

JISHA

ANNUAL REPORT 2011





Safety and Health Motif

The green cross motif was adopted at the first-ever Safety Week in 1928 as a symbol of safety activities. The white cross motif was then adopted at the Fourth Industrial Health Week in 1953 to symbolize occupational health activities. In 1965, in order to underline the objective of pressing forward with safety and health as a unified concept, the two separate motifs were reworked and integrated into the safety and health motif that you see here.

President's Foreword



In March 2011, Japan experienced the greatest earthquake and tsunami disaster the nation had ever faced, with more than 20,000 victims including the missing and more than 120,000 evacuees. In addition, the disaster occurred in an area near the Fukushima Nuclear Power Plant, causing more damage. I would like to reiterate my sincere appreciation for the condolences, support and donations offered from the organizations concerned worldwide.

The number of occupational accidents in Japan has been declining over the long term due to consistent efforts for accident prevention in the workplace. However, a large number of workers, 480,000, were affected by work-related accidents, and among them, fatalities were 1,195 in 2010, which showed a large increase compared with the previous year.

I am concerned about the following trends in the workplace: dangers and hazards in the workplace have diversified as production processes have become more varied and complex, and as new machinery, equipment and chemical substances have been introduced. Furthermore, in some cases know-how in occupational safety and health has not been handed down well enough to younger workers due to the retirement of the generation of workers that has sustained safety and health expertise. In other instances, unskilled workers are not given adequate safety and health training.

In terms of worker health, the proportion of workers with problems identified in health examinations and those who feel strong anxiety and stress about work and working life remains high, and health impairment from overwork has increased.

In light of these circumstances, the implementation of safety and health-focused management and the strengthening of on-site capacity are important management issues for employers today. I believe, therefore, that they need to enhance and strengthen their independent efforts toward that end. In particular, it is important for employers to try to invigorate day-to-day safety and health activities and to promote good mental and physical health for all workers in the workplace.

Accordingly, in order to support employers positively in their autonomous efforts to promote accident-prevention activities, we, at JISHA, eliciting their diverse needs, wish to fully utilize our integrated business competence to actively develop a variety of projects such as: diffusion of risk assessment and occupational safety and health management systems (OSHMS) as preemptive measures; the offering of various educational programs on safety and health; expansion of the Zero-Accident Campaign; promotion of physical and mental health (especially support for mental health measures); provision of safety and health technical services; and timely production of publications.

In the area of international activities, JISHA will continue to organize training courses for safety and health professionals from overseas, to collect and disseminate safety and health information, and to promote exchanges with international organizations and safety and health associations of other countries, as well as to address the challenges toward globalization.

This year marks the centennial anniversary of the start of the industrial safety campaign in Japan. To commemorate this, JISHA, other related organizations and enterprises are working together on the Industrial Safety Campaign Century Project, and JISHA, as the secretariat of this project, is aiming to further develop the safety and health activities of our country through the project.

As a specialized organization of occupational safety and health, we, at JISHA, are determined to continue to offer appropriate services required by Japanese enterprises both at home and abroad and to keep striving to prevent occupational accidents by supporting our official members, associate members, and all other organizations and enterprises with their initiatives to ensure the safety and health of their workers.

October 2011

A handwritten signature in black ink that reads "Hideaki Sekizawa". The signature is written in a cursive style with a large, sweeping flourish at the end.

Hideaki Sekizawa
President of JISHA

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Introduction to JISHA

The Japan Industrial Safety and Health Association (JISHA), which was established in 1964 under the Industrial Accident Prevention Organizations Act, is a legal entity whose membership consists of employers and employers' associations. JISHA's overall objective is to help prevent work-related accidents and injuries and protect the health of workers by promoting safety and health efforts undertaken by employers and employers' associations, and by offering safety and health guidance and services. JISHA's major activities are listed below.

- Promoting occupational accident prevention efforts undertaken by employers and employers' associations
- Establishing and administering facilities for education and technical guidance
- Providing technical guidance and assistance
- Collecting and disseminating safety and health information and documents
- Conducting research, surveys and public relation services
- Operating programs entrusted to JISHA by the government, including studies of the impact of toxic chemicals on humans



Overview of JISHA's Core Activities

In 2010, the number of work-related fatalities increased for the first time since 1999, amounting to 1,195, an increase of 120 deaths, 11.2% over the previous year. The sum of fatalities and injuries requiring four or more days off from work was 107,759, which is 2,041 more than in 2009. In addition, the number of serious accidents involving three or more fatalities or injuries was 245, an increase of 17 accidents from last year. (See the statistics in the appendices.)

To help prevent occupational accidents, JISHA undertakes the core activities described below.

1. Support for the introduction of risk assessment and establishment of occupational safety and health management systems (OSHMS)

- (1) In response to enterprises' demand for skilled manpower that will immediately be useful in the field of risk assessment and OSHMS, JISHA organizes a set of seminars ranging from a fundamental course covering the basics of risk assessment to a more sophisticated course which teaches how to introduce, operate, and audit OSHMS in a workplace.

Furthermore, JISHA implements training courses on risk assessment and risk reduction associated with machinery and equipment in accordance with the Guidelines for the Comprehensive Safety Standards of Machinery established by the Japanese Ministry of Health, Labour and Welfare (MHLW) and international standards (ISO 12100, etc.). It also implements risk assessment training courses on chemical substances for preventing explosions and fires as well as health impairment.

- (2) Upon request from enterprises, JISHA sends experts to the workplace to give employers certain advice necessary for implementing risk assessment as well as introducing or establishing an OSHMS appropriately.

JISHA also conducts a certification service based on JISHA OSHMS Standards in accordance with the guidelines of the MHLW and the International Labour Organization (ILO).

2. Physical and mental health promotion and mental health measures

- (1) With a view to promoting both the physical and mental health of people in the workplace, JISHA organizes seminars for instructors and practitioners of enterprises in the field of physical exercise, nutrition guidance, health guidance or counseling, and/or sends experts to enterprises upon request for in-house health promotion training. In addition, JISHA provides a health-advice service that has been developed in the form of health guidance tools to promote workers' self-awareness.

- (2) In order to promote mental health measures in the workplace, JISHA runs several types of seminars: e.g., those where preventive measures ranging from step one to three can be studied comprehensively, or those designed to help supervisors or occupational safety and health (OSH) staff learn the approaches and techniques required to exercise their specific responsibilities. JISHA, as in the case above, sends experts to the workplace upon request to help arrange in-house training.

3. Promotion of OSH education

- (1) JISHA organizes a set of seminars targeting different ranks of people in enterprises, corresponding to their specific roles: e.g., OSH Top Seminars designed to help top managers learn the importance of OSH management in business; trainings for newly employed staff or for foremen or team leaders in special industries, which are obligatory based on the Industrial Safety and Health Act; or technical training designed to help OSH-responsible staff or line managers learn practical

know-how and techniques about OSH affairs. JISHA also dispatches experts to workplaces upon request to provide technical advice or to help organize in-house training.

- (2) The Occupational Safety and Health Education Centers in Tokyo and Osaka run a variety of OSH technical training courses for the OSH trainers/instructors of enterprises.
- (3) JISHA holds a National Industrial Safety and Health Convention once a year, where, in addition to ceremonial events including award ceremonies, special lectures and symposia as well as presentations on research findings and good practices are organized to expose participants to the latest OSH-related information and knowledge, and give them opportunities to learn OSH-related practical experience from other enterprises.

4. Assistance in the introduction and operation of Zero-Accident Campaigns

- (1) A Zero-Accident Campaign is a culture-oriented activity that places priority on OSH and a lively workplace. Based on the philosophy of respect for human beings, all top managers, supervisors and employees participate as a whole in industrial-accident prevention activities at their workplaces, striving to find solutions to problems and to realize “zero accidents” as their ultimate goal. Currently, JISHA is promoting campaigns under the 8th five-year Campaign Promotion Plan that started in 2008.
- (2) In order to promote campaigns across the country, JISHA organizes a set of seminars, namely: seminars for top managers who are planning to introduce campaign activities; seminars for line managers who are primarily responsible for the campaign in the workplace on zero-accident theory and practice; or training for the KYT trainers who will educate leaders of KYT activities, or hazard-prediction activities, in the workplace. Recently, in addition to the above-mentioned activities, JISHA also implements KYT training on safe driving and in the medical occupations.

5. JISHA's on-demand technical services

- (1) Upon request from enterprises, JISHA sends experts such as safety/health officers to workplaces to diagnose issues related to the safety and health management of production facilities and processes, operation methods, and workplace environments, and to give employers necessary advice on problems.
- (2) Upon request from enterprises or when commissioned by the MHLW, JISHA provides technical support for non-regulated hazardous chemicals, including preparation of MSDS compliant with GHS, hazard assessment based on the hazard statement, advice for setting occupational exposure limit, exposure measurement, etc.
- (3) Regarding working conditions stipulated by law, JISHA conducts measurements of dust, lead, noise, intensity of illumination for VDT work, velocity control of local exhaust ventilation systems, or the status of use of organic solvents and specified chemical substances. Based on the measurement results, JISHA proposes countermeasures to improve conditions, or sends experts to the enterprises to help with in-house training.
- (4) JISHA analyzes employee's blood, urine, or hair to detect chemical substances. It also conducts analysis of airborne and material-embedded free silicic acid (free silica) and asbestos, and airborne toxic substances including metals and organic solvents. Recently requests for analysis of rare metal indium in the serum have been on the increase.
- (5) JISHA conducts regular health examinations. JISHA also implements special health examinations for workers dealing with chemical hazards, engaged in VDT work, or working amid vibration or noise, and gives overall advice on health management that takes into consideration each type of working environment.

6. International cooperation

- (1) JISHA promotes international exchange with overseas OSH organizations in the form of receiving guests on an ad hoc basis or attending international meetings including those of ILO/CIS and the Asia Pacific Occupational Safety and Health Organization (APOSHO).
- (2) JISHA organizes the JISHA OSH Seminar annually to provide technical cooperation for overseas OSH organizations. In addition, JISHA arranges training courses on OSH policy-related affairs, on commission from the Japan International Cooperation Agency (JICA), and holds workshops or seminars commissioned by the MHLW.

7. Assistance to small and medium-sized enterprises

Commissioned by the MHLW and based on cooperation with the local Prefectural Labour Bureaus of the ministry, JISHA offers the “Tampopo (Dandelion) Project” to group(s) of enterprises with less than 50 employees. The project consists of guidance and assistance by OSH experts, supply of funds necessary for the activities of the groups, OSH education, and measurement of the working environment.

8. Production and distribution of publications and other items, and provision of the latest information

- (1) JISHA issues monthly magazines and other publications, and produces and sells posters and other OSH-related goods.
- (2) JISHA offers information via the Internet. In particular, JISHA's Japan Advanced Information Center of Safety and Health (JAISH) provides a large variety of information at its website, including information on laws and regulations, examples of industrial accidents, statistics, chemical substances, material safety data sheets (MSDS) which are compliant with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS), as well as special features. (Part of the information of this service has been provided and updated on the website of the MHLW since April 1, 2011.)
- (3) JISHA operates Safety Museums and Safety Theaters in an integrated manner with its other educational initiatives. It provides technical safety and health information corresponding to the current status of occupational accidents and undertakes safety and health education programs using real safety equipment. (Safety Museums and Theaters were closed at the end of March 2011.)
- (4) JISHA provides the latest information on safety and health-related protective equipment and devices at the Green Cross Exhibition, which it holds concurrently with the National Industrial Safety and Health Convention.

9. Industrial Safety Campaign Century Project

Since the year 2011 marks the 100th anniversary of the start of the OSH movement in Japan, volunteers from employers' associations and other organizations including JISHA have organized the Industrial Safety Campaign Century Project Committee and have developed the project for the centennial celebration of the industrial safety campaign. JISHA, as the secretariat as well as a member of this committee, arranges and implements a series of anniversary events.

10. Investigation of chemical substances for toxicity and safety testing

On commission from governments and private companies, the Japan Bioassay Research Center conducts a variety of animal toxicity tests on chemical substances and mutagenicity tests using microorganisms and cultured cells, and provides them with the resulting data.

Program Content

1. Proactive Development of Programs Relating to Risk Assessment and OSHMS

Risk assessment is the practice of identifying dangers to people or potential sources of harmful effects, estimating the effects (risks) to people, and eliminating or reducing unacceptable risks.

An occupational safety and health management system (OSHMS) is a system for achieving specific organizational goals set out in an OSH policy made by top management, creating a concrete plan for achieving those goals, and ensuring that the entire organization works together toward the goals with each individual playing his or her part. The PDCA (plan-do-check-act) cycle is regarded as an effective tool for implementing the system.

(1) Expansion of risk assessment and OSHMS-related programs

Japan's revised Industrial Safety and Health Act, which went into force in April 2006, stipulates, without penalty, that employers should make an effort to implement risk assessment (RA). JISHA conducts the following training courses in order to develop the human resources needed to implement RA based on the Guidelines for Risk Assessment published in March 2006, and to properly introduce, set up, and operate OSHMS based on the Revised Guidelines for Occupational Safety and Health Management Systems, both published by the MHLW.

Table 1 on the next page shows these training courses held in fiscal 2010.

(a) Practical risk assessment training course for OSH staff members

A training course on proper procedures for RA, implementation method and creation of RA systems, targeting safety and health staff members and others who will play the main roles in the introduction of an RA system and improvement of its implementation procedures

(b) Risk assessment training course for workplace leaders

A training course on practical procedures for RA in the workplace with a focus on exercises, targeting managers, supervisors and workers who actually identify risks and hazards and implement risk assessment/evaluation in the workplace based on RA systems

(c) Management system leader training course

A training course on the proper establishment and implementation of an OSHMS based on the OSHMS guidelines, targeting safety and health staff members who will play the main roles in the establishment and operation of an OSHMS

(d) Practical management system auditing training course

A training course on proper implementation of OSHMS auditing based on the OSHMS guidelines, targeting safety and health staff members who will play the main roles in OSHMS auditing, in creating the framework and improving the implementation structure of the OSHMS

(e) OSHMS internal auditor training course

A training course on practical procedures of OSHMS internal auditing, targeting persons who will

actually be in charge of internal auditing of the OSHMS

JISHA also sends personnel to enterprises that are planning to introduce or are in the process of establishing an OSHMS to provide on-site training, OSHMS total support services, and other services.

Table 1: Risk Assessment/OSHMS-related Training Courses in Fiscal 2010

Training course	Number of times	Participants
1. Practical risk assessment training for OSH staff members	79	3,152
2. RA training for workplace leaders	28	1,026
3. Management system leader training	17	515
4. Practical management system auditing training	12	276
5. OSHMS internal auditor training	23	731
Total	159	5,700

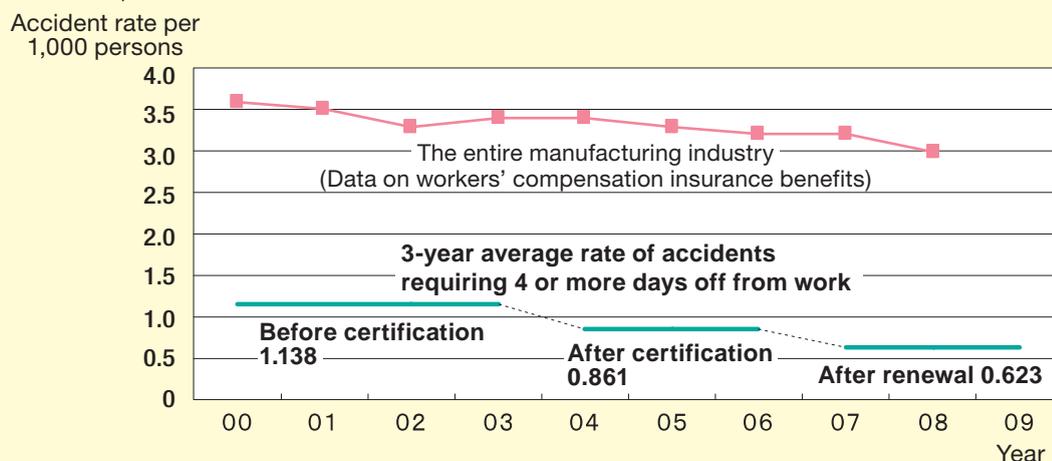
In addition to the training courses shown in the table, JISHA conducted one comprehensive management system training course and 63 on-site training courses.

(2) JISHA OSHMS Standards Certification service

JISHA conducts the JISHA OSHMS Standards Certification service. The certification criteria follow the guidelines of Japan's MHLW and those of the ILO. The certification is based on an investigation that includes whether the management system established at the enterprise is helping to improve the level of safety and health, whether the enterprise's OSHMS has been set up properly, and whether it is being operated appropriately to produce step-by-step improvements in safety and health performance. In fiscal 2010, JISHA certified 35 new enterprises and renewed certification for 57 enterprises, bringing the number of JISHA-certified enterprises to 273. Of these, five are outside Japan—including Taiwan, Thailand and China.

Now that it has been seven years since JISHA started the OSHMS certification service, improvement in the occurrence status of industrial accidents can be seen as the effect of acquiring the OSHMS certification. Figure 1 on the next page shows the change in accident rate per 1,000 persons in 24 JISHA-certified workplaces that have renewed the certification. Despite the fact that they were, even before acquiring the OSHMS certification, of high OSH level with a low accident rate compared with the entire manufacturing industry, as shown in the figure, their three-year average rate of accidents requiring four or more days off from work declined after certification. It further reduced after renewal of certification, which indicates the effect of OSHMS introduction.

Fig. 1: Change in accident rate per 1,000 persons in 24 certified and renewed workplaces that acquired JISHA Certification in 2003 and 2004



* Although the workplaces surveyed acquired certification in two different years, 2003 and 2004, the three-year average rate of accidents requiring four or more days off are shown as the shift of one group, for the sake of expedience.

(3) Enhancement of assistance in risk assessment of chemical substances and of machinery and equipment

JISHA provides a comprehensive set of services relating to chemical substances, ranging from RA to risk reduction measures. Furthermore, it holds a variety of training courses on control of chemical substances. Its other services include assistance in implementing the details of RA, preparation of GHS-compliant MSDS, and analysis and measurement for exposure assessment.

Regarding machinery and equipment, JISHA helps ensure the intrinsic safety of machinery at workplaces through RA and risk reduction measures. The various training courses are arranged so that the trainees can, step by step, study safety techniques that are compliant with the guidelines of the MHLW and international standards and applicable on site.

Upon request from enterprises, JISHA also provides on-site training programs on chemical substances and machinery/equipment.

Table 2 shows the training courses on control of chemical substances and machinery and equipment safety management held in fiscal 2010. In addition, JISHA conducted 11 on-site training courses on control of chemical substances and one on machinery and equipment.

Table 2: Training Courses on Control of Chemical Substances and Safety Management of Machinery and Equipment in Fiscal 2010

Training course	Number of times	Participants
1. Training on chemical substances for line managers and foremen	6	180
2. Training on basic understanding of MSDS	2	59
3. Chemical risk assessment training to prevent explosions and fires	3	56
4. Chemical risk assessment training to prevent health impairment	5	99
5. Training of dioxin operations supervisors	11	624
6. New approach to machinery safety training	18	388
7. Risk assessment practicum on machinery and equipment	5	81
8. Training on machinery and equipment risk reduction techniques	5	81
9. Training on specified self inspection guidelines for power presses	9	453
Total	64	2,021

2. Ensuring Health and Promoting Comfortable Workplace Environments

(1) Physical and mental health promotion for workers

As Japanese society ages, the incidence of so-called lifestyle-related diseases—such as hypertension, diabetes and ischemic heart disease—continues to rise. This tendency reflects not only the safety and health conditions of workplaces but also the lifestyle people have led since their youth, including diet, exercise and habitual behavior, as well as the levels of stress workers have been exposed to. For this purpose, the government revised the Industrial Safety and Health Act in 1988, which stipulates, without penalty, that employers should take steps to maintain and promote the health of their employees, including providing general health education and medical advice. In the same year, the government also launched the Total Health Promotion Plan (THP) for workers, and JISHA started the following projects to promote THP. Figure 2 below shows the flow of the THP programs.



Health care training



Fig. 2: Flow of THP Programs

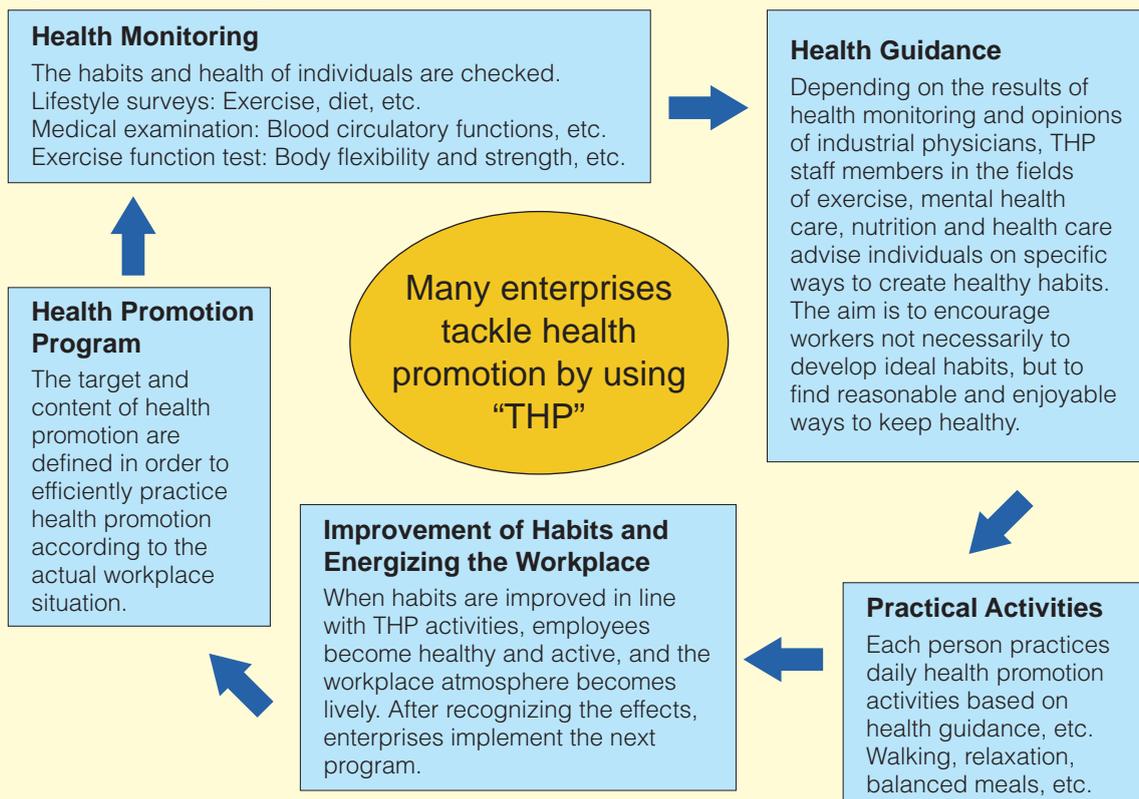


Table 3 below shows the THP training courses conducted in fiscal 2010. Besides the courses shown in the table, JISHA dispatched instructors to enterprises for 99 health promotion training courses conducted upon request.

Table 3: THP Training Courses in Fiscal 2010

Training course	Number of times	Participants
1. THP leader training	26	1,362
2. Dietary improvement instructor training related to specified health guidance	2	29
3. Practical training for improvement	22	1,089
4. Specified health guidance practitioner training for THP leaders	2	98
5. Brush-up seminar	15	624
Total	67	3,202

(2) Mental health measures

In March 2006, the MHLW published the Guidelines for Promoting Mental Health Care of Workers, which outline the principal measures for mental health care that employers are advised to provide. The basic points of mental health measures in the guidelines are establishing, publishing and disseminating policies for mental health measures; preparing a mental health promotion plan; establishing a counseling system; implementing education and training for managers, supervisors and employees; making efforts to improve the working environment; and setting up rules governing how employees who have taken a long leave for a mental health reason can return to work.

JISHA conducts the following seminars to disseminate the guidelines and to make sure they are implemented: in-house mental health promoter training, which helps persons in charge of mental health measures in enterprises comprehensively learn topics ranging from the fundamental points of mental health measures to policies on returning to work, and a seminar for managers and supervisors to learn needed attentive listening skills.

In addition, in order to help workers who have taken a long leave due to mental health problems smoothly return to work, JISHA started return-to-work seminars in 2010 for enterprises to learn how to create a system to support those workers, along with case studies covering the workplace.

Furthermore, upon request from enterprises, JISHA dispatches instructors to the workplace to conduct training on line care for managers and supervisors and on self care for employees.

Table 4 shows the training courses related to mental health held in fiscal 2010. In addition to running the courses shown in the table, JISHA dispatched instructors to enterprises to conduct 525 mental health training courses upon request.

Table 4: Mental Health-related Training Courses in Fiscal 2010

Training Course	Number of times	Participants
1. In-house mental health promoter training	7	432
2. Seminar for managers and supervisors	13	425
3. Industrial health staff seminar	9	265
4. Support for return-to-work seminar	5	333
5. Other mental health-related seminars	23	624
Total	57	2,079

(3) Promotion of comfortable workplace environments

Japan's Industrial Safety and Health Act stipulates, without penalty, that employers should make an effort to create a comfortable workplace environment that induces the least amount of fatigue and stress. The Minister of Health, Labour and Welfare has issued guidelines for measures to be taken by employers to create a comfortable workplace environment.

For the purpose of creating a comfortable workplace environment, employers who submit to a Prefectural Labour Bureau a Comfortable Workplace Promotion Plan can have the plan accredited by the director general of the bureau when appropriate.

The government encourages the accreditation of the plans and conducts a number of programs at the national and prefectural levels to encourage the creation of comfortable workplace environments. JISHA established the National Center for Promoting Comfortable Workplaces, which, upon commission by the government, assists the Prefectural Comfortable Workplace Promotion Centers, undertakes public awareness campaigns, conducts research and educational training programs, and provides counseling.

Table 5 shows the number of plans accredited under this program since its inception. This program finished at the end of March 2011.

Table 5: Accredited Comfortable Workplace Promotion Plans

FY1992-2004	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	Total
20,251	3,210	3,207	3,082	3,088	3,081	3,422	39,341

3. Promotion of Safety and Health Education

(1) A broad arrangement of training and education programs, plus instructor dispatch

To begin with, JISHA offers the Top Seminar on Occupational Safety and Health for top management, which includes lectures on topics such as safety, health and mental health, and the obligation to consider safety based on the concept that safety and health must be ensured first of all by the initiatives of top management. It also provides lectures and information exchanges on a wide range of knowledge and learning for executives to stay abreast of the latest developments. Second, JISHA provides a variety of education and training courses, mainly to help newly appointed safety officers have the practical ability to perform their duties with certainty by acquiring knowledge relating to safety management, safety education, and relevant laws and regulations. Third, it organizes seminars for staff responsible for safety and health, supervisors or foremen to help them learn basic and practical knowledge and techniques that will be useful for their safety and health activities.

In fiscal 2010, JISHA held 228 seminars and training courses, which were attended by 7,170 people (see table 6).

Table 6: Seminars and Training Courses in Fiscal 2010

Training course	Number of times	Participants
1. Top Seminar on Occupational Safety and Health (for executives)	2	91
2. Safety and health management training	50	2,253
3. Education for foremen (including staff responsible for safety and health)	73	1,685
4. Seminars to acquire basic and practical knowledge and skills	103	3,141
Total	228	7,170

(2) Instructor training for safety and health education

Occupational Safety and Health Education Centers were established in Tokyo and Osaka to train trainers, instructors and others who are responsible for safety and health education conducted by enterprises (employers), as well as safety and health advisers and promoters. Both centers were established by the Ministry of Labour (currently the Ministry of Health, Labour and Welfare) and are operated by JISHA.

The Occupational Safety and Health Education Centers distinguish themselves by offering highly practical education under the guidance of experienced experts and offering cutting-edge education facilities, and by providing an environment in which trainees seek to compete against and emulate each other by living communally. The centers conduct a wide variety of training programs including RST, which is the MHLW standard training for safety and health education trainers. After completing the education and training courses, trainees help raise the safety and health levels at enterprises and other organizations not only as trainers and instructors but also as production line supervisors, safety and health staff members, and safety and health consultants.

In fiscal 2010, the Tokyo and Osaka Occupational Safety and Health Education Centers held 173 and 156 training courses, respectively, for a total of 5,917 trainees.

4. Expansion of the Zero-Accident Campaign

JISHA began to advocate the Total Participation Zero-Accident Campaign in 1973 and has been promoting it ever since. The campaign is based on a spirit of respect for human beings that holds that “each person is an indispensable being,” as expressed in three basic principles: (1) “the principle of zero-accidents,” which requires that all kinds of danger in every person’s daily life, not limited to the dangers lurking at workplaces and in jobs, be detected, comprehended, and resolved, and which is aimed at stamping out all accidents including industrial accidents, occupational diseases, and traffic disasters; (2) “the principle of pre-emptive action,” which requires the detection, comprehension, and resolution of all dangers (and problems) hidden in workplaces and in jobs before one starts action and thereby prevents accidents and disasters; and (3) “the principle of participation,” in accordance with which top management, supervisors, staff members, and rank-and-file workers cooperate and act to resolve problems in their respective positions through self-initiated endeavors.

In order to spread and expand the Total Participation Zero-Accident Campaign, JISHA, focusing on the principles of the campaign and techniques for putting those principles into practice, holds the Zero-Accident Campaign Top Seminar for executives, the Zero-Accident Campaign Program Training for line managers and supervisors, the KYT (*Kiken Yochi*, or hazard-prediction, training) Trainer Training, the KYT Training for Medical Care Safety, primarily for safety supervisors at medical institutions, the Traffic KYT Training, primarily for driving safety supervisors, training for line managers on improving coaching skills for strengthening on-site capacity, and KYT training for managers and supervisors in social welfare facilities, such as aged care facilities and facilities for the disabled, for learning KYT through experience.

In the effort to prevent occupational accidents, it is also vital to strengthen on-site capacity—the capability of workers themselves to proactively identify risk factors and other problems that occur in the workplace and then resolve them. To this end, JISHA holds a campaign to enhance capabilities in the field, within the Zero-Accident Campaign framework, emphasizing the introduction of a Zero-Accident Campaign as the first step toward boosting the on-site capacity of everyone in the workplace to think about risks and problems in the workplace from the worker’s perspective, help make sure these issues are understood by all, and take action to resolve them.

What is KYT?

Preventing accidents due to human error and ensuring safety and health on site requires that workplace leaders take the initiative to identify hidden dangers in the workplace and in work tasks, and take action to resolve them. With that purpose in mind, efforts must be made to heighten workers’ sensitivity to danger, foster their powers of concentration and problem-solving abilities, and increase their eagerness to put these skills into practice. This series of activities is called KYT (*Kiken Yochi*, or hazard-prediction, training), which is based on the practice of predicting and resolving hazards.

KYT is carried out in teams based on the following four steps (four-round method):

Step 1: Understanding the situation

Workplace members talk with each other about the kinds of hazards that could be hidden in a given situation.

Step 2: Investigating the nature of the hazard

The essence of each hazard is clearly defined.

Step 3: Establishing countermeasures

Members talk with each other about their ideas for how to deal with the identified hazards.

Step 4: Setting targets

Countermeasures are defined in terms of specific actions to be taken, and action targets are set for each team.

KYT is helpful for effectively implementing risk assessment, which is a core action in occupational safety and health management systems.

In addition to its regular KYT training courses, JISHA dispatches instructors to enterprises and extends guidance in hazard prediction upon request. Aiming to support enterprises' social activities and increase participation in the campaign, JISHA has established a registration system for enterprises which publicly declare their commitment to running a Zero-Accident Campaign. JISHA has been working to increase the number of businesses making that declaration.

Table 7 shows training courses related to the Zero-Accident Campaign and KYT held in fiscal 2010.



KYT seminars



Table 7: Zero-Accident Campaign and KYT Training Courses in Fiscal 2010

Training course	Number of times	Participants
1. Zero-Accident Campaign Top Seminar (for executives)	2	121
2. Zero-Accident Campaign Program Study Course	6	307
3. KYT Trainer Training	130	6,251
4. KYT Training for Medical Care Safety	11	251
5. KYT Training for Safe Driving	6	151
6. Line Manager Coaching Seminar for Strengthening On-site Capacity	4	209
7. KYT Training in Social Welfare Facilities	3	139
Total	162	7,429

5. Provision of Safety and Health Technical Services

(1) Workplace safety and health assessments

Upon request, JISHA's safety and health officers, as safety and health professionals, visit enterprises to conduct safety and health diagnoses. They verify compliance with safety and health legislation, check the status of safety and health management, diagnose problems related to safety and health management of production equipment, processes, work procedures and workplace environments, and provide accurate advice for making improvements. They also accept requests from enterprises to help with their safety and health education based on the diagnosis results.

In fiscal 2010, these professionals conducted 525 safety and health diagnoses, provided 1,047 safety and health education sessions, and gave 407 safety and health lectures.



Working environment measurements



(2) Working environment measurements and medical examinations

JISHA takes measurements to help improve the working environment. Measurements are conducted on dust, organic solvents, specified chemical substances, lead and other metals, which are harmful substances specified by laws and ordinances, and noise, intensity of illumination for VDT work, and velocity control of local exhaust ventilation systems, as well. JISHA also provides support for improving the working environment, including suggesting improvement measures based on measurement results and inspecting local exhaust ventilation systems.

In addition to general medical examinations, JISHA implements special medical examinations relating to such matters as harmful chemical substances, vibration, noise, and VDT work. Physicians and other professional staff members, based on the medical examination results, provide advice on ways of managing overall health that take into consideration work conditions and working environment conditions.

JISHA conducts analyses of toxic substances and their metabolites in biological samples such as urine, blood, and hair, as well as analyses of airborne and material-embedded free silicic acid (free silica) and

asbestos, and airborne toxic substances including metals and organic solvents. Upon request, JISHA also conducts analyses, investigations, research, and counseling on a large range of non-regulated chemical substances and develops sampling and analysis methods.

Table 8 shows the working environment measurements and other technical services provided in fiscal 2010.

Table 8: Working Environment Measurements and Other Technical Services in Fiscal 2010

Services	Cases
1. Working environment measurement	1,203 enterprises
2. Biological sample analyses	16,808 samples
3. Non-biological sample analyses	6,377 samples
4. Analyses and measurement of asbestos (in raw materials, construction materials, and airborne)	74 samples
5. Special medical examinations	7,183 people
6. General medical examinations	4,752 people
7. Dispatch of industrial physicians to enterprises	268 times (11 enterprises)
8. Certification training for industrial physicians	11 times (1,335 physicians)



Analytical measurements



Medical examination

6. International Cooperation

(1) Exchanges with safety and health organizations abroad and provision of safety and health information

JISHA engages in international exchanges with OSH organizations abroad. These exchanges take the form of the acceptance of overseas guests on an ad hoc basis and participation in international conferences, including meetings of ILO/CIS national centers and annual conferences of the Asia Pacific Occupational Safety and Health Organization (APOSHO).

JISHA gathers safety and health information from the United States, Asian and European countries and provides this information in Japanese in the form of global topics via its website. JISHA also provides information in English for people outside Japan on its own activities.

(2) Technical assistance to developing countries

JISHA conducts a seminar on occupational safety and health once a year to provide technical assistance to OSH organizations outside Japan. On commission from the Japan International Cooperation Agency (JICA), JISHA conducts seminars on policy improvement of industrial safety and health, and on working environment control for occupational disease prevention, which are both group training courses, and provides support for country-specific technical assistance projects in China and Malaysia. JISHA also holds seminars and workshops commissioned by the MHLW.

In addition, JISHA accepts requests from abroad to dispatch experts overseas or to receive and arrange customized study tours in Japan.

International cooperation programs conducted during fiscal 2010 are introduced in detail in Appendix 5.

7. Assistance to Small and Medium-sized Enterprises for Safety and Health Measures

On commission from the Ministry of Health, Labour and Welfare, JISHA conducts the “Tampopo (Dandelion) Project,” which provides assistance for group-based safety and health activities.

The Tampopo Project provides comprehensive financial and technical assistance for three years to support the safety and health activities of groups—mainly comprised of small enterprises with less than 50 workers—and their member enterprises. The types of assistance provided are indicated below. In fiscal 2010, assistance was provided to 172 groups (with a total of 3,380 enterprises).

- (1) Guidance and advice by experts on safety and health activities
- (2) Supply of group activity funds necessary for the implementation of safety and health activities by the registered groups
- (3) Five safety and health services for member enterprises:
 - Safety and health diagnoses
 - Safety and health education
 - Specified self inspections
 - Special medical examinations
 - Working environment measurements

JISHA also runs the Zero-Accident Certification Program for SMEs and promotes projects for disseminating and establishing OSHMS and risk assessment systems at SMEs.

8. Production and Distribution of Publications and Other Items and Provision of the Latest Safety and Health Information

(1) Production and distribution of periodicals, books, posters, and other items

JISHA produces and distributes two monthly magazines, *Anzen to Kenko* (“Safety & Health”) for safety and health staff and managers and *Anzen-Eisei no Hiroba* (“Safety and Health Plaza”) for workplace leaders, and a quarterly journal, *Kokoro to Karada no Oashisu* (“Mental and Physical Oasis”) for the tertiary industry. It also produces and distributes two semimonthly publications, *Anzen-Eisei Tsushin* (“Safety and Health News”), a bulletin of safety and health information, and *Anzen-Eisei Kabeshimbun* (“Safety and Health Wall Newspaper”), using illustrations to explain points of safety and health measures.

Additionally, JISHA produces and distributes approximately 370 textbooks, JISHA paperbacks, and other publications on the theme of safety and health. The following are just some examples of these. In all, nearly 2.62 million copies were issued in fiscal 2010.

Main types of books (all in Japanese):

- Textbooks for obtaining qualifications and the like: *Forklift Operator Manual*, etc., for skill training courses, *Divers’ Manual*, etc., for license examinations, and *Prevention of Oxygen Deficiency and Related Conditions*, etc., for special educational topics
- Books relating to laws and ordinances: *Directory of Safety and Health Legislation*, which contains information on the Industrial Safety and Health Act and related ministerial order, and *Explanation of the Ordinance on Prevention of Health Impairment due to Asbestos*, etc., which explains specific laws and ordinances and guidelines, etc.
- Books useful when safety and health personnel and managers implement safety and health activities: *Practice! Occupational Safety and Health Management Systems*, *The Top Manager’s Guide to Safety and Health*, *Safety and Health Staff Manual*, and *Mental Health Measures in the Workplace*, etc.
- Illustrated pamphlets for workers that clearly explain the prevention of work accidents: *No More Getting Caught or Trapped in Equipment*, and *Danger Ahead: Handling and Transport Work*, etc.
- JISHA paperbacks that explain safety and health topics in a reading material presentation: *Museum of Accidents and Disasters*, and *The Zero-Accident Campaign Changed Our Company*, etc.

JISHA produces and sells numerous books, posters, and other items related to such campaigns as the National Safety Week and the National Occupational Health Week, the Year-End and New-Year Zero-Accident Campaign, a campaign to promote safety & health education for new employees and to facilitate communication, and campaigns for the prevention of heat stroke and the strengthening of on-site capacity.

Every year, JISHA issues the *General Guidebook on Industrial Safety* before the National Safety Week and the *General Guidebook on Industrial Health* before the National Occupational Health Week as books that provide guidelines for activities at enterprises.

All these publications, posters, and other items are available at JISHA's Publishing and Sales Department, Regional Safety and Health Service Centers, and prefectural branches.

(2) Provision of information via the Internet and other information-related activities

The Japan Advanced Information Center of Safety and Health (JAISH) provides information on its website (<http://www.jaish.gr.jp>), about matters from laws to ministerial notices, as well as occupational accident statistics, and safety and health videos. The website also introduces a variety of case studies of fatal and other serious occupational accidents including their status of occurrence, causes, and countermeasures, case studies of near-miss accidents, case studies of accidents as seen in pictures, and case studies of accidents caused by chemical substances. Other useful case studies include examples of ingenuity and improvements, examples of creating comfortable workplaces, and anti-smoking measures. The site also provides information organized under certain themes such as safety and health for newcomers and how to prevent heat stroke. As for risk assessment, JAISH has made a system available via the Internet since fiscal 2009 that enables users to easily estimate risks in 11 types of work or industries mainly in the manufacturing sector, including product assembly. In fiscal 2010, 15 types of work were added to this estimate system, including sling work by mobile crane in the construction industry. Website users can also view information on the nearly 60,000 chemical substances published in accordance with Japan's Industrial Safety and Health Act as well as GHS-compliant MSDS for approximately 2,400 substances.

In fiscal 2010, the JAISH website was accessed a total of 32.48 million times.

Additionally, JAISH offers a service called one-card recording service that integrates on one card the records of all the skill-training course certificates held by workers in the construction, manufacturing and other industries concerned. JAISH maintains data on those who have finished skill-training courses. In fiscal 2010, a total of 862,419 entries were added to the database, bringing it to more than 38.65 million records. The one-card recording service at JISHA ended at the end of March 2011.

Part of the information on the JAISH website has been provided and updated on the website of the MHLW since April 1, 2011.



Risk Assessment Implementation Support System

(3) Operation of Safety Museums and Safety Theaters

JISHA's Safety Museums in Tokyo and Osaka are the only establishments in Japan that have exhibits relating to occupational safety and health for study in general: namely, exhibits on safe machinery operation, prevention of fires from explosions, prevention of construction accidents, asbestos, protective equipment, and other topics.

The Safety Theaters in Tokyo and Osaka are well suited to safety and health education and training for workers. Visitors can view images of safety patrols in many different work scenarios and images that draw on examples of serious occupational accidents that actually occurred and examples of near-misses. Visitors can also watch safety and health videos (the collection has 355 titles) on a large screen and learn about dangerous situations and the status of occurrence of accidents.

Additionally, special exhibitions are held on important issues and urgent challenges in safety and health. They include risk assessment using the Internet and workplace improvement that takes aged workers into consideration.

The Safety Museums received 62,494 visitors and the Safety Theaters received 7,905 visitors in fiscal 2010. The Safety Museums and Safety Theaters were closed at the end of March 2011.

9. National Events and Campaigns

(1) National Industrial Safety and Health Convention and other events

Every autumn, JISHA holds the National Industrial Safety and Health Convention. The Convention was initiated in 1932, and in recent years it has been attended by approximately 10,000 corporate safety and health personnel and other interested persons from across Japan. The convention includes awards and other ceremonies, presentations of research findings and case studies on occupational safety and health activities undertaken by different workplaces, lectures and symposia (see Table 9). Convention attendees can learn the latest OSH-related information and knowledge, and OSH-related practical experience from other enterprises.

In fiscal 2010, the 69th convention was held over three days in October in Fukuoka City, Fukuoka Prefecture, attended by about 11,500 people.

Concurrent with the National Industrial Safety and Health Convention, JISHA holds the Green Cross Exhibition and Comfortable Workplace Forum. The Green Cross Exhibition, a fair meant to develop workers' sense of security, is the largest exhibition of safety and health equipment and devices in Japan, offering techniques and information relating to safety and health management in all kinds of workplaces and working environment improvement. The Comfortable Workplace Forum includes lectures and presentations on exemplary workplaces that are striving to create comfortable working environments.

Table 9 gives a program summary of the fiscal 2010 convention.



National Industrial Safety and Health Convention

Table 9: Convention Program

General Assembly	Opening ceremony, awards ceremony, convention declaration, lectures, and special lectures
Group meetings	Risk assessment/management system group meeting
	Safety management activity group meeting
	Safety and health education group meeting
	Machinery and equipment safety group meeting
	Small and medium-sized enterprise group meeting
	Chemical substance management group meeting
	Zero-accident campaign group meeting
	Traffic safety group meeting
	Occupational health management activity group meeting
	Health promotion group meeting
Mental health group meeting	
Simultaneously held events	Green Cross Exhibition 2010
	Comfortable Workplace Forum 2010

(2) National safety and health campaigns

Together with the MHLW, JISHA holds campaign activities every year during the National Safety Week (first seven days of July) and the National Occupational Health Week (first seven days of October). In the month prior to each, as a preparatory period, awareness campaign activities are conducted.

Ongoing since 1926, the 83rd National Safety Week was marked in 2010. The National Safety Week is targeted as an opportunity to roll out a campaign aimed at deepening awareness of industrial accident prevention and encouraging the steady implementation of safety activities in each workplace.

Continuing since 1950, the 61st National Occupational Health Week was observed in 2010. This week is designed as a chance to promote efforts to ensure and advance the health of workers and to create comfortable workplaces.

Additionally, JISHA holds a Year-End and New-Year Zero-Accident Campaign for one month and a Heat Stroke Prevention Campaign for four months from May to August. It also rolls out campaigns to promote safety and health education for new employees, to facilitate communication, and to strengthen on-site capacity.

10. Research and Surveys

In response to changes in the environment that companies are facing such as evolving industrial structure or employment patterns, JISHA conducts research and surveys on both the status quo and the ideal form of safety and health management.

The results of the research and surveys are published on the Internet and in various publications. These results are also utilized in safety and health education or when providing guidance, etc.

The main research and surveys conducted in fiscal 2010 are shown in Table 10.

Table 10: Research and Survey Topics in Fiscal 2010

1. Research and surveys relating to good safety and health measures and practices in various specialty stores with a view toward the future safety and health of people who work in retail
2. Research and surveys relating to effective procedures with risk assessment in the food-processing industry
3. Research and surveys on the effect that the effort for OSH improvement has had on business performance of enterprises

11. Industrial Safety Campaign Century Project

As the secretariat of the Industrial Safety Campaign Century Project Committee, JISHA implements active public relations through various media, including producing and distributing leaflets and brochures, as well as creating a website, for the purpose of disseminating information on the events commemorating the 100th anniversary of the start of industrial safety movement in Japan. As a member organization of the said committee, JISHA is working on producing commemorative publications titled, *Occupational Disease and Working Environment* and *History of Industrial Safety and Health Movement—100 Years since Safety First*. It also contributes a series of articles and feature stories to monthly magazines such as *Anzen to Kenko* (“Safety and Health”) and *Anzen-Eisei no Hiroba* (“Safety and Health Plaza”).

12. Japan Bioassay Research Center

The Japan Bioassay Research Center, founded in 1982, conducts animal studies (with rats and mice) to investigate the single dose toxicity (acute toxicity), short-term (28-day, 2-week, and 13-week) repeated-dose toxicity, chronic toxicity, reproductive and developmental toxicity, and carcinogenicity of chemical substances administered via inhalation and orally.

The center features technologies to conduct inhalation exposure studies on chemical substances that appear in the form of a gas, mist, or particles as well as short-term and long-term inhalation devices (see photos in the appendix), which make it a large-scale testing facility without parallel anywhere in the world. It is important to understand the inhalation toxicity of chemical substances because there are many opportunities for exposure to chemical substances through inhalation from the ambient air in the general environment and in workplace environments. Given the urgent need to confirm the safety of nanoparticles and asbestos substitutes, the center recently started to develop exposure technologies for these materials. Thus far, the center has conducted carcinogenicity tests (including 2-week and 13-week repeated-dose preliminary tests) on more than 40 chemical substances, whose results have been published in scientific papers and other forms,^a and have been rated highly worldwide.

The center also conducts mutagenicity studies using microorganisms, chromosome aberration studies using mammalian cell cultures, micronucleus studies using rodents, and other studies to screen for carcinogenicity. It has developed effective mutagenicity testing technologies for gaseous substances and volatile substances to which its animal inhalation exposure technologies are applied (see photos in the appendix). These technologies have been used in the center’s genetic toxicity studies, which have produced numerous study achievements.

All studies conducted by the center are performed in compliance with Good Laboratory Practice (GLP) standards.

Appendix 11 shows the commissioned studies, the number of studies conducted in fiscal 2010, and pictures of the equipment.

a) See the JISHA website (<http://www.jisha.or.jp>) for information on test results. One of many published papers: K. Nagano, T. Sasaki, Y. Umeda, T. Nishizawa, N. Ikawa, H. Ohbayashi, H. Arito, S. Yamamoto and S. Fukushima. “Inhalation carcinogenicity and chronic toxicity of carbon tetrachloride in rats and mice,” *Inhalation Toxicology* 19: pp. 1089-1103, 2007.

Appendices

Appendices

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Membership



JISHA Members and Associate Members (March 2011)

Notes

1) Five Industrial Accident Prevention Associations

- Japan Construction Occupational Safety and Health Association
- Japan Land Transportation Industry Safety and Health Association
- Japan Port Transport Industry Safety and Health Association
- Japan Forestry and Timber Manufacturing Safety and Health Association
- Japan Mining Safety and Health Association

2) Nationwide Employers' Organizations

There are 55, including:

- Japan Business Federation
- The Japan Iron and Steel Federation
- The Federation of Electric Power Companies Japan
- The Japan Electrical Manufacturers' Association
- Japan Petrochemical Industry Association
- Japan Chemical Industry Association
- The Shipbuilders' Association of Japan

3) “Prefectural Safety and Health Promotion Organizations” are established in each prefecture under the authorization of the Director of the Prefectural Labour Bureau. There are 48 such organizations.

4) Other Organizations Engaged in Industrial Accident Prevention Activities

There are 16, including:

Japan Boiler Association

Japan Crane Association

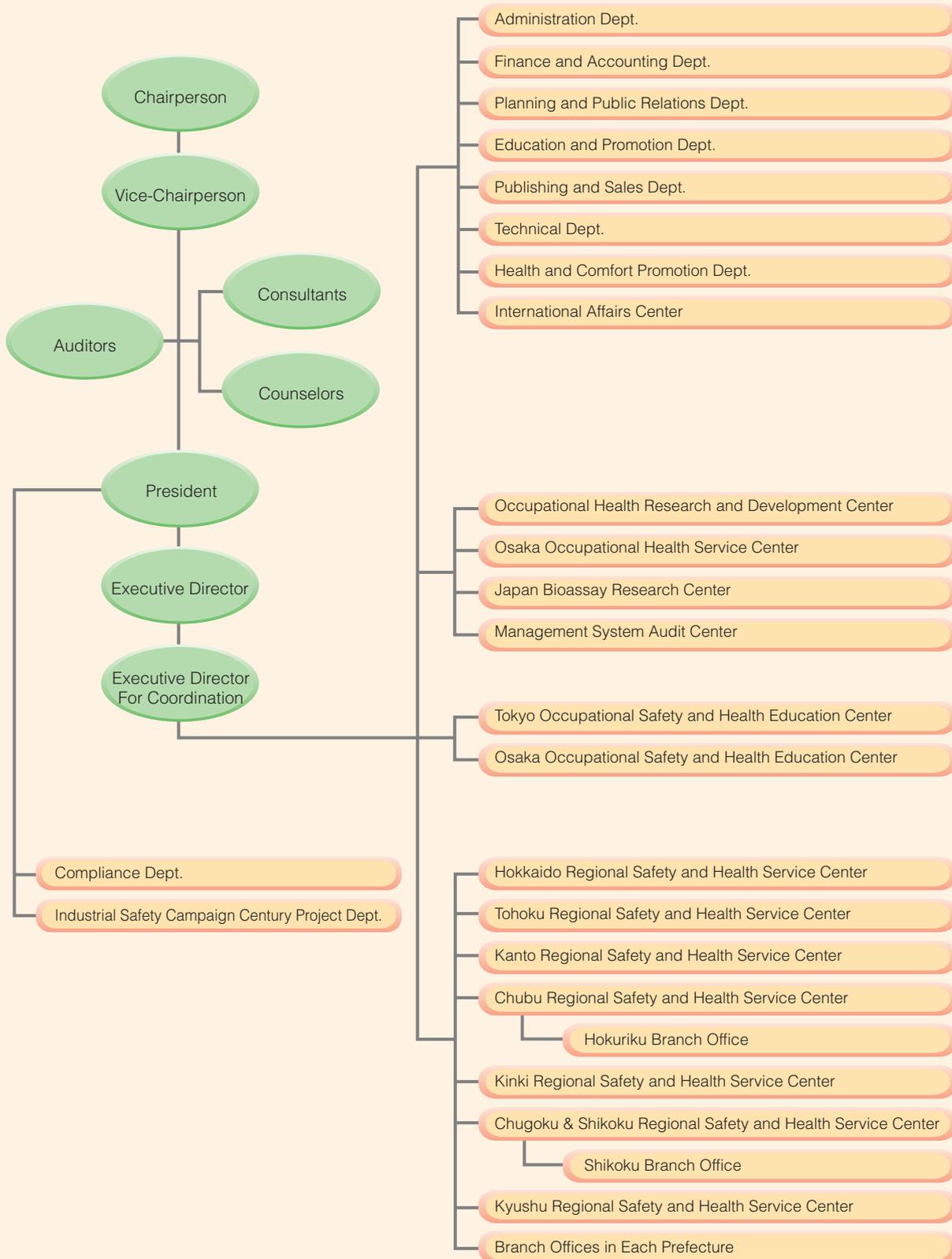
Japan Association of Safety and Health Consultants

5) Associate Members, by Industry

(As of March 31, 2011)

Industry	Number	Industry	Number
Agriculture	0	Metal products	187
Forestry	0	General machinery	212
Fishery	1	Electrical machinery	327
Mining	12	Transport machinery	235
Construction	590	Precision instruments	54
Foods	239	Other manufacturing	243
Textiles	41	Electricity, gas and water	98
Lumber and furniture	25	Transport	238
Pulp and paper	100	Finance and insurance	19
Publishing and printing	71	Telecommunications	112
Chemicals	438	Labour unions	29
Coal and petroleum	79	Public sector	75
Rubber	50	Others	219
Ceramics, clay and stones	96	Services	743
Iron and steel	141	Medicine and public health	222
Nonferrous metal	80	Total	4,976

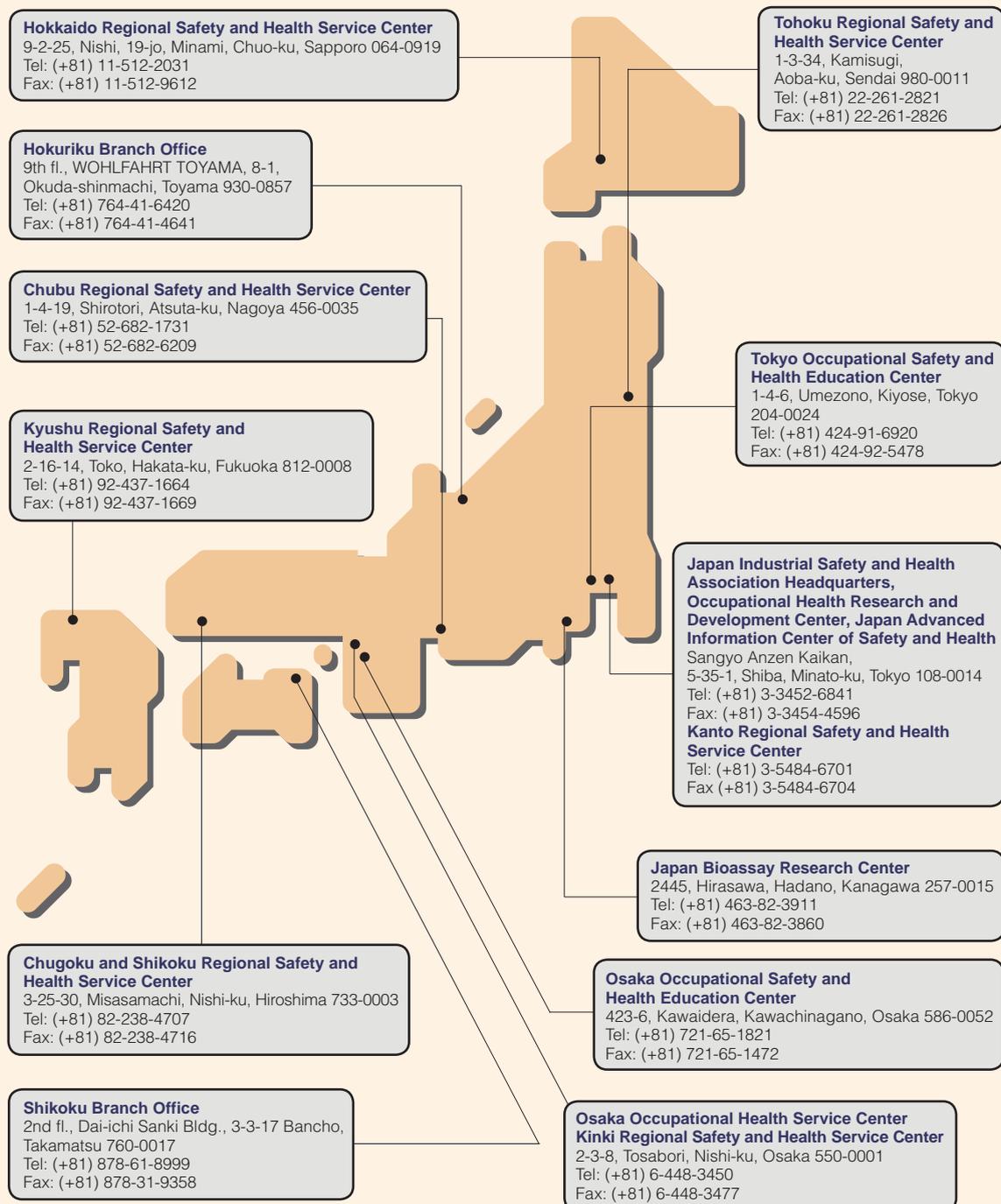
JISHA Office Organization Chart



(as of October 2011)

JISHA Office Locations

JISHA operates Occupational Safety and Health Education Centers in Tokyo and Osaka, the Occupational Health Research and Development Center, the Osaka Occupational Health Service Center, and seven Regional Safety and Health Service Centers and two branch offices. All of these Regional Centers offer technical advice, conduct working environment measurements, organize seminars and sell books and other JISHA materials. This map shows the location of JISHA facilities throughout Japan.



(as of November 2011)

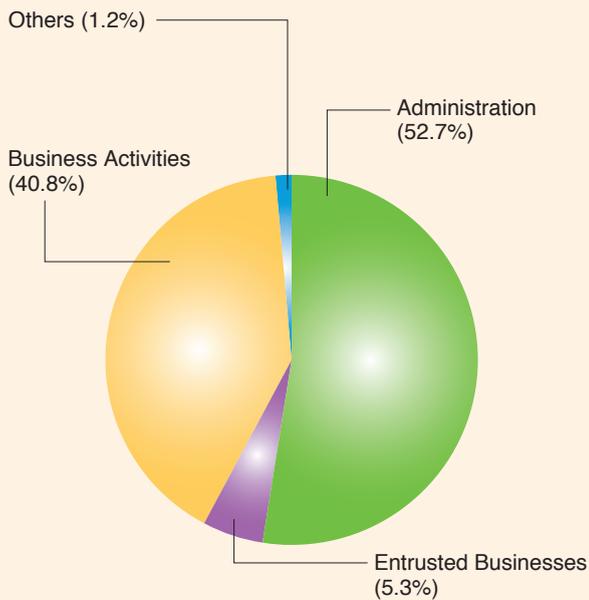
Budget

Changes in Budget

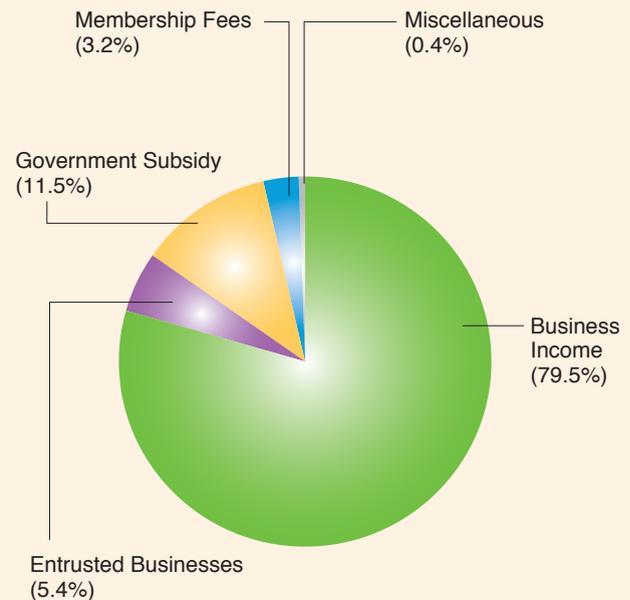


Expenditure and Income for FY2011

EXPENDITURE



INCOME



FY2010 International Cooperation Activities

1) Promotion of Exchanges with Overseas Safety and Health Organizations

Mission	Overview
Dispatching JISHA's own executives and employees overseas	<ul style="list-style-type: none"> • Speech at the 25th Annual Conference of the Asia Pacific Occupational Safety and Health Organization (APOSHO) (2 participants, Mauritius, Apr. 16–23, 2010) • Speech at the General Meeting of Industrial Safety and Health Association of Taiwan, ISHA, celebrating the 50th anniversary of ISHA (Taiwan, May 14–17, 2010) • Speech at the National Safety Week Convention organized by the Taiwanese Council of Labor Affairs (Taiwan, July 5–8, 2010) • Speech at the Seminar on CSR in OSH organized by the Occupational Safety and Health Council, OSHC, Hong Kong (Hong Kong, Feb. 27–Mar. 1, 2011)
Receiving visitors and study groups from overseas	<ul style="list-style-type: none"> • University students from Germany (2 persons, June 7, 2010) • Group of professors and students, Hong Kong Polytechnic University (14 persons, June 23, 2010) • Officer, National Fire Agency, Ministry of Interior, Taiwan (1 officer, Aug. 4, 2010) • Professor, Korean Chunju University (1 professor, Aug. 26, 2010) • Secretary General, ISSA Mining Section, Germany (Aug. 27, 2010) • Study mission of a group of OSH staff in employers' associations in developing countries sponsored by the Association for Overseas Technical Scholarship (20 persons, Sept. 10, 2010) • Group of trainees on JICA training course received upon commission by the University of Occupational and Environmental Health, Japan (4 trainees, Sept. 22, 2010) • Group from Occupational Safety and Health Council, Hong Kong (3 persons, Sept. 28, 2010)

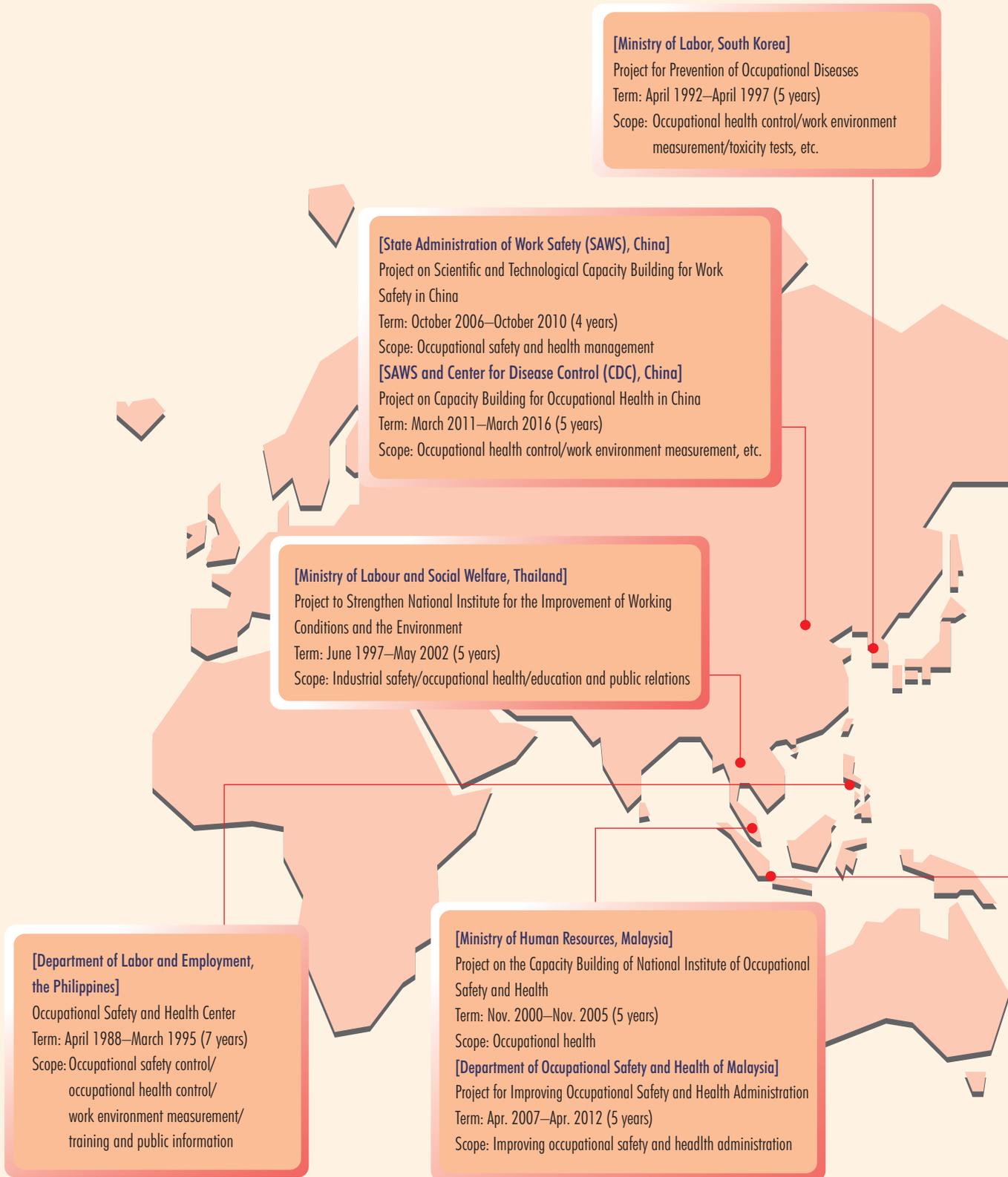
2) Technical Cooperation with Developing Countries

Name of Project	Project Outline
a. JISHA OSH Seminar	A training program for 10 trainees from overseas (Feb. 16–22, 2011) (Theme: Management of Chemical Hazard and OSHMS in Japan)
b. Other Seminars	<ul style="list-style-type: none"> • Study mission of OSHC, Hong Kong on Construction Safety (20 trainees, May 24–28, 2010) • Dispatch of an expert to the KYT Seminar organized by AISOHMEX, A.C. (Mexico, July 27–29, 2010) • Study mission of Institute for Certification of Competencies on OSH, ICCOSH, Indonesia on Risk Assessment concerning Machinery Safety and Control of Chemical Substances (6 trainees, Nov. 29–30, 2010) • Study mission of Taiwan officials on the Administrative Division and Practice of GHS in Japan, sponsored by JICE (5 trainees, Oct. 8, 2010) • Study mission of ILO/Japan Fellowship Training to Improve OSH in SMEs, consisting of Vietnamese government officials, etc. (21 trainees, Oct. 26, 2010) • Study mission of Kuwait government officials on industrial safety sponsored by JICE (10 trainees, Nov. 30, 2010)
c. Support for JICA technical cooperation projects	<p>Project on Scientific and Technological Capacity Building for Work Safety in China</p> <ul style="list-style-type: none"> • Short-term expert dispatched (2 experts: the fields and periods shown below) Machinery risk assessment (May 16–22, 2010) Technical cooperation project final wrap-up session (Sept. 13–15, 2010) • Trainees received in Japan Enterprise safety (zero accidents) (2 trainees, June 8–July 14) <p>Project for Improving Occupational Safety and Health Administration of Department of Occupational Safety and Health of Malaysia</p> <ul style="list-style-type: none"> • Short-term expert dispatched Control of Working Environment (Mar.20–26, 2011) • Trainees received in Japan Measures to assist SMEs and OSHMS (2 trainees, Feb. 16, 2011) <p>Project on Capacity Building for Occupational Health in China</p> <ul style="list-style-type: none"> • Expert dispatched for Detailed Planning Survey on the project (Oct. 31–Nov. 9, 2010)
d. Implementation of JICA training	<ul style="list-style-type: none"> • Implemented Seminar on Working Environment Control for Occupational Disease Prevention (8 trainees, June 7–July 30, 2010) • Implemented Seminar on Policy Improvement of Industrial Safety and Health (12 trainees, Sept. 24–Oct. 22, 2010)
e. Safety and health seminars in Japan and overseas commissioned by MHLW	<p>Held an international safety and health seminar (Jan. 25–27, 2011)</p> <p>22 participants from 10 ASEAN countries, China and South Korea; Theme: Risk Assessment</p> <p>Dispatch of experts to a workshop held in the Philippines (Feb. 22–25, 2011)</p> <p>Theme: Safety and Health Management System for Small and Medium Industries: Practices in ASEAN</p>

3) Collecting and Providing Information to Domestic and Overseas Users

- Provision via website
- *JISHA Annual Report 2010*, issued in December 2010

Project-type Technical Cooperation



(ODA) in Which JISHA Was Involved



[Department of Human Resources, Indonesia]
Project to Enhance Education and Training of Industrial Safety and Health
Term: Nov. 1995–Nov. 2000 (5 years)
Scope: Development of curricula, teaching materials, etc., for occupational safety and health education

[Ministry of Health, Brazil]
Mini-Project for Occupational Health
Term: Sept. 1995–Aug. 1998 (3 years)
Scope: Work environment control/ occupational health control

Countries That Have Sent Participants the Support of JICA (FY1974–2010)



to Seminars Conducted by JISHA with



JISHA English Publication List

1. Periodicals

Annual Report

2. Books

General Guidebook on Industrial Health 2004	¥5,000
House Keeping at Work	¥300
Safety and Health Training for Newcomers	¥630
How to Prevent Lumbago	¥3,500
A Guide to Safety in Press Work for Press Operators	¥1,000
A Guide to Safety in Casting for Foundry Workers	¥1,000

3. Photocopies of Books (¥105 per page)

(1) Manuals on Safety and Health

Safety Assessment
Explanation of Guide for Periodic Voluntary Inspection of Local Exhaust Ventilating Systems and Dust Collectors
How to Establish a Safety and Health Improvement Programme (for Special Guidance on Safety Control)
How to Establish a Safety and Health Improvement Programme (for Special Guidance on Industrial Health Preservation)
Safety Control Handbook
Case Studies of Industrial Injuries and Countermeasures
Fundamental Knowledge of Industrial Hygiene for Working Environmental Experts
Sampling of Harmful Substances
Industrial Hygienist Technical Course (1)–(4)
Practical Handling of Analyzing Instruments for Working Environment Measurement
Examples of Occupational Injury
Text for RST Trainers
Important Points in Drawing Up Guidance Sheets for RST Education
List of RST Sheets for Construction Work
Promoting Safety and Health Education within a Company
Text for Construction Engineers
Report Concerning the Construction Industry
Guidelines for Lining Work in Tunnels; Safety Work Standards Regarding Construction Machinery Used in Tunnels

Work Guidelines for Tunnel Excavation: Rock Tunnels

Work Guidelines for Tunnel Excavation: Shield Tunnels

Tunnel Excavation Safety Guide: Ground Excavation

Tunnel Excavation Safety Guide: Cut and Cover Tunnel

Tunnel Excavation Safety Guide: Earth Support System for Cutting

Information Regarding Work at MRT Construction Sites

Safety and Health Administrative Guidelines in the Shipbuilding Industry

The Ninth Industrial Accident Prevention Plan

(2) Safety and Health Textbooks (Educational Textbooks)

Safety and Health Training of Newcomers: Instructor's Manual

Gas Welding

Safety Manual for Arc Welding

Press Operator's Safety Handbook

Safety Manual for Grinders

Handling Electricity

Necessary Knowledge Regarding Industrial Robots

Health Administration Henceforward

(3) Zero-Accident Books

Identifying Occupational Safety Hazards
—A Compilation of Promotional Methods for Training in Prediction of Potential Hazards with Illustrated Situation Sheets [1]

Identifying Occupational Safety Hazards
—TBM-KY Procedure and Model Sheets Education [2]

Identifying Occupational Safety Hazards
—The Short-Term KY Method and Model Sheets [3]

What Work Instructions Would You Give?
—Work Instructions Training Procedures and Model Sheets [4]

Identifying Occupational Safety Hazards
—New KYT Procedure and Model Sheets Edition [5]

The Story of New KYT

Building The Zero-Accident Campaign with Total Participation
—A Guide for Formulating Plans for Zero-Accidents

Are You Practicing Short-Time Danger Prediction Training?

Are You Practicing Finger Pointing and Call?

The Zero-Accident Campaign: "We Are Glad We Did It!"
—Everyone Takes Part to Achieve Zero-Accidents

New KYT: New Small Group Activities 5 Minute Zero-Accident Meeting

Websites

Japan Industrial Safety and Health Association (JISHA):

<http://www.jisha.or.jp/>

Japan Advanced Information Center of Safety and Health (JAISH):

<http://www.jaish.gr.jp/>

JISHA

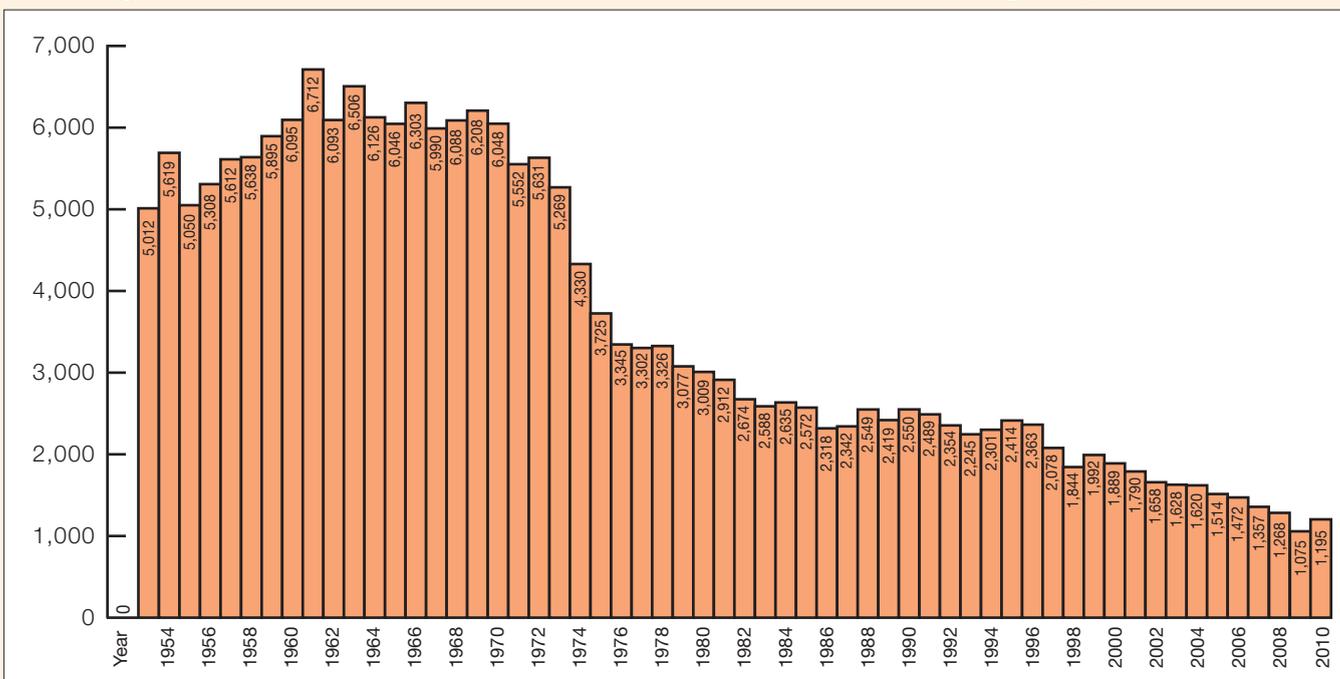


JAISH

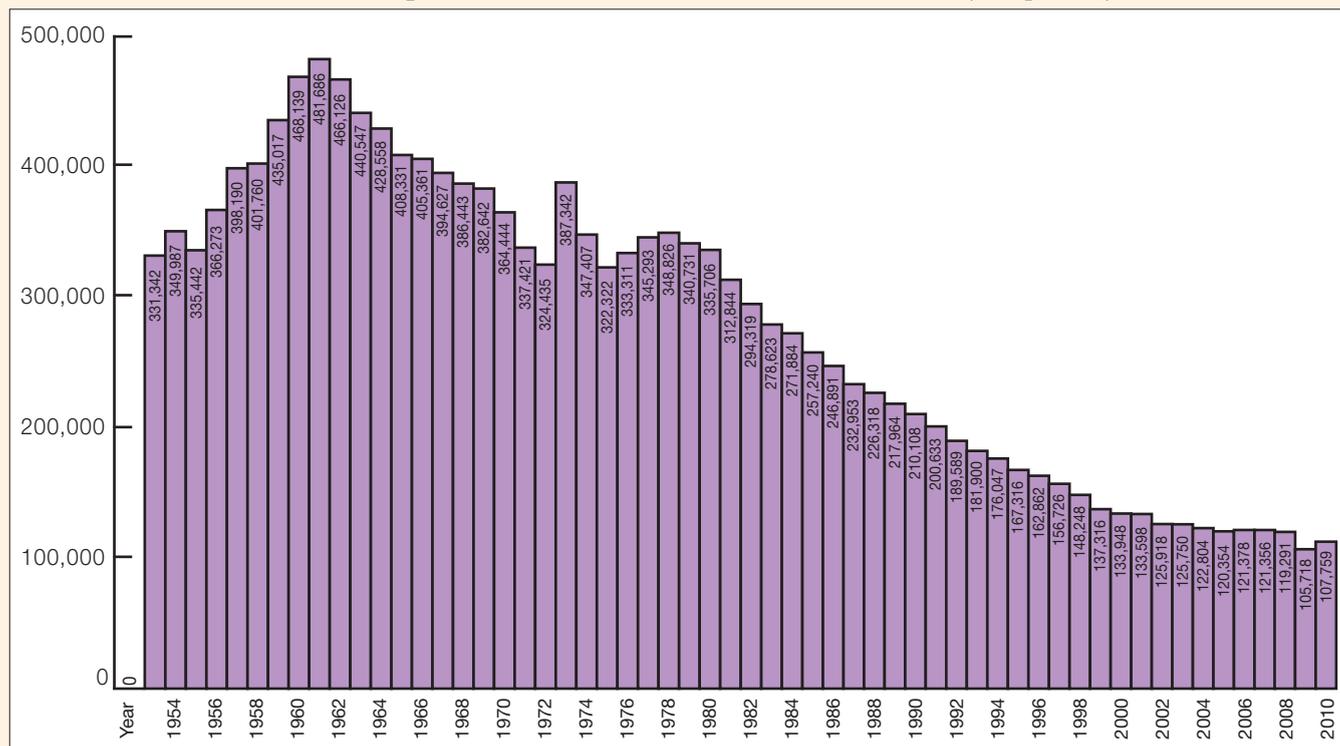


Statistics

Change in Number of Deaths in All Industries (Japan)



Change in Number of Deaths and Injuries Requiring an Absence of 4 Days or More in All Industries (Japan)

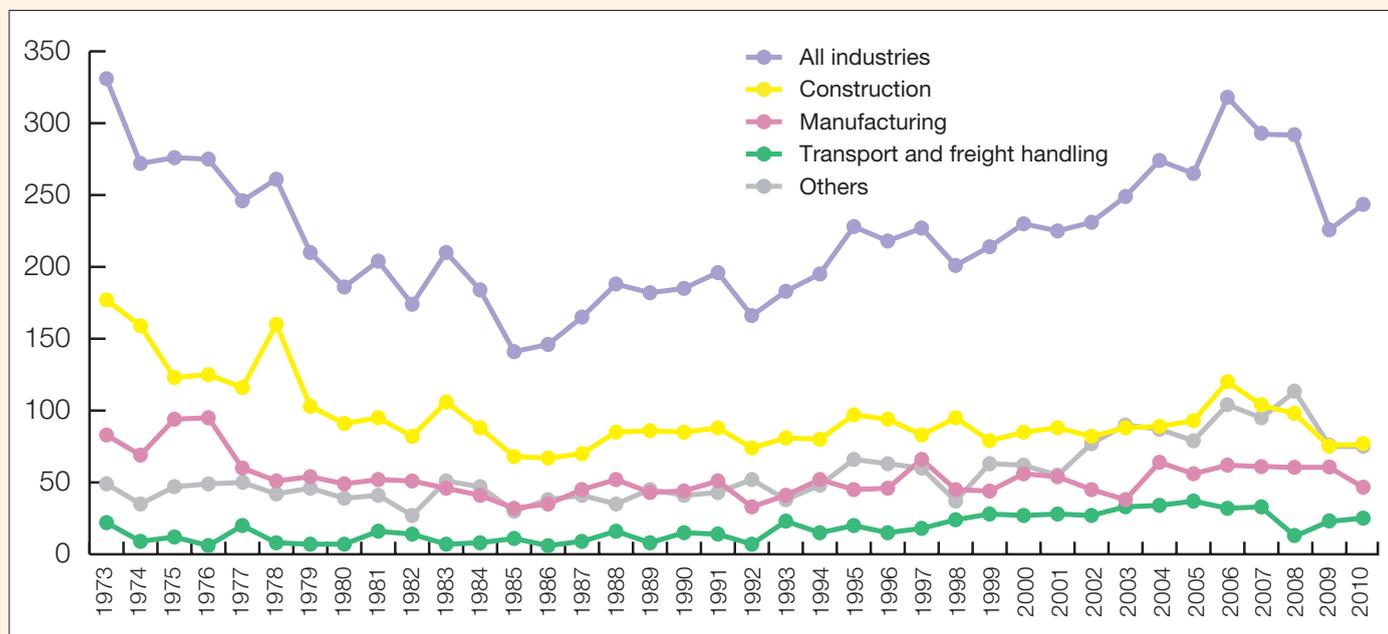


Note: The figures for 1972 and before indicate the number of deaths and injuries requiring an absence of 8 days or more.

Change in Serious Industrial Accidents by Industry (Japan)

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
All industries	331	272	276	275	246	261	210	186	204	174	210	184	141	146	165	188	182	185	196
Construction	177	159	123	125	116	160	103	91	95	82	106	88	68	67	70	85	86	85	88
Manufacturing	83	69	94	95	60	51	54	49	52	51	46	41	32	35	45	52	43	44	51
Transport and freight handling	22	9	12	6	20	8	7	7	16	14	7	8	11	6	9	16	8	15	14
Others	49	35	47	49	50	42	46	39	41	27	51	47	30	38	41	35	45	41	43

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
All industries	166	183	195	228	218	227	201	214	230	225	231	249	274	265	318	293	281	228	245
Construction	74	81	80	97	94	83	95	79	85	88	82	88	89	93	120	104	93	75	87
Manufacturing	33	41	52	45	46	66	45	44	56	54	45	38	64	56	62	61	58	55	49
Transport and freight handling	7	23	15	20	15	18	24	28	27	28	27	33	34	37	32	33	13	21	24
Others	52	38	48	66	63	60	37	63	62	55	77	90	87	79	104	95	117	77	85



Note: "Serious industrial accident" signifies an accident resulting in three or more deaths and/or injuries at a time.

Commissioned Studies and Number of Studies Conducted by the Japan Bioassay Research Center

1) Commissioned studies

<ul style="list-style-type: none"> ● Toxicity studies using rats and mice <ul style="list-style-type: none"> • Single dose toxicity studies (acute toxicity studies) • Repeated dose (28-day, 2-week, and 13-week) toxicity studies • Chronic toxicity studies • Carcinogenicity studies • Combined chronic toxicity/carcinogenicity studies • Reproductive and development toxicity studies <ul style="list-style-type: none"> • Combined repeated dose toxicity/reproductive and development toxicity studies • Single generation reproduction studies • Uterotrophic bioassays in rodents • Hershberger bioassays in rats • Others
<ul style="list-style-type: none"> ● Mutagenicity assays (the technological level applicable for commission for gaseous substances and volatile substances) <ul style="list-style-type: none"> <i>in vitro</i> studies <ul style="list-style-type: none"> • Mutagenicity assays using microorganisms / reverse mutation assays using bacteria / Ames test • Chromosomal aberration assays using cell cultures • Cytotoxicity assays using cell cultures • Mouse lymphoma TK assays • Micronucleus assays using cell cultures • Transformation assays • Others <i>in vivo</i> studies <ul style="list-style-type: none"> • Bone-marrow micronucleus assays using rodents • Liver micronucleus assays using rodents • Testis micronucleus assays using rodents • Transgenic rodent mutation assay

2) Number of studies conducted (fiscal 2010)

<ul style="list-style-type: none"> ● Toxicity studies using rats and mice <ul style="list-style-type: none"> Inhalation toxicity studies <ul style="list-style-type: none"> • Repeated dose toxicity studies • Combined chronic/carcinogenicity studies Oral toxicity studies <ul style="list-style-type: none"> • Single dose toxicity studies • Repeated dose toxicity studies • Combined chronic/carcinogenicity studies Reproductive and development toxicity studies <ul style="list-style-type: none"> • Combined repeated dose toxicity/reproductive and development toxicity studies Others <ul style="list-style-type: none"> • Medium term multi-organ carcinogenesis test (intratracheal instillation) 	<p>9</p> <p>8</p> <p>2</p> <p>4</p> <p>8</p> <p>3</p> <p>1 (1)</p>
<ul style="list-style-type: none"> ● Mutagenicity assays <ul style="list-style-type: none"> • Mutagenicity assays using microorganisms • Chromosomal aberration assays using cell cultures • Transformation assays using Bhas 42 cells • Transgenic rodent mutation assay <p>(Figure in parenthesis) : Studies using nanoparticles</p>	<p>12</p> <p>12 (8)</p> <p>12</p> <p>1 (1)</p>



Japan Bioassay Research Center



Bioassay operation



Inhalation Exposure Chamber (Short-term Study)



Inhalation Exposure Chamber (Long-term Study)



Gas Exposure System (Ames-test)^{a)}



Gas Exposure System (chromosomal aberration assay)^{b)}

a) A. Araki, T. Noguchi, F. Kato and T. Matsushima. 1994. "Improved method for mutagenicity testing of gaseous compounds by using a gas sampling bag." *Mutation Research* 307: 35-344.

b) M. Asakura, T. Sasaki, T. Sugiyama, H. Arito, S. Fukushima and T. Matsushima. 2008. "An improved system for exposure of cultured mammalian cells to gaseous compounds in the chromosomal aberration assay." *Mutation Research* 652: 122-130.

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