LNG-Water Rapid Phase Transition: Part 1 – A Literature Review

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ABSTRACT

This two-part article deals with the phenomenon of Rapid Phase Transition (RPT) or flameless vapor explosion that can occur when LNG spills on water. In this first part, the authors review the relevant experiments and incidents described in the literature, and discuss the conditions leading to RPT and the nature of the phenomenon. In part 2, in a subsequent issue, they review the modeling of RPT, the prediction of damage potential, and the relevance to the assessment of hazards from LNG spills.