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New features of the W7-X Safety Control system for OP 1.2

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After the successful first operation campaign of Wendelstein 7-X in 2016 the experiment is being upgraded for the next stage called OP 1.2.

Due to some new or extended components like heating systems and diagnostics, the increased energy level in the machine, and some new safety requirements, the central safety system (cSS) has to be extended. In addition, a safety level based switchover is being implemented to support the engineer in charge and the cSS-operator in their assessment of enabling a predefined set of components in different operation modes of W7-X. Furthermore, the safety levels define the entrance conditions to the experiment areas. This safety level concept comprises only 5 different states, “off”, “stand by”, “experiment pause”, “experiment”, and “W7-X emergency stop”. For test and calibration purposes a certain set of components can be enabled in some special operational modes, like Laser or ICRH calibrations, boronization etc.

Eligible for student paper award?

No

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