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PIPE BURSTING – THE CHINA PERSPECTIVE

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ABSTRACT:

Beijing, Shanghai, Guangzhou, Shenzhen and other growing Chinese Cities are fast becoming showcases of China in the third millennium. These Cities have furiously promoting modernization programs to attain a standard of living emulating the west and with the rest of their Far East and South East Asian neighbors. China's economic reform programs has seen factories and business flourishes almost overnight that manufactures anything from simple daily necessities to sensitive, high tech devices. Available employment drove masses into these cities and with population growth, it quickly leads to unprecedented demand in water consumption not just the industries but in every aspect of daily living. Cities quickly invested in new water treatment facilities and soon they are delivering water that complies with governing health standards for potable use but yet in many instances, it is not safe to drink straight from the faucet, boiling before consumption is still recommended. Moreover, the increase in water usage directly affected the ability of existing sewers to carry the waste water effectively for treatment or proper discharge.

This paper is intended to provide an overview of the problems facing water distributions in Chinese Cities and the programs in place to improve the current situation which includes aging pipelines, under capacity, contamination and leakage losses commonly in the order of 30%. Major water main rehabilitation and replacement will be the prominent activity for the next five years and the use of traditional trenching methods in densely populated settings will only contribute to the worsening of disruptions already experiencing. Road closures, traffic delays, detours, denied access to homes and business, construction noise and other inconveniences are already daily occurrence. China has looked to new technologies capable of providing a viable solution to addressing this situation. Pipe bursting method has been identified as an acceptable alternative to conventional open cut methods and is being promoted by governing bodies in China. This paper shall further discuss the challenges of applying pipe bursting techniques in China cities and using several water main pipe bursting projects performed to highlight its successes and lessons learnt.