

## Study on Emergency Operating Procedures in Sodium Experimental Facility

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The emergency operation procedures provide the operator with direction to mitigate the consequences of a unexpected accidents and equipment failures. In nuclear power plant, operators are required to follow emergency operating procedures during emergency situation. Likewise, operators in experimental facility need to be trained by procedures that direct them actions necessary to minimize the damages from the situation. Especially, the procedures in Na(sodium) experimental facility should be established and demonstrated in consideration of Na characteristics. The procedures in the facility consist of detailed guidelines including early detection of abnormal signal, situational understanding, evacuation except for essential personnel, Na draining to storage tank, and follow-up measures. The possible emergency situations in the facility are listed as follows. By simulating each situation, the study on establishment and revision of the procedure is under way in KAERI.

1. Generation of the Na leak detection signal
2. Interruption to the power supply
3. Breakdown of compressed air system
4. System communication failure
5. Observation of the Na aerosol through surveillance camera