



METALert – an emergency response system for China for heavy metals in the environment

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The rapid industrialisation and economic growth of China has resulted in a mirrored increase of environmental issues and threats, which make the updating of the current environmental emergency response protocols very important. Heavy metal pollution accidents with high environmental risks are happening more frequently than ever in recent years. Despite efforts made by the authorities in respect to the formulation of sound policy, efficient technical methods and regulations for dealing with appropriate responses to emergency environmental incidents related to heavy metal pollution are still lacking. METALert is a generic Emergency Response System (ERS) for accidental pollution incidents caused by key heavy metal related industries in China and developed to support China in achieving its environmental targets. The METALert tool is based on environmental models for forecasting, simulation and visualisation of dispersion of heavy metal pollution in water, air and soil. The tool contains a generic database with scenarios for accidental release of metals in typical accidents related to the five key heavy metal industries in China. The tool can calculate the impact of an accident in water, air and soil and is evaluated and demonstrated for a river basin in the Chenzhou area, an important heavy metal mining area in China. The setup of the tool, the background models and the application in Chenzhou will be presented.