

2008

# Annual Report of BSMI



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## 2008 Annual Report of BSMI

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## Foreword

The Bureau of Standards, Metrology and Inspection (BSMI) has the following three main missions: to draft national standards in accordance with the country's development plans and industrial policy; to promote the development of national measurement standards and perform nationwide metrological services; and protect customers' rights and interests by performing commodity inspection. BSMI's administrative focal points include formulating national standards complying with international norms, constructing a national metrological standards system along international lines, promoting the effective functioning of conformance evaluation mechanisms, and performing international cooperation and mutual recognition. BSMI seeks to enhance the competitive advantage of Taiwan's industries and create a safe and healthy living environment for the consuming public.

## I. Service Report

### 1. Standards

BSMI is the dedicated government agency in charge of implementing national standards. In order to improve domestic productivity and technical standards, and achieve the goal of enhancing international competitiveness, during the past year BSMI established or revised the deep seawater testing methods, auto safety glass standards, vehicle electromagnetic compatibility standards, machinery safety standards, and many other standards connected with basic industrial technologies. In order to protect public life and property, BSMI established or revised national standards governing tissue paper, fragrances, synthetic cleansers, folding tables and chairs, poultry and meat products, baby formula and foods, and building fireproofing. Furthermore, in order to promote the development and utilization of green energy and the



growth of related industries, BSMI established or revised standards governing streetlights, wind power equipment, and solar power equipment in an effort to provide safe, noiseless, non-polluting energy.

With regard to national standards development strategies and harmonization plans, BSMI has completed the establishment of a "National Standards Review Platform" achieving the goal of informatizing of drafting and revision procedures and effectively conserving resources and improving overall working efficiency. BSMI is also continuing to harmonize national and international standards, and thereby ensure that Taiwan's standards are consistent with those of the rest of the world.

In order to enhance the international competitiveness of Taiwan's information and communications industries, BSMI helps research group participate in the conferences of information and communications industry standards organizations, and make advanced R&D contributions. BSMI is training international standards professional manpower possessing negotiation skills, and has established a dedicated web site. BSMI is striving to acquire key next-generation information and communications system intellectual property, which will boost Taiwan's technological autonomy and help domestic industries to shift from being standards followers to being participants in the standards drafting process, and enable firms to promote themselves from OEM manufactures to IPR-oriented value-added producers.

BSMI extended CNS mark certification during 2008 to cover 10 more product categories, including "Baby Strollers," "Special Plywood," and "Adult Paper Diapers." By expanding the scope of CNS mark certification and performing CNS mark aftermarket management, BSMI has made the mark a solid foundation for domestic product certification quality assurance.

## 2. Metrology

Metrology is the cornerstone of the nation's economic progress. Responding to industry's fast-changing needs and developments in international metrology, BSMI has been continuing to establish and maintain its national metrological standard services and establish traceability systems. This year BSMI established or expanded



standards for light scattering measurement systems, X-ray calibration system for computed tomography dosimetry, and nanometer particle diameter measurement systems. After many years of hard work, Taiwan's national metrology standards are widely recognized by other countries. BSMI's recent participation in metrology standard comparison activities with international metrological bureaus and Asia-Pacific metrology organizations has ensured that calibration reports issued in Taiwan are internationally acceptable, meeting industry's measurement needs.

BSMI's 2008 World Metrology Day (May 20) activities strengthened its interaction with metrology businesses and associations, and gave consumers a clearer view of the close relationship between metrology, industry, and life. BSMI also exhibited the results of metrology projects, publicized calibration systems developed by the National Measurement Laboratory (NML), and promoted its testing technology development and accreditation services. BSMI has also successfully applied its technological results to industrial applications, enhancing manufacturers' technological competence and fostering industrial development.

In order to fulfill its statutory metrology management duties, effectively implement verification, inspection, and post-market surveillance management work, BSMI has regularly inspected weighing instruments at traditional markets, retail department stores, fruit markets, and markets selling grocery for Lunar New Year, to protect consumers' rights by ensure that metrological instruments are accurate. On the other hand, in order to assure the accuracy of medical measurement instruments, BSMI assigned electronic medical thermometers and dial-type sphygmomanometer subject to verification since January 1, 2008.

### 3. Inspection & Certification of Commodities



BSMI's mission has always been to lead industrial development and protect consumers' rights and interests. To ensure that imported and domestic products comply with safety, sanitation, environmental protection, and other technical regulations or standards, in 2008 BSMI added numerous items, including toys, electrical appliances, and electronic products and machinery, to the list of products requiring testing. In order to boost the capabilities of its testing laboratories, BSMI implemented the "Testing Industry Development

Plan" in 2008. And to expand the scope of product testing services, BSMI actively eased restrictions on the participation of private product certification organizations in third party certification services. BSMI helped relevant domestic industries to expand their international markets by continuing to certify hazardous substance testing laboratories and assisting domestic industries to comply with the European Union's "restriction of the use of certain hazardous substances in electrical and electronic equipment" (RoHS). BSMI revised many procedural regulations governing sanitation and safety management systems for fisheries products exported to the EU and exporting food processing plants, facilitating the problem-free export of Taiwan's seafood products. Finally, in order to effectively promote its new testing measures and share knowledge and experience with companies, BSMI specially held various public awareness and "Appointment with the People" activities, appealed to firms to make early preparations, and provide necessary assistance.

#### 4. Market Surveillance and Product Safety Management

In order to protect consumers' health and safety, BSMI vigorously searches out and protects against dangerous products, and has been increasingly successful in recent years. This year BSMI drafted special market surveillance plans at the beginning of the year, implemented post-market management, implemented 63 special surveillance plans, and performed market inspection of 66 products, including electric hot pot cookers and electric hot water bags. In addition, BSMI also tested seasonal/holiday products, including children's clothing, light sticks, and lighting chains, around the time of major holidays and annual events, and reminded consumers to pay attention to product safety. The many dangerous product incidents that have recently occurred in China, including the poisoned baby formula (melamine) incident, have panicked customers in Taiwan and caused Taiwan's manufacturers major losses. BSMI has been working together with the vigilant Department of Health (DOH) to inspect each batch of baby formula from China and resolve any possible problems. To protect consumers' safety, BSMI has been consistently active in monitoring whether any inferior Chinese-made products are on display in Taiwan. BSMI tested samples of Chinese-made products in 54 cases during 2008, and publicly announced testing results and urged consumers to take care at press conferences. BSMI established a product safety information web site, and implemented compulsory notification requirements aimed at the obligatory

inspection applicant. And furthermore, the Bureau provides companies and consumers with channels for reporting product incidents, and publicizes safe products use information and precautionary notices. BSMI is striving to reduce loss of life and property damage, while maintaining the rights and interests of the consuming public.

## 5. Management Systems Certification

BSMI continued to evaluate and perform follow-up tracking of various types of management systems in 2008, and has consistently maintained the viewpoint of an independent, objective, impartial certifier. BSMI assisted government agencies and private enterprises to obtain ISO 9001, ISO 14001, ISO 27001, OHSAS 18001, and ISO 22000 management system certification, and is working together with the Taiwan Accreditation Foundation (TAF) to upgrade the foregoing management systems in accordance with the new ISO/IEC 17021, ISO/IEC 27006, and ISO/TS 22003 certification standards. Furthermore, in response to international efforts to control greenhouse gases, BSMI began implementing ISO 14064-1 greenhouse gas verification in 2007, completed new greenhouse gas verification certification tasks together with TAF in 2008, and continued to apply to TAF to list more management system certification areas. These efforts have increased domestic and foreign recognition of BSMI's certification, and emphasized to applicant firms that "one certificate accepted everywhere." At the same time, in order to boost domestic health and safety management capabilities and conform to international norms, in 2008 BSMI was certified by the Council of Labor Affairs as the certification organization for the "Taiwan Occupational Safety and Health Management System" (TOSHMS), enabling it to provide many management system certification services to companies.

## 6. Information Services

Standards information is an important reference for corporate R&D. BSMI signed a new contract with the DIN in 2008. According to the new contract, DIN reduces its royalty rate and grants BSMI the authority of direct online



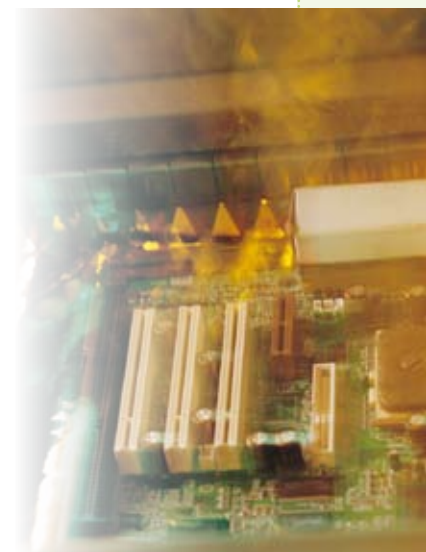
downloading DIN standards from 2009. The contract enables the BSMI to sell the DIN standards in high-quality authorized reprints at preferential prices.

The BSMI has regularly issued a standards information e-bulletin on the 15<sup>th</sup> day of each month since January 2008. This e-bulletin provides a wide variety of standards information to users. In order to strengthen public service, the BSMI began using the online 'post office' in October 2008 to streamline its service procedures. As a consequence, the time needed to mail ordered foreign authorized standards reprints has been greatly shortened. Looking ahead to the future, the BSMI will continue to expand its standards collection and use the Internet to provide more convenient service to users and industries.

## II. Achievements

### 1. Standards

- (1) Keeping pace with policy changes and industrial development trends, BSMI established or revised 317 national standards and withdrew 57 obsolete national standards. As of the end of 2008, existing national standards totaled 14,303.
  - A. BSMI established or revised basic industrial technology national standards, including LPG automotive gas-fired system installation and inspection standards, the deep seawater testing methods, automotive safety glass, vehicle electromagnetic compatibility, sound absorption measurement in echo chambers, electrical machinery used in explosive gas environments, and machinery standards.
  - B. BSMI adopted or revised national standards for everyday goods, including tissue paper, fragrances, synthetic cleansers, folding tables and chairs, plastic tableware, canes, handheld gasoline containers, poultry and meat products, baby formula and foods, eggs, rice pH testing methods, and building fireproofing standards.
  - C. BSMI established or revised road-lighting lamp, wind power equipment, and solar power standards, and thereby promoted the development and utilization of green energy in Taiwan and the growth of related industries, while encouraging the provision of safe, no-noise, non-polluting energy.
  - D. BSMI established standards for medical digital imaging and communications, the digital home, digital content, open-source software, and the IPv6 Internet protocol.
- (2) National standards development strategies and harmonization plans
  - A. BSMI completed advanced standardization teaching materials and held training sessions under its "Corporate Standardization Winner Strategy."
  - B. BSMI complete drafting of the "Report on Standardization Domain Selection Methods," used sophisticated forecasting methods to select high-priority standardization items. The results of this work will enable government agencies to devote their limited resources



to those standardization items with the greatest development potential.

C. BSMI completed establishment of a "National Standards Review Platform" informatizing standards drafting and revision procedures.

D. BSMI harmonized national standards with international standards, and drafted more than 70 national standards concerning such items as information

and communications security, Chinese information, freedom software platform, wireless RF identification, run-flat tires, aluminum alloys, coffee, and paper-making.



(3) Analysis of next-generation information and communications international standards technology and participation in standards drafting work

In order to boost the international competitiveness of Taiwan's information and



communications industry, BSMI participated in international technical standards drafting projects involving fourth-generation mobile communications, mobile digital broadcasting, and miniaturized interfaces, and took advantage of its participation in the drafting of international standards to acquire key next-generation information and communications system intellectual property. This work thus enhanced Taiwan's technological autonomy.

(4) Strengthening management and promotion of the CNS mark

A. BSMI announced that products in 10 categories—baby strollers, handheld gasoline containers, wooden canes, adjustable metal canes, special plywood, medium-density fiberboard, children's bicycles, children's high chairs, adult paper diapers, and safety harnesses—may apply for use of the CNS mark. This work has enabled the CNS mark to become the cornerstone of domestic product quality certification.

B. During the year, BSMI accepted and reviewed 62 manufacturer applications for use of

the CNS mark, verified basic information concerning the CNS mark, and accepted 102 CNS mark application and certificate change cases.

(5) Major activities and public awareness

A. BSMI conducted the "9<sup>th</sup> National Standardization Awards Ceremony," "2008



CNS Mark Manufacturer Joint Conferral Ceremony," "Smart Vehicle Parts and Components Testing Technology Standards and Certification Capability-Building Results Announcement and Technology Seminar," "World Standards Day Experts' Forum," and "RFID Technology Standards Forum." These events highlighted the results of the government's campaign to promote standardization.

B. BSMI drafted the "Operating Guidelines for Implementation of Standardization Activities by Groups," and helped raise the country's international competitiveness by subsidizing participation in international or regional standardization conferences by domestic groups.

## 2. Metrology

(1) BSMI established measurement standards, developed measurement technology, and provided calibration and measurement services

A. BSMI maintained 132 measurement standards systems in 17 fields at the National Measurement Laboratory (NML), provided 4,234 instances of primary and secondary calibration services, and implemented derivative secondary calibration services in 5,309,436 cases. These services sustained a domestic testing valued at several billions of NT dollars.

B. BSMI completed the establishment or expansion of standards for the three systems: light scattering measurement systems, computer-aided tomography cavity ionization chambers for X-ray air kerma rate calibration systems, and nanometer particle diameter measurement systems. The first system standards can facilitate measurement

of light scattering from optical elements such as panels and light sources, and measurement of color and luster in conventional industries. The second standards enable traceability of CAT scanning dose at domestic hospitals, and the third standards promote 'Nanomark' certification, and facilitate traceability of nanomaterial size standards and distribution in the semiconductor, biomedical, and chemical engineering industries. BSMI's standards work is thus helping conventional industries to ascend to new heights, and benefiting more than a million persons each year by ensuring the safety of CAT scans. BSMI's efforts are responding to the country's economic development, and constantly keeping pace with the needs of industry and international metrological developments.

C. BSMI participated as an ad hoc observer in the 22<sup>nd</sup> conference of the OECD Good Laboratory Practices (GLP) working group in Rome, Italy, and reported on the status of Taiwan's GLP conformance monitoring system. Looking ahead to the future, BSMI will facilitate the expansion of overseas markets by Taiwanese firms through the international acceptance of OECD GLP Mutual Acceptance of Data (MAD).

## (2) Implementation of 520 World Metrology Day activities

BSMI held various World Metrology Day activities over the period of May 19-



30 in conjunction with its branches, units implementing technology development programs, and metrology business associations in northern, central, and southern Taiwan. These activities consisted of academic seminars, public awareness events, and promotional and celebration activities. Apart from promoting interaction with metrology firms and associations, and fostering solidarity among metrology

personnel, the activities also gave the public a better understanding of metrology and its importance in industry and everyday life.

## (3) Hosting the 2008 APEC Nanoscale Measurement Technology Forum

BSMI, the Department of Industrial Technology, and Industrial Technology Research Institute jointly hosted the 2008 APEC Nanoscale Measurement Technology Forum

during the period of October 1-3. More than a hundred experts and specialists from 10 economies, including the US, Korea, Singapore, Japan, Thailand, China, and Taiwan, attended this event, which explored advanced nanometer analysis and measurement technologies, nanometer metrology standards, application of nanotechnology in the semiconductor industry, and metrology standards for nanostructure materials. The event also established a framework for future cooperation in the field of nanoscale testing technology, and promoted the development of nanoscale testing methods.



(4) Hosting the 2008 Metrology Project Results Exhibition

In conjunction with associate sponsors ITRI Center for Measurement Standards, Taiwan Accreditation Foundation, Chungwa Telecom Laboratories, Institute of Nuclear Energy Research, BSMI hosted the "2008 BSMI Metrology Project Results Exhibition," on December 3. The results presented at this event included the National Measurement Laboratory's measurement and calibration systems, newly-developed testing technology, and certification services. The event shared technological results with industry, boosting companies' technological capacities.



(5) Implementation of verification and inspection of legal measuring instruments in order to maintain a fair trade system

In order to implement the verification and inspection on legal measuring instruments for trade, certification, law enforcement, environmental protection, and healthcare, and to provide weight calibration services, BSMI effectively performs verification and inspection on measuring instruments subject to verification and inspection, and thus maintains the safety and health of consumers and the environment. BSMI's performance statistics during 2008 are as shown in the following table:

### Verification and Inspection of Measuring Instruments

Unit: No. of Pieces

Year	Total	Initial Verification	Re-verification	Inspection	Second-grade Calibration	Calibration for Weights	Appraisal of Disputes	Complaints and Reported Violations	Market Surveillance
2008	3,414,693	2,675,662	628,762	95,065	1,291	1,852	567	239	11,255
2007	2,819,523	1,970,592	745,690	89,472	1,563	1,592	423	208	9,983
Differences	21.11%	35.78%	-15.68%	6.25%	-17.40%	16.33%	34.04%	14.90%	12.74%

### 3. Inspection & Certification of Commodities

#### (1) Inspection of imported and domestically-made products

The purpose of inspecting imported goods is to prevent the entry of defective products, and thereby protect consumers' health and safety. A total of 395,563 batches of imported products were inspected in 2008.

#### Inspection of Imported Products

Unit: Batch

Year	Total	Taipei Headquarters	Keelung Branch	Hsinchu Branch	Taichung Branch	Tainan Branch	Kaohsiung Branch	Hualien Branch
2008	395,563	393	223,367	70,251	24,281	93	77,178	-
2007	388,409	383	221,064	76,404	25,566	110	64,882	-
Differences	1.84%	2.61%	1.04%	-8.05%	-5.03%	-15.45%	18.95%	--

The purpose of inspecting domestically-made products is to ensure that all products comply with legal safety, sanitation, or energy-conservation standards, and thereby protect consumers' health and safety, and maintain consumers' rights and interests. A total of 5,971 batches of domestically-made products were inspected in 2008.

#### Inspection of Domestically-Manufactured Products

Unit: Batch

Year	Total	Taipei Headquarters	Keelung Branch	Hsinchu Branch	Taichung Branch	Tainan Branch	Kaohsiung Branch	Hualien Branch
2008	5,971	1,152	152	637	1,896	1,211	581	342
2007	6,522	1,174	150	773	2,215	1,212	657	341
Differences	-8.45%	-1.87%	1.33%	-17.59%	-14.40%	-0.08%	-11.57%	0.29%

## (2) Product items subject to regulatory inspection

A total of 606 imported product items and 606 domestically-made products were subject to regulatory inspection as of the end of 2008.

**Number of Product Items Subject to Regulatory Inspection**

Unit: Project Items

Year	Imported	Exported	Domestic	Entrusted by Department of Health
2008	606	-	606	1,816
2007	621	-	621	1,806
Differences	-2.42%	--	-2.42%	0.55%

(3) In order to strengthen commodity inspection, in 2008 BSMI revised or adopted numerous product items subject to inspection, including digital television set-top boxes, sunglasses, plasticizers used in plastic toys, B1 biodiesel, and power shearing machines.

(4) BSMI helped domestic firms to comply with the European Union's RoHS environmental protection regulations by conducting "Designated Hazardous Substance Testing Laboratory" certification. In addition, as of the end of the year, a total of 12 testing laboratories had passed certification since BSMI initiated voluntary product certification for electrical machinery and electronics parts and components (GC-VPC) on January 1, 2006.



(5) Promotion of inspection technology standardization and strengthening of domestic testing and inspection capacity

A. Addressing the needs of industry in Taiwan, BSMI implemented and participated in comparative tests focusing on 10 items, including chemical, physical, and electrical properties, in an effort to gauge the capabilities of domestic testing laboratories. Furthermore, BSMI also implemented 28,277 special inspection and testing cases commissioned by firms.

- B. BSMI continued to apply to the Taiwan Accreditation Foundation (TAF) for certification; BSMI added 12 certification items during the year, including chemical, physical, electrical, and testing laboratory certification.
  - C. BSMI applied to TAF for "Proficiency Test Provider" certification in an effort to strengthen its quality standards and technology service capability.
- (6) Expansion of product inspection service platforms, and provision of diversified commodity inspection information and channels
- A. BSMI established a "Testing Information Service Platform" in order to integrate domestic testing resources and promotes the development of the testing industry.
  - B. BSMI announced a "List of Product Certification Service Outsourced Certification Categories and Items" for power shear machines on March 12. This formally allowed private product certification organizations to provide third-party certification of this type of product.
- (7) In accordance with the conclusions of the 2007 Executive Yuan Strategic Review Board (SRB) on Industrial Technology, BSMI implemented the "Preliminary Research and Adoption Project Concerning Establishment of Product Standards, Testing Technologies, and Certification Platforms for the Energy Conservation, Renewable Energy, and Advanced Energy Industries."
- (8) Assisting relevant industries to expand their international markets
- A. Officials from the US Food and Drug Administration (FDA) visited Taiwan over the period of May 5-23 in order to investigate and confirm Taiwan's relevant laws and regulations, and help seafood product processing plants exporting to the US ensuring that relevant processes complied with American "Hazard Analysis Critical Control Point (HACCP)" certification requirements. This visit will facilitate the export of Taiwan's seafood products to the US.
  - B. BSMI decreed "Sanitation Management Operating Procedures for Seafood Products Exported to Russia" in accordance with Russian seafood product sanitation standards and seafood quarantine certificate requirements. These operating procedures were issued to relevant BSMI units for implementation on September 15.
  - C. Experts from the European Commission's Food and Veterinary Office (FVO) visited Taiwan over the period of September 17-24 to inspect the condition of fisheries

products produced for export to the EU and official controls on production. The EU delegation confirmed that Taiwan's fisheries product industry is implementing supply chain control and improvement measures for products exported to the EU.

D. In order to ensure that the sanitation safety management certification systems of export food processing plants adopt sanitation rules for seafood products to be exported to the European Union, and provide a unified set of operating procedures, BSMI revised the "Export Food Processing Plant Sanitation and Safety Management System Registered Product Type Determination Principles Instruction Handbook," "Export Food Processing Plants Sanitation and Safety Management System Certification Man-Days Determination Principles Instruction Handbook," and "Export Food Processing Plant Sanitation and Safety Management System Certification Fee Collection Instruction Handbook."

(9) BSMI implemented a series of "Appointment with the People" activities to share knowledge and experience with companies. These activities were intended to provide necessary assistance to firms and promote the further improvement of the domestic commodity inspection system.

#### 4. Market Surveillance and Product Safety Management

(1) Implementing market checking and purchasing samples for inspection

A. BSMI strengthened sampling and testing of inferior-quality Chinese-made products on the market, and focused on such products as electric blankets, electric hot pot cookers, inexpensive decorations, and bedding in 54 inspection cases during the year.

B. BSMI cooperated with the Consumers' Foundation in testing purchased samples. The 10 cases completed during 2008 focused on 10 product items, including playing cards, baby strollers, synthetic laundry detergents, apparel, toothbrushes, toys, digital television set-top boxes, and electric heaters.

C. BSMI conducted sampling tests of 20 items of seasonal/holiday products, including children's clothing, children's shoes, light sticks, incense, mock paper money, fragrant sachets, portable cartridge stoves, costume toys, lighting chains, and snow spray.



D. BSMI performed market surveillance tasks on a case-by-case basis, and implemented 63 cases during 2008. Market checking and sampled product inspection work focused on 66 product items, including electric hot pot cookers, microwave ovens, lighting chains, power cords, motorcycle safety helmets, automotive alloy wheel rims, power-saving light bulbs, automotive child protection devices, portable stereos, and electric hot water bags.

(2) BSMI established the "Product Safety Information Site" (<http://safety.bsmi.gov.tw>), implemented compulsory notification requirements aimed at parties with reporting duties, and actively announced defective product information issued by the US Consumers Product Safety Commission (CPSC), EU Rapid Alert System for non-food consumer products (RAPEX), and the economic sections of Taiwan's representative offices overseas.



(3) Major activities and public awareness

- A. BSMI held the "Explanatory Meeting on Commodities Subject to Inspection and Product Markings" and various consumer safety activities in April.
- B. BSMI established "Dangerous Product Control Awareness Team" to conduct awareness activities in schools, exhibition halls, and shopping centers. The 161 presentations held in 2008 protected consumers' rights and interests by showing consumers how to select acceptable products, and avoid purchasing unacceptable inferior-quality products.
- C. BSMI commissioned the Government Information Office, Executive Yuan to display 12 seasonal/holiday public interest TV caption messages showing consumers how to identify approved products, and reminding the public to refuse illicit products and pay attention to safe product use.
- D. BSMI held 10 "Product Incident Notification Awareness Meetings," and explained the "Regulations for Reporting Incidents Caused by Commodities Subject to Inspection" and related regulations to persons with reporting duties.

## 5. Management Systems Certification

- (1) BSMI's ISO 9001 quality management system certification received a "Quality Management System (ISO 9001) Certification Organization" certificate compliant with new standard ISO 17021: 2006 from TAF, and BSMI was permitted to list the new certification area "35-1 Labor Services (including human resources brokers)." Thus far BSMI has been permitted to offer certification in 21 areas.
- (2) BSMI's ISO 14001 environment management system certification received a "Environmental Management System (ISO 14001) Certification Organization" certificate compliant with new ISO 17021: 2006 environmental management system from TAF, and BSMI was permitted to list the new certification area "25-3 Power Supplies (nuclear energy)." Thus far BSMI has been permitted to offer certification in 13 areas.
- (3) BSMI's ISO 27001 information security management system certification received an "Information Security Management System (ISO 27001) Certification Organization" certificate compliant with the new ISO 27006 information security management system certification from TAF.
- (4) BSMI's OHSAS 18001 occupational health and safety management system certification received an "Occupational Health and Safety Management System Certification (OHSAS 18001) Certification Organization" certificate compliant with the new ISO 17021 occupational health and safety management system from TAF, and BSMI was permitted to list the new certification area "25-1 Power Supplies (coal-fired and fuel oil power generation)."
- (5) BSMI's ISO 22000 food safety management system certification received an "ISO 22000 Certification Organization" certificate compliant with ISO 22003 requirements from TAF.
- (6) BSMI instituted the new TOSHMS Taiwan occupational health and safety management system certification, and received a "Taiwan Occupational Health and Safety Management System (TOSHMS) Certification Organization" certificate from the Council of Labor Affairs, Executive Yuan.
- (7) BSMI's ISO 14064-1 greenhouse gas (GHG) verification received an "ISO 14064-1 Verification Organization" certificate compliant with ISO 14065 from TAF. This has made BSMI the first authorized certifier of greenhouse gas verification organizations in

Taiwan.

(8) BSMI conducted 2 HACCP certification operating consistency seminars.

## 6. Information Services

### (1) Overview of collections

The standards collection of the BSMI includes National Standards of the Republic of China (CNS), standards issued by major international organizations, leading industrialized countries as well as standard catalogs and other relevant standards information (such as official gazettes and journals). In addition, the statutes and metrological information are also collected. The collections are as follows as of the end of 2008:

Classification	Type	Quantity	Remarks
CNS	Hard copy & electronic file	14,300	A total of 2,793 CNS has been translated into English.
Foreign Standards	Hard copy	160,000	
	CD	14	About 45,000 standards
	Compiled book	745	
	Virtual collection (on-line download)	3	About 75,000 standards
Standard Catalogs	Hard copy	89	
	CD Rom	12	
Metrology Information	Hard copy	310	
Standard Journals	Hard copy	32	
Standard Gazettes	Hard copy	5	

### (2) Online information systems

#### A. CNS online service system (<http://www.cnsonline.com.tw/>)

CNS online service system provides 24-hour a day service. It allows the public to query, preview, browse and download the CNS via the Internet. There were 325,098 visits in 2008, an increase of 17,291 visits compared with 2007.

#### B. Foreign standards query system (<http://fsms.bsmi.gov.tw/cat/>)

Foreign standards query system provides the public to make real-time queries of

foreign standards collected by the BSMI. The system contains approximately 180,000 standards from more than 80 standard organizations as of the end of 2008. There were 209,794 visits in 2008, an increase of 116,026 visits compared with 2007.

### (3) Compilation and distribution of information

The BSMI publishes and distributes CNS and CNS catalog. In order to promote international trade and facilitate the sharing of information between international standards organizations, the BSMI publishes English version CNS by soliciting the opinions of industry and academic experts and scholars. A total of 2,793 CNS has been translated into English as of the end of 2008. The English version CNS are chiefly those concerned with chemical engineering, electronics, foods, and ceramics.

### (4) Authorized reprint service

Due to the increasing demand among industrial and academic users for standards issued by major standard organizations, the BSMI has signed licensing agreements with 7 standard organizations in an effort to provide users legal access to needed standards information. Users can obtain authorized full-text standards reprints by paying royalties. There were a total of 2,902 authorized reprints provided in 2008.

### (5) Standards information e-bulletin

In order to provide standard information to users, the BSMI has regularly issued a standards information e-bulletin on the 15<sup>th</sup> day of each month since January 2008. There are 895 subscribers as of the end of 2008.



### III. International Cooperation

In recent years, the flow of commodities across borders is often obstructed due to the need to comply with different technical regulations or conformity assessment procedures adopted by different countries. In order to reduce the impact these measures would impose on trade and to prevent repetitive inspection, the BSMI actively seeks cooperation with renowned testing and certification bodies of other countries. Via such cooperation, the BSMI hopes to assist domestic manufacturers in obtaining product certification marks of the importing countries and to enhance the testing capabilities of the BSMI.

The BSMI has engaged in the following cooperation in 2008 at both multilateral and bilateral level.

#### 1. Multilateral cooperation

##### (1) UN/CEFACT and AFACT

- A. Participation in the 11<sup>th</sup> UN/CEFACT Forum held in Mexico City on April 6-11 and the 12<sup>th</sup> UN/CEFACT Forum held in Senegal on November 10-14: Our delegates attended in three working groups: International Trade & Business Processing Group (TBG), Techniques & Methodologies Group (TMG) and Information Content Management Group (ICG), which allowed us to obtain information on standards related to the WCO Data Model, SWIFT (Society for Worldwide Interbank Financial Telecommunication) and the harmonization of core elements. The information is useful in facilitating the drafting and revision of e-commerce-related national standards.
- B. Participation in the 26<sup>th</sup> AFACT mid-term council meeting held in Cheju Do, South Korea, on April 30-May 2: The BSMI serve as the AFACT Secretariat, also assisted in the preparation of this meeting.
- C. Participation in the 26<sup>th</sup> AFACT Plenary Meeting and EDICOM 2008 in Seoul, South Korea on October 13-16: A national progress report was made at this meeting.



National representatives at the 26<sup>th</sup> AFACT Plenary Meeting

(2) WTO/TBT

- A. Participation in the 45<sup>th</sup> and 47<sup>th</sup> WTO/TBT Committee Meetings held in Geneva, Switzerland on March 18-19 and November 5-6 respectively: We actively took part in discussion of various issues at the seminar on good regulatory practice held in conjunction with the 45<sup>th</sup> Committee Meeting.
- B. Participation in the "National Seminar on Self-Assessment of Trade Facilitation" held jointly by the Bureau of Foreign Trade and WTO Secretariat on March 31: This event reviewed trade facilitation measures adopted by BSMI.
- C. Serving as the WTO/TBT Enquiry Point: 12 WTO/TBT notifications were submitted to the WTO and 1,289 WTO/TBT notifications were forwarded to the relevant competent authorities, industry associations, and firms. 712 notifications made by countries with which Taiwan enjoys close trading relationships were translated into Chinese for purpose of easy reading. We also helped domestic competent authorities and companies to obtain TBT-related laws and regulations from other countries via WTO/TBT Enquiry Points of other countries.

◆ Comparison of the operation of the TBT Enquiring Point between 2008 and 2007:

	WTO/TBT Notifications Submitted	WTO/TBT Notifications Distributed	WTO/TBT Notifications Translated
2008	12	1,289	712
2007	13	934	633

- D. Participation in the "Trade Facilitation: Multilateral Negotiations and Free Trade Agreements" Seminar held by the Agency for International Trade Information and Cooperation (AITIC) in Mexico: A briefing on "TBT Issues under the APEC Framework" was presented.

(3) APEC/SCSC

- A. Participation in the 1<sup>st</sup> and 2<sup>nd</sup> 2008 meetings of the APEC Sub-Committee on Standard and Conformance (SCSC), and relevant meetings, which were held in Cuzco and Lima, Peru on February 22-27 and August 6-13 respectively.
- B. Participated in APEC Electrical and Electronic Equipment Mutual Recognition Arrangement (EEMRA) Seminars, and the 12<sup>th</sup> and 13<sup>th</sup> EEMRA Joint Advisory Committee (EEMRA JAC) Meetings held in Brunei and Bali, Indonesia on May 12-14 and November 6-7 respectively.

- C. Participated in a training seminar on major infrastructure and maintenance system standardization plan held in Hanoi, Vietnam on August 27.
- D. Participation in the APEC/APLMF Training Courses on Legal Metrology — Training Course on Water Meters held in Hanoi, Vietnam on September 23-26.
- E. Participation in the Ensuring Product Safety for Consumers APEC Capacity-Building Workshop in Kuala Lumpur, Malaysia on November 10-12.

(4) OIML & CIML

Participation in the 13<sup>th</sup> OIML Conference and 43<sup>rd</sup> CIML Annual Meeting in Sydney, Australia on October 27-31.



Group photo of participants at the OIML & CIML conferences

(5) APLMF

A. Participation in the Training Course on Water Meters held in Hanoi, Vietnam on September 23-26.



Group photo of participants in the Training Course on Water Meters

B. Participation in the APLMF Annual Meeting in Sydney, Australia on October 21-24, and presentation

of a report on the results of the electronic sphygmomanometer training course held in June 2008.

(6) ILAC and IAF

Participation in the joint annual meeting of ILAC and IAF in Stockholm on October 10-21.

(7) APLAC

Participation in the APLAC Annual Meeting in Singapore on December 8-12.

(8) ICPHSO

Participation in the 15<sup>th</sup> annual conference of the International Consumer Product Health & Safety Organization (ICPHSO) and 4<sup>th</sup> European conference and "Enhancing Market Surveillance through Best Practice" (EMARS) conference in the US and Belgium on February 18-21 and November 18-20 respectively.

## 2. Bilateral Cooperation

(1) Bilateral consultations

A. Participation in bilateral trade meetings

The BSMI participated actively in Taiwan-Saudi Arabia, Taiwan-EU, Taiwan-New Zealand, Taiwan-Japan, Taiwan-Korea, and Taiwan-Republic of South Africa bilateral consultations, and shared its views concerning standards and conformity assessment.

B. Promotion of bilateral agreements

- ◆ BSMI and Singapore's TUV SUD PSB Pte., Ltd. (formerly PSB Certification Pte., Ltd.) renewed the MOU concerning ISO 9000 co-registration.
- ◆ BSMI signed a general agreement on cooperation with the Austrian Standards Institute on June 17. This agreement not only strengthens the relationship between Taiwan and Austria, but also facilitates cooperation in the form of information sharing, exchange of experts, standardization and product certification between the two Parties.
- ◆ BSMI signed a licensing agreement with Beuth Verlag BmbH ("Beuth"), the sales representative of Germany's "DIN" standards, on December 9. This agreement allows BSMI to download information from the Internet, instead of waiting for paper copies, and establishes a new model of online cooperation between the BSMI and DIN.

(2) Various international exchange activities

A. International symposiums

- ◆ BSMI selected 14 experts on information and communications technology

standards to participate in standardization activities, including the 52<sup>nd</sup> and 53<sup>rd</sup> ISO/IEC JTC1/SC2/WG2 meeting, the 30<sup>th</sup> and 31<sup>st</sup> ISO/IEC JTC1/SC2/WG2/IRG meeting, the 15<sup>th</sup> ISO/TC71 technical committee meeting, 12<sup>th</sup> United Nations Centre for Trade Facilitation and Electronic Business (UN/

CEFACT) Forum, the ISO/IEC/JTC1/SC31/WG3/SG1 and WG4/SG3 meeting, and the 3<sup>rd</sup> Linux Collaboration Summit, to collect the most up-to-date information and communications standards information, and help industry to stay abreast of the development of international standards applications.

- ◆ BSMI participated in conferences held by major international information and communications industry standards organizations, including the WiMAX Forum, 3GPP LTE, IEEE 802.16, DVB, and SA Forum, a total of 150 person-times. BSMI presented 156 advanced R&D results at these conferences, and 41 were accepted as technological contributions.
- ◆ The Japan Interchange Association held a JIS Mark Seminar on April 28, which helped Taiwan's manufacturers to export their products to Japan and promote bilateral trade.
- ◆ BSMI sent personnel to the "ISO Vehicle Electronics System EMC Technology Standards Conference" held in Yokohama, Japan on June 15-19 to collect information and news on international vehicle EMC standards, and exchange knowledge with foreign technology experts.
- ◆ BSMI held the "Asia-Pacific Legal Metrology Forum (APLMF) Electronic Sphygmomanometer Training" on June 23; 21 trainees from 10 APEC member economies took part in this training session.
- ◆ BSMI sent personnel to participate in the "2008 9<sup>th</sup> Asia-Pacific Smart Transportation System Forum and Transportation Technology Exhibition"



Group photo of participants at the 30<sup>th</sup> ISO/IEC JTC1/SC2/WG2/IRG

in Singapore on July 13-18, and visited relevant companies and agencies in Singapore. It provided enhanced understanding of Singapore's vehicular information and communications organizations, agencies, and international manufacturers, and allowed BSMI to ascertain the vehicular information and communications industry's standards and development strategies. The information provides a valuable reference when Taiwan participates in the activities of international standards organization and major industry alliances, and implements relevant programs.

- ◆ BSMI sent personnel to participate in the 2008 IEEE EMC Symposium held in Detroit on August 20.
- ◆ BSMI sent personnel to attend the 68<sup>th</sup> IEEE VTC Fall in Canada on September 17-25, and also visited PATH in the US. BSMI took advantage of participation in the IEEE VTC conference to stay abreast of IEEE VTC standards development trends, and collected information on American vehicular information and communications developments at PATH.
- ◆ BSMI sent personnel to participate in the "Biofuels Met 2008" (biofuels and metrology) in Strasbourg, France on November 6-7.

### B. Reciprocal visits with organizations

- ◆ BSMI visited the Japan Automobile Manufacturers Association (JAMA) in Japan on January 23-31, and toured Japan's vehicular information and communications industry promotion organization (ITS Japan), VICS, HIDO, Kyoto University, VCCI, Toyota, Nissan, Hitachi, and Renesas. This trip gathered information on the efforts of the Japanese Government to develop ITS, the state of Japan's vehicular information and communications standards technology, industry development strategies, the functioning of Japan's vehicular information and communications standards organization, and the state of standards technology development among Japan's leading vehicular information and communications manufacturers. The delegation also established collaborative relationships with leading companies and organizations.
- ◆ A BSMI delegation visiting Geneva, Belgium, and Sweden during the period of March 4-14 attended the 78<sup>th</sup> Geneva Auto Show and visited ERTICO, the Swedish Road Administration (SNRA), Telematics Valley, Wireless Car, and Volvo. This

trip gathered information on the efforts of European countries to develop ITS and vehicular information and communications standards technology, the state of the vehicular information and communications industry and its strategies, the functioning of European vehicular information and communications organizations, and the development of standards technology by major European vehicular information and communications manufacturers. The delegation also established collaborative relationships with leading companies and organizations.

- ◆ A BSMI delegation visiting Geneva, Switzerland on June 1-8 attended the "2008 7<sup>th</sup> European Intelligent Transportation System Service Conference and Exhibition," exchanged views with participating organizations, the Swiss Railway Bureau, and representatives of British and Swiss ITS units, and gained an understanding of European ITS development efforts and vehicular information and communications standards development trends. This information will provide Taiwan with a springboard for participation in future international standards organization activities and guide the implementation of future programs.
- ◆ Assistant Prof. Choonjoo Lee and Mr. Captain Park, both of Korea's Defense University, visited BSMI on July 18. The Koreans gathered information concerning the drafting of Taiwan's defense and civilian standards, usage of the online CNS system, and CNS compilation projects, and shared information and views concerning standards with BSMI.
- ◆ BSMI sent personnel to visit Japan's intelligent transportation system (ITS) organizations during the period of July 27-August 2, conducted negotiations with Japanese firms, and participated in talks concerning further standards-related cooperation.
- ◆ The Taiwan Accreditation Foundation (TAF) and a Thai certification organization observer conducted an on-site accreditation assessment of Proficiency Test Implementing Organization at BSMI's offices on July 30.
- ◆ BSMI sent personnel to visit Japan's Ministry of Economy, Trade and Industry and other agencies during the period of July 27-August 1, and collected information concerning Japan's consumer product safety investigation mechanisms.
- ◆ BSMI, together with the Department of Health and Bureau of Animal and Plant Health Inspection and Quarantine, Council of Agriculture, sent personnel to visit

Ministry of Health, Labour and Welfare and other agencies during the period of August 31-September 6, and obtained information concerning Japan's "Positive List System for Agricultural Chemical Residues in Foods."

- ◆ BSMI sent personnel to JQA, JET, NITE, JRAIA, HITACHI, and METI in Japan to collect information on Japan's certification activities.
- ◆ BSMI sent personnel to visit Japan's National Institute of Advanced Industrial Science and Technology and other agencies to collect information concerning Japan's photovoltaic energy product testing technology and certification system.
- ◆ BSMI sent personnel to visit China's Electric Lighting Testing Center and other organizations to collect information on China's EMI LED safety regulations, performance testing technology, and certification system.
- ◆ BSMI sent personnel to relevant European organizations (including Denmark's RISO and DNV, Germany's DEWI, and Spanish organizations) to collect information concerning wind power generating system safety and performance testing, standards, and certification systems.
- ◆ BSMI sent personnel to visit the United States' NIST, NREL, and University of Maryland to collect information on hydrogen energy and biofuel (from non-edible crops) standard traceability techniques and international cooperation frameworks. The delegation also participated in the 21<sup>st</sup> Century Biofuel (from Non-Edible Crops) Science Exhibition.
- ◆ BSMI sent personnel to visit standards organizations in France and the Netherlands, including PTB, LNE, and NMi, to collect information on hydrogen energy and biofuel (from non-edible crops) standard traceability techniques and international cooperation frameworks. The delegation also participated in a European renewable energy exhibition and gained an understanding of European renewable energy industry's testing systems.
- ◆ BSMI sent personnel to visit the US Automotive Industry Action Group (AIAG), vehicular information and communications industry promotion organizations (such as AASHTO), major vehicular information and communications manufacturers (such as GM, Sony, and KDDI, etc.), and vehicular information and communications standards organization (such as SAE, ISO, and IEEE, etc.).
- ◆ BSMI sent personnel to major European automotive shows (such as the Frankfurt

Motor Show), and visit major European vehicular information and communications manufacturers, the European promotional authority in charge of the vehicular information and communications industry (EC), and vehicular information and communications standards organizations (such as CEN).

- ◆ BSMI sent personnel to China to visit Taiwanese vehicular information and communications firms and local subsidiaries of major international manufacturers. The purpose of this trip was to collect information on the development of vehicular information and communications standards in China and explore opportunities for Taiwanese firms.

### C. Personnel training and professional courses

- ◆ Dr. Sal Rand, advisor and chairman of ASTM's D2-D5 committee, delivered the "Gasoline Standards, Testing, and Technology Training Course" at BSMI's on April 14-16.



Lecturer Dr. Sal Rand teaching a course at BSMI

- ◆ BSMI sent personnel to visit Japan's Ministry of Economy, Trade and Industry, Japanese Standards Association, Japanese Quality Assurance Organization, National Institute of Technology and Evaluation (NITE), National Institute of Advanced Industrial Science and Technology, and the Kyohei Licensing Office during the period of September 9-20. The purpose of this visit was to collect information and exchange views concerning "globalization of the JIS standards system and related use of intellectual property rights."
- ◆ 5 trainees from the Saudi Arabian Standards Organization (SASO) received technology training at BSMI in Taiwan.
- ◆ BSMI sent personnel to Tokyo on November 27-29 to participate in the 2<sup>nd</sup> Asian Conference on Photocatalytic Material and Product Standardization, which was organized by the New Energy and Industrial Technology Development Organization's (NEDO) and other organizations.

- ◆ Japanese experts visited BSMI during the Taiwan-Japan Technology Cooperation Program on December 1-3 and presented at a seminar on the subject "Insights from a Customer Electrical Appliance Malfunction Survey."



Group photo of Japanese experts with the BSMI director and personnel

- ◆ BSMI participated in the United States CTS company's comparative tests of plastic product performance.
- ◆ BSMI participated in the APLAC PTB 2008 Portland Cement Proficiency Testing Program sponsored by the Vietnam Laboratory Accreditation Scheme.
- ◆ BSMI sent personnel to visit the EU Food and Veterinary Office (FVO) in Ireland to participate in the Commission of the European Communities' Structural Traineeships Program (STP).
- ◆ EMC experts from IBM Japan provided training on "Automotive IC EMC Numerical Simulations and Measurements" (7 person-times) at BSMI as part of a 2008 technology development program.



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