WORK FOR DESIGN OF PIK REACTOR'S TRAINER SIMULATING COMPLEX (TSC)

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A problem of operators' mistakes on the atomic energy installation (AEI) is of great importance. The human factors fraction in the common quantity of damage from refusals and failures of AEI is about 30-50% [1,2]. The importance of AEI operators' work quality is emphasized by demand of technical and organization measures to prevent failure by any considered initial event with simultaneous taking into account one independent refusal or staff mistake, and in addition also undisplayed refusal of unchecked element [3], p.1.2.12. In consequence with this AEI engineering codes, which are engineering laws for all staff categories, include demands compulsory training in special points and centers with trainer using [3], p.5.3.2. According to this demands Scientific Research Technological Jnstitute (SRTI) and PNPI from 1990 develop engineering specifications fully — scale, completely copying PIK reactor operator desk and board, reactor PIK trainer.

By 1993 trainers comrehensive mathematical model (CMM) has been elaborated and its adjustment has begun by addition of correction to tie together the work of different engineering cirquits heat exchange description.In normal regime time fraction of practically all main cirquits calculation, included in CMM, accounts for about 20% of the real time.

In the second half of 1993 the active participation of PNP1 in elaboration of TSC PIK reactor began PNPI collaborators have taken part in the simulation of the reactor installation engineering systems definition,which permits to ensure completey imitation of systems work, definite in the techical request on TSC, and realization of any set of introductory data wich the training instructor sets according to the coordinated list.

According to existing forms and records elaborated and corrected the algoritms of the blockings operation,warning and emergency indication,wich lay into the CMM.

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