal accidents in this industry still comprised one third of the overall total. Accordingly, these industries must be continuously prioritized in this program. The forest industry was not included in prioritized industries in the 12th Occupational Safety & Health Program, but must be included given the increasing tendency toward accidents and their high severity in recent years (Table 1).

Alongside socioeconomic changes, various problems having surfaced recently may be part of the background to these circumstances. Specifically, these include a shortage of skilled workers who are familiar with their job due to the lopsided age composition, increased complexity of field management due to growing outsourcing of business processes, greater difficulty in taking actions to correct errors due to the automation of production equipment, etc., and progressive deterioration of major equipment due to age-related degradation in the apparatus industry.

<<Table 1>> Changes in fatal accidents by industry during five-year programs  
(9th to 12th)

|   | 9th program             | 10th program            | 11th program            | 12th program            | (Reference) Severity rate |
|---|-------------------------|-------------------------|-------------------------|-------------------------|---------------------------|
|   | (5-year annual average) | (5-year annual average) | (5-year annual average) | (5-year annual average) | (2016)                    |
| Manufacturing industry<br>(Change from 9th program (%))       | 330.6<br>—              | 290.8<br>▲ 12.0         | 218.0<br>▲ 34.1         | 187.5<br>▲ 43.3         | 0.12                      |
| Construction industry<br>(Change from 9th program (%))        | 700.2<br>—              | 521.6<br>▲ 25.5         | 375.0<br>▲ 46.4         | 335.0<br>▲ 52.2         | 0.33 (**)                 |
| Land transportation industry<br>(Change from 9th program (%)) | 248.2<br>—              | 224.6<br>▲ 9.5          | 137.4<br>▲ 44.6         | 115.8<br>▲ 53.4         | 0.12 (***)                |
| Forest industry<br>(Change from 9th program (%))              | 59.2<br>—               | 52.2<br>▲ 11.8          | 43.8<br>▲ 26.0          | 40.0<br>▲ 32.4          | 3.91                      |
| Other industries<br>(Change from 9th program (%))             | 496.4<br>—              | 429.0<br>▲ 13.6         | 582.8<br>17.4           | 318.5<br>▲ 35.8         | -                         |
| Total of all industries<br>(Change from 9th program (%))      | 1834.6<br>—             | 1518.2<br>▲ 17.2        | 1357.0<br>▲ 26.0        | 996.8<br>▲ 45.7         | 0.13                      |

\* The annual average for the 12th program ranges from 2013 to 2016. The severity rate is cited from the Survey on Industrial Accidents 2016 (in establishments with 30 or more employees).

\*\* (Excluding general construction industry)

\*\*\* (Road transportation industry)

In term of accident types by industry, in the manufacturing industry, the reduction rate of fatalities due to caught or trapped, which is the focal point of measures to prevent machinery accidents in this industry falls behind the average of all types. Further measures are required (Table 2).

<<Table 2>> Changes in fatal accidents by accident type in the manufacturing industry in five-year programs (9th to 12th)

|                               | 9th program             | 10th program            | 11th program            | 12th program            |
|-------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
|                               | (5-year annual average) | (5-year annual average) | (5-year annual average) | (5-year annual average) |
| Entanglement or entrapment    | 97.8                    | 82.2                    | 66.8                    | 59.3                    |
| (Change from 9th program (%)) | —                       | ▲ 16.0                  | ▲ 31.7                  | ▲ 39.4                  |
| Manufacturing Industry        | 330.6                   | 290.8                   | 218.0                   | 187.5                   |
| (Change from 9th program (%)) | —                       | ▲ 12.0                  | ▲ 34.1                  | ▲ 43.3                  |

\* The annual average for the 12th program ranges from 2013 to 2016.

Similarly, measures should be strengthened for “falling to a lower level” in the construction industry, and “being crashed” during felling, etc. in the forest industry, each of which is the top cause of fatalities in the respective industry (Tables 3 and 4).

<<Table 3>> Changes in fatal accidents by accident type in the construction industry in five-year programs (9th to 12th)

|                               | 9th program             | 10th program            | 11th program            | 12th program            |
|-------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
|                               | (5-year annual average) | (5-year annual average) | (5-year annual average) | (5-year annual average) |
| Falling to a lower level      | 296.6                   | 221.4                   | 157.8                   | 142.5                   |
| (Change from 9th program (%)) | —                       | ▲ 25.4                  | ▲ 46.8                  | ▲ 52.0                  |
| Construction industry         | 700.2                   | 521.6                   | 375.0                   | 335.0                   |
| (Change from 9th program (%)) | —                       | ▲ 25.5                  | ▲ 46.4                  | ▲ 52.2                  |

\* The annual average for the 12th program ranges from 2013 to 2016.

<<Table 4>> Changes in fatal accidents by accident type in the forest industry in five-year programs (9th to 12th)

|                               | 9th program             | 10th program            | 11th program            | 12th program            |
|-------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
|                               | (5-year annual average) | (5-year annual average) | (5-year annual average) | (5-year annual average) |
| Being crashed                 | 20.6                    | 20.6                    | 15.2                    | 16.5                    |
| (Change from 9th program (%)) | —                       | 0.0                     | ▲ 26.2                  | ▲ 19.9                  |
| Forest industry               | 59.2                    | 52.2                    | 43.8                    | 40.0                    |
| (Change from 9th program (%)) | —                       | ▲ 11.8                  | ▲ 26.0                  | ▲ 32.4                  |

\* The annual average for the 12th program ranges from 2013 to 2016.

## (2) Onset of non fatal accidents and direction of measures

Casualties due to occupational accidents have declined by nearly 15% in the 20 years from 1998.

However, the reduction rate has gradually slowed and that has become particularly prominent since 2008. In terms of industry types, despite still-significant casualties in manufacturing and construction industries, the reduction rate remains above the average of all industries. Conversely, casualties have soared in some tertiary industry sectors, including social welfare facilities, even when taking the increased number of workers into account (Tables 5 and 6).

<<Table 5>> Changes in casualties by industry in five-year programs (9th to 12th)

|   | 9th program                   | 10th program                  | 11th program                  | 12th program                  | (Reference)<br>Accident rate<br>per 1,000<br>persons |
|---|-------------------------------|-------------------------------|-------------------------------|-------------------------------|--|
|   | (5-year<br>annual<br>average) | (5-year<br>annual<br>average) | (5-year<br>annual<br>average) | (5-year<br>annual<br>average) | (2016)   |
| Manufacturing<br>industry<br>(Change from 9th<br>program (%))       | 41,986<br>—                   | 37,060<br>▲ 11.7              | 29,570<br>▲ 29.6              | 26,844<br>▲ 36.1              | 2.70   |
| Construction<br>industry<br>(Change from 9th<br>program (%))        | 28,809<br>—                   | 22,874<br>▲ 20.6              | 17,107<br>▲ 40.6              | 16,254<br>▲ 43.6              | 4.51   |
| Land transportation<br>industry<br>(Change from 9th<br>program (%)) | 15,964<br>—                   | 15,633<br>▲ 2.1               | 14,029<br>▲ 12.1              | 14,066<br>▲ 11.9              | 8.17   |
| Forest industry<br>(Change from 9th<br>program (%))                 | 3,012<br>—                    | 2,485<br>▲ 17.5               | 2,208<br>▲ 26.7               | 1,629<br>▲ 45.9               | 31.22  |
| Retailers<br>(Change from 9th<br>program (%))                       | 11,591<br>—                   | 12,574<br>8.5                 | 12,536<br>8.2                 | 13,162<br>13.6                | 2.17   |
| Social welfare<br>facilities<br>(Change from 9th<br>program (%))    | 1,871<br>—                    | 3,642<br>94.6                 | 5,561<br>197.2                | 7,483<br>299.9                | 2.11   |
| Restaurants<br>(Change from 9th<br>program (%))                     | 3,556<br>—                    | 3,889<br>9.4                  | 4,123<br>16.0                 | 4,593<br>29.2                 | 1.79   |
| Total of all<br>industries<br>(Change from 9th<br>program (%))      | 138,379<br>—                  | 132,802<br>▲ 4.0              | 119,489<br>▲ 13.7             | 117,978<br>▲ 14.7             | 2.19   |

\* The average for the 9th program ranges from 1999 to 2002. The average for the 12th program ranges from 2013 to 2016. The accident rate was computed from the number of workers in the Labor Force Survey in 2016.

<<Table 6>> Changes in accident rate per 1,000 persons of casualties by industry (2012 to 2016)

|                              | 2012 | 2013 | 2014 | 2015 | 2016 |
|------------------------------|------|------|------|------|------|
| Land transportation industry | 8.44 | 8.30 | 8.41 | 8.22 | 8.17 |
| Retailers                    | 2.24 | 2.13 | 2.22 | 2.14 | 2.17 |
| Social welfare facilities    | 1.99 | 1.96 | 1.99 | 2.01 | 2.11 |
| Restaurants                  | 1.76 | 1.71 | 1.74 | 1.80 | 1.79 |

In terms of accident types, the reduction rate of frequent accidents in the manufacturing and construction industries, including “falling to a lower level” and “entanglement or entrapment,” far exceeds the average rate for all industries, but accidents such as “falling” and “reaction or unreasonable action,” which tend to affect aging workers, are gradually increasing (Table 7).

<<Table 7>> Changes in non fatal accidents by accident type in five-year programs (9th to 12th)

|                                 | 9th program             | 10th program            | 11th program            | 12th program            |
|---------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
|                                 | (5-year annual average) | (5-year annual average) | (5-year annual average) | (5-year annual average) |
| Falling to a lower level        | 25,290                  | 23,827                  | 20,427                  | 20,183                  |
|                                 | —                       | ▲ 5.8                   | ▲ 19.2                  | ▲ 20.2                  |
| Entanglement or entrapment      | 23,752                  | 20,589                  | 16,288                  | 14,791                  |
|                                 | —                       | ▲ 13.3                  | ▲ 31.4                  | ▲ 37.7                  |
| Falling                         | 21,532                  | 23,418                  | 24,597                  | 26,490                  |
|                                 | —                       | 8.8                     | 14.2                    | 23.0                    |
| Reaction or unreasonable action | 11,712                  | 13,020                  | 13,945                  | 14,402                  |
|                                 | —                       | 11.2                    | 19.1                    | 23.0                    |
| Total                           | 138,379                 | 132,802                 | 119,489                 | 117,978                 |
|                                 | —                       | ▲ 4.0                   | ▲ 13.7                  | ▲ 14.7                  |

\* The average for the 9th program ranges from 1999 to 2002. The average for the 12th program ranges from 2013 to 2016.

Noting the individual sectors of tertiary industries, which have featured a significant increase in casualties, “falling” and “reaction or unreasonable action” frequently occur in retailers and social welfare facilities, in which most victims are aged over 50. In restaurants, “cuts and abrasions” and “contact with hot/chilled objects” frequently occur in addition to “falling,” and one third of the victims are

under 30, rivaling the total of victims over 50.

The increase in “falling” in social welfare facilities is probably linked to the increased number and overall proportion of older workers, because it is difficult to secure workers in their prime and easier for older people to seek jobs in this sector.

In tertiary industries, working sites are often dispersed, like multi-store operation by retailers and authorities and budgets assigned to individual sites are often insufficient, meaning safety and health management mechanisms in such sites malfunction in some cases. In addition, opportunities are lacking in tertiary industries to handle dangerous machines or chemical substances, etc., and both employers and employees lack awareness of danger, which could hinder efforts to reduce the number of accidents.

With these in mind, measures to cope with the aging of the workforce and changes to the employment structure are also required.

### (3) Trends ensuring workers’ health and the direction of measures

More than half of all workers remain affected by severe anxiety, distress and stress relating to their job or occupational lives.

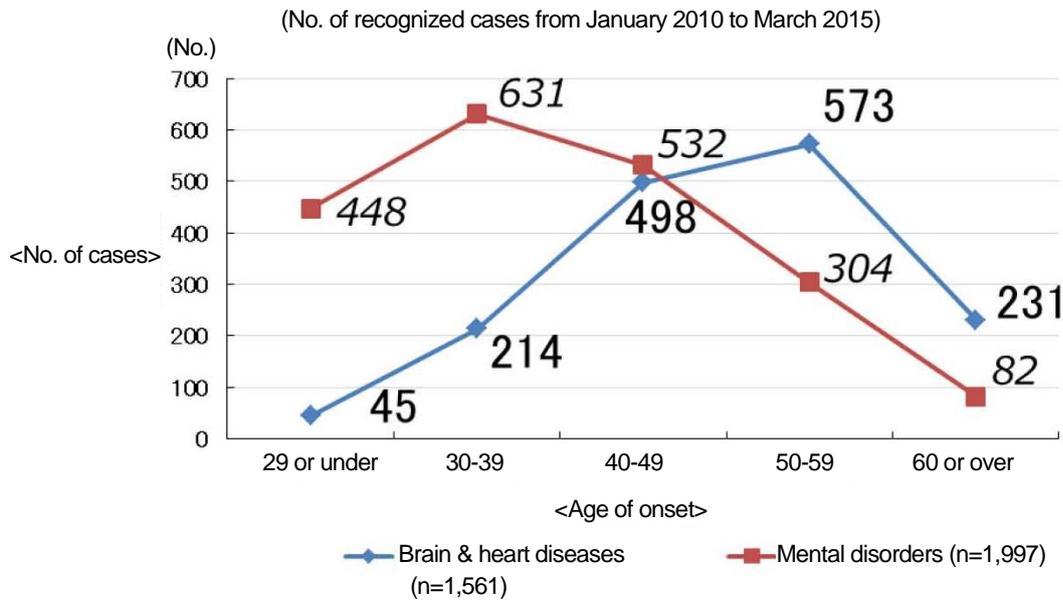
Overwork also claims invaluable lives or health of workers and poses a serious social problem. The number of cases officially classified as occupational accidents involving death or disorders from overwork (“karoshi, etc.”: Death due to cerebrovascular/heart diseases caused by an overload of work, suicide due to mental disorders caused by a significant psychological burden, or related cerebrovascular/heart diseases or mental disorders; hereafter the same) has remained at around 700 over the last few years, of which around 200 cases result in death or suicide (including attempted suicide) (Table 8). Noting age groups in the cases officially recognized as occupational accidents for karoshi, etc. over the past five years, the largest age group suffering from “brain and heart diseases” is workers in their 50s and then 40s, while the largest age group of those suffering from “mental disorders” is those in their 30s, followed by 40s and then those aged 29 and under (Table 9).

<<Table 8>> Changes in cases recognized as occupational accidents relating to brain & heart diseases and mental disorders

|                               |                         | FY2012 | FY2013 | FY2014 | FY2015 | FY2016 |
|-------------------------------|-------------------------|--------|--------|--------|--------|--------|
| Brain & heart diseases        | No. of recognized cases | 338    | 306    | 277    | 251    | 260    |
|                               | Death                   | 123    | 133    | 121    | 96     | 107    |
| Mental disorders              | No. of recognized cases | 475    | 436    | 497    | 472    | 498    |
|                               | Suicide                 | 93     | 63     | 99     | 93     | 84     |
| Total No. of recognized cases |                         | 813    | 742    | 774    | 723    | 758    |
| Death and suicide             |                         | 216    | 196    | 220    | 189    | 191    |

\* Including attempted suicide

<<Table 9>> Number of cases recognized as an occupational accident relating to brain & heart diseases and mental disorders by age group



(Source) Figures 1-3 and 1-17 in Chapter 3, 2017 version of White Paper on Measures to Prevent Karoshi, etc.

Against this background, the Act on Promotion of Measures for Karoshi, etc. Prevention was enacted in 2014, in which the government and local public entities require the promotion of measures through publicity, consulting systems and support for activities by private bodies, while at the same time, the government conduct investigations into karoshi, etc. and launch the Council for Promotion of Measures for Karoshi, etc. Prevention.

Promoting mental health measures is also important to prevent karoshi, etc., in addition to measures to prevent long working hours. In December 2015, a stress

check system, mainly aiming to prevent mental health disorders, was formulated as a new step of measures to ensure the mental health of workers.

In the stress check system, it is important to understand the stress of individual workers and urge them to be aware of their stress, while also analyzing the result by group to improve the working environment. Improving the working environment using the result of group analysis is a non-binding obligation and the implementation rate was limited to around 37% of all establishments (2016).

It is important for workers with considerable stress or mental health disorders to have peace of mind to engage in health consultations with industrial doctors, but in reality, approximately 30% of all workers feel they have no-one in whom to confide in about occupational anxieties, distress and stress at the workplace.

Under these circumstances, there is a need to improve working conditions using group analysis stress check results and provide an environment allowing workers to have consultations on their mental health with peace of mind, as well as understanding the actual conditions of karoshi, etc., uncovering the reality by surveys and research and taking measures based on the same.

#### (4) Situations relating to medical treatment-work balance for workers with diseases and direction of measures

The positive finding from the general medical examination pursuant to the Industrial Safety and Health Law, including the results of unhealthy blood pressure, blood sugar and fat, which may trigger brain or heart disease, has exceeded half of all workers and increased year on year, suggesting that more workers are likely at risk of disease.

If the general medical examination reveals any abnormalities, the workers involved must consult with doctors to prevent brain and heart diseases by taking proper work-related measures promptly.

The morbidity of these diseases will increase with age and it is expected that in workplaces where aging of the workforce is underway, ways of balancing medical treatment and work are required for workers with diseases.

However, the treatment-work balance may be determined according to the state of individual workers and many of those in charge are troubled over how to support such workers and coordinate with medical institutions.

Under these circumstances, the first thing is to take adequate work-related measures based on the result of the medical examination, then provide assistance for the company to promote support for the medical treatment-work balance of

workers.

(5) Current status of health disorders due to chemical substances and direction of measures

Around 70,000 chemical substances are used in industrial sites and notifications of around 1,000 new chemical substances are submitted every year. Of these enormous range of chemical substances, 663 require exposure-prevention measures, measurement of the working environment, special medical examination, labeling and risk assessments, etc. according to the laws and regulations concerning occupational safety and health, but as for many other chemical substances, even data such as hazardous nature and toxicity, based on which relevant measures are taken, is not sufficiently distributed.

In Europe and America, there are systems requiring employers who manufacture or import chemical substances to classify all chemical substances being transferred or provided based on classification techniques specified in the GHS and provide labeling or SDS for hazardous or toxic substances.

Serious health disorders such as bile duct or bladder cancer caused by chemical substances have occurred recently, but the lack of mechanisms to identify these cases by the government at the stage of suspecting occupational diseases means the only possible approach is to rely on information voluntarily supplied by employers to understand the actual conditions and take the necessary measures.

Under these circumstances and with international trends in mind, approaches to provide information on the hazardous nature and toxicity of chemical substances and mechanisms to determine the potential occurrence of health disorders due to chemical substances by the government must be examined.

Regarding health disorders due to asbestos, countermeasures should be strengthened to cope with the increase in the number of dismantled houses containing asbestos from approximately 60,000 in 2017 to as much as 100,000 at the peak in around 2030.

### 3 Priority measures of the program

Based on the previously mentioned current circumstances of safety and health and direction of measures, the following eight targets are prioritized:

- (1) Promotion of measures to eliminate fatal accidents
- (2) Promotion of measures to ensure the health of workers, including the prevention of

karoshi, etc.

- (3) Promotion of measures to adapt to changes in the employment structure and diversified work styles
- (4) Promotion of measures to ensure the health of workers with diseases
- (5) Promotion of measures to prevent health disorders due to chemical substances, etc.
- (6) Reinforcement of efforts by companies and industries on safety and health
- (7) Reinforcement of safety and health management organizations and development of human resources
- (8) Improvement of nationwide awareness on safety and health

#### 4 Specific efforts by priority

- (1) Promotion of measures to eliminate fatal accidents
  - A. Priority measures by industry and accident type
    - (a) Preventing “falling to a lower level” in the construction industry
      - Consider reinforcing measures to prevent “falling to a lower level” according to the status of occurrence and operational results of related facilities. This category comprises more than 40% of all fatal accidents in the construction industry. As a general rule, a full harness-type equipment should be used for work at elevation, according to the “Report of the Task Force on Regulations concerning Personal Protective Equipment for Preventing Falling” (a summary of the Task Force on Regulations concerning Personal Protective Equipment for Preventing Falling, June 13, 2017) and suitable protective equipment should always be worn depending on the distance of fall.
      - Consider safety measures during demolition work. Of all fatal accidents in the construction industry, those in demolition work have gradually increased and this tendency is set to accelerate amid increased demolition of reinforced concrete or steel-frame buildings and bridges in the future.
      - Take complete measures to prevent occupational accidents, including reducing excessive working hours, when constructing facilities for the Tokyo 2020 Olympic and Paralympic Games through the Council for Safety and Health Measures, comprising related governmental agencies and ordering parties, etc. The state-of-the art technologies used to construct the facilities must be used as a model for comfortable and safe construction in the future.
      - Take complete measures to prevent occupational accidents for rehabilitation and reconstruction of areas stricken by natural disasters such as earthquakes,

typhoon and heavy rainfall.

- Consider and implement measures for the suitable estimation and foolproof payment of safety and health costs in contract agreements, and disseminate the design with due consideration of safety and health at the construction stage, by working closely alongside the Ministry of Land, Infrastructure, Transport and Tourism based on the Basic Plan for Assuring Safety and Health of Construction Workers (cabinet decision on June 9, 2017), and make steady and systematic efforts to provide support for improving the safety and health control capability of small- and medium-sized building constructors.

(b) Preventing occupational accidents caused by facilities, equipment and machines in the manufacturing industry

- Examine approaches to ensure as-manufactured risk assessment on potentially hazardous machines based on the Guidelines on comprehensive safety standards of machines (Kihatsu No. 0731001, July 31, 2007) with participation of experts with full knowledge and skill and steady ways of providing machine users with information on residual risks, even after the completion of risk assessments by the manufacturer. In addition, ensure the safe use of machinery by users.
- Consider exemption of rules for hazard prevention measures, such as installing fences, inspecting, monitoring and assigning competent persons and limitations (prohibitions) on use, or structural code of machines, etc. when measures based on information on residual risk are properly taken in workplaces where a certain person with expertise is assigned, or machines are monitored or controlled based on the guideline (e.g. certified of conformity with technical guidelines on functional safety on machineries) (Notification No. 353 of the Ministry of Health, Labour and Welfare, 2016).
- Promote voluntary safety activities at workplaces by widely circulating the results of a study on safety measures at the Public-Private Council for Safety Measures in the Manufacturing Industry comprising industry groups of major manufacturers in collaboration with the Ministry of Economy, Trade and Industry and the Japan Industrial Safety and Health Association.
- In response to a potential increase of occupational accidents caused by degradation of aged production facilities, consider the standardization of inspection and maintenance of aging facilities and equipment, taking into consideration of repairs of them, from the perspective of the reduction of risks

by degradation.

- Consider measures to increase incentives to promote investments to safety, referencing practices in other countries, such as tax exemption for damage insurance on plants using reliable automated monitoring and control equipment, which are incentives for more vigorous safety measures.
- Promote training and education of foremen in the food manufacturing industry, in which accidents frequently occur, as applied to other manufacturing industries, to disseminate safe ways of using food-processing machinery and equipment in collaboration with related ministries.
- Consider the development of curricula for re-education of foreman of the manufacturing industry in the same matter in the construction industry.

(c) Safety measures for felling in forest industry

- Reinforce required safety measures, including disseminating safe ways to fell a tree and dispose of branches, wearing protective clothing to safeguard lower limbs and improving safety education based on discussions at the Task Force on Safety in Felling as well as collaborating with the Forestry Agency and related organizations to accelerate efforts to reduce fatal accidents while felling using chainsaws, which comprises 70% of all fatal accidents in the forest industry.
- Strengthen guidance by forestry dissemination guides and instructors to prevent occupational accidents at felling sites together with guidance by safety management officers at the Forestry and Timber Manufacturing Safety & Health Association in collaboration with the Forestry Agency.

B. Measures to prevent serious occupational accidents

- Consider measures to considerably reduce serious and possibly fatal accidents by analyzing the reports on casualties and disease of workers and occupational accidents causing at least six months of sick leave. Also consider measures to investigate the causes of serious accidents and prevent recurrence in collaboration with the National Institute of Occupational Safety and Health of the Japan Organization of Occupational Health and Safety.

C. Upgrading existing machines to which the latest standards are not applied

- Consider measures to promote the upgrading of existing machines, for which a respite of applying the latest standards is often granted as a transitional measure when the structural code is revised.

(2) Promotion of measures to ensure the health of workers, including the prevention of karoshi, etc.

A. Reinforcement of measures to ensure the health of workers

(a) Promotion of measures to ensure health by companies

- Encourage companies to make effective approaches, including the decision and manifestation of top management's policies regarding employees' health management, over and above statutory medical examination and resulting actions. Measures to ensure the mental and physical health of workers, such as those coping with overwork and mental health are required more than ever. Workers must also strive to maintain and improve their health.

(b) Enhancement of industrial doctors and industrial health function

- Promote health management of workers by ensuring face-to-face guidance by doctors and health consultation by industrial doctors or industrial health staff so that workers at high risk of karoshi, etc. due to excessive working hours or mental disorders at the workplace are not overlooked.
- Review the role of industrial doctors according to discussions at the "Task Force on the System of Industrial Doctors" (a summary of the Task Force on the System of Industrial Doctors, December 26, 2016), and develop an environment that facilitates efforts by industrial doctors, etc. to take more effective approaches to ensure the health of workers as medical experts.
- Furthermore:
  - 1) Ensure the quality and number of industrial doctors and improve uneven distribution of industrial doctors depending on communities.
  - 2) Support small-sized business workplaces, which are not required to appoint industrial doctors, to improve the industrial health function.
  - 3) Promote industrial health activities by a team comprising industrial doctors, nurses and other industrial health staff.
  - 4) Consider approaches required to promote human resource development in industrial health at the University of Occupational and Environmental Health, Japan and take the necessary measures.
- Promote efforts to revitalize the activity of health committees, etc. by, for example, encouraging industrial doctors to participate in these committees and reviewing the topics to be discussed at health committees, when applicable.

B. Promotion of measures to prevent health disorders due to overwork

- Impose limits on extra hours to prevent overwork, reexamine those subject to face-to-face guidance by doctors and improve the health management of

workers by objectively grasping working hours as measures to ensure the health of workers engaged in long-time work and prevent workers at high risk of developing brain or heart diseases due to overwork from being overlooked.

C. Promotion of measures to maintain mental health at workplaces

(a) Prevention of mental health disorders

- Promote efforts to take comprehensive mental health measures across business establishments, including efforts to prevent mental health disorders, for example, by linking the stress check system to face-to-face guidance by doctors for workers under great stress and requiring face-to-face guidance and support to improve the workplace environment using group analysis of stress checks by collecting best practices and offering related information.
- Promote efforts to take mental health measures, including the dissemination of stress checks in small-sized business establishments, assisted by the Occupational Health Support Center, etc.
- Continue to promote efforts to take mental health measures throughout business establishments, according to the Guideline for Maintenance and Promotion of Health, etc. (2006 Guideline for Maintenance and Promotion of Health, etc., Notification No. 3), particularly by developing an environment where workers can consult with experts on their mental health with peace of mind by installing the contact section, including resources outside the workplace.

(b) Promotion of measures to prevent harassment by superiors

- Promote measures to prevent harassment by superiors at workplaces based on the result of a task force, comprising experts, labor and management, held according to the Action Plan for the Realization of Work Style Reform. To keep workers healthy and motivated, harassment by superiors must be prevented in addition to working hour management and mental health measures.

D. Promotion of safety and health regardless of employment type

- Allow all employees to take safety and health education and medical examination as well as participating in the safety and health committee regardless of employment types.

E. Side/multiple jobs, and telework

- Make it clear that employers must provide a medical examination, etc. by law, as applicable, to ensure the health of workers who have side jobs or multiple jobs.

Consider tactics to maintain health for these workers in an integrated and

continuous manner.

- Clarify that working hour management required to ensure the health of teleworkers is adequately conducted and employers must provide suitable safety and health education and medical examination, etc. by law.

F. Research on the clarification of karoshi, etc. and preventive measures

- Continue data collection and research and analysis regarding claims for the payment of workers' compensation insurance for karoshi, etc. at the Research Center for Overwork-related Disorders of JNIOH, Japan Organization of Occupational Safety and Health, and understand and analyze objective data concerning, for example, correlations between overwork and karoshi, etc. through epidemiological research, based on which measures should be considered.

(3) Promotion of measures to adapt to changes in the employment structure and diversified work styles

A. Industries in which occupational accidents are growing or remaining constant

(a) Tertiary industries

- Of retailers, social welfare facilities and restaurants where the total number of occupational accidents tends to increase with a rise in the number of employees and at business establishments which deploy distributed multi-store operation, persons in charge of safety and health, their authorities and budgets in individual stores or facilities are limited and they are often required to participate in measures to prevent occupational accidents at the headquarters or head office. Such business establishments require comprehensive consideration for the company-wide modality of safety and health management in addition to the safety and health management at each work site.
- Appeal to top management for their awareness-raising, "visualization of hazards," improvement of facilities by risk assessment and enhancement of hazard sensitivity through KY (hazard prediction) activities.
- Some industry groups in tertiary industries formulate a safety and health committee to promote safety and health at member companies. Encourage industry groups, which do not take these efforts, to establish a safety and health committee to promote committee activities and develop required human resources in collaboration with the Japan Industrial Safety and Health Association.
- Support business establishments in tertiary industries to utilize experts,

including industrial safety consultants or industrial health consultants etc. to promote their efforts effectively.

- For social welfare facilities, promote safety and health education thoroughly to prevent back pain and introduce nursing-care equipment.
- For retailers and restaurants, ensure safety and health education for non-regular employees at the time of hiring in collaboration with relevant industrial groups. The proportion of non-regular employees and casualties of employees of three years or under are higher than other industries.

(b) Land transportation industry

- Thoroughly disseminate basic safety standards, including wearing a protective cap according to the Guideline on Cargo-Handling Operation in the Land Transportation Industry (Kihatsu 0325 No. 1, March 25, 2013; hereafter “Safety Guideline on Cargo-Handling Operation”) in collaboration with the Land Transportation Industry Safety & Health Association. Approximately 70% of occupational accidents in the land transportation industry occurred during cargo-handling operations. Consider the content of safety and health education for workers engaged in this work.
- Request cargo owners to reduce the long waiting time for cargo, improve cargo-handling facilities and equipment, and assign a safety officer for cargo-handling operations in collaboration with the Ministry of Land, Infrastructure, Transport and Tourism.
- Consider measures commensurate with the actual circumstances of cargo-handling operations, including a review of the Safety Guideline on Cargo-Handling Operations based on the tendency of increasing volume of cargo to be handled due to the growth of the Internet commerce.

(c) Prevention of falling accidents

- Promote “visualization of hazards” by disseminating 4S (sorting, setting-in-order, shining, standardizing) and applying warning stickers, as well as urging workers to wear skid-proof shoes suitable to prevent falling accidents that account for approximately 20% of non fatal accidents. Support employers, for example, by offering e-learning materials to prevent falling accidents.
- Extensively disseminate and recommend physical exercise to prevent falling accidents, which may increase with age-related physical depression in general.

(d) Prevention of back pain

- Conduct safety and health education to cope with back pain, which is said to reach 5,000 cases annually and introduce nursing-care equipment to reduce the physical load on nursing-care workers.
- Consider tactics of disseminating machinery for routine heavy muscular labor such as cargo-handling to reduce physical load of workers.

(e) Prevention of heat stroke

- Disseminate WBGT value measuring instruments in compliance with Japan Industrial Standards (JIS) and promote necessary measures to ensure breaks are taken, water and salt consumed and cool vests worn according to the measured WBGT value for outdoor work and high-temperature and humidity indoor work during the summer.
- Introduce advanced approaches to the construction industry and offer educational tools for workers to promote improved awareness of anti heat-stroke measures.

(f) Transportation accidents

- Include education to prevent transportation accidents in biennial training of operation administrators assigned according to the Road Transportation Act or Motor Trucking Transportation Business Act in business establishments operating buses, trucks, taxis or other business vehicles in collaboration with the Ministry of Land, Infrastructure, Transport and Tourism.
- Consider ways to ensure that employers take appropriate measures to maintain the health of employees engaged in operating business vehicles, even if they are contingent workers, to prevent transportation accident due to health problems.
- Given that most fatal accidents take place in business establishments other than those operating buses, trucks, taxis or other business vehicles, encourage industrial groups of all industries to deploy effective measures to prevent transportation accidents in collaboration with the National Police Agency.

(g) Promotion of “visualization of hazards” at workplaces

- Amid increasingly diverse work styles, disseminate signs and notices on the prevention of occupational accidents while taking into account the “visualization of hazards” to make workplaces, where dispatched workers, young workers and unskilled workers currently work, safer and more comfortable regardless of workers’ knowledge and experience.
- Promote the same measures for foreign workers who do not understand

Japanese to the same extent.

B. Prevention of occupational accidents involving aging, non-regular, foreign and handicapped workers

(a) Measures for aging workers

- With the aging workforce in mind and the tendency to an increase in falling accidents and back pain, collect examples of efforts to improve workplaces to suit aging workers and promote positive health to enhance physical function by muscle-strengthening exercise and consolidate and disseminate these examples to ensure safety and health.

(b) Measures for non-regular employees

- Track the implementation of safety and health education and medical examination for dispatched workers at the time of hiring and based on the result, consider necessary measures to prevent occupational accidents affecting these workers.
- For Retailers and restaurants, ensure safety and health education for non-regular employees at the time of hiring in collaboration with relevant industrial groups. The proportion of non-regular employees and casualties of among employees of three years or under are higher than other industries.

(Re-posted)

(c) Measures for foreign workers and technical intern trainees

- With the launch of a system to accept foreign workers having finished on-the-job training and returned to their country, as workers in construction, shipbuilding and manufacturing industries, potential increases in the occupational accidents involving foreign workers are noted. In response, ensure business establishments which employ foreign workers conduct safety and health education, Japanese lessons to prevent occupational accidents, install signs and notices warning of the risk of occupational accidents and manage their health in collaboration with related ministries and agencies. Utilize safety and health education manuals for foreign workers in safety and health education.
- Promote efforts by supervisory groups and business establishments which accept technical intern trainees to prevent occupational accidents in collaboration with the Organization for Technical Intern Training.

(d) Handicapped workers

- Conduct surveys on occupational accident cases and the actual status of safety considerations for handicapped workers to prevent occupational

accidents, eliminate anxieties about safety and consider necessary measures.

C. Persons outside the worker category such as personal contractors

- Consider necessary measures such as safety and health education commensurate with the nature of and actual work for one masters in the construction industry according to the basic program to ensure the safety and health of construction workers.

D. Technological innovation

- Consider functional safety criteria and a certification system for industrial robots capable of conducting cooperative work with humans.
- Disseminate safety measures to monitor and control machines with highly automated control devices.
- With the development of AI (artificial intelligence) and man-machine interfaces, new types of robots which do not fit the existing definition of industrial robots (machines that automatically bend or stretch manipulators based on the information in memory) will be widely used at industrial sites. Consider safety measures, criteria and standards for these robots.
- Amid the rapid development of AI and GPS technologies, machines which autonomously conduct their work will be introduced at industrial sites, including factories, soon. Anticipating these technological innovations, consider necessary standards for measures ensuring safe cooperation between humans and machines.
- Promote research to prevent occupational accidents and ensure the health of workers using the IoT (Internet of Things: Things that connect to the Internet) and big data collected by IoT.

(4) Promotion of measures to ensure the health of workers with diseases

A. Promotion of measures to ensure the health by companies, and collaboration between companies and medical institutions

- To allow workers with diseases to continue their work, special considerations for treatment and work balance are required. Strive to change the consciousness of companies and develop support systems by disseminating the Guideline on Measures Taken by Employers based on the Result of Health Checkup (Guideline on Measures Taken by Employers based on the Result of Health Checkup No. 1, 1996) and the Guideline for Assisting Treatment-Work Balance (Kihatsu 0223 No. 5, Kenhatsu 0223 No. 3, Shokuhatsu 0223 No. 7 on February 23, 2016; hereafter “Guideline on Work-Treatment Balance”).

- To further strengthen collaboration between employers and medical institutions based on the Guideline on Work-Treatment Balance, provide manuals for companies and medical institutions and introduce them in training at the Occupational Health Support Center.
  - Promote specific collaboration among the parties concerned, including companies and medical institutions in communities, through activities of local support treatment-work balance support teams launched in individual prefectures.
- B. Establishment of a structure for supporting workers with diseases
- Promote a total support system for workers with diseases in balancing medical treatment and work in collaboration with medical institutions which handle the treatment of illnesses and provide various types of assistance in the meantime, as well as support from employers who admit applications of support from these workers. For this purpose, foster “treatment-work balance support coordinators” who provide consultation while supporting workers, and help communication between workers and primary doctors, companies and industrial doctors. Assign them to the Occupational Health Support Center to improve the treatment-work balance support coordinator system.
- C. Support for workers with spinal cord injuries to return to work
- Collect and analyze the cases of workers with spinal cord injuries from the start of treatment to the return to daily living and work at the rehabilitation division of the Rosai Hospital in various regions and promote research on methods of continuous support by medical institutions from admission to hospital with a return to work in mind.
  - Promote the development of rehabilitation techniques and apparatus to allow workers with spinal cord injuries to adapt to their workplaces.
  - Based on the result of the above research, consider what support measures by the government, such as coordination with the handicapped persons’ employment policy, should be for supporting workers with spinal cord injuries to return to work.

(5) Promotion of measures to prevent health disorders due to chemical substances, etc.

A. Measures to prevent health disorders due to chemical substances

(a) Measures to prevent health disorders due to chemical substances considering international trends, etc.

- There are 663 substances subject to measures to prevent health disorders based on special regulations such as the Ordinance on Prevention of Hazards due to Specified Chemical Substances, labeling and SDS issuance, but no measures to prevent health disorders are applied to many other chemical substances. Under these circumstances, there are moves to use chemical substances other than the regulated 663 substances as alternatives for the regulated substances without informing their hazardous nature and toxicity.

In light of these circumstances, discuss the desirable nature of labeling and SDS and promote the development of the environment, such as support by the government.

- Chemical substances where the hazardous nature or toxicity is unknown may not be safe or harmless. To prevent the use of such chemical substances easily, instruct and enlighten employers and workers to take the necessary measures.

(b) Improvement of work based on the result of a risk assessment

- Upgrade support measures to boost the effectiveness of improvement, including concrete and straightforward explanation of improvement based on the result of a risk assessment of chemical substances.

- Review chemical substances subject to labeling or issuance of SDS based on the latest scientific insights.

- Add a measuring method for personal sampler to the methods used to measure the work environment so that a suitable method of measurement and assessment can be selected according to the type of work.

- Consider measures to ensure health comprehensively by, for example, linking the result of work environment measurement to the result of the special medical examination.

(c) Accurate understanding of information on the toxicity of chemical substances

- Continue to collect insights into the effect of chemical substances on health in Japan and abroad promptly and accurately, use them to review regulations and publicize the toxicity information collected extensively to employers and other parties concerned.

(d) Assessment of toxicity of chemical substances based on toxicity information and acceleration of measures

- Consider collecting information on the tendency and background of rules and regulations, judgment criteria and priority in other countries to improve the efficiency and speed of measures to prevent health disorders based on a risk assessment of chemical substances, of which carcinogenicity for workers is internationally suggested and the result of risk assessment.

(e) Comprehension of delayed health disorders

- To accurately comprehend delayed health disorders such as bile duct and bladder cancer cases in recent years, for example, consider establishing mechanisms to report suspected cases of occupational diseases due to chemical substances to the government, or in collaboration with the Japan Organization of Occupational Safety and Health, methods of collecting and accumulating information on relationships of workers with diseases, including cancer cases, occupational history, method of work and substances used and utilizing the results.

(f) Enhancement of safety and health education for workers handling chemical substances

- To ensure effective management of chemical substances by employers, it is important for workers to understand the hazardous nature and toxicity of chemical substances and how to avoid exposure accurately. Accordingly, enhance safety and health education for recruits by deepening their understanding of labeling and SDS information and showing them the proper ways of wearing protective equipment.

B. Measures to prevent asbestos originated health disorders

(a) Prevention of exposure to asbestos during demolition work

- While the demolition of buildings containing asbestos is expected to rise, cases of demolition work without full research into the presence of asbestos were reported. As well as avoiding oversight by employers about the use of asbestos by extending the notification of its presence in more detail, consider measures such as to ensure asbestos inspectors who check the use of asbestos to have special knowledge.
- To take measures to prevent exposure to asbestos properly in the demolition of buildings, it is important for the party ordering the demolition work to bear the required safety and health costs required according to the presence of asbestos. To prevent neglect of the ordering party to take necessary measures

for seeking shorter construction period at lower costs, or the contractor presenting a shorter period of construction at lower costs, strengthen measures to dissuade the contractor from avoiding necessary measures to prevent exposure to asbestos and consider the compliance of the ordering party with measures to prevent exposure to asbestos in demolition work.

- When natural disasters such as large-scale earthquakes take place, measures to prevent exposure to asbestos should be taken smoothly during clearance of building rubble or the demolition of buildings. Provide guidance and publication according to damage and promote measures to prevent exposure to asbestos by procuring protective equipment such as masks and gloves promptly while referring to manuals published by the Ministry of the Environment.

(b) Preservation of records of workers on handling of asbestos and other chemical substances

- Health disorders due to chemical substances such as asbestos may occur long after exposure. Employers must continually maintain records on the exposure state of individual workers, which must also be preserved, even after the business is closed.

C. Measures against passive smoking

- Disseminate measures to prevent passive smoking by imposing a ban on smoking or separating smoking areas according to the circumstances of employers or business establishments by providing educational opportunities to deepen understanding of the health threat of passive smoking as well as providing effective support for employers.
- For work during which passive smoking is highly possible, verify the effect of reducing the concentration of hazardous substances by providing air ventilation, installing air-purification systems or wearing protective equipment to promote measures to prevent passive smoking.

D. Measures to prevent health disorders due to ionized radiation

- Make thorough preparations for workers engaged in decommissioning work at the Fukushima Dai-ichi Nuclear Power Plant of TEPCO and decontamination work in areas difficult for residents to return to. This includes safety and health management, exposure dose management and measures to reduce radiation exposure and health management.
- Implement long-term health management through health consultation, including mental health care for workers engaged in emergency work at the Fukushima Dai-ichi Nuclear Power Plant of TEPCO and those who quit work

using databases capable of tracking long-term exposure doses.

- Promote exposure dose management and reduction measures for health personnel and preserve all records of exposure dose measurements.

E. Measures to prevent health disorders due to dust

- To prevent health disorders of workers caused by work involving exposure to dust, comply with the Ordinance on Prevention of Dangers Due to Dust and other related laws and regulations, as well as promoting voluntary efforts to prevent health disorders due to dust according to the 9th Comprehensive Measures to Prevent Dangers due to Dust.
- Support the Japan Construction Occupational Safety and Health Association for central management of health information for pneumoconiosis of workers who often change their employers for joining in tunnel construction in various areas and their hazardous operation records to ensure the health of workers engaged in tunnel construction.

(6) Reinforcement of efforts by companies and industries on safety and health

A. Inclusion of safety and health in corporate management

- The involvement of top management is essential to prevent occupational accidents. Recommend the inclusion of safety and health in corporate management and promote positive efforts of top management such as when deciding on and announcing corporate policy.

B. Disseminating and utilizing occupational safety and health management systems

- The JIS version will be launched as an occupational safety and health management system (ISO 45001) currently under development by the International Organization for Standardization. The addition of safety and health activities and efforts to ensure health, which are common practices in Japan but not included in ISO 45001, must be discussed, disseminated and promoted.
- Consider the revision of the Guideline on the Occupational Safety and Health Management Systems (Ministry of Labor Notification No. 53 of 1999) by taking into account consistency with ISO 45001 and the Guidelines on Occupational Safety and Health Management Systems of the International Labour Organization as well as policies for efforts to ensure health, and disseminate and promote it.
- Consider the use of occupational safety and health management systems for

measures against overwork and mental health problems in addition to measures for industrial safety and chemical substances.

C. Promotion of safety and health management systems by company

- Of retailers, social welfare facilities and restaurants where the total number of occupational accidents tends to increase with a rise in the number of employees and at business establishments which deploy distributed multi-store operation, persons in charge of safety and health, their authorities and budgets in individual stores or facilities are limited and they are often required to participate in measures to prevent occupational accidents at the headquarters or head office. Such business establishments require comprehensive consideration for the company-wide modality of safety and health management in addition to the safety and health management at each work site. (Re-posted)

D. Promotion of measures to ensure health

- Encourage companies to make effective approaches, including the decision and manifestation of top management's policies regarding employees' health management, over and above statutory medical examination and resulting actions. Measures to ensure the mental and physical health of workers, such as those coping with overwork and mental health, are required more than ever. Workers must also strive to maintain and improve their health. (Re-posted)

E. Promotion of streamlining systems in industry groups

- Voluntary efforts of industry groups are essential to prevent occupational accidents. Make requests of voluntary efforts to industries in which accidents do not decrease or efforts to streamline their systems have been insufficient.
- For industries in which occupational accidents tend to increase, consider measures to promote voluntary safety and health activities by industry groups in collaboration with industrial injury prevention organizations and continue to provide necessary support for the industrial injury prevention activities of the industrial injury prevention organizations by focusing on priority measures of this program.
- Some industry groups in tertiary industries formulate a safety and health committee to promote safety and health at member companies. Encourage industry groups, which do not take these efforts, to establish a safety and health committee to promote committee activities and develop human resources required for the committee activities in collaboration with the Japan Industrial Safety and Health Association. (Re-posted)

F. Promotion of measures to ensure the health by principal employers

- Consider effective approaches to promote measures to ensure the health of workers by contractors upon request of principal employers in the construction industry.
- For decommissioning at the Fukushima Dai-ichi Nuclear Power Plant of TEPCO, consider the establishment of safety and health management systems, implementation of risk assessments and reduction of radiation exposure in a unified manner of TEPCO (ordering party) and principal employers and reflect the result in work specifications to promote the implementation of effective measures to reduce radiation exposure from the ordering stage.
- Request cargo owners to reduce the long waiting time for cargo, improve cargo-handling facilities and equipment, and assign a safety officer for cargo-handling operations in collaboration with the Ministry of Land, Infrastructure, Transport and Tourism. (Re-posted)

G. Strengthening of collaboration with the competent authorities

- Strengthen collaboration with competent authorities to ask instructions to ensure safety and health and the inclusion of safety and health in public bidding requirements.
- Consider and implement measures for the suitable estimation and foolproof payment of safety and health costs in contract agreements, disseminate the design with due consideration of safety and health at the construction stage and make efforts, including support for improving the safety and health control capability of small- and medium-sized building constructors in a steady and planned manner, working closely alongside the Ministry of Land, Infrastructure, Transport and Tourism based on the Basic Plan for Assuring Safety and Health of Construction Workers (cabinet decision on June 9, 2017). (Re-posted)
- Promote voluntary assurance of safety at workplaces by widely circulating the results of a study on safety measures at the Public-Private Council for Safety Measures in the Manufacturing Industry comprising industry groups of major manufacturers in collaboration with the Ministry of Economy, Trade and Industry and the Japan Industrial Safety and Health Association. (Re-posted)
- Strengthen guidance by forestry dissemination guides and instructors to prevent occupational accidents at felling sites together with guidance by safety management officers at the Forestry and Timber Manufacturing Safety &

- Health Association in collaboration with the Forestry Agency. (Re-posted)
- Request cargo owners to reduce the long waiting time for cargo, improve cargo-handling facilities and equipment and assign a safety officer for cargo-handling operations in collaboration with the Ministry of Land, Infrastructure, Transport and Tourism. (Re-posted)
  - Include education to prevent transportation accidents in biennial training of operation administrators assigned according to the Road Transportation Act or Motor Trucking Transportation Business Act in business establishments operating buses, trucks, taxis or other business vehicles in collaboration with the Ministry of Land, Infrastructure, Transport and Tourism. (Re-posted)
  - Given that most fatal accidents take place in business establishments other than those operating buses, trucks, taxis or other business vehicles, encourage industrial groups of all industries to deploy effective measures to prevent transportation accidents in collaboration with the Police Agency. (Re-posted)
- H. Support of small- and medium-sized business workplaces
- Reinforce support through industrial injury prevention organizations for guidance on workplace reform by safety and health management officers to streamline safety and health control systems of small- and medium-sized business workplace, and revitalize safety and health activities such as 4S (sorting, setting-in-order, shining, standardizing), “visualization of hazards” and risk assessment.
  - Consider measures to promote the upgrading of existing machines, for which a respite of applying the latest standards is often granted as a transitional measure when the structural code is revised. (Re-posted)
- I. Promotion of utilizing private inspection institutes
- While the socioeconomic environment is changing and new challenges to be addressed are increasing, the national financial condition grows increasingly severe and the administration is required to reduce more and raise efficiency. Under these circumstances, reasonable prioritization of administrative work has been focused on to prevent occupational accidents effectively and the transfer of more work, including permission, examination and inspection of specific machinery, typically conducted by prefectural labor departments to date, to the private sector has been considered.
  - Consider approaches to strengthen supervision of registration and inspection institutes and registration and training institutes, both are private institutes, and punish and impose penalties on vicious employers, who may intentionally

break the law.

(7) Reinforcement of safety and health management organizations and development of human resources

- Strengthen safety and health management organizations by fostering safety and health specialists and comprehensively utilizing outside experts, including industrial safety consultants or industrial health consultants etc.
- Improve collaboration with the Japan Association of Safety and Health Consultants to enhance the ability and quality of industrial safety consultants and industrial health consultants.
- Promote training and education of foremen in the food manufacturing industry, in which accidents frequently occur, as applied to other manufacturing industries, to disseminate safe ways of using food-processing machinery and equipment in collaboration with related ministries. (Re-posted)
- Consider the development of curricula for the manufacturing industry so that re-education of foremen in the construction industry can also be applied to the manufacturing industry. (Re-posted)
- Consider approaches required to promote human resource development in industrial health at the University of Occupational and Environmental Health, Japan and take the necessary measures. (Re-posted)
- Some industry groups in tertiary industries formulate a safety and health committee to promote safety and health at member companies. Encourage industry groups, which do not take these efforts, to establish a safety and health committee to promote committee activities and develop required human resources in collaboration with the Japan Industrial Safety and Health Association. (Re-posted)
- Support business establishments in tertiary industries to utilize experts, including industrial safety consultants or industrial health consultants etc. to promote their efforts effectively. (Re-posted)
- For social welfare facilities, promote safety and health education thoroughly to prevent back pain and introduce nursing-care equipment. (Re-posted)
- For retailers and restaurants, ensure safety and health education for non-regular employees at the time of hiring in collaboration with relevant industrial groups. The proportion of non-regular employees and casualties of employees of three years or under are higher than other industries. (Re-posted)

- Thoroughly disseminate basic safety standards, including wearing a protective cap according to the Guideline on Cargo-Handling Operation in the Land Transportation Industry (Kihatsu 0325 No. 1, March 25, 2013; hereafter “Safety Guideline on Cargo-Handling Operation”) in collaboration with the Land Transportation Industry Safety & Health Association. Approximately 70% of occupational accidents in the land transportation industry occurred in during cargo -handling operations. Consider the content of safety and health education for workers engaged in this work. (Re-posted)
- Promote a total support system for workers with diseases in balancing medical treatment and work in collaboration with medical institutions which handle the treatment of illnesses and provide various types of assistance in the meantime, as well as support from employers who admit applications of support from these workers. For this purpose, provide consultation while supporting workers, foster “treatment-work balance support coordinators” who help workers and primary doctors, companies and industrial doctors communicate and assign them to the Occupational Health Support Center, or otherwise reinforce the consultation and support system regarding treatment-work balance. (Re-posted)
- To ensure effective management of chemical substances by employers, it is important for workers to understand the hazardous nature and toxicity of chemical substances and how to avoid exposure accurately. Accordingly, enhance safety and health education for recruits to deepen their awareness of labeling and SDS information, and show them the proper ways of wearing protective equipment. (Re-posted)
- While the demolition of buildings containing asbestos is expected to rise, cases of demolition work without full research into the presence of asbestos were reported. As well as avoiding oversight by employers about the use of asbestos by extending the notification of its presence in more detail, consider measures such as to ensure asbestos inspectors to have special knowledge. (Re-posted)

(8) Improvement of nationwide awareness on safety and health

A. Safety and health education in collaboration with high schools and universities

- Work to introduce systems assuring safety and managing health at workplaces and basic knowledge about mental health, etc. into school education using the “Plan for Promoting School Safety” based on the School Safety and Health Law in collaboration with the Ministry of Education, Culture, Sports, Science

and Technology.

- Develop curricula for systematically teaching safety and health measures, international standards and certification on safety and health, system safety design, safety control and risk assessment to science and technology students at universities who will be engaged in the design and construction management of industrial machinery, industrial robots, plants and infrastructure (civil engineering and construction) and ask universities to use these programs.
- B. Promotion of measures provided for risk experience training and disaster response
- Considering the opinion that low hazard awareness of workers is one of the reasons preventing the decrease in occupational accidents, promote education to raise hazard awareness using VR (virtual reality).
  - When natural disasters such as large-scale earthquakes take place, measures to prevent exposure to asbestos should be taken smoothly during clearance of building rubble or the demolition of buildings. Provide guidance and publication according to damage and promote measures to prevent exposure to asbestos by procuring protective equipment such as masks and gloves promptly while referring to manuals published by the Ministry of the Environment. (Re-posted)
- C. Health promotion using the Tokyo 2020 Olympic and Paralympic Games
- Recently, physical activity was acknowledged as effective in preventing and improving depression and anxiety. Considering the upsurge of public interest in sports with the forthcoming Tokyo 2020 Olympic and Paralympic Games, promote the health of workers through physical exercise by considering the review of the Guideline to promote the health of workers at workplaces in conjunction with the Sport Basic Plan (Guideline to promote health Notification No. 1 of 1988) in collaboration with the Japan Sports Agency.
- D. Collaboration with skill certificate examination related groups
- In collaboration with skill certificate examination related groups and based on the Human Resources Development Promotion Act, provide the latest data concerning safety and health and trends of administrative work to the examinees and workers to disseminate insights into safety and health.
- E. Promotion of measures based on scientific underpinning and international trends
- Promote research into safety and health for industrial machinery and chemical substances, etc. in collaboration with the Japan Organization of Occupational Safety and Health to promote measures based on scientific underpinning.

- Measures for safety and health must be promoted based on insights and trends in other countries. Obtain the latest insights and trends from other countries through research activities and use them in relevant measures while considering the present situation of Japan.
- Proactively promote international contribution to safety and health fields while working in collaboration with the Japan International Cooperation Agency (JICA) and the Japan Industrial Safety and Health Association, etc.