

Official Scientific Report of NMR PIPETECTOR (No.2)
Anti-Corrosion Test
By College of Engineering, Nihon University

To Decrease Fe content in Water for Steel Pipes

◆ Appearance of Building and Place of Anti-Corrosion Test



Appearance of Building



Installed on the water supply pipe

◆ Building Summary

It has been 25 years since the facilities were built, and vinyl lining pipes (VLP) and steel galvanized pipes (SGP) are used for these facilities. There was serious corrosion colored water problems in the water supply pipes in the No.8 and No.9 buildings because the steel galvanized pipes (SGP) had rusted. 0

◆ Installation Results

Before the installation of NMR PIPETECTOR, the water examination (water was not used during night and taken in an early morning as the first use) shows that Fe content in water of the No.8 building was **7.8mg/l**, the No. 9 building was **1.2 mg/l**, and the No.10 building was **0.11 mg/l**. 4 weeks after the installation of NMR PIPETECTOR, Fe content decreased to **0.11mg/l** for No.8 building, **0.04 mg/l** for No.9 building, and **0.06mg/l** for No.10 building. 6 weeks after the installation of NMR PIPETECTOR, Fe content decreased to **0.03mg/l** for No.8 building, less than **0.01mg/l** for No.9 building, and **0.02 mg/l** for No.10 building. 8 weeks after the installation of NMR PIPETECTOR, Fe content decreased to **0.13mg/l** for No.8 building, less than **0.01mg/l** for No.9 building, and **0.08 mg/l** for No.10 building. The results show the evidence that corrosion stopped completely and was reduced to magnetite by the effect of NMR PIPETECTOR.

◆ Installation Summary

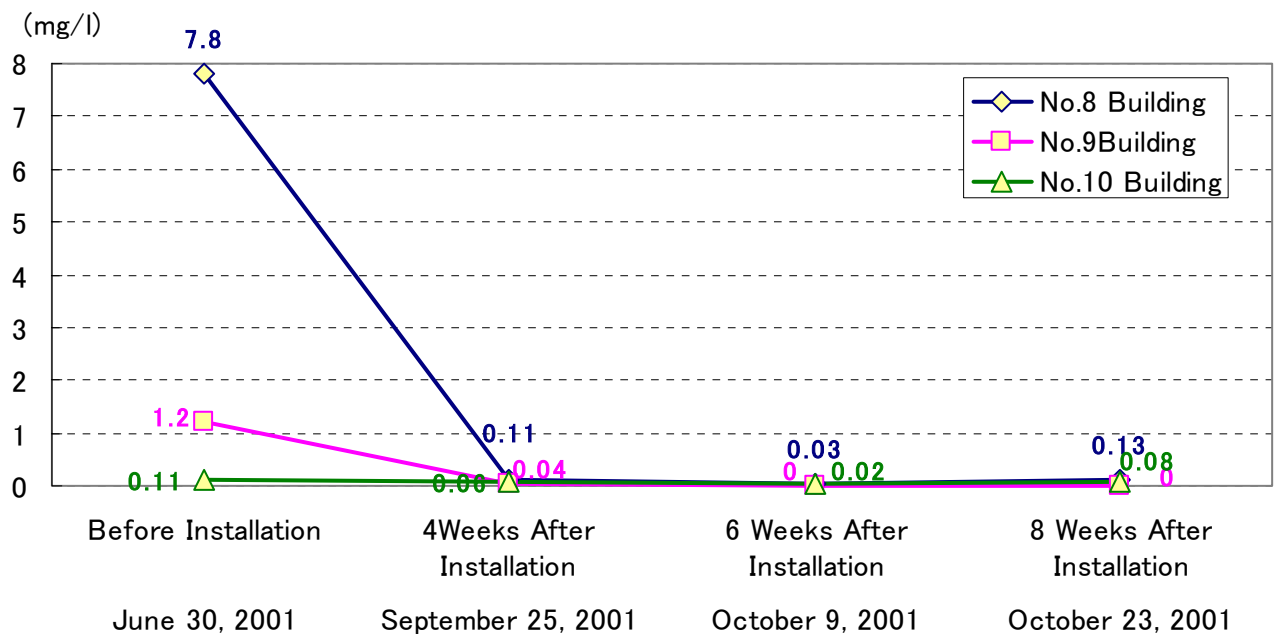
Name of Building	College of Engineering, Nihon University
Address	Fukushima Prefecture
Installation Day	August 24, 2001
Installation Place Number of Installed NMR PIPECTOR	Water supply pipe for No.8, 9 and 10 buildings (VLP 80mm) NMR PIPECTOR PT- 75DS×1 unit

◆ Results of Water Examinations (water was not used during the night)

Date	Place	No.8 Building	No.9 Building	No.10 Building	Summary
July 30		7.8	1.2	0.11	Before the installation
September 25		0.11	0.04	0.06	4 weeks after the installation
October 9		0.03	Under 0.01	0.02	6 weeks after the installation
October 23		0.13	Under 0.01	0.08	8 weeks after the installation

Examined by Professor Kazuo Hirayama,
Department of Material, Chemistry and Engineering,
Nihon University on October 31 in 2001

◆ Change of Fe Content in Water (mg/l)



Water Examination Report

College of Engineering, Nihon University
Dean Mr. Motohisa Onozawa

Japan University the Faculty of Engineering Science No.8.9.10 buildings Result of Water Examination (Fe ion content)

October 31,2001

Examined by College of Engineering, Nihon University
Department of Materials, Chemistry, and Engineering
Professor Kazuo Hirayama

Fe content (mg/l)

Date \ Place	No.8 Building	No.9 Building	No.10 Building	Summary
July 30	7.8	1.2	0.11	Before installation
September 25	0.11	0.04	0.06	4 weeks after installation
October 9	0.03	Below 0.01	0.02	6 weeks after installation
October 23	0.13	Below 0.01	0.08	8 weeks after installation

*The operation of the equipment (NMR PIPETECTOR) started on August 25 in 2001.

水質試験検査報告書

日本大学工学部

日本大学工学部(8.9.10号館)

水質試験検査結果一覧表(鉄分)

平成13年10月31日

測定者

日本大学工学部

単位 mg/L

採水日 \ 採水箇所	8号館	9号館	10号館	摘要
7月30日	7.8	1.2	0.11	設置前
9月25日	0.11	0.04	0.06	設置4週間後
10月9日	0.03	0.01以下	0.02	設置6週間後
10月23日	0.13	0.01以下	0.08	設置8週間後

* 装置稼働開始日 平成13年8月25日