NMR PIPETECTOR Scientific Installation Report, in UK

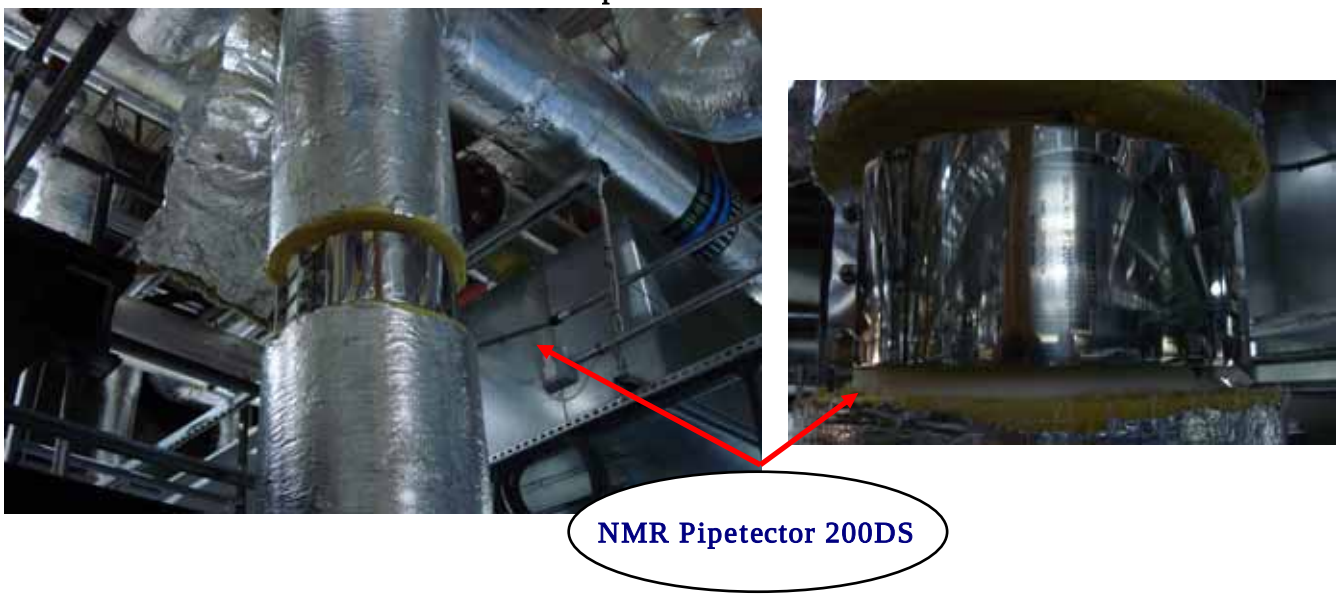
Anti-Corrosion Application for Central Heating System

City University London

NMR Corporation

<Appearance of the building>

<NMR Pipetector Installation Place>



◆ Installation Purpose and Result

The City University is one of a number of Major Universities located throughout London and it has many buildings one of which is 47 years old and located in the Northern part of London; this building is where the NMR Pipetector has been successfully installed.

The Central Heating Ring Main has major internal corrosion problems with high Fe-ion content in water.

For the complete protection of all the Central Heating ring main pipe work, one NMR Pipetector PT-200DS was installed on the main flow pipe work on the 13th of June 2013.

Before the NMR Pipetector was installed, the Fe-ion content in the water was 3.407mg/l. Two weeks after the NMR Pipetector was installed, the Fe-ion content in the water was decreased down to 0.084mg/l., which represents a reduction of over 75% in the Fe-ion content.

It means that new forming of corrosion (FeO(OH)) inside of the pipe work was terminated, and the existing corrosion was reduced to magnetite (Fe_3O_4) which is not dissolved into the water and protects the inside of the pipe from corrosion. The inside of the pipe work is protected from corrosion by Magnetite thus providing complete protection to all the pipe work for a period in excess of forty years.

◆ Installation Summary

Name of Building/ Building Address	University Building at City University London Northampton Square, London, United Kingdom
Building Summary	Built in 1966
Installation Day	13th June 2013
Installation Place/ Number of installed NMR Pipetector	Central heating main pipe PT-200DS × 1 unit

◆ Change of Fe content in water (mg/l)

	Before installation	Installation day 13 June 2013	2 weeks after installation 1 July 2013
Fe content in water	3.407mg/l.		0.084 mg/l.

◆ Change of Fe content in water (mg)