

# PIPELINE EXPLOSION EXPOSED QINGDAO'S SHORTSIGHTED URBAN PLANNING



China State Administration of Work Safety Chief Secretary Yang Dongliang asked these questions at a press conference after Sinopec's Donghuang oil pipeline explosion caused sixty-two deaths and 136 injuries in Qingdao, China. Yang raised the issue of unreasonable oil pipeline planning and an insufficient urban drainage network within the city. The accident not only exposed the chaotic underground pipeline network in some Chinese cities, but it also uncovered the long existing contradictions between industrial and residential land use, and the shortsightedness in economic development and planning.

The accident was caused by an oil leakage from the pipeline, which flowed into the underground water pipes and resulted in an explosion in a densely populated residential area. The local government later confessed to the existence of conflicts between the layout of Sinopec's oil pipelines and those of municipal pipelines.



In China, the oil and gas pipelines have expanded at a rapid pace. In 2008, oil and gas pipelines totalled 63,000 kilometers in length; in 2013, this figure rose to about 100,000 kilometers. Oil and gas pipelines promote economic development in some cities, but also cause infrastructure management issues. Due to rapid development, some suburbs where the pipelines lie underground have become prosperous urban areas. However, the residents live their lives under the threat of unpredictable dangers.

When the cities construct municipal pipelines following the economic development and population expansion brought by the oil pipelines, should the oil pipelines give way to the municipal pipelines? Apparently many Chinese cities, including Qingdao, have not figured out the answer to this problem.

In fact, the Qingdao Municipal Government was aware of the hidden danger of the Donghuang pipeline. The Sinopec Pipeline Transport Department and the local Environmental Protection Department issued two public notices on environmental hazard remediation regarding the hidden danger of the Donghuang line and the Donglin line in 2011 and 2012. However, relocation and maintenance did not occur until after the accident happened.

According to Xiao Yanyang, associate Professor in the Department of Urban Planning at Hunan University, the problem lies in the absence of specialized agencies in coordinating the management of various underground pipelines, which causes difficulty in implementation even though the relevant agencies are aware of the danger.

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