

The construction Technology Review and Certification (Sewerage Technology)

Whole term

2007

(purpose)

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 2007 fiscal year, 41 technologies (8 renewal, 15 modification, 18 new technologies) applied by 84 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 36 technologies listed below. 3 technologies are to be evaluated in the following fiscal year 2008. In addition, in this year, I started technical additional acceptance for a simple change in January, 2008. As a result, I had a technical request of 2.

I. Renewal

1. Rehabilitation Method of Existing Sewer Pipes — Formation Method—
(PALTEM HL-E Method)
Ashimori industry Co., Ltd., Ashimori Engineering Co., Ltd.
2. Flexible joint for sewer manholes (ES JOINT)
HANEX Co., Ltd.
3. quake-resistant joints for sewer manholes (S JOINT)
NIPPON ZENITH PIPE Co., Ltd.
4. quake-resistant joints for sewer manholes (NC RUBBER CONE)
NICHICON Co., Ltd.
5. quake-resistant joints for sewer manholes (MN JOINT)
NICHICON Co., Ltd., NIPPON HIGH STRENGTH CONCRETE Co., Ltd.
6. Existing Sewer Manhole Earthquake-Proof Method By Non-Excavation
(Existing Manhole Earthquake Resistant Construction Method)
Tokyo Metropolitan Sewerage Service Corporation,
Nippon Hume Corporation, HANEX Co., Ltd.
7. Rehabilitation Method of Sewer Pipes —Inversion Method—
(SGICP Composite Method)
Shonan Plastic Mfg. Co., Ltd.
8. Indirect Sludge Drying-pelletising Unit (Hitz Pearl System)
Hitachi Zosen Corporation

II. Modification

1. Rehabilitation Method of Existing Sewer Pipes
— Formation Method and Inversion Method— (In-situ-form method)
NIPPON STEEL PIPELINE Co., Ltd., Insituform Technologies ,Inc
2. Sewer pipe rebirth method of construction-inversion method of construction (C-ONE method)
Daikan Industries Ltd., OSAKA CORPORATION
3. Rainwater storage and infiltration facilities
(Facilities composed of plastic blocks)
EBATA Corporation, ARONKASEI Co., Ltd., KUBOTA-C.I. Co., Ltd.
Maezawa kasei industry Co., Ltd.
4. Rain water storage and Infiltration facilities composed of plastic blocks
(Sin Sin Block Storage)
HAYASHIBUSSAN Corporation , Sin Sin Block Company
5. Rehabilitation Method of Sewer Pipes — Winding Method— (SPR Method)
Tokyo Metropolitan Sewerage Service Corporation, Sekisui Chemical Co., Ltd.
Adachi Construction & Industry Co., Ltd.
6. Rehabilitation Method of Sewer Pipes — Winding Method—
(PALTEM Flow-Ring System)
Ashimori industry Co., Ltd., Ashimori Engineering Co., Ltd.
7. Institution for preventing rainwater outflow
(Plastic underground reservoir for water storage and infiltration)
SEKISUI CHEMICAL Co., Ltd.
8. A Quakeproof Coupling for Manholes of Sewer Pipe (Spacer Joint DR)
SANRITSU Co., Ltd., Seibpolymer Co., Ltd., SANESU GOMU KOGYO Co., Ltd
9. Partial Repair Method of Sewer Pipes (PART LINER Method)
ASAHI TEC Environmental Solutions Corporation, KANSEI Company
10. Rehabilitation Method of Existing Sewer Pipes
— Formation Method and Inversion Method— (Hose lining method)
Ashimori industry Co., Ltd., Ashimori Engineering Co., Ltd.
11. Rehabilitation Method of Sewer Pipes
— Inversion Method and Formation Method—
and Repair method of Branch Pipe (SGICP Glassfiber-reinforced Method)
Shonan Plastic Mfg. Co., Ltd.
12. Repair Method of Sewer Pipes and Lateral Pipes (BRAWO • KA-TE Method)
Sogokaihatukoji Co., Ltd, Shinko Co., Ltd.

III. New Technology

1. Double-port concrete-plastic rain water storage system
(Cross-wave type double port)
Hokukon Co., Ltd., Sekisui Techno Molding Co., Ltd.
2. Rainwater Storage and Infiltration System (Stadium)
Kubota-C.I. Co., Ltd., RISU KOGYO Co., Ltd.
3. Rehabilitation Method of Sewer Manhole (TURN YOUNG Method)
CCS Inc., DAIKAN KOGYO CORPORATION, DAITO Co., Ltd., RAC Co., Ltd.,
TAICHI Co., Ltd.
4. Unplasticized Polyvinyl Chloride (PVC) Small Size Diameter Manholes for Sewerage with Smooth Flow
Universal Joint (ARONHOLE "NAMERAKA")
ARONKASEI Co., Ltd.
5. 90° Branch for Sewage Water Piping with Fixing Handle
(Quick & Easy Connecting Branch for Sewerage)
ARONKASEI Co., Ltd.
6. manhole cover/frame exchange method (parabola-system)
NAGASHIMA FOUNDRY Co., Ltd, SAVEMACHINE LLC.
7. Rehabilitation Method of Sewer Pipes
— Formation Method — and Repair method of Branch Pipe
(Eco Hybrid Liner Method)
TOA Grout Kogyo Co., Ltd, Shonan Plastic Mfg. Co., Ltd.,
SGC Gesuido Center Co., Ltd
8. Step Replacement Working Method of a Sewer Institution
(Twin Drill Working Method)
NIHON STEP INDUSTRY Co., Ltd., NICHICON Co., Ltd.
9. Box Culvert with Earthquake Resistant Joint and Flexible Joint
(DCJ Box Culvert)
NIPPON CONCRETE Co., Ltd., MARUEI CONCRETE INDUSTRY Co., Ltd.,
HAYAKAWA RUBBER Co., Ltd.
10. Rehabilitation Method of Sewer Pipes — Winding Method —
(SPR Method (Self-supporting pipe type))
Tokyo Metropolitan Sewerage Service Corporation , Sekisui Chemical Co., Ltd.,
Adachi Construction & Industry Co., Ltd.
11. 4-part 3-hinge segment structure for shield tunneling construction
(Compact segment)
Geostar Co., Ltd.
12. Vacuum grit conveyor
EBARA ENVIRONMENTAL ENGINEERING Co., Ltd.
13. Fine Screens (DUAL SCREEN)
Hitachi Plant Technologies, Ltd.
14. Energy-saving Agitator for Wastewater Treatment (DUAL MIXER)
Hitachi Plant Technologies, Ltd.
15. Biogas Upgrading System
Kobelco Eco-Solutions Co., Ltd., ISHIGAKI Co., Ltd.,
Nishihara Environment Technology, Inc.
16. The development of new ultra fine bubble diffuser
(Ultra fine bubble membrane tube diffuser)
Sumitomo Heavy Industries Environment Co., Ltd.,
EBARA ENVIRONMENTAL ENGINEERING Co., Ltd., Kobelco Eco-Solutions Co., Ltd.

Key words

Examination proof, rehabilitation technology, technology of making to earthquake-proof, concrete anti-corrosion coating industrial method, Sewerage treatment facilities machinery, Rainwater outflow restraint technology