Assessment of the Effects of Release Variables on the Consequences of LNG Spillage onto Water Using FERC Models

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ABSTRACT

Liquefied natural gas (LNG) release, spread, evaporation, and dispersion processes are illustrated using the Federal Energy Regulatory Commission models in this paper. The spillage consequences are dependent upon the tank conditions, release scenarios, and the environmental conditions. The effects of the contributing variables, including the tank configuration, breach hole size, ullage pressure, wind speed and stability class, and surface roughness, on the consequence of LNG spillage onto water are evaluated using the models. The sensitivities of the consequences to those variables are discussed.