ANNUAL REPORT

JISHA

JAPAN INDUSTRIAL SAFETY AND HEALTH ASSOCIATION

2009

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

Occupational accidents in Japan have continued to decline in number over the long term, and in 2008, work-related fatalities hit a record low of 1,268, dropping below 1,300 for the first time ever. However, companies are now moving to reduce expenses for occupational safety and health activities in response to the current global recession, which began in late 2008. We will therefore have to watch future trends carefully, even though the number of occupational accidents continued to decline—partly due to the decrease in production activity. Even now, the number of workers suffering work-related injuries in a year is over 550,000 in Japan. Behind these accidents, I am concerned about the following trends in the workplace over the medium to long term: dangers and hazards in the workplace have diversified as production processes have become more varied and complex, and as new machinery, equipment and new 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. Consequently, blind optimism cannot be permitted.

In the face of these circumstances, in order to support employers positively for their autonomous efforts to promote accident-prevention activities, we, at JISHA, eliciting their diverse needs, wish to fully utilize our integrated business competence to develop more effective, efficient and attentive projects such as: training for newly-appointed safety supervisors, seminars for top corporate executives, diffusion of OSHMS and risk assessment, expansion of the Zero Accident Campaign, physical and mental health promotion, safety and health measures for small and medium-sized enterprises, and the latest-information provision about safety and health.

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.

In 2010, we, at JISHA, pledge 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.

January 2010

Yohtaro Sawada
President of JISHA

Contents

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' 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 operating educational facilities and support facilities for safety and health technologies
- 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, such as studies of the impact of toxic chemicals on humans and the campaign to create comfortable workplaces

Overview of JISHA's Core Activities

In 2008, the number of work-related fatalities declined for the ninth consecutive year, reaching an all-time low of 1,268. The sum of fatalities and injuries requiring four or more days off from work was 119,291, which is a 1.7% decrease from last year. In addition, although the number of serious accidents involving three or more fatalities or injuries had been increasing since 1985, it dropped in 2008 for a second straight year, falling by 12 to 281. (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.

(2) Upon request from enterprises, JISHA also sends experts to the workplace to give employers certain advice necessary for introducing or establishing an OSHMS appropriately.

JISHA also conducts its own Standard OSHMS Certification service in accordance with the guidelines of the Japanese Ministry of Health, Labour and Welfare (MHLW) and of 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 of enterprises in the field of physical exercise, nutrition guidance, health guidance or counseling, and/or sends experts to enterprises upon request for practical in-house training of the instructors. JISHA also 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 organizes several types of seminars: e.g., those where preventive measures ranging from grade 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, 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 sends 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 lecture(s) and workshops 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 managers 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 OSH conditions and give employers necessary advice on problems, if any, with the machinery or operational methods.

(2) Upon request from enterprises or when commissioned by the MHLW, JISHA implements analysis, investigation, research or consultation on hazardous chemicals such as the volatile organic compounds (VOCs) which cause sick house syndrome, electromagnetic waves, or airborne asbestos.

(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, and analyzes raw materials to determine silica, asbestos or poisonous substances such as metal or organic solvents.

(5) JISHA implements 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

(1) Commissioned by the MHLW and based on cooperation with the local Prefectural Labour Offices 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.

(2) Also on commission from the MHLW, JISHA provides SMEs that are members of the Tampopo Project or accredited for another project by the local Prefectural Labour Office director(s) with financial subsidies for the improvement of machinery or working conditions.

8. Dissemination of publications and provision of the latest information

(1) JISHA issues monthly magazines and other publications, and produces posters and other OSH-related goods.

(2) JISHA also provides 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 and material safety data sheets (MSDS) which are compliant with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

(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 the occurrence of occupational accidents and undertakes safety and health education programs using real safety equipment.

(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. 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. JISHA conducts the following training courses in order to develop the human resources needed to properly introduce, set up, and operate risk assessment (RA) and OSHMS systems based on the Guidelines for Occupational Safety and Health Management Systems published in April 1999 and the Guidelines for Risk Assessment published in March 2006, both published by the MHLW.

(a) Practical risk assessment training

A training course on proper methods for introducing RA systems and risk assessment techniques based on the RA guidelines, targeting safety and health staff members and others who will play central roles in the introduction and other phases of operating an RA system

(b) RA training course for workplace leaders

A training course on specific RA techniques, targeting workplace leaders who know the workplace well and will actually perform the risk assessments

(c) OSHMS leader training

A training course on the proper introduction, setup, and operation of an OSHMS system based on the OSHMS guidelines, targeting safety and health staff members and others who will play central roles in the introduction and other phases of operating an OSHMS system

(d) Practical system auditing training

A training course on proper methods for introducing an OSHMS system and system auditing techniques based on the OSHMS guidelines, targeting safety and health staff members and others who will play central roles in the OSHMS system, especially in introducing important system auditing

(e) OSHMS internal auditor training

A training course on specific system auditing techniques, targeting mangers and supervisors in each department who will actually be in charge of system auditing

Table 1 shows these training courses held in fiscal 2008.

JISHA also sends personnel to enterprises that are planning to introduce or are in the process of establishing an OSHMS system to provide customized training, OSHMS total support services, and other services. In addition to the training courses shown in the table, JISHA conducted two comprehensive management system training courses and 101 customized on-site training courses.

Table 1 Risk Assessment/OSHMS-related Training Courses in Fiscal 2008

Training course	Number	Participants
1. Practical risk assessment training	76	3,479
2. RA training course for workplace leaders	22	922
3. OSHMS leader training	17	647
4. Practical system auditing training	12	354
5. OSHMS internal auditor training	30	992
Total	157	6,394

(2) JISHA Standard OSHMS Certification service

JISHA conducts its own Standard OSHMS 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 2008, JISHA certified 50 new enterprises and renewed certification for 40 enterprises, bringing the number of JISHA-certified enterprises to 236. Of these, three are outside Japan—one each in Taiwan, Thailand and China.

(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 risk assessment to risk reduction measures. It holds training on the risk assessment of chemical substances and a variety of training courses on chemical management. Its other services include assistance in implementing the details of risk assessments, preparation of GHS-compliant MSDS, and analysis and measurement for exposure assessment. JISHA also provides model MSDS and other information via the JAISH website.

Regarding machinery and equipment, JISHA helps ensure inherent safety of machinery at workplaces through risk assessment 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 international standards and applicable on site.

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

Table 2 shows the training courses on chemical management and machinery and equipment safety management held in fiscal 2008. In addition, JISHA conducted 13 customized on-site training courses on chemical management and 9 on machinery and equipment.

Table 2: Training Courses on Chemical Management and Safety Management of Machinery and Equipment (fiscal 2008)

Courses	Number	Participants
1. Chemical risk assessment training to prevent health impairment	6	158
2. Chemical risk assessment training to prevent explosions and fires	4	85
3. Training of dioxin operations supervisors	9	606
4. Training for chemical management personnel	15	1,185
5. Machinery safety training for the future	11	263
6. Risk assessment practicum on machinery and equipment	4	108
7. Training on machinery and equipment risk reduction techniques	4	81
8. Training on special voluntary inspection guidelines for power presses	5	287
Total	58	2,773

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 attempt to 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 1 shows the flow of the THP programs.

Table 3 shows the THP training courses conducted in fiscal 2008. Besides the courses shown in the table, JISHA dispatched instructors to enterprises for 139 health promotion training courses conducted upon request.

Health care training

Fig. 1: Flow of THP Programs

Health Monitoring

The habits and health of individuals are checked.
Lifestyle surveys: Exercise, diet, etc.
Medical examination: Blood circulatory functions, etc.
Exercise function test: Body flexibility and strength, etc.

Health Guidance

Depending on the results of health monitoring and opinions of industrial physicians, THP staff members in the fields of exercise, mental health care, nutrition and health care advise individuals on specific ways to create healthy habits. The aim is to encourage workers not necessarily to develop ideal habits, but to be interested in their own health and find reasonable ways to keep healthy.

Health Promotion Program

The target and content of health promotion are defined in order to efficiently practice health promotion according to the actual workplace situation.

Many enterprises tackle health promotion by using "THP"

Improvement of Habits and Energizing the Workplace

When habits are improved in line with THP activities, employees become healthy and active, and the workplace atmosphere becomes lively. After recognizing the effects, enterprises implement the next program.

Practical Activities

Each person practices daily health promotion activities based on health guidance, etc. Walking, relaxation, balanced meals, etc.

Table 3: THP Training Courses in Fiscal 2008

Courses	Number	Participants
1. THP leader training	28	1,731
2. Dietary improvement instructor training related to specified health guidance	5	127
3. Practical improvement training	20	1,199
4. Specified health guidance practitioner development training for THP leader	4	461
5. Brush-up seminar	16	529
6. Regular lecture on health enhancement	6	801
Total	79	4,848

(2) Mental health measures

In March 2006, the MHLW published the Guidelines for Promoting Mental Health Care of Workers, which outline the principle 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 re-enter the workforce.

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

JISHA also conducts other seminars and workshops, including a seminar that assists industrial health staff members to learn how to provide guidance in autogenic training and how to use transactional analysis, and a workshop on mental health measures to be taken through improvement of the working environment.

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.

In fiscal 2008, JISHA held 138 training courses related to mental health, which were attended by a total of 10,026 people. It also dispatched instructors to enterprises to conduct 522 mental health training courses upon request.

(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. Moreover, 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.

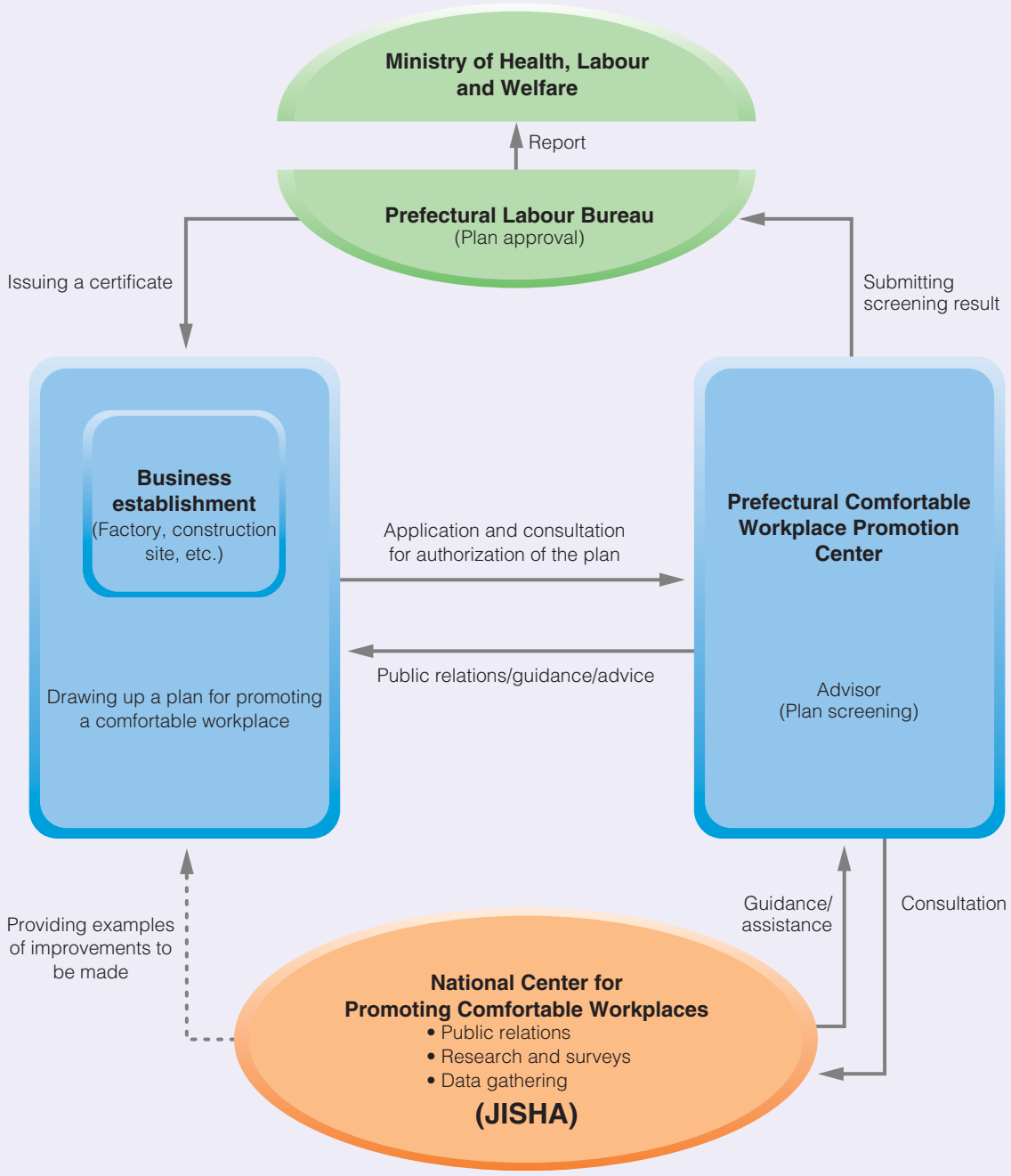
Table 4 shows the number of plans accredited under this program since its inception. Figure 2 shows the flow of the comfortable workplace promotion program and the process by which plans are accredited.

Table 4: Accredited Comfortable Workplace Promotion Plans

FY1992-2002	FY2003	FY2004	FY2005	FY2006	FY2007	FY2008	Total
14,622	2,634	2,995	3,210	3,207	3,082	3,088	32,838

Fig. 2: Flow Chart for Accreditation of Comfortable Workplace Promotion Plans

This flow chart shows the process by which an enterprise formulates a Comfortable Workplace Promotion Plan, and, through assessment, obtains the authorization of the director of a Prefectural Labour Bureau.



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. It also 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 addition, JISHA plans and conducts on-demand training courses, including training on workplace patrols and near misses, upon request from enterprises.

In fiscal 2008, JISHA held 214 seminars and training courses, which were attended by 8,964 people (see table 5).

Table 5 Seminars and Training Courses in Fiscal 2008

Training course	Number	Participants
1. Top Seminar on Occupational Safety and Health (for executives)	2	88
2. Safety and Health Management Training	50	2,833
3. Seminars to acquire basic and practical knowledge and skills	134	4,551
4. Commissioned training courses (workplace patrols, near misses, etc.)	5	130
5. Dispatch/Contract Workers' Employment Management and Safety and Health Management Training	23	1,362
Total	214	8,964

(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 2008, the Tokyo and Osaka Occupational Safety and Health Education Centers held 176 and 161 training sessions, respectively, for a total of 6,616 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 labour 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 daily life 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, and the Traffic KYT Training primarily for driving safety supervisors.

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 health and safety 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 *Kiken Yochi*, or hazard prediction, training. Accordingly, the practice of predicting and resolving hazards as part of the process of carrying out work tasks is called KYT.

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

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 real 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.

In addition to its regular KYT program, JISHA dispatches instructors to enterprises and extends guidance in hazard prediction upon request. Aiming to support enterprises' social programs 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 6 shows training courses related to the Zero-Accident Campaign and KTY held in fiscal 2008.

KYT seminars

Table 6: Zero-Accident Campaign and KYT Program Training Courses in Fiscal 2008

Training course	Sessions	Participants
1. Zero-Accident Campaign Top Seminar (for executives)	2	126
2. Zero-Accident Campaign Program Training	7	440
3. KYT Trainer Training	122	6,449
4. KYT Training for Medical Care Safety	13	382
5. KYT Training for Safe Driving	8	202
6. Seminar for Managers and Supervisors on Proceeding with KYT Activities Used in Risk Assessment	9	187
Total	161	7,786

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 with equipment and work procedures, 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 2008, these professionals conducted 584 safety and health diagnoses, provided 891 safety and health education sessions, and gave 509 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 working environment follow-ups based on measurement results, including suggesting improvement measures, inspecting local exhaust ventilation systems, and providing guidance on the use of material safety data sheets (MSDS).

In addition to periodic general medical examinations, JISHA provides 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. In addition, JISHA dispatches industrial physicians to enterprises upon request and assists with health management in the workplace by providing occupational health education and follow-up actions based on medical examination results.

JISHA also conducts analyses, investigations, research, and counseling on a large range of harmful factors, including volatile organic compounds (VOCs)—which play a pathogenic role in sick house syndrome—indium, electromagnetic waves, and airborne asbestos (measured using dispersion staining).

Furthermore, 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 toxic substances including free silicic acid, asbestos, metals, and organic solvents. Upon request, JISHA also develops sampling and analysis methods.

Table 7 shows the working environment measurements and other technical services provided in fiscal 2008.

Table 7: Working Environment Measurements and Other Technical Services in Fiscal 2008

Services	Times	Number
1. Working environment measurement	—	1,505 enterprises
2. Biological sample analyses	—	17,242 samples
3. Non-biological sample analyses	—	5,111 samples
4. Analyses and measurement of asbestos (in raw materials, construction materials, and airborne)	—	244 samples
5. Special medical examinations	—	6,373 people
6. General medical examinations	—	6,198 people
7. Dispatch of industrial physicians to enterprises	14	176 people
8. Practical training for industrial physicians	10	1,212 people

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 also 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 industrial safety and health policy, 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 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 2008 are introduced in detail in Appendix 2-2.

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—comprised of small enterprises with less than 50 workers—and their member enterprises. The types of assistance provided are indicated below. In fiscal 2008, assistance was provided to 197 groups (with a total of 6,411 enterprises).

(1) Guidance and assistance 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 voluntary inspections
- Special medical examinations
- Working environment measurements

JISHA also holds safety and health seminars for SME employers, 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 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"), which is a bulletin of safety and health information, and *Anzen-Eisei Kabeshimbun* ("Safety and Health Wall Newspaper"), which uses illustrations to explain points of safety and health measures.

Additionally, JISHA has produced and distributed approximately 350 textbooks, JISHA paperbacks, and other publications on the theme of safety and health. The following are just some examples of these. In all, nearly 3.26 million copies have been issued.

Main types of books (all in Japanese):

- Textbooks for obtaining qualifications and the like: *Organic Solvent Operations Chiefs 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*, which explains individual 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 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 holds campaigns for 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 and communication for new employees, and campaigns for the prevention of heat stroke and the strengthening of capabilities in the field. It produces and distributes numerous books, posters, and other items related to these campaigns.

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), including laws, ministerial notices, 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, and case studies of accidents as seen in pictures. Other useful case studies include examples of ingenuity and improvements, examples of creating comfortable workplaces, and anti-smoking measures. Website users can also view information on the nearly 58,000 chemical substances published in accordance with Japan's Industrial Safety and Health Act as well as GHS-compliant MSDS for approximately 1,600 substances.

In fiscal 2008, the JAISH website was accessed a total of 21.79 million times.

Additionally, JAISH offers a 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 also maintains data on those who have finished skill-training courses. In fiscal 2008, a total of 887,453 entries were added to the database, bringing it to more than 36,810,000 records.

(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 over 330 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, including heat stroke, the history of protective equipment, and measures against getting caught or trapped in equipment.

The Safety Museums received 64,376 visitors and the Safety Theaters received 11,618 visitors.

Asbestos-related exhibit

Virtual Reality Theater

9. 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 and the data collected in the process are published on the Internet and in various other publications. These results and data are also utilized in safety and health education or when providing guidance, etc.

The main research and surveys conducted in fiscal 2008 are shown in Table 8.

Table 8: Research and Survey Topics in Fiscal 2008

1. Research and surveys relating to the diffusion and the promotion of risk assessment and occupational safety and health management systems (OSHMS)
2. Research and surveys relating to the safety and measures to ensure the health of nursing care workers
3. Research and surveys relating to needs in industrial health at enterprises

10. 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, a symposium, and workshops (see Table 9). Convention attendees can learn the latest OSH-related information and knowledge, and OSH-related practical experience from other enterprises.

In fiscal 2008, the 67th convention was held over three days in October in Sapporo, Hokkaido, attended by about 10,000 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 2008 convention.

National Industrial Safety and Health Convention 2008

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
	Human factor/RST 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 2008
	Comfortable Workplace Forum 2008

(2) National safety and health campaigns

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 82nd National Safety Week was marked in 2009. This National Safety Week was 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 60th National Occupational Health Week was observed in 2009. 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 and communication for new employees and to strengthen capabilities in the field.

11. 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, 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.

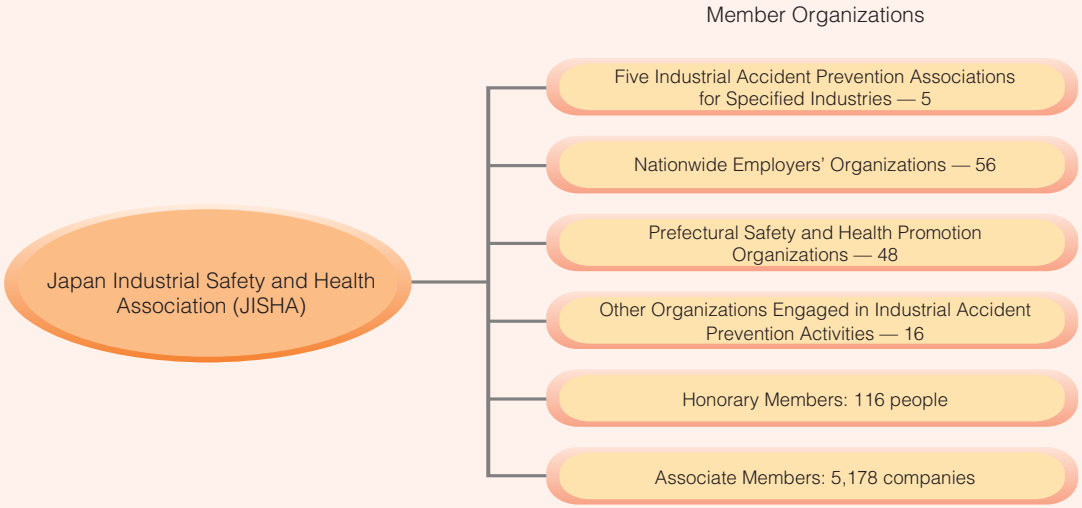
Appendix 11 shows the commissioned studies, the number of studies conducted in fiscal 2008, and pictures of the equipment.

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 25

Membership



JISHA Members and Associate Members (March 2009)

Notes

1) Five Industrial Accident Prevention Associations

- Japan Construction Safety and Health Association
- Japan Land Transportation Industry Safety and Health Association
- Japan Port Transportation Industry Safety and Health Association
- Japan Forestry and Timber Manufacturing Labour Accident Prevention Association
- Japan Mining Safety and Health Association

2) Nationwide Employers' Organizations

There are 56, 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 Office. There are 48 such organizations.

4) Other Organizations Engaged in Industrial Accident Prevention Activities

There are 16, including:

Japan Boiler Association

Japan Crane Association

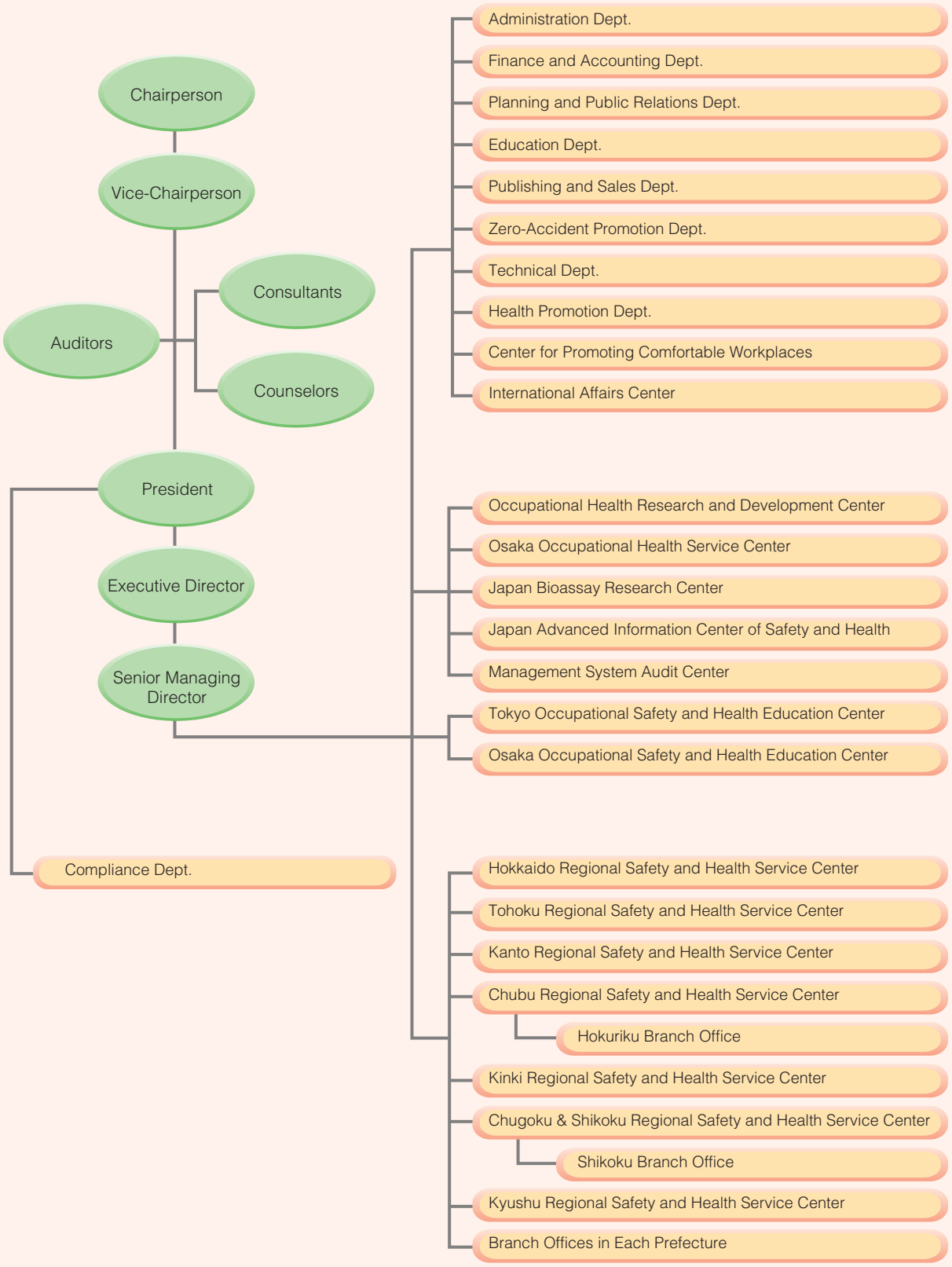
Japan Association of Safety and Health Consultants

5) Associate Members, by Industry

(As of March 31, 2009)

Industry	Number	Industry	Number
Agriculture	0	Metal products	197
Forestry	0	Nonelectrical machinery	218
Fishery	2	Electrical machinery	348
Mining	11	Transport machinery	235
Construction	603	Precision instruments	58
Foods	237	Other manufacturing	249
Textiles	42	Electricity, gas and water	100
Lumber and furniture	27	Transport	250
Pulp, paper	102	Finance and insurance	25
Publishing and printing	77	Telecommunications	114
Chemicals	446	Labour unions	29
Coal and petroleum	82	Private sector	85
Rubber	54	Others	235
Ceramics, clay and stones	112	Services	784
Iron and steel	143	Medicine and public health	235
Nonferrous metal	78	Total	5,178

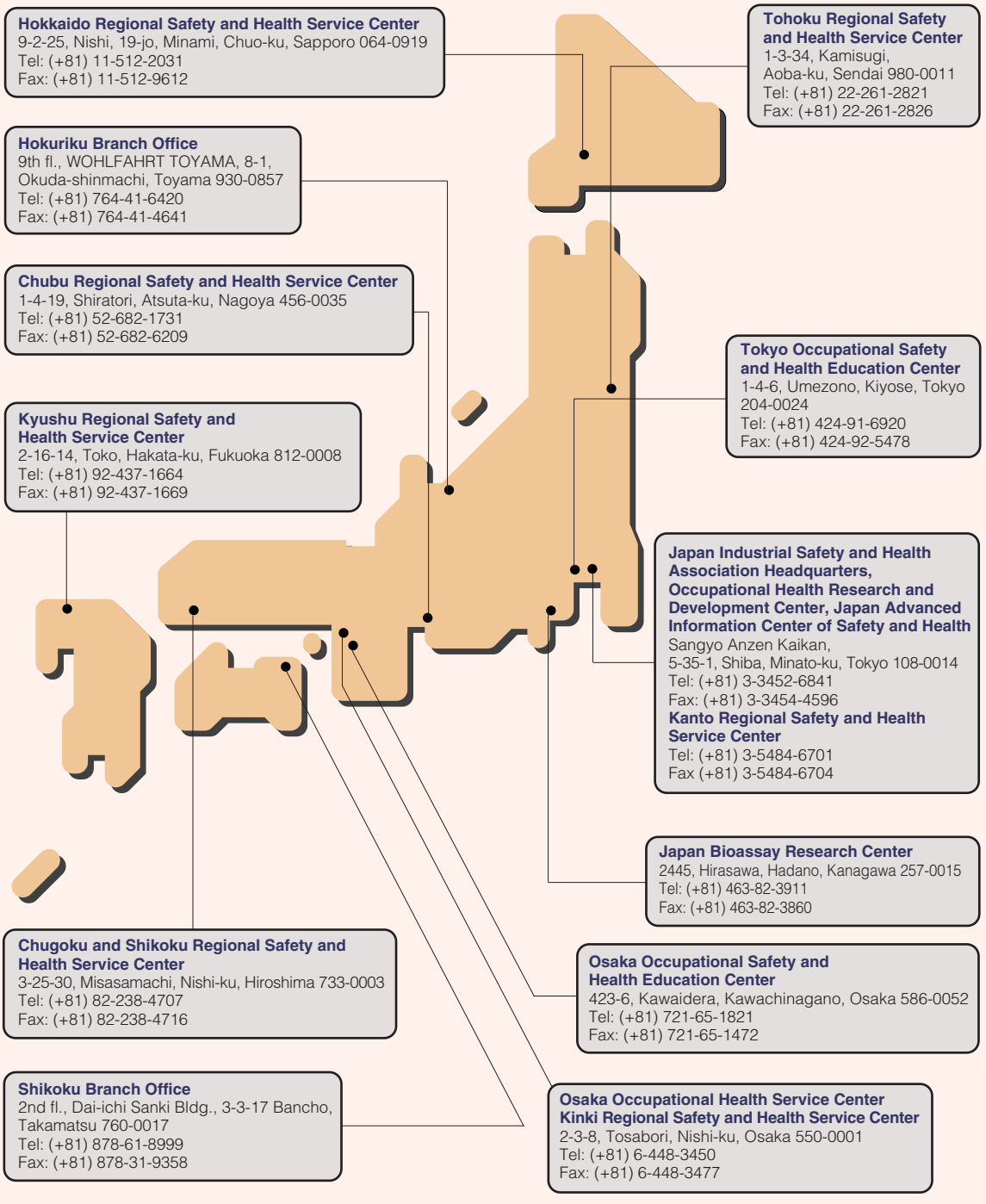
JISHA Office Organization Chart



(as of November 2009)

JISHA Office Locations

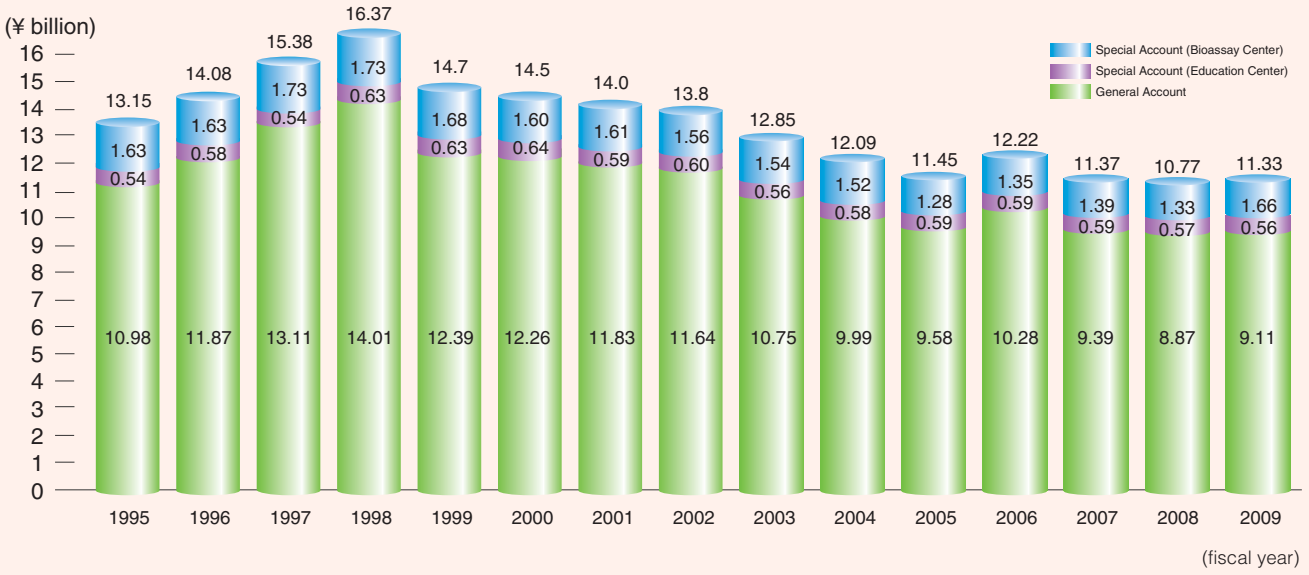
JISHA operates Occupational Safety and Health Education Centers in Tokyo and Osaka, the Occupational Health Research and Development Center, the Osaka Occupational Health Service Center, and seven Regional Safety and Health Service Centers and three branch offices. All of these Regional Centers offer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



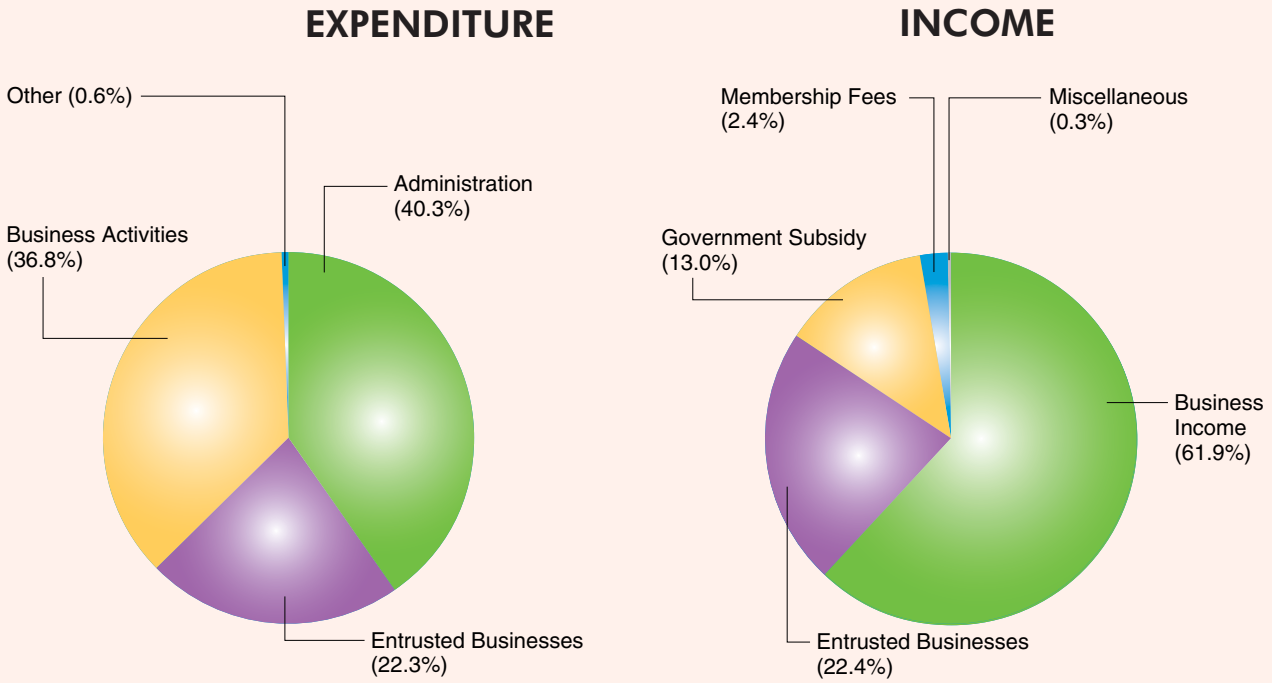
(as of November 2009)

Budget

Changes in Budget



Expenditure and Income for FY2009



FY2008 International Cooperation Activities

1) Promotion of exchanges with overseas safety and health organizations

Project Area	Project Outline
Promoting exchanges with international institutions and safety and health organizations	Dispatching JISHA's own executives and employees overseas • Attended the General Meeting of the Industrial Safety and Health Association of Taiwan (2 participants, Taiwan, Apr. 25–27, 2008) • Held a symposium at the 18th World Congress on Safety and Health at Work and attended the 24th Annual Conference of the Asia Pacific Occupational Safety and Health Organization (APOSHO, 2 participants, South Korea, Jun. 29 – Jul. 1, 2008) • Held an exchange with the China Academy of Safety Science and Technology (1 participant, China, Jun. 29–30, 2008) • Attended the China International Forum on Work Safety (1 participant, China, Nov. 17–21, 2008) • Taiwan Advanced Engineer Dispatch Program (sponsored by the Interchange Association, Japan). (1 person, Taiwan, Dec. 15–19, 2008) Receiving visitors and trainees from overseas • Thai officials in charge of social security and welfare policy (48 representatives, May 20–22, 2008) • Vice president of Canada's Industrial Accident Prevention Association (IAPA) (2 representatives, Jul. 8, 2008) • Thai senators (15 representatives, Jul. 14, 2008) • Korea Occupational Safety and Health Agency (KOSHA, 3 trainees, Jul. 15, 2008) • Deputy Minister of Malaysia's Ministry of Human Resources (4 representatives, Oct. 14, 2008) • Group of trainees on JICA training course received upon commission by the University of Occupational and Environmental Health, Japan (9 trainees, Oct. 27, 2008) • Industrial Safety and Health Association of Taiwan (1 director, Oct. 27, 2008) • Taiwanese minister, Council of Labour Affairs (6 persons, Nov. 5, 2008) • Korea Industrial Safety Association (2 representatives, Nov. 7, 2008) • Japan Overseas Cooperative Association African trainees (14 trainees, Nov. 13, 2008) • School of Safety & Environment Engineering, Capital University of Economy and Business, China (6 representatives, Jan. 15, 2009) • Delegation from the Occupational Safety and Health Council of Hong Kong (23 representatives, Feb. 23–27, 2009)

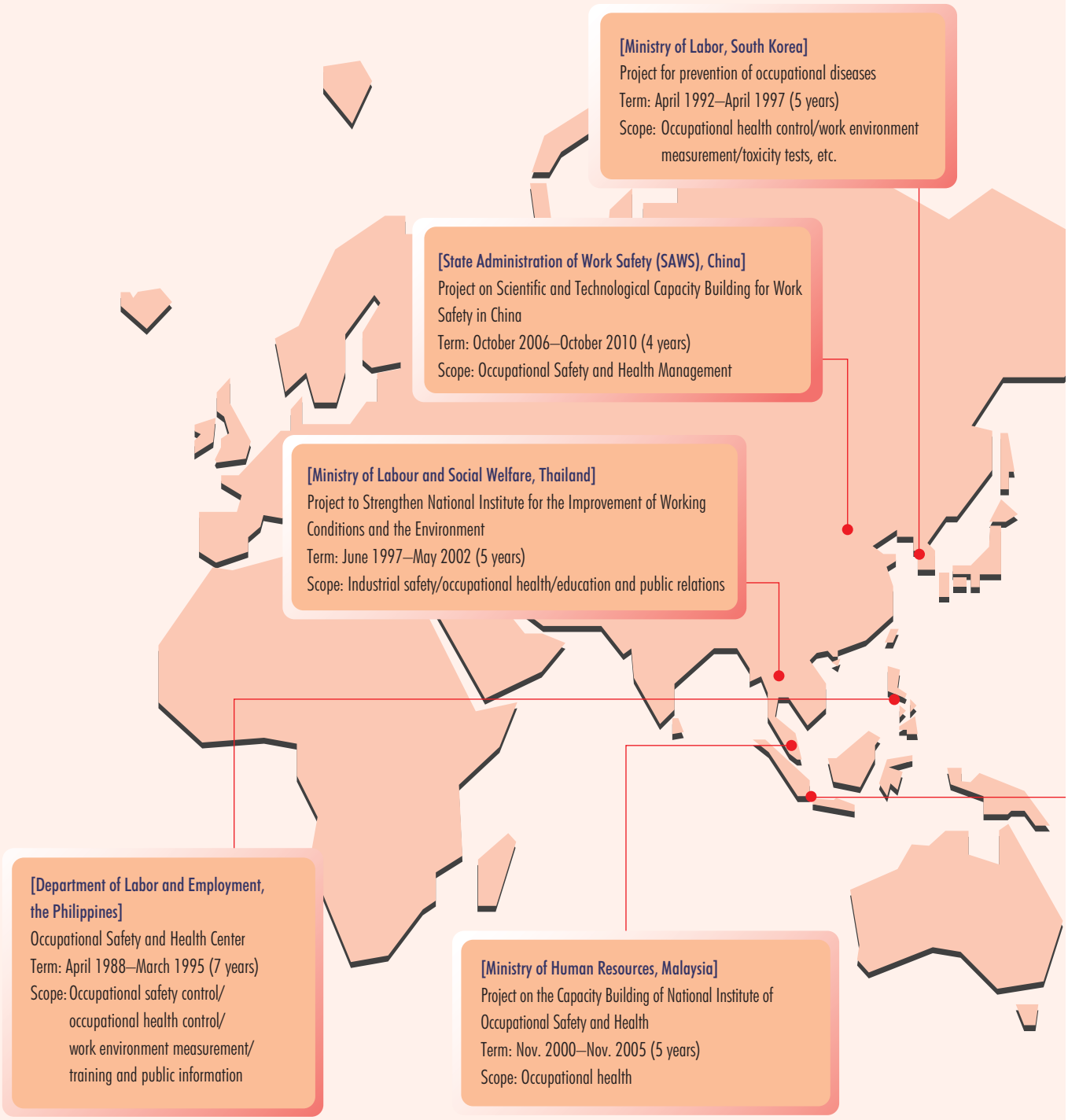
2) Technological Cooperation with Developing Countries

Project Area	Project Outline
a. JISHA OSH Seminar	One training program for 8 trainees from overseas (Sep. 4–10, 2008) (Theme: OSHMS and Construction Safety)
b. Support for JICA technological cooperation project	Project on Scientific and Technological Capacity Building for Work Safety in China • Long-term expert dispatched, occupational health field (1 expert, two years until Nov. 1, 2008) • Dispatch of interim evaluation investigators (1 expert, Oct. 23–Nov. 1, 2008) • Short-term expert dispatched (9 experts: the fields and periods shown below) In-house training instructor training (Apr. 21–26, 2008; Sep. 15–20, 2008) Zero-Accident Campaign Training (Jul. 1–5, 2008; Jul. 18–23, 2008) Risk Assessment (Jul. 2-11, 2008; Mar. 8–14, 2009) Zero-Accident Trainer Training (Nov. 30–Dec. 6, 2008; Dec. 22–26, 2008,) Zero-Accident Top Seminar (Feb. 9–14, 2009) • Trainees received in Japan (19) [3 training courses] Cooperation between government and private enterprises (15 trainees, Jun. 12–20, 2008) Fostering trainers for in-house training (2 trainees, May 28–Jun. 16, 2008) Tests for hazardous chemical properties (2 trainees, May 28–Jun. 20, 2008)
c. Implementation of JICA training, including seminars on occupational safety and health policies	• Implemented Seminar on Working Environment Control for Occupational Disease Prevention (6 trainees, Jun. 9–Aug. 1, 2008) • Implemented Seminar on Policy of Industrial Safety and Health (7 trainees, Oct. 1–31, 2008)
d. Safety and health seminars overseas entrusted by the government	Held an international safety and health seminar (Dec. 4–9, 2008) • 20 participants from 10 ASEAN countries • Themes: (1) Occupational safety and health measures for small and medium-sized enterprises (2) Occupational safety and health measures for diversifying employment formats Dispatched an expert to a workshop held in Laos (1 expert, Jul. 23–24, 2008) • Themes: Safety and health education, asbestos issues

3) Collecting and Providing Information to Domestic and Overseas Users

- Provision via website
- JISHA *Annual Report* 2008, issued in March 2009

Project-type Technical Cooperation



[Ministry of Labor, South Korea]
Project for prevention of occupational diseases
Term: April 1992–April 1997 (5 years)
Scope: Occupational health control/work environment measurement/toxicity tests, etc.

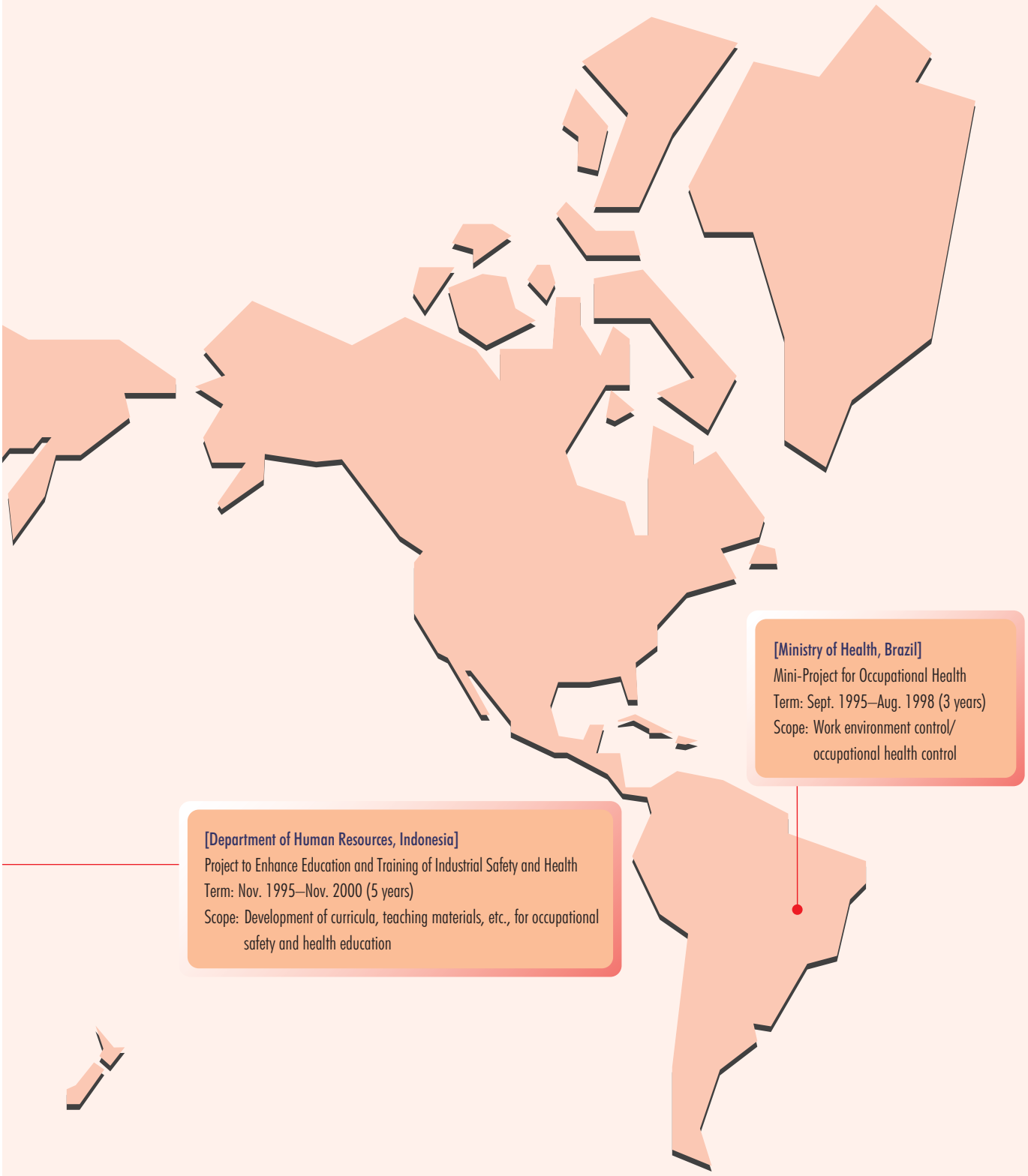
[State Administration of Work Safety (SAWS), China]
Project on Scientific and Technological Capacity Building for Work Safety in China
Term: October 2006–October 2010 (4 years)
Scope: Occupational Safety and Health Management

[Ministry of Labour and Social Welfare, Thailand]
Project to Strengthen National Institute for the Improvement of Working Conditions and the Environment
Term: June 1997–May 2002 (5 years)
Scope: Industrial safety/occupational health/education and public relations

[Department of Labor and Employment, the Philippines]
Occupational Safety and Health Center
Term: April 1988–March 1995 (7 years)
Scope: Occupational safety control/ occupational health control/ work environment measurement/ training and public information

[Ministry of Human Resources, Malaysia]
Project on the Capacity Building of National Institute of Occupational Safety and Health
Term: Nov. 2000–Nov. 2005 (5 years)
Scope: Occupational health

(ODA) in Which JISHA Was Involved



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

[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

Countries That Have Sent Participants the Support of JICA (FY1974–2008)

to Seminars Conducted by JISHA with

JISHA English Publication List

1. Periodicals

Annual Report	
Safety and Health in Japan (Newsletter)	
Present Status of Japanese Industrial Safety and Health	

2. Books

General Guidebook on Industrial Health 2004	¥5,000
House Keeping at Work	¥300
Safety and Health Training for Newcomers	¥500
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

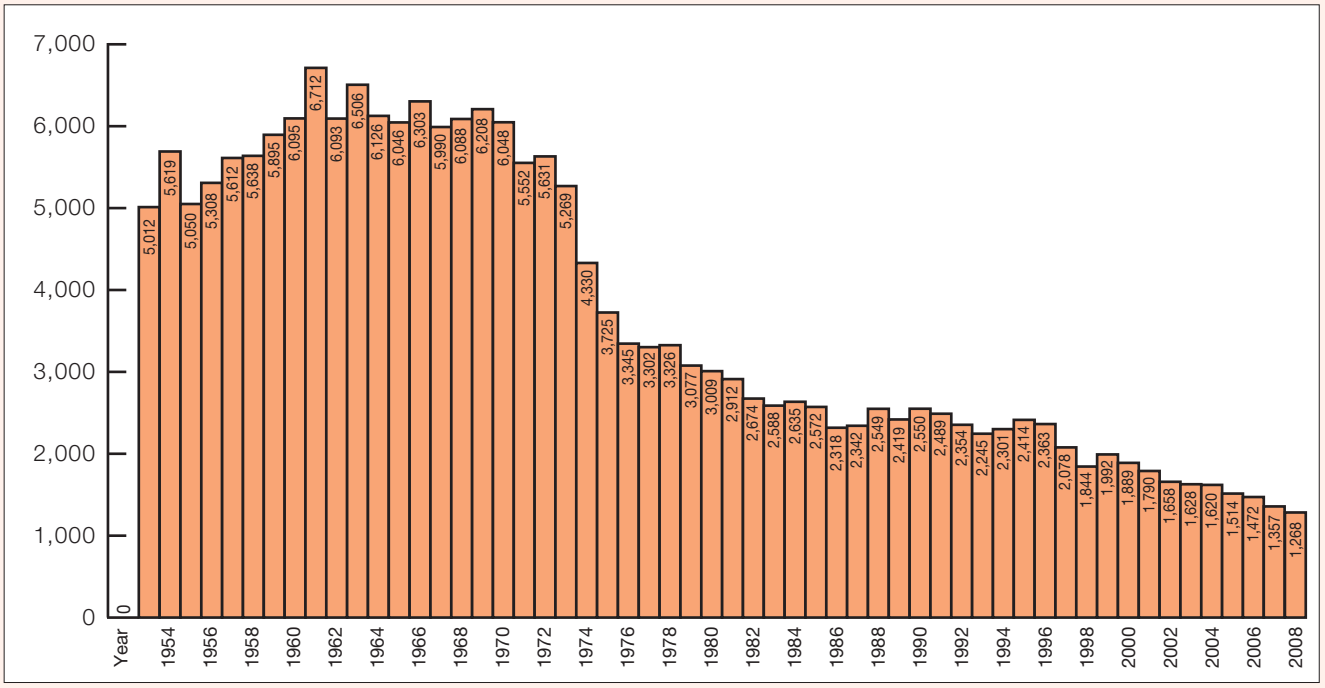
Japan Industrial Safety and Health Association (JISHA):
http://www.jisha.or.jp
Japan Advanced Information Center of Safety and Health (JAISH):
http://www.jaish.gr.jp

JISHA

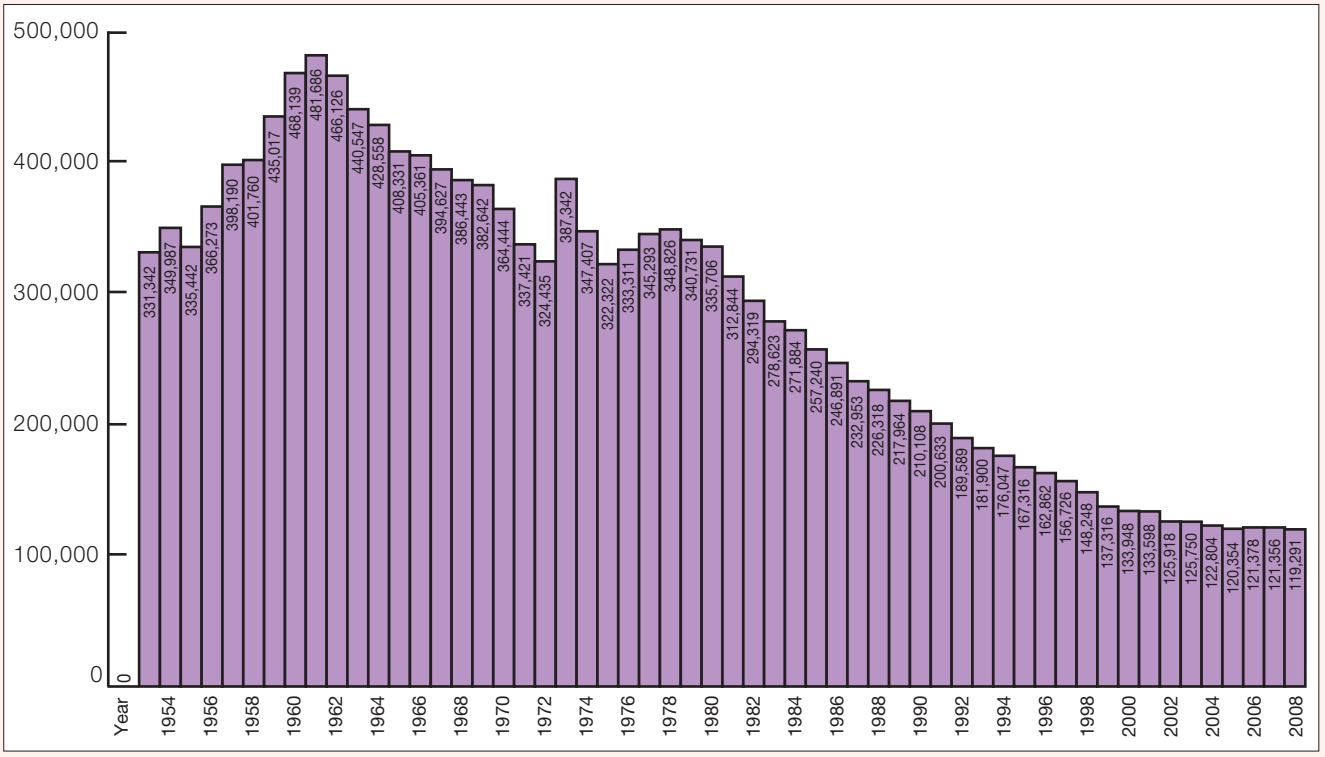
JAISH

Statistics

Change in Number of Deaths in All Industries (Japan)



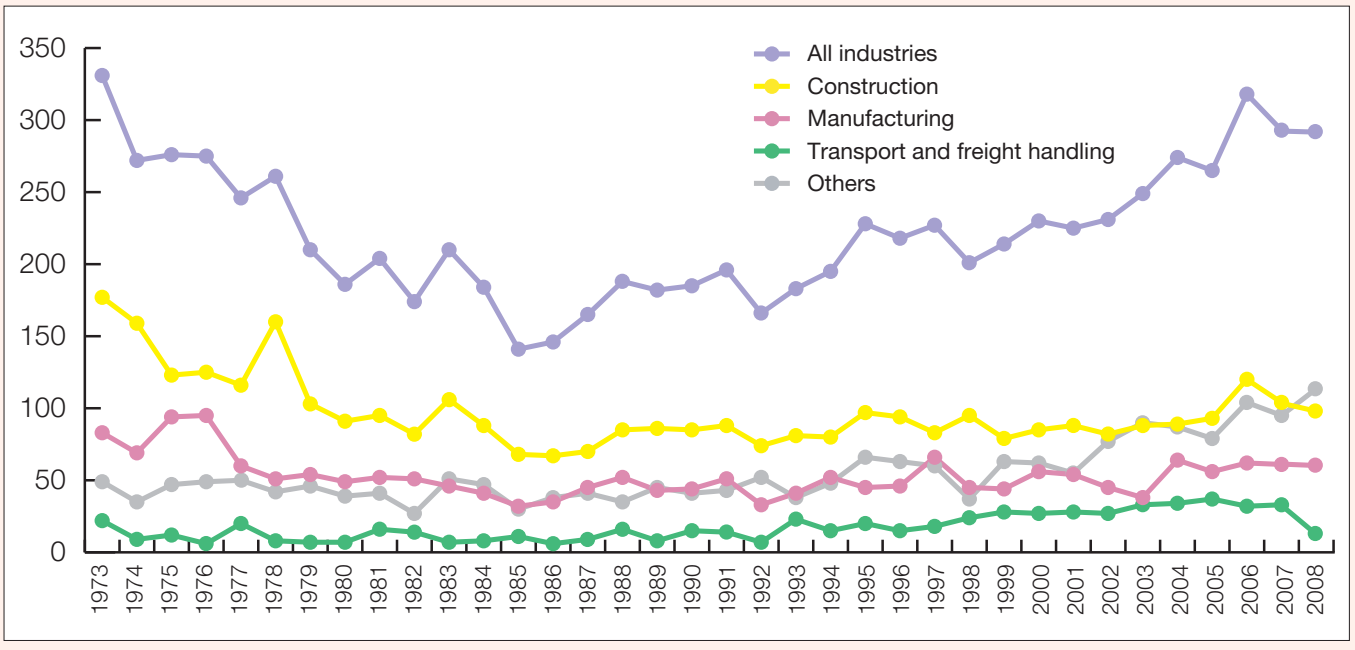
Change in Number of Deaths and Injuries Requiring an Absence of 4 Days or More in All Industries (Japan)



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
All industries	331	272	276	275	246	261	210	186	204	174	210	184	141	146	165	188	182	185
Construction	177	159	123	125	116	160	103	91	95	82	106	88	68	67	70	85	86	85
Manufacturing	83	69	94	95	60	51	54	49	52	51	46	41	32	35	45	52	43	44
Transport and freight handling	22	9	12	6	20	8	7	7	16	14	7	8	11	6	9	16	8	15
Others	49	35	47	49	50	42	46	39	41	27	51	47	30	38	41	35	45	41

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
All industries	196	166	183	195	228	218	227	201	214	230	225	231	249	274	265	318	293	281
Construction	88	74	81	80	97	94	83	95	79	85	88	82	88	89	93	120	104	93
Manufacturing	51	33	41	52	45	46	66	45	44	56	54	45	38	64	56	62	61	58
Transport and freight handling	14	7	23	15	20	15	18	24	28	27	28	27	33	34	37	32	33	13
Others	43	52	38	48	66	63	60	37	63	62	55	77	90	87	79	104	95	117



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

● Toxicity studies using rats and mice
- 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
- Combined repeated dose toxicity/reproductive and development toxicity studies
- Single generation reproduction studies
- Uterotrophic bioassays in rodents
- Hershberger bioassays in rats
- Others

● Mutagenicity assays (the technological level applicable for commission for gaseous substances and volatile substances)

in vitro studies
- 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

in vivo studies
- Bone-marrow micronucleus assays using rodents
- Liver micronucleus assays using rodents
- Testis micronucleus assays using rodents
- Transgenic rodent mutation assays

2) Number of studies conducted (fiscal 2008)

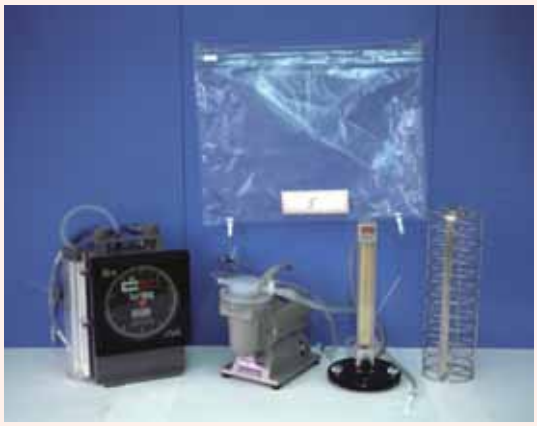
● Toxicity studies using rats and mice	
Inhalation toxicity studies	
Repeated dose studies	13
• Combined chronic/carcinogenicity studies	11
Oral toxicity studies	
• Transgenic rodent mutation assays	
• Repeated dose studies	8
• Combined chronic/carcinogenicity studies	11
Reproductive and development toxicity studies	
• Combined repeated dose toxicity/reproductive and development toxicity studies	2
Mutagenicity assays	
• Mutagenicity assays using microorganisms	14
• Chromosomal aberration assays using cell cultures	11
• Cytotoxicity assays using cell cultures	3
• Transformation assays using Bhas 42 cells	8

Japan Bioassay Research Center

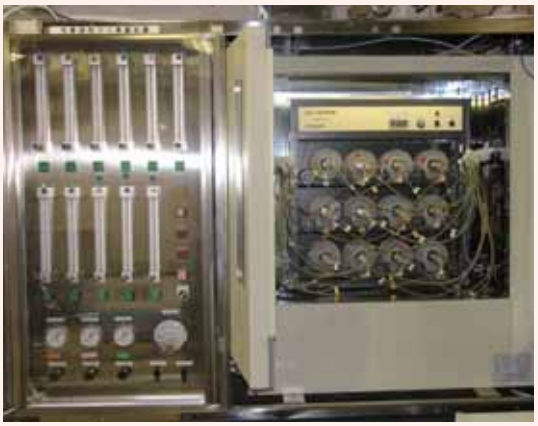
Bioassay operation

Inhalation Exposure Chamber (Short-term Study)

Inhalation Exposure Chamber (Long-term Study)



Gas Exposure System (Ames-test) [a)]



Gas Exposure System (chromosomal aberation 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.

MEMO

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