

## **Discussion Meet on “Assessment of Structure under Impact and Blast loads” held at AERB on March 18, 2014**

External events considered in design of nuclear power plant (NPP) structure are categorized as natural and human induced events. Human induced events to be considered for safety of NPP include aircraft crash and blast loading. As per AERB safety guide AERB/SG/D-21 the containment shall be protected against or designed for the risks of external missiles, aircraft crash depending on the nature and extent of the risks posed by surrounding site environment. Hence, analysis of structures important to safety for transient dynamic loads, such as aircraft crash and blast is important for assessment of its structural integrity. These analyses require state-of-art methodology incorporating high strain rate loadings.

In this regard a discussion meeting on “Assessment of Structure under Impact and Blast loads” was organized at AERB on March 18, 2014. Primary objective of this meet was to understand state-of-art in modelling and analysis for aircraft impact and blast loading and related advancements and formulate an approach paper for such analysis and design. Major topics of discussion were state of-art and issues related to:

1. Characterization of loadings.
2. Challenges in numerical simulation of such transient dynamic analysis
3. Assessment of structural integrity for impact and blast loads.

Around 40 (forty) participants from various organizations like AERB, BARC, IGCAR, NPCIL and DRDO participated in the discussions.