

技术及应用

含H₂S天然气井事故与核电厂址适宜性评价

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摘要 为评价含H₂S天然气井潜在事故对其附近核电厂主控室可居留性的可能影响, 假定了含H₂S天然气井潜在的最大可信事故及其源项, 保守选取污染气象条件, 利用核电厂主控室可居留性毒性极限浓度阈值来初步评价含H₂S天然气井外部人为事件对核电厂安全运行的潜在不利影响。工程实例计算结果表明, 这种方法可供核电厂选址阶段外部人为事件初步评价参考。

关键词 [含H₂S天然气井](#) [外部人为事件](#) [最大可信事故及源项](#) [主控室可居留性](#) [毒性极限浓度阈值](#)

分类号

Accident for Natural Gas Well With Hydrogen Sulfide in Relation to Nuclear Power Plant Siting

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Abstract

In order to make assessment to the potential impact from accident of natural gas wells with hydrogen sulfide on the habitability of main control room of nuclear power plant (NPP), several assumptions such as source terms of maximum credible accident, conservative atmospheric conditions and release characteristics were proposed in the paper, and the impact on the habitability of main control room was evaluated using toxicity thresholds recommended by foreign authority. Case results indicate that the method can provide the reference for the preliminary assessment to external human-induced events during the siting phase of NPP.

Key words [natural gas well with hydrogen sulfide](#) [external human-induced events](#) [maximum credible accident](#) [and source terms](#) [habitability of main control room](#) [toxicity threshold](#)

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