Year of Research	2008	

The construction Technology Review and Certification (Sewerage Technology)

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 .

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 .

Technical areas intended for are classified in 2 categories of the following.

(1) Technologies related to the planning , design , construction and operation & maintenance .
(2) Technologies related to machines for construction work , equipments , appliances ,and materials .

Other major points of the scheme are as follows ;

1) Period : Review and evaluation are to be complete in a fiscal year .
2) Term of Validity : 5 years
3) Categories : Renewal , Modification , New

Result

In 2008 fiscal year , 58 technologies (2 renewal , 40 modification , 16 new technologies) applied by 73 private enterprises were evaluated under the scheme of 'the Construction Technology Review and Certification ' .

Those evaluations were conducted based on the guidance of Review and Certification Committee consisting of members with learning and experiences or local public entity.

Certificates were issued to the following 58 technologies listed below . 4 technologies are to be evaluated in the following fiscal year 2009 .

A table technical in 2008

Water processing

№	The technical name	A subtitle	A classification	A client
1	Newair	Low-pressure Loss Diffuser	New Technology	Kobelco Eco-Solutions Co., Ltd., ISHIGAKI COMPANY,LTD., Sumitomo Heavy Industries Environment Co.,Ltd., MARSIMA AQUA SYSTEM CORP.

Grime processing ・ Reuse

№	The technical name	A subtitle	A classification	A client
1	i-Ash	Method for Recycling of Incinerated Sewage Sludge Ash	New Technology	PENTA-OCEAN CONSTRUCTION CO.LTD
2	Integrated Impact type Grinding and Drying System	Biomass Fuel Manufacturing System for Sewage Sludge mixed with Ligneous Waste	New Technology	JP Steel Plantech Co.

Other equipment etc

№	The technical name	A subtitle	A classification	A client
1	EKO Filter	Honeycomb deodorization filter for low concentration	New Technology	EBARA JITSUGYO CO.,LTD.
2	K Turbo Blower	Multi Use High Efficiency Turbo Blower	New Technology	EBARA JITSUGYO CO.,LTD.
3	Multi-mesh Screen	Flat Screen with circulating cresent mesh panel	New Technology	Maezawa Industries,Inc.

Methods of construction

№	The technical name	A subtitle	A classification	A client
1	MDP･SE method	the method of rehabilitation, renewal and expansion for sewage manholes	New Technology	Shinnihonkogyo,Inc, Sanwakogyo,Inc
2	Taishin Ippatsu-kun	Earthquake proof method of joint of existing manholes and rehabilitation pipes.	New Technology	Tokyo Metropolitan Sewerage Service Corporation, Maithick .co,.ltd

Facilities machinery

№	The technical name	A subtitle	A classification	A client
1	TSKJ Method	Earthquake-resistant and Flexible Joint Method of Precast Concrete Products such as Box Culverts.	New Technology	YAMAX Co.,Ltd.
2	IB Box-Culvert type:IB50R	Box-Culvert with Quake-proof Rubber Ring joint	New Technology	Hokukon Co.,Ltd.
3	IB Box-culvert	Box-culvert with Flexible and Quake -proof Rubber ring joint	Modification	GEOSTRCo.,Ltd.
4	New Holetight	Earthquake-proof Flexible Joint of Sewer Manhole	New Technology	CRK Co.,Ltd.
5	Santaccap U-FD	A Quakeproof Coupling for Manholes of Sewer Pipe -For Jacking Method-	Modification	Nihon Step Industry Co.,Ltd, HAYAKAWA RUBBER CO.,LTD
6	Santac Saddle-tee	Flexible Joint for Lateral	Modification	Nihon Step Industry Co.,Ltd, HAYAKAWA RUBBER CO.,LTD
7	RAIN-CLE	Reducing the Non-point Pollution	Renewal	Hokukon Ltd.
8	New Performance Standard of Flood-Resistant Manhole Covers	Cast Iron Manhole Covers	New Technology	ASAHI TEC Environmental Solutions Corporation, KOGI CORPORATION, NIPPON CHUTETUKAN KK., HINODE,LTD.

Rebirth technology

№	The technical name	A subtitle	A classification	A client
1	EpoFit Method	Rehabilitation Method of Sewer Pipes -Inversion Method-and Rateral Pipes Repair Method	Modification	shikokukankyouseibikougyouCo.,Ltd.
2	ALL LINER Method	Rehabilitation Method of Sewer Pipes -Formation Method-	Modification	ASAHI TEC Environmental Solutions Corporation, KANSEI Company
3	ALL LINER i Method	Rehabilitation Method of Sewer Pipes -Inversion Method-	Modification	ASAHI TEC Environmental Solutions Corporation, KANSEI Company
4	Field Fabricated Tube - Steam Method(F type)	Rehabilitation Method of Sewer Pipes -Formation Method-	Modification	TAKIRON ENGINEERING CO.,LTD.
5	Eco Hybrid Liner Method	Rehabilitation Method of Sewer Pipes -Formation Method- and Repair method of Branch Pipe	Modification	Toa Grout Kogyo Co.,Ltd., Shonan Plastic Mfg. Co., Ltd., SGC Gesuido Center Co., Ltd
6	SGICP Method	Rehabilitation Method of Sewer Pipes -Inversion Method and Formation Method- and Repair method of Branch Pipe	Modification	Shonan Plastic Mfg. Co., Ltd.
7	Insituform Method	Rehabilitation Method of Sewer Pipes - Inversion Method and Formation Method -	Modification	Nippon Steel Pipeline Co.Ltd., Insituform Technologies,Inc.
8	GROW Method	Rehabilitation Method of Sewer Pipes -Inversion Method and Formation Method- and Repair method of Branch Pipe	Modification	Gohsay‐inter CO.,Ltd.,
9	SD Liner Method	Rehabilitation Method of Sewer Pipes -Inversion Method-and Repair method of Branch Pipe	Modification	Kansui kogyo Co.,Ltd.
10	C-ONE Method	Rehabilitation Method of Sewer Pipes -Inversion Method-	Modification	DAIKAN KOGYO CORPORATION, OOSAKAGUMI Co.,Ltd
11	Through ring Method	Rehabilitation Method of Sewer Pipes -Inversion Method-	Modification	TAICHI Co.,Ltd, Planner Co.,Ltd, CCS Co.,Ltd, RAC Co.,Ltd, YOKOSHIMA,Inc
12	PALTEM HL	Rehabilitation Method of Exsisting Sewer Pipes -Formation Method and Inversion Method-	Modification	Ashimori Industry Co.,Ltd., Ashimori Engineering Co.,Ltd.
13	K-2 Method	Existing sewer pipe rebirth method of construction -Formation method -	New Technology	Kamio Kogyo Co.,Ltd, Kyosen Doboku Technology Co.,Ltd
14	K-2 Method	Existing sewer pipe rebirth method of construction -Formation method -Repair method of lateral pipe	Modification	Kamio Kogyo Co.,Ltd, Kyosen Doboku Technology Co.,Ltd
15	ALL LINER Z Method	Rehabilitation Method of Sewer Pipes -Formation Method-	Modification	ASAHI TEC Environmental Solutions Corporation, KANSEI Company
16	Field Fabricated Tube - Steam Method	Rehabilitation Method of Sewer Pipes -Formation Method-	Modification	TAKIRON ENGINEERING CO.,LTD.
17	Seamless System Method	Rehabilitation Method of Sewer Pipes-Formation Method- and Mending method of lateral pippes	Modification	Toa Grout Kogyo Co.,Ltd., OBAYASHI ROAD CORPORATION, SGC Gesuido Center Co.,Ltd.

№	The technical name	A subtitle	A classification	A client
18	SGICP Glassfiber-reinforced Method	Rehabilitation Method of Sewer Pipes -Inversion Method and Formation Method- and Repair method of Branch Pipe	Modification	Shonan Plastic Mfg. Co., Ltd.
19	EPR-LS Method	Rehabilitation Method of Sewer Pipes -Formation Method- and Mending industrial method of installation Pipes	Modification	Nihon Kanro Service Co.Ltd.
20	PALTEM SZ	Rehabilitation Method of Sewer Pipes -Formation Method -	Modification	Ashimori Industry Co.,Ltd., Ashimori Engineering Co.,Ltd.
21	EX Method	Rehabilitation Method of Sewer Pipes -Forming Method・Thermal Forming type-	Modification	Osaka Bousui Construction Co.,Ltd., Kubota-C.I. Co.,Ltd.
22	OmegaLiner Method	Rehabilitation Method of Sewer Pipes -Forming Method / Thermal Forming Type-	Modification	Tokyo Metropolitan Sewerage Service Corporation, Sekisui Chemical Co.,Ltd., Adachi Construction & Industry Co.,Ltd.
23	3S Segment Paneling Process	The rehabilitating process of sewage pipes -Paneling Process-	Modification	SHONAN PLASTIC MFG. CO.,LTD., MAEDA CORPORATION, NISHIMATSU CONSTRUCTION CO., LTD. , NIPPON HUME CORP.
24	3S Segment Paneling Process	The rehabilitating process of sewage pipes -Paneling Process-	Modification	SHONAN PLASTIC MFG. CO.,LTD., MAEDA CORPORATION, NISHIMATSU CONSTRUCTION CO., LTD. , NIPPON HUME CORP.
25	SPR Method	Rehabilitation Method of Sewer Pipes -Winding Method-	Modification	Tokyo Metropolitan Sewerage Service Corporation, Sekisui Chemical Co.,Ltd., Adachi Construction & Industry Co.,Ltd.
26	Danby Method	Rehabilitation Method of Sewer Pipes -Winding Method-	Modification	Kubota-C.I. Co.,Ltd., Osaka Bousui Construction Co.,Ltd., Kubota Construction Co.,Ltd.
27	PFL Method	Rehabilitation Method of Sewer Pipes -Pipes Formation Method -	Modification	FRP Support Service Co.,Ltd, Okumura Engineering Corporation, KFC Co.,Ltd, Daiko road management Co.,Ltd, TMS east japan Co.,Ltd, FUJINO KOUGYO Co.,Ltd
28	PALTEM Flow-Ring	Rehabilitation Method of Exsisting Sewer Pipes - Pipe Molding Method -	Modification	Ashimori Industry Co.,Ltd., Ashimori Engineering Co.,Ltd.
29	BUCS Method	Rehabilitation Method of Sewer Pipes -Sheath Tube Method-	Modification	KAJIMA CORPORATION, KRC Co., Ltd., TEIKOKU HYUMUKAN HIGASHINIHON KABUSHIKIGAISYA, NIHON HOBAS, Japan Life Co., Ltd., Fukuvi Chemical Industry Co., Ltd.
30	SG-M Method	Rehabilitation Method of Sewer Manhole -Sheet Lining Method-	New Technology	Shonan Plastic Mfg.,co.,ltd.
31	MLR Method	Renewal & Repair Process of Drainage manhole	Modification	Kansei Industries, Ltd, Tokai Rubber Industries, Ltd, Tokai Chemical Industries, Ltd, Nisso Shoji co., Ltd

Repair technology

№	The technical name	A subtitle	A classification	A client
1	ASS-L・H Method	A sewage pipe and the repair method of construction of the installation pipe	Modification	SUMIYOSHI MANUFACTURING Co.,Ltd.
2	FRP Short Liner System By UV	Repair Method of Sewer Pipe and Hand Hole	Modification	Toa Grout Kogyo Co.,Ltd., SGC Gesuido Center Co.,Ltd
3	FRP Short Liner System By Heat	Repair Method of Sewer Pipe and Hand Hole	Modification	Toa Grout Kogyo Co.,Ltd., SGC Gesuido Center Co.,Ltd

№	The technical name	A subtitle	A classification	A client
4	FRP Branch Pipe Repair Method by Flexible Vinyl Chloride Pipe	Repair Method of Branch Pipe	New Technology	Toa Grout Kogyo Co.,Ltd., SGC Gesuido Center Co.,Ltd
5	SIDE LINER Method	Repair Method of Lateral Pipes	Modification	ASAHI TEC Environmental Solutions Corporation, KANSEI Company
6	Field Fabricated Tube - Steam Lateral Pipe Method	Rehabilitation Method of Lateral Pipes -Inversion Method-	Modification	TAKIRON ENGINEERING CO.,LTD.
7	Magma Lock Method	The earthquake-proofing installation method for the joints,mainpipe to mein pipe,manhole and lateral	Modification	Toa grout kogyo co.ltd, Fujimura hume pipe ltd.

Prevention of rust/materials

№	The technical name	A subtitle	A classification	A client
1	CR Lining Method	Lining Method for the Sewerage Shield Tunnel	New Technology	Toda Corporation., Taisei Corporation., Nishimatsu Construction Co., Ltd., Maeda Corporation., Grace Chemicals K.K., Shonan Plastic Mfg. Co., Ltd.
2	Anchor sheet segment	The inner coating of a sewerage tunnel	Modification	Obayashi Corporation, TAKIRON ENGINEERING CO.,LTD.
3	JicBoard Method	Concrete Protective Coatings-Seets Lining Method-	Modification	Nippon Jikkou Co.,Ltd., Nippon Polyester Co.,Ltd.
4	BICCRETE(Antibacterial Concrete)	Corrosion Protective Material for Sewerage Facility	Renewal	NIPPON HUME Co.,Ltd. , HAZAMA Co.,Ltd.