

# International Conference on Human and Organizational Aspects of Assuring Nuclear Safety –Exploring 30 Years of Safety Culture



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## Safety Culture Evaluation at Research Reactors of Pakistan Atomic Energy Commission

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### Synopsis

The concept of safety culture was presented by IAEA in document INSAG-4 (1991) was delineated as “assembly of characteristics and attitudes in organizations and individuals which establish that, as an overriding priority, nuclear plant safety issues receive the attention warranted by their significance”. The purpose of this paper is to describe the evaluation of safety culture at research reactors of Pakistan Atomic Energy Commission (PAEC). Evaluating the safety culture of a particular organization poses some challenges which can be resolved by using safety culture evaluation models like Sachein model (1992) and Harber Barrier model (1998).

In PAEC, the safety culture is the integral part of management system which not only promotes safety culture throughout the organization but also enhances its significance. To strengthen the safety culture, PAEC is also participating in a number of international and regional meetings of IAEA regarding safety culture.

PAEC and the national regulator Pakistan Nuclear Regulatory Authority (PNRA) are also arranging workshops, peer reviews, sharing operational experiences and interacting with IAEA missions to enhance its capabilities in the field of safety culture. Directorate General of Safety (DOS) is a corporate office of PAEC for safety and regulatory matters. DOS is in the process of implementing a program for evaluation of safety culture at nuclear installations of PAEC in order to achieve that safety culture is to be included as vital segment of the Integral Management System of the establishment. In this regard, training sessions/ lectures on safety culture evaluation are normally conducted in PAEC for awareness and enhancement of safety culture program. Safety culture is also addressed in PNRA Regulations like PAK-909 and PAK-913. In this paper we will focus on the safety culture evaluation in our research reactors i.e. PARR-1 and PARR-2. The evaluation results will be based on observations, interviews of employees, group discussions, surveys and documents. The evaluation of safety culture will be done by using standard evaluation models which mainly focus on the safety culture evaluation of organizational artifacts, claimed values and basic assumptions. In this regard, guidelines will be sought out from the technical documents of IAEA i.e. IAEA-TECDOC-743 and IAEA-TECDOC-1321.

PAEC management has an extensive vision of the development and maintenance of strong safety culture and committed to promote safe working environment through its implementation. PAEC mission and policy statements reflect its commitments in this respect. After the Fukushima Dai-ichi accident, Pakistan has put more emphasis on safe operation and stringent control on safe usage of nuclear technology. Development and evaluation of safety culture can strengthen this control on nuclear technology. We intend to tread on the same path starting with the evaluation of safety culture in research reactors of Pakistan. The evaluation strategies will provide a feedback mechanism to review and revitalize the implementation of safety culture.

### Country or International Agency

Pakistan

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YES

**Primary author:** QAMAR, Muhammad Abbas (PAEC)

**Co-authors:** Mr SAEED, Anwarus (PAEC); Mr SHAH, Jabbar Hussain (PAEC)

**Presenter:** QAMAR, Muhammad Abbas (PAEC)

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