

## عنوان مقاله:

Enhancing safety of a nuclear facility through precursor analysis: A study for a typical nuclear research reactor

## محل انتشار:

اولین همایش ملی مهندسی قدرت و نیروگاه های هسته ای (سال: 1395)

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## خلاصه مقاله:

Among the various efforts to improve operational safety of nuclear facilities, the systematic collection, evaluation and feedback of operational experience are considered valuable and effective. Such a system enables all safety related events to be analyzed, root causes determined and corrective and preventive actions implemented to avoid repeat events or new events rooted in the same causes. A method established upon probability safety assessment called probabilistic precursor event analysis, is analyzed by investigating different actions led to the source destruction accident in Tehran Research Reactor (TRR). The events and conditions before the accident are reviewed to find the precursors of the accident. For the above accident a scenario is developed, and chain events ending up to the accident (WHAT) and causal factors leading to events are identified. These causal factors and other available information and data are analyzed to determine the way that accident happened (HOW). Subsequently, the causes of the accident (WHY) are identified and discussed. Finally, appropriate corrective measures identified as the result of this analysis to preventing the similar accidents and these corrective effects are showed numerically using PSA method.

## کلمات کلیدی:

Reactor safety, Precursor analysis, Probabilistic Safety Assessment (PSA), Deterministic event analysis

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/594907>

