

Change Note		CN-074
Change to: Technical Assumption 68		
Description: Scaling assessment temperature threshold during keepwarm		
References: Scaling assessment and test regime paragraph 2.26		
Change originator: DM		Date of request: 22/11/21
Rev: 01	Date authored: 22/11/21	Proposed change to assumption: No

1. Proposed Approach

During keep-warm test t12 shall not exceed 55°C at any time only if the keep-warm flow passes through the DHW heat exchanger.

If the keep-warm flow passes through the DHW heat exchanger and T12 exceeds 50°C during the keep-warm test, the HIU receives a note identifying the scaling risk potential. The note will identify what percentage % (of time) during keepwarm cycling the HIU spends above 50°C, and warns that the greater that percentage the greater will be the scaling risk.

It should be noted in the test regime and on any test reports that those HIUs which during the keep-warm function only pre-heat the pipework inside the HIU without directly heating the DHW plate heat exchanger are allowed to exceed the criteria without being penalised by having a “Fail” or “Note”. This is because the primary flow through the HIU does not heat the cold water in the DHW plate heat exchanger and therefore does not contribute to scaling formation. Nonetheless, the temperature monitoring as well as the keepwarm test itself is still required.

2. Rationale (underlying basis for the change)

Scaling of the DHW heat exchanger is a real concern for performance, especially long-term performance. While the lower keepwarm set temperature below 50C is expected to help and to reduce the rate of scale formation it does not stop it entirely.

3. Impact of change (e.g. implications for test rig)

Additional reporting requirements

Evaluation of change			
Date evaluated: 14/12/22	Those present: BESA HIU Technical Committee	Additional info required?: No	Modification to proposed approach?: No
Details: Rationale detailed in TN-029			
Signed off: Yes			