DEVELOPMENT OF REAL-TIME EARTHQUAKE DISASTER MITIGATION SYSTEM FOR CITY GAS NETWORK AND UTILIZATION OF REGIONAL GEOLOGICAL INFORMATION

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ABSTRACT

The new real-time disaster mitigation system for a city gas network has been developed by Tokyo Gas Co, for the purpose of realization of dense real-time seismic motion monitoring, quick gas supply shut-off, prompt emergency response and efficient restoration work since 1998. In 2001, Tokyo Gas successfully started operation of SUPREME, which employs 3,700 new SI sensors and remote control devices. The SUPREME can observe the status of 3,800 district regulators and shut them off remotely, if necessary. The remote shut-off using SUPREME and realize quick gas supply shut-off and effectively reduce gas leakage risk during earthquakes. The SUPREME can also conduct damage estimation for gas pipe with enhanced use of GIS.

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