NMR PIPETECTOR Scientific Report (No.2)

Anti-Corrosion Application, Hospital
Japanese Red Cross Medical Center

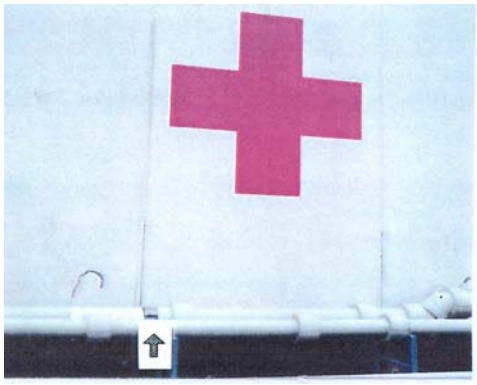
NMR Corporation

To stop corrosion and prolong life of water pipe

◆Japanese Red Cross Medical Center

Appearance of the building

Name of the building



On outlet pipe of elevated water tank

PT- 200DS
on iron pipe of 200mm in diameter

◆Installation Results

Since anti-corrosion chemical material is not allowed to use to protect water pipes from being damaged by corrosion because it is no good for health. Corrosion colored water was found in many rooms, so NMR PIPETECTOR, which does not need the construction work to stop water supplying, was installed in order to stop corrosion and prolong the water supply pipes for more than 40 years.

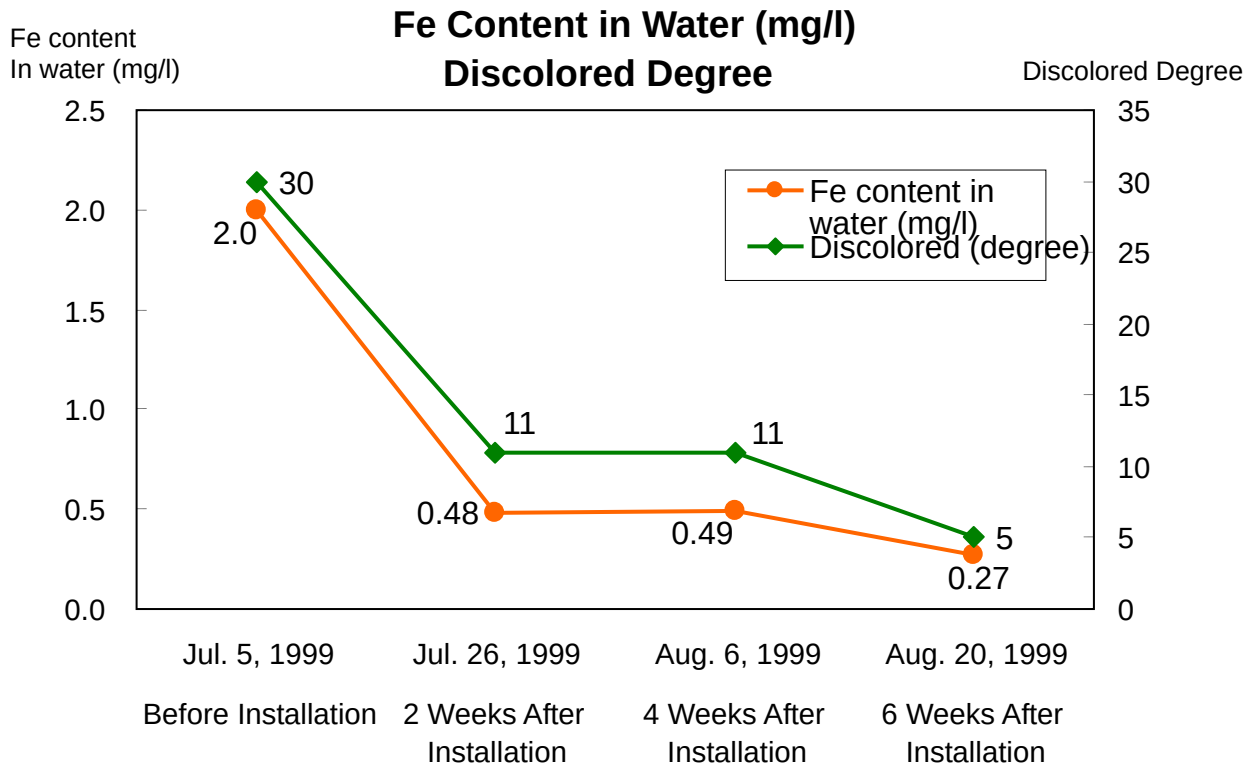
6 weeks after the installation of NMR PIPETECTOR, water examination was done on sample water which was 500ml of first water taken in the morning. **Fe content in water decreased from 2.0mg/l (before the installation of NMR Pipetector) to 0.27mg/l, and discolored degree went down from 30 degrees to 5 degrees,** and the corrosion colored water completely stopped. It proves that corrosion inside of the water pipes stopped, started decreasing its volume and being reduced to magnetite which covers inner water pipe wall and protects the pipe. While the cost of replacement of water pipe would be some hundred millions of US dollars, NMR PIPETECTOR costs less than 1/10 of the conventional changing pipes methods. Moreover, NMR PIPETECTOR is highly evaluated because it is unnecessary to stop supplying water for the installation of NMR Pipetector.

◆Installation Summary

Name of Building	Japanese Red Cross Medical Center
Address	Shibuya Ward in Tokyo, Japan
Building Summary	7-story hospital facility (24 years after being built)
Installation Day	July 9, in 1999
Installation Place Number of Installed NMR PIPETECTOR	On outlet pipe of elevated water tank (200mm in diameter) NMR PIPETECTOR PT- 200DS×1 unit

◆Results of Water Examinations

	Before Installation July 5, 1999	2 weeks after installation July 26, 1999	4 weeks after installation Aug. 6, 1999	**6 weeks after installation** Aug. 20, 1999	Government regulation (Japan)
Fe content (mg/l)	**2.0**	0.48	0.49	**0.27**	Less than 0.3
Discolored (degree)	**30**	11	11	**5**	Under 5



Before the installation

No.116
July 12,1999

To: Japanese Red Cross Society Medical Center

Tokyo Metropolitan Public
Health Research Institute

Water Examination Results

	Tap water	No.	116-1
Place of water taken	4-1-22 Hiroo Shibuya Japanese Red Cross Health Building Neonate Room		
Date	July 5, 1999		
Purpose of Examination	Compliance Test to Water Quality Standard for Drinking Water		

Item	Result	Regulation
Discolored	30 degrees	Under 5 degrees
Fe content in water	2.0 mg/l	Less than 0.3 mg/l

Evaluation	Above analyzed data is “Nonconformity” to water quality standard for drinking water.
Remarks	
Responsible for analysis	Toshio Maki, Manager of Water quality research

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6 Weeks After the installation

No.216
August 26,1999

4-1-22 Hiroo Shibuya
To :Japanese Red Cross Society Medical Center

Tokyo Metropolitan Public
Health Research Institute

Water Examination Results

	Tap water	No.	216-1
Place of water taken	4-1-22 Hiroo Shibuya Japanese Red Cross Health Building Neonate Room		
Date	August 20, 1999		
Purpose of Examination	Compliance Test to Water Quality Standard for Drinking Water		

Item	Result	Regulation
Discolored	5 degrees	Under 5 degrees
Fe content in water	0.27 mg/l	Less than 0.3 mg/l

Evaluation	Above analyzed data is “Conformity” to water quality standard for drinking water.
Remarks	
Responsible for analysis	Toshio Maki, Manager of Water quality research

Before the installation

11衛研庶依第 116号
平成 11年 7月 12日

日本赤十字社医療センター施設課 様

東京都立衛生研究所長
東京都新宿区百人町３-24-1
電話 03(3363)3231(代表)

水質試験成績書

検体分類	水道水	検体番号	第 116号- 1
採水場所	渋谷区広尾４－１－２２ 日本赤十字社医療センター健康棟新生児室		
提出年月日	平成 11年 7月 5日		
試験目的	水道法水質基準適否		

項 目	測定値	基準値
色度	30 度	5 度以下
鉄	2.0 mg/L	0.3 mg/L以下
以下余白		

判 定	上記の試験項目については水道法水質基準に 不適合 です。
備 考	
検査責任者	水質研究科長 眞木俊夫

6 Weeks After the installation

11衛研庶依第 216号
平成 11年 8月 26日

渋谷区広尾４－１－２２
日本赤十字社医療センター施設課

東京都立衛生研究所長
東京都新宿区百人町３-24-1
電話 03(3363)3231(代表)

水質試験成績書

検体分類	水道水	検体番号	第 216号- 1
採水場所	渋谷区広尾4-1-22日本赤十字社医療センター健康棟新生児室		
提出年月日	平成 11年 8月 20日		
試験目的	水道法水質基準適否		

項 目	測定値	基準値
色度	5 度	5 度以下
鉄	0.27 mg/L	0.3 mg/L以下
以下余白		

判 定	上記の試験項目については水道法水質基準に 適合 です。
備 考	
検査責任者	水質研究科長 眞木俊夫

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