



Assumption Change Control Sheet

Test	5a – 5b, DHW response time
Assumption	38. Minimum keep-warm cycle duration

Change Originator	Tom Naughton
Change Request No.	025
Date of Request	27/08/2020
Proposed Change to Assumption?	Yes

Proposed Approach

The current minimum keep-warm cycle duration (Test 4a/4b) is 4 hours.

It is proposed that the maximum period between any single keep-warm cycle is reduced to 2 hours.

Rationale (underlying basis for assumption)

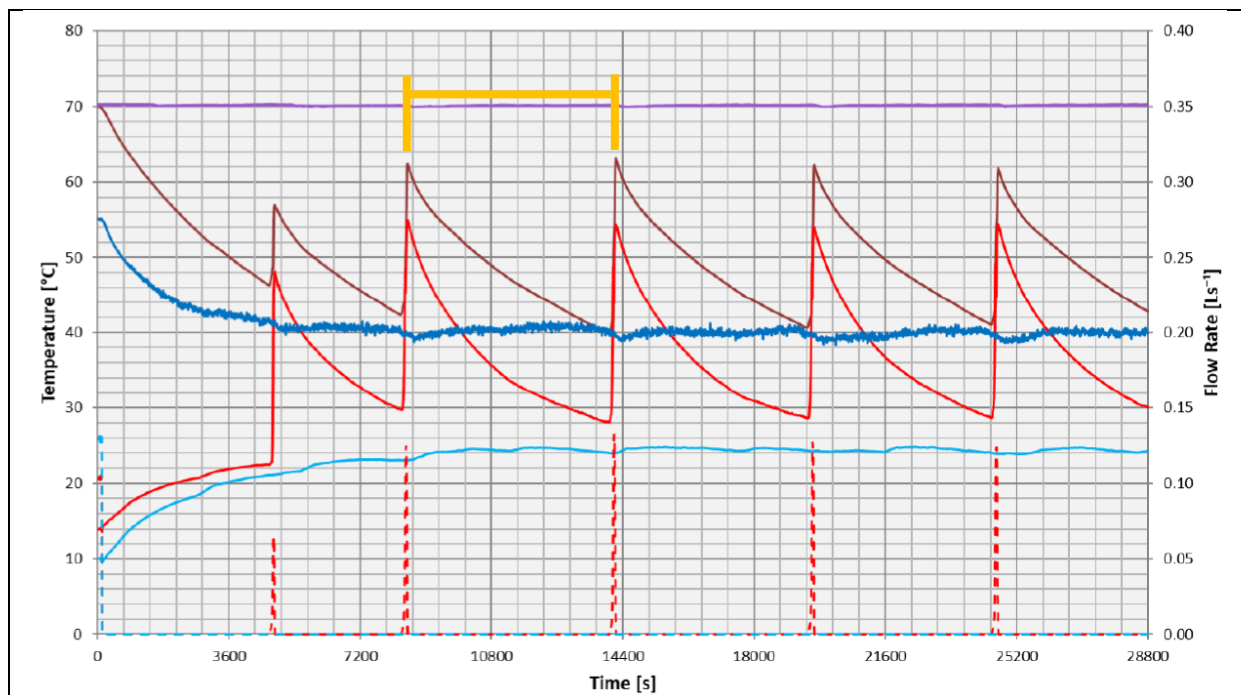
This assumption serves two main purposes:

1. The HIU should allow sufficient and regular primary side flow to ensure that the primary flow temperature of the network that it is connected to is kept at a high enough temperature to reduce the DHW response time for all instantaneous DHW end users on the network.
2. To avoid electronic HIUs being set to have a single pulse prior to end of standby period, as way of manipulating the test.

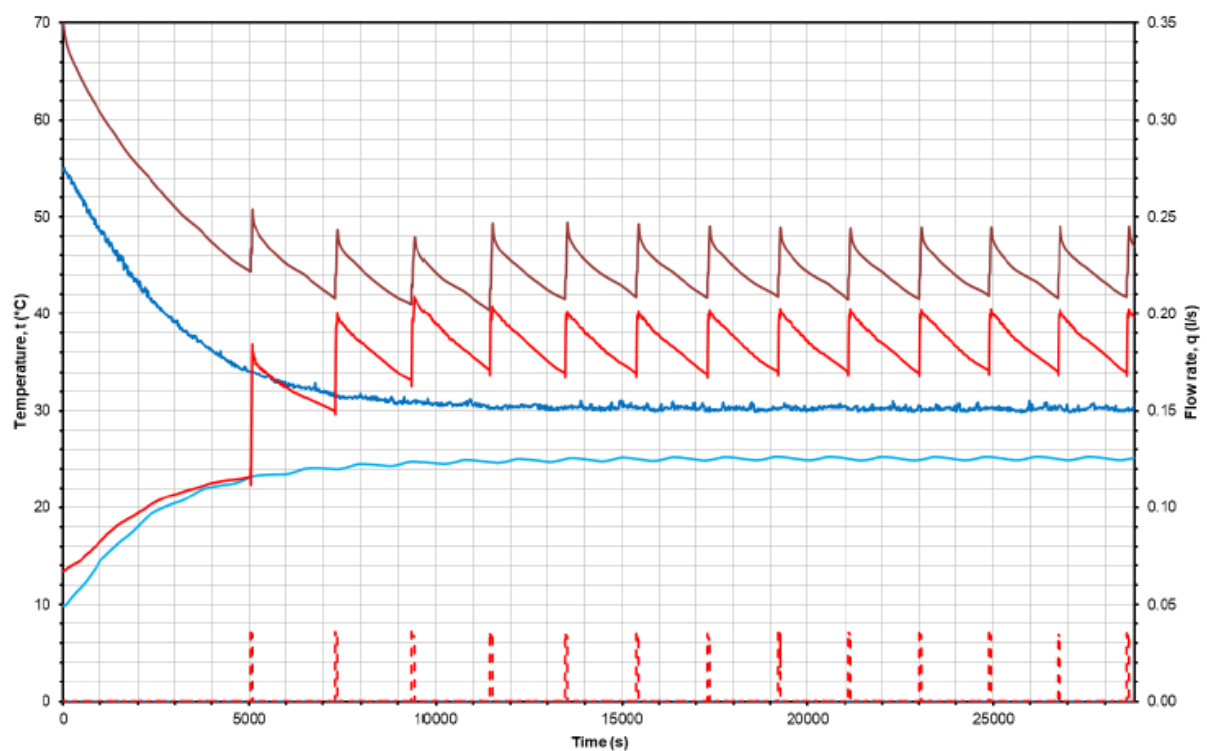
From evaluating the current HIUs tested, the significant majority have keep warm cycles that are less than 15 minutes. Only three HIUs (Vital, Nexus and YGHP) have keep warm cycles greater than 15 minutes.

HIU	70C keep warm cycle time (min)	60C keep warm cycle time (min)
Vital	30	30
Nexus	15	15
YGHP	90	45

It is considered that 2 hours (120 minutes) is the maximum cycle time that can be considered to satisfy both purposes of the test.



YGHP keep warm test (4a – 70C primary flow temperature)
Keep-warm cycle length defined by orange bar



Vital Energi keep warm test (4a – 70C primary flow temperature)

Impact of Change (e.g. implications for test rig)

N/A

CHANGE EVALUATION

Date Evaluated	27/08/20
Additional Information Required?	N
Modification to Proposed Approach?	N
Details	
Signed-off	Y