Hand sampling system of the secondary circuit QUH

Hand sampling system of the secondary circuit (QUH) is delivered to get representative sample for carrying out laboratory quality control of secondary circuit fluids; to get operative information about the secondary circuit WCR parameters and auxiliary technologic fluids.

The main functions of OUH system are:

- fluid preparation and transport to sampling point for laboratory control;
- differentiated reset of fluid from sample point to return to the NPP cycle.

In normal operation QUH system provides hand sampling for periodic laboratory analysis of coolant quality parameters, cooling water, reagents quality that are used for the secondary WCR quality parameters correction, condensate, steam, feed water, make-up water, wash water of condensate-feed pipeline.

The QUH system is on periodic duty at operational period on all capacity levels. Before sampling the pipeline must spill more then triple volume for providing representativeness.

Sample discharge is 100 dm³/h in sampling line. The fluid of the system is transported on the pipeline to the sampling point through chocking device (if it necessary) for pressure reduction to 0.2 MPa. The sample volume from one sampling point is 0.5 dm³ for laboratory analysis. Quality analysis is carried out in operative monitoring chemical laboratory of the WCR secondary circuit and water treatment plant (STG10).