

Year of research	2010	
The Construction Technology Review and Certification (Sewerage Technology)		
<p>For the purpose of smooth and fast introduction of newly developed technology by private enterprises to sewerage works , Japan Institute of Wastewater Engineering Technology ‘JIWET’ started the business of ‘the Construction Technology Review and Certification ‘ in the field of sewerage works ,under the authorization by the Ministry of Land ,Infrastructure and Transport in 1992 .</p> <p>Later in 2001, JIWET jointly with other 13 members (foundations) established ‘the Council for the Construction Technology Review and Certification ‘based on the increasing needs for the development and introduction of new technologies from not only private enterprises but also local governments. Carrying out this business, JIWET has greatly contributed to the promotion of research and development and also to the improvement of the sewerage technology.</p> <p>Technical areas intended for are classified in 2 categories of the following.</p> <ol style="list-style-type: none"> (1) Technologies related to the planning, design, construction and operation & maintenance. (2) Technologies related to machines for construction work, equipments, appliances, and materials. <p>Other major points of the scheme are as follows;</p> <ol style="list-style-type: none"> 1) Period : Review and evaluation are to be complete in a fiscal year . 2) Term of Validity : 5 years 3) Categories : Renewal , Modification , New <p>Result</p> <p>In 2010 fiscal year, 42 technologies (16 renewal, 11 modification, 15 new technologies) applied by 75 private enterprises were evaluated under the scheme of ‘the Construction Technology Review and Certification’.</p> <p>Those evaluations were conducted based on the guidance of Review and Certification Committee consisting of members with learning and experiences or local public entity.</p> <p>Certificates were issued to the following 40 technologies listed below. 6 technologies are to be evaluated in the following fiscal year 2011. 3 technologies were stopped evaluating it.</p>		

A table of technical information in 2010

Water processing

№	The technical name	A subtitle	A classification	A client
1	WEEDLESS-V	Low power agitator set up in the upper part of water tank	Modification	SANKI ENGINEERING CO., LTD. MISUZU INDUSTRIES, CO., LTD
2	The ultra fine bubble aeration system(High density type of ceramic diffuser)	—	Modification	METAWATER Co.,Ltd. Kobelco Eco-Solutions Co.,Ltd. IWAO JIKI KOGYOU Co.,Ltd.
3	Hyperboloid mixer PABIO Mix	Low Power Type Mixing Equipments	New Technology	KOBELCO ECO-SOLUTIONS CO.,LTD.
4	K Membrane	Lower Dynamic Wet Pressure Membrane Diffuser	New Technology	KUBOTA CORPORATION
5	rubber membrane diffuser for ultrafine bubble	—	New Technology	JFE Engineering Corporation Mitsubishi Kakoki Kaisha, Ltd. Nishihara Environment Technology, Inc.
6	Hybrid-Notch-Chain sludge collector	—	New Technology	Sumitomo Heavy Industries Environment Co.,Ltd. ASAHI TEC Environmental Solutions Co.,Ltd. METAWATER Co.,Ltd.
7	Continuous rotating filtration equipment	—	New Technology	KOBELCO ECO-SOLUTIONS CO.,LTD.

Grime processing

№	The technical name	A subtitle	A classification	A client
1	Honeycomb Concentrator	—	Renewal	SANKI ENGINEERING CO., LTD.
2	Differential Rotation Screw Press	Pressure raised feed type Screw Press	Renewal	Mitsubishi Kakoki Kaisha, Ltd.
3	Carburizer: Carbonized Sewage Sludge by The Fluidized bed Carbonization Furnace	Utilization of Carbonized Sewage Sludge by The Fluidized bed Carbonization Furnace as Carburizer Used in The Electric Steel Process	New Technology	METAWATER Co., Ltd.
4	Rephosmaster Type HAP	Fast Phosphorus Recovery Equipment	New Technology	Swing Corporation
5	Catalytic N2O reduction system	—	New Technology	METAWATER Co., Ltd.

Other equipment etc

№	The technical name	A subtitle	A classification	A client
1	sand clean	Air Lift Agitation Grit Washer	Renewal	SANEI Co.,Ltd.
2	High Efficiency and High Passthrough Performance Submersible Pump	Submersible Pump having Single Vane Impeller with a Helical Spiral Suction Flow Channel	Modification	ShinMaywa Industries, Ltd.
3	Trash Remover of Double mesh dual flow type	super-fine & fine mesh type	New Technology	MARSIMA AQUA SYSTEM CORP.

Methods of construction

№	The technical name	A subtitle	A classification	A client
1	GR Method	Earthquake proof method of joint of existing manholes and rehabilitation pipes.	New Technology	Sekisui Chemical Co.,Ltd
2	KCMMConstruction Method		Renewal	COPROSCo.,Ltd.
3	PLUSS Method	Pipe Laying Method-Minimize Impact From Earthquake and Liquefaction-	Renewal	Raito Co.,Ltd
4	J-EXPANDIT technology	Trenchless Pipe Replacement by Expandit (pipe bursting device)	Renewal	Obayashi-Road Corp Toa Grout Kogyo Co.Ltd., Iseki Poly-Tech, Inc.
5	"Taishin Ippatsu-kun"	Earthquake proof method of joint of existing manholes and rehabilitation pipes.	Modification	TOKYO METROPOLITAN SEWERAGE SERVICE CORPORATION Maithick Corporation Nippon Hume Corporation
6	Method for quake-proofing of (existing) manhole piping	Non-opencut method for Quake-resistant strengthening of the joint of manholes and pipes.	Modification	TOKYO METROPOLITAN SEWERAGE SERVICE CORPORATION Nippon Hume Corporation HANEX Co.,Ltd
7	Impact Elastic Wave Method	Nondestructive Testing Method for Rehabilitated Sewer Pipes	New Technology	ASHIMORI INDUSTRY CO.,LTD. ADACHI Construction & Industry Co.,Ltd. SHONAN PLASTIC MFG.Co.,Ltd. SEKISUI CHEMICAL Co.,Ltd. Toa Grout,Inc.
8	Non-Destructive Inspection for Rehabilitated Sewer Pipes With Ultrasonic	Quantitatively Cure Inspection Method for Rehabilitated Sewer Pipes	New Technology	ASHIMORI INDUSTRY CO.,LTD. ADACHI Construction & Industry Co.,Ltd. SHONAN PLASTIC MFG.Co.,Ltd. SEKISUI CHEMICAL Co.,Ltd. Toa Grout,Inc.

Facilities machinery

№	The technical name	A subtitle	A classification	A client
1	spacer joint SR	Flexible joints for sewerage	Renewal	Sanritsu Co.,Ltd. Sunesu Rubber ind Co.,Ltd. Shinmei Rubber ind Co.,Ltd.
2	High density polyethylene pipes for drainage and swerage	High performance polyethylene pipes and fittings for drainage and swerage	Renewal	Mitsui Kinzoku Engineering & Service co.,Ltd.

Rebirth technology

№	The technical name	A subtitle	A classification	A client
1	PALTEM SZ	Rehabilitation Method of Sewer Pipes – Formation Method –	Modification	ASHIMORI INDUSTRY CO.,LTD. ASHIMORI ENGINEERING CO.,LTD.
2	Rehabilitation Method	Rehabilitation Method of Sewer Pipes – Pipe In Pipe Method –	Renewal	KURIMOTO ,LTD. SEKISUI CHEMICAL CO.,LTD.
3	SGICP – Manhole Process	Rehabilitating and Repairing Method of Manhole	Renewal	Shonan Plastic MF G. Co. Ltd.
4	Manhole Lining System by Long Life Ceramics	Regeneration method of Manhole	Renewal	TOA Grout Kogyo Co.,Ltd SGC Gesuido Center Co., Ltd
5	EX Method	Rehabilitation Method of Sewer Pipes – Forming Method • Thermal Forming type –	Modification	Osaka Bousui Construction Co.,Ltd. Kubota-C.I. Co.,Ltd.
6	Danby Method	Rehabilitation Method of Sewer Pipes – Winding Method –	Modification	Kubota-C.I. Co.,Ltd. Kubota Construction Co.,Ltd. Osaka Bousui Construction Co.,Ltd.
7	PFL Method	Rehabilitation Method of Sewer Pipes – Pipes Formation Method –	Modification	FRP Support Service Co.,Ltd. OKUMURA DORO Co.,Ltd. Daiko road management Co.,Ltd. TAKIRON ENGINEERING Co.,Ltd. FUJINO KOUGYO Co.,Ltd. Yoshida Co.,Ltd.

No	The technical name	A subtitle	A classification	A client
8	EPO·FIT METHOD	Rehabilitation Method of Sewer Pipes-Reversal Method -and lateral a pipe repair Method— Formation Method and Inversion Method—	Modification	sikokukankyouseibikougyou Co.,Ltd.

Repair technology

No	The technical name	A subtitle	A classification	A client
1	SKS Method	Rehabilitation Method of Manhole	Renewal	Co.,Ltd. of Fujinokougyo Co.,Ltd. of FRPSupportService FMR Co.,Ltd.
2	FRP Branch Pipe Liner System by UV	Repair method of Branch Pipe	Modification	TOA Grout Kogyo Co.,Ltd SGC Gesuido Center Co., Ltd
3	Non-excavation Method	Construction will end in 45-60 minutes by the resin that stiffens without applying heat.	New Technology	Miyaplant,Inc. Kyouritukougyou Ltd., Nanahati Inc.

Prevention of rust/materials

No	The technical name	A subtitle	A classification	A client
1	FRPS Method	The Corrosion-proof System with Fiber Reinforced Plastics	Renewal	OSAKA BOUSUI CONSTRUCTION CO.,LTD. Showa Denko K.K. Aica Kogyo Company ,Limited PLUS INDUSTRY CO.,LTD.
2	BOHSHOKUBAN Method	Protection Method of Concrete Structure of Sewerage Facility from Sulfuric Acid Attack	Renewal	KAJIMA Corporation KRC Co.,Ltd. LEO-KA-KEN Co.,Ltd
3	Polyring Method	Polyethylene Strip Rolled Lining	Renewal	OKUMURA CORPORATION OSAKA BOUSUI CONSTRUCTION CO.,LTD.
4	ECOSULFUR anticorrosion method	Anticorrosion cover method for ordinary concrete in sewage works through the use of sulfur concrete	Modification	Obayashi Corporation JX Nippon Oil & Energy Corporation
5	CR Form Method	Concrete Anticorrosion Coating Method— Sheet Lining Method —	New Technology	Toda Corporation. Taisei Corporation. Takenaka Civil Engineering & Costruction Co.,Ltd Tokyu Construction Co., Ltd. Nishimatsu Construction Co., Ltd. Maeda Corporation. Aikawa Kanri Co., Ltd. Saito Construction. shikokukankyou Co., Ltd. Taishin kogyo Corporation Data Base Co.,Ltd. Hokukon Co., Ltd. yamasiro Corporation Grace Chemicals K.K. Shonan Plastic Mfg. Co., Ltd.
6	High Durability Tunnel Lining II (HD-II)	Internal Lining Method for Sewerage Shield Tunnel	New Technology	Kajima Corp. C.I.Kasei CO.,LTD. GEOSTR Corp.
7	Haresult	Concrete with High Resistance to Sulfuric Acid Attack that used blast furnace slag	New Technology	Landes co.,LTD.