Nihon Suido Shimbun (Japan Waterworks News) Vol. 5005 Thursday, November 14th, 2013



Japan System Planning Co., Ltd.

Effect on Restraining decreasing residual chlorine Introducing NMR Pipetector at a research presentation

Japan System Planning Co., Ltd. (President: Mr. Katsuyuki Kumano) has been celebrated its 25 years anniversary of establishment; this company developed NMR-Pipetector, a water purify device for preventing corrosion, red rust, of inner water pipes and rebirthing them and has practical accomplishment of 3300 buildings in Japan (as of Oct.). At last month's research presentation of Japan Water Works Association, Yokohama Waterworks Bureau presented that NMR Pipetector has an effect on restraining decreasing residual chlorine. They already have installation background of private water supply, and Mr. Kumano says that he hopes to contribute to maintenance on pipe lines and quality improvement of water supply works operated by waterworks bureaus that face financial difficulties.

The NMR (Nuclear Magnetic Resonance) method is used for the NMR-Pipetector for connecting water electrons to corrosion inside of water pipes to change the rust to magnetite, black rust. The passive state magnetite prevents corrosion as well as new water leakage and improves on developing inner pipe blockage; since the magnetite is not dissolved in water, it can solve the corrosion problem.

The device has been installed on many polyvinyl chloride steel pipes of cold water, central cooling and heating, and chilled water pipe works and also many steel galvanized pipes for preventing corrosion. The effect was introduced and recognized at Asian-Pacific Corrosion Control Conference in 2003 and Japan Association of Corrosion Control in 2005; in addition, it



Installed at private water supply in Hokkaido

was registered in New Technology Information System (NETIS) of Land, Infrastructure and Transportation Ministry of Japan.

The device also is recognized in oversea countries; in the United Kingdom, while false pretense is applicable on selling products with no effect proved, NMR Pipetector has been adopted by famous buildings as the Royal Buckingham Palace and Harrods department store for stopping corrosion on their domestic hot water pipe works.

Although the device has not been adopted by a government operating water service facility, it is currently used at a private water supply facility that supplies water to the cottage area of the Onuma lakeside in Nanae city in Hokkaido in Japan. It is a resort house area developed by Fujita Kanko Inc. covering 6.3 million km² (7.5 million SYD) gross area, and corrosion and leaked zinc out of the steel galvanized water supply line(s) were the problems. After the device's effect was confirmed, 27 units were installed; it would cost 3 billion yen if all the pipe works are replaced; however, it actually cost 1/30 of the replacement cost.

NMR Pipetector is applicable up to 2000 mm sized water pipe works. "It costs a considerable expense if you replace a pipe, but you can reduce cost by using our product. In maintaining and prolonging pipe works; I believe NMR Pipetector will contribute to local governments that face economic difficulties with their income decreased", says the president, Mr. Kumano.