

Change Note		CN-052
Change to: Technical Assumption 67		
Description: Scaling assessment primary return temperature criteria		
References: Test regime paragraph 2.26, Scaling assessment		
Change originator: FV		Date of request: 30/06/21
Rev: 01	Date authored: 21/09/21	Proposed change to assumption: N

1. Proposed Approach

During tests 2a and 3a, t12 shall not exceed 60 °C at any point of the test.

Criteria as previously.

2. Rationale (underlying basis for the change)

The build-up of scale will reduce the outputs of plate heat exchangers and lift return temperatures, so ultimately requiring the plate heat exchanger to be descaled or replaced. Scale also provides a medium for bacteria to grow on, so avoiding scaling can reduce associated risk from biological contamination.

At temperatures above 60 °C, the rate of scale precipitation significantly increases, hence the Test has some criteria that seek to indicate if the DHW exceeds 60 °C at any time in DHW plate heat exchanger.

Scale will form at lower temperatures so the criteria is 55 °C for conditions where the plate heat exchanger will be at the this temperature for longer periods e.g. during standby or at the end of a DHW draw-off.

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

N/A

Evaluation of change			
Date evaluated: 30/06/21	Those present: GJ, RH, SC, MO & FV	Additional info required?: N	Modification to proposed approach?: N
Details: Confirmation of scaling assessment criteria			
Signed off: Yes			