

Operator Training System with High Degree Of Freedom in Governor Station by Integrating Process and Accident Simulation

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Up to now several operator training systems(OTS) that only focus on process or accident cases are developed. Because of the limitation of interactive simulation between process and accident simulations and confined training scenarios, their efficiency of training is not so remarkable. Governor station in which natural gas depressurize to the extent of adequate distribute pressure is a proper process model for developing OTS. Process upset, especially pressure rise that had to be regulated would result in severe accident such as high pressure gas release. To train field operator mandatory to take a measure when accidents occur, dynamic simulation is used to provide process upset situations and reliable results of operator's practices and accident simulation is used to evaluate the consequence of that actions. In this research, we concentrate on expanding the scenarios to have high degree of freedom of trainee in developed OTS by adopting event tree analysis(ETA). Also, quantitative evaluations of practices will be provided for effective training feedback. Process simulation is carried out with Aspen Hysys v.8.8 and accident simulation is carried out with FLACS v.10.4.