

Experience of developing a specific fusion safety related standard

Started from 2022, an ISO standard item was proposed to summarise requirements to the safety systems due to the application of the superconducting technology in magnetic fusion facilities. The initial consideration was to analyse how the radiation safety and new technologies such as the superconducting technology may be cross-affected. To date, it is moving towards the ballot of the final DIS (Draft International Standard) stage following the standard development procedure. The limitation and difficulties have been learned and identified along with the process due to several reasons, e.g. the immaturity of the fusion safety system and framework, the overlap of the radiation safety between fusion and fission applications, the narrowness of the specific technology application in fusion, and the prevention of the content repetition from other existing and under-development standards. The lessons learned via the specific experience will be presented. Moreover, some preliminary thoughts will also be presented on the development need of code and standard in order to support the qualification required by fusion safety.

Technical Categories Addressed

Other Systems

Speaker's title

Ms

Speaker's email address

slzheng@ipp.ac.cn

Country/Int. organization

China

Affiliation/Organization

Institute of Plasma Physics, Chinese Academy of Sciences

Author: ZHENG, Shanliang (Institute of Plasma Physics, Chinese Academy of Sciences)

Presenter: ZHENG, Shanliang (Institute of Plasma Physics, Chinese Academy of Sciences)

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