

Accelerator Reliability requirements for ADS: the MYRRHA project goals

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Beam stability and overall reliability of the Accelerator systems are major concerns in ADS technology. Short beam interruptions can induce high thermo-mechanical stress and fatigue in the reactor structure. Beam stops lead also to safety related procedures reducing the reactor availability.

In the Myrrha project, the main reliability requirement is to reduce the number of short beam interruptions to levels not yet reached in research accelerators. It represents a major challenge, needing special design approaches.

In the last period, several collaborating projects, developed within the Euratom framework programs, have performed detailed evaluation of the reliability expected performance and have proposed new concepts looking to overcome these difficulties. These proposals represent important guidelines for the new phases of development of an ADS demonstrator.

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