



Contribution to globally environmental Preservation of HORIBA Business

IBUKA Shigehito

Executive Director, Japan Environmental Management Association for Industry (JEMAI);

Division Manager, Environment and Safety, Quality Management Center, HORIBA



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For 1st CJK Cooperation Dialogue

Contribution to globally environmental Preservation of HORIBA Business

Shigehito Ibuka
November 13, 2014
@ Seoul, Korea

HORIBA

HORIBA, Ltd.

HORIBA

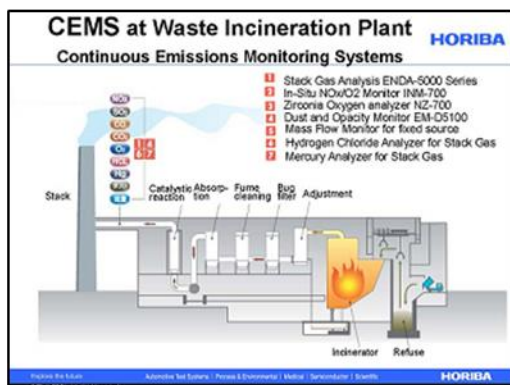
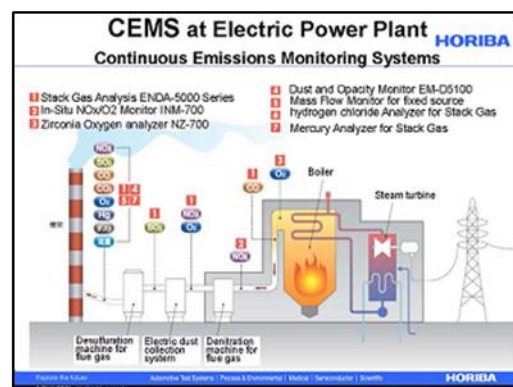
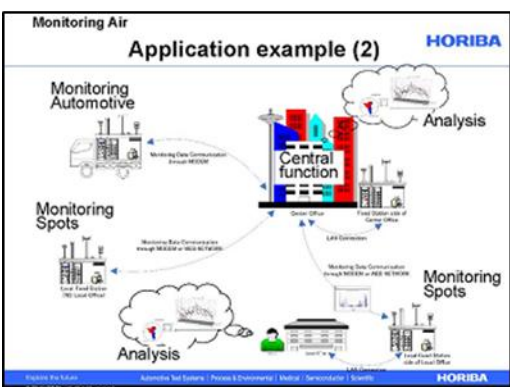
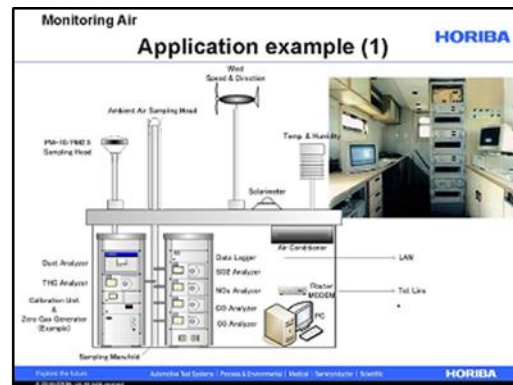
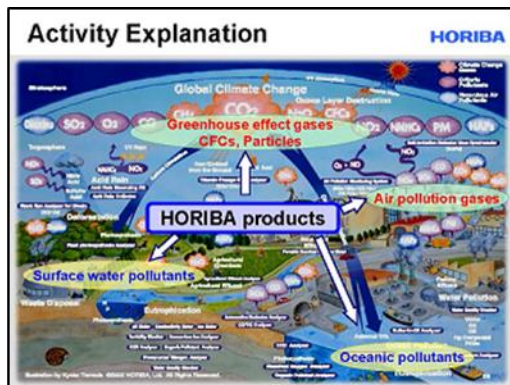
- Head Office**
Kyoto, Japan
- Business content**
Manufacture and Sale of
 - Automotive Test Systems
 - Environmental & Process Instruments Systems
 - Medical/Diagnostics Instruments & Systems
 - Semiconductor Instruments & Systems
 - Scientific Instruments & Systems
- Incorporation**
January 26, 1953
- Capital**
12.0 BJPY
- Number of Employees**
5,767 (As of December 31, 2013)
- Chairman, President & CEO**
Atsushi HORIBA
- Fiscal Year End**
December 31

HORIBA World Wide Major R&D/Production Sites

Production: ● R&D: ●

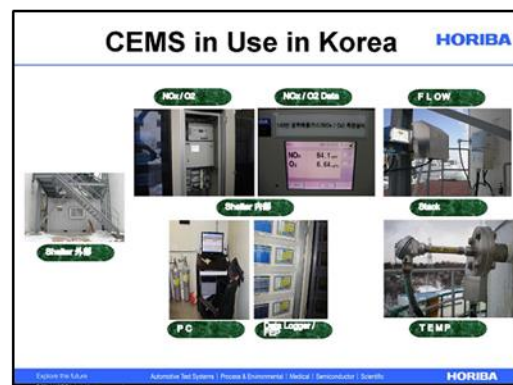
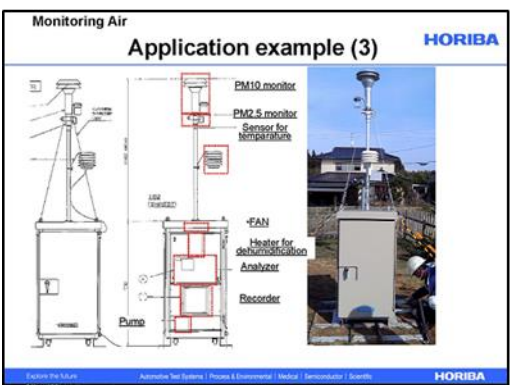
Business Segments

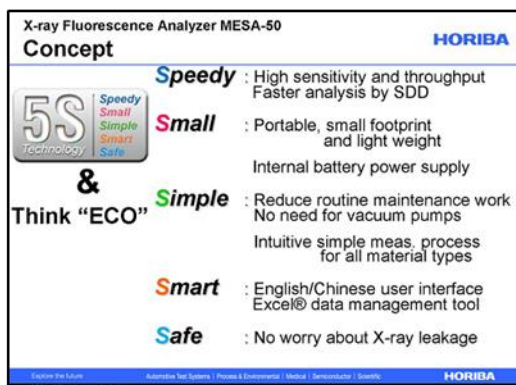
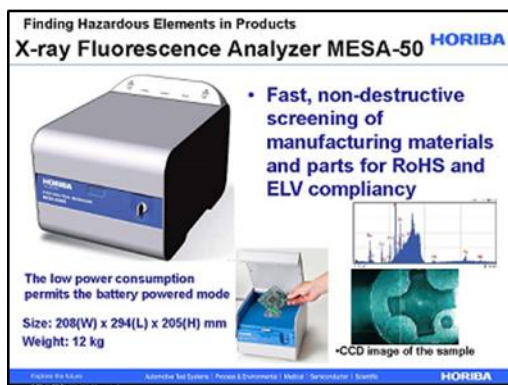
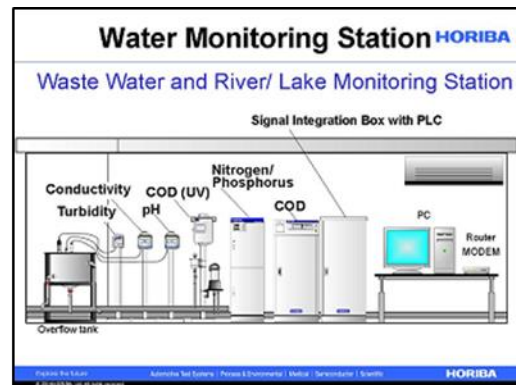
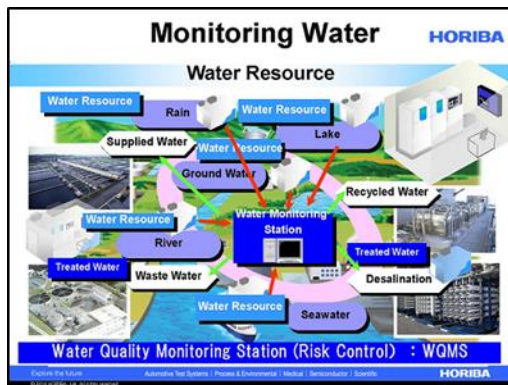
- Automotive Test Systems**
 - Emission Measurement Systems (EMS)
 - Mechatronics Devices (MCT)
 - Test Automation Systems (TAS)
 - Intelligent Transport Systems (ITS)
- Process & Environmental**
 - Environmental & Process Systems
 - Environmental Radiation Monitor
 - Environmental Regulation & Process Business
- Medical**
 - In-Vitro Diagnostic (IVD) Systems
 - Integration of HORIBA's Technology & Marketing know-how
- Semiconductor**
 - Mass Flow Controller
 - In-Situ Analysis
 - Synergy among HORIBAHQ, HORIBATEC and HORIBA Japan's Technologies
- Scientific**
 - Synergy of HORIBA and HORIBA Japan's Technologies
 - Raman, Crystalline, and Fluorescence



Standards of Particle Matter Emission

	WHO Guideline	China	Japan	Korea	EU Directive 86/62/EC	USA USEPA NAAQS
PM ₁₀	50 µg/m ³ (24 h) 20 µg/m ³ annual	150 µg/m ³ (24 h) 70 µg/m ³ annual	SPM (24 h) 100 µg/m ³ (24 h)	100 µg/m ³ (24 h) 50 µg/m ³ annual	50 µg/m ³ (24 h) 40 µg/m ³ annual	150 µg/m ³ (24 h)
PM _{2.5}	25 µg/m ³ (24 h) 10 µg/m ³ annual	75 µg/m ³ (24 h) 35 µg/m ³ annual	35 µg/m ³ (24 h) 15 µg/m ³ annual	50 µg/m ³ (24 h) 25 µg/m ³ annual	25 µg/m ³ (24 h)	35 µg/m ³ (24 h) 15 µg/m ³ annual
Ultra Fine Particles					Expected in the future	







JEMAI Environmental Cooperation in China and S. Korea

- JEMAI proactively provides environmental management support to businesses.
- Along with the globalization of environmental concerns, the scope of our reach has widened to include Europe and other Asian nations.
- We have had a particularly strong history of environmental cooperation in China, finding diverse ways to collaborate, including on pollution prevention and regulatory compliance, and training staff to carry out those new measures.
- Our cooperation with China and South Korea on chemical regulations in recent years has resulted in a rise in legislation to regulate chemical substances. In addition to our private sector coordination and collaboration on regulatory compliance, we have also been invited by government officials to participate in a summit (The China, Japan, Korea Chemical Summit) that has been held annually since 2010. This year, summit was held in Shanghai for the fourth time. Next year we hope to bring the summit to Japan.
- Note: Examples of past Japan-China environmental cooperation are available for reference below.

Environmental Technical Cooperation (since FY1996)	
We have engaged in international exchange projects over a long period of time to promote mutual development between Japan and China.	
Period	Overseas Technical Cooperation, Names and Details
FY1997~FY2001	Petrochemical exhaust treatment technology project in Fushun (JICA) Through our invited training and specialist deployment efforts, JEMAI engaged in education and diffusion efforts concerning exhaust treatment technologies, as well as related personnel training, to help enable Fushun Research Institute of Petroleum and Petrochemicals (FRIIPP) to offer guidance on reasonable exhaust treatment technologies (catalytic combustion, harmful mist and malodorous gas absorption) for petrochemical plants at China Petroleum & Chemical Corporation (SINOPEC) participating companies, with the objective of improving exhaust treatment equipment at SINOPEC subsidiaries. JEMAI acted as the national commission executive office for this project.
FY2004~FY2005	Collaborative research on building persistent organic pollutants (POPs) analysis management systems (NEDO, businesses) Along with participating in on-site meetings and seminars about the plant certification system for POPs analysis and measurement, we also conducted training for administrative officials and engineers at the State Environmental Protection Administration. We also gathered information on simple analysis methods.
FY2006~FY2007	China corporate monitor system promotion (Phase 3 extension of the JICA Sino-Japan Friendship Environmental Protection Centre Project) The Sino-Japan Friendship Centre for Environmental Protection Project Phase 3 ended in March 2006, but through this long-term project China and Japan bilaterally acknowledged the need to construct a corporate environmental monitor system, and for two years starting in FY2006, we supported and cooperated on efforts to establish a system in China. During this period JEMAI deployed a total of 30 experts over the course of 10 missions to provide guidance on building a system.
FY2008~FY2010	"Corporate environmental monitor system enforcement preparation" specialist deployment project (JICA Circular Economy Promotion Project) The initial stages of setting up the corporate environmental monitor system called for a wide range of work. We deployed specialists in three fields: general/corporate environmental monitor systems, creation of monitor system training materials, and monitor system teacher training. We provided support including drawing up a China system plan, creating training materials for certification courses, and drafting temporary regulations for environmental protection divisions. As of FY2010, 7000 people had completed preliminary training.

Invited Training and Specialist Deployment Projects	
Bilateral international deployment and training exchanges have contributed to personnel training in all countries involved.	
Projects Time Frame	42 personnel exchange projects between 1995 and 2011.
Projects Count	Specialist deployment projects enacted: 14 Visitor training projects enacted: 28, Total attendees: 96 from China, 59 from other countries
Major Projects Entities	JICA (Japan International Cooperation Agency) JICE (JAPAN INTERNATIONAL COOPERATION CENTER)
Major Projects Details	China petrochemical exhaust treatment technology training/Industrial pollution prevention training Environmentally friendly technology research and training/Pollution prevention management system building support Industry standards and evaluation training/POPs analysis and measurement training Effective biomass utilization technology training/Corporate environmental monitor system setup