

Using RASCAL and ALOHA Codes to Establish an Analysis Methodology for Hydrogen Fluoride Evaluation

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Abstract : In this study, the RASCAL and ALOHA codes are used to establish an analysis methodology for hydrogen fluoride (HF) evaluation. There are three main steps in this study. First, the UF₆ data were collected. Second, one postulated case was analyzed by using the RASCAL and UF₆ data. This postulated case assumes that fire occurring and UF₆ is releasing from a building. Third, the results of RASCAL for HF mass were as the input data of ALOHA. Two postulated cases of HF were analyzed by using ALOHA code and the results of RASCAL. These postulated cases assume fire occurring and HF is releasing with no raining (Case 1) or raining (Case 2) condition. According to the analysis results of ALOHA, the HF concentration of Case 2 is smaller than Case 1. The results can be a reference for the preparing of emergency plans for the release of HF.

Keywords : RASCAL, ALOHA, UF₆, hydrogen fluoride

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