Alpha
Consulting Engineers Pte Ltd

FEEDBACK REPORT FORM

Ref No: 163-031114(S)

To: LFY From: CCG

Job No./Project: Master Specification – ACMV – Section 5 – Piping & Fittings – Valves Clause 5.10 - Type of Pipework *(where applicable)*

Source of feedback: -

Scope of Feedback: * [ ] Quality [ ] Environmental [ ] Administrative [ ] Contractual [ ] Technical [×] Specification [ ] Others

Section A : Problem & Cause

1) Industry standard is to use heavy gauge pipe for CHWP instead of our standard or medium gauge.
2) Error in paragraph referred in CW pipe.

Section B : Mitigating Action Taken, if any

Nil

Section C : Suggested Corrective Action

Please see attached

Section D : Approved Corrective Action

Document Affected * : [×] Yes [ ] No Affected Document : **ACMV Master Specification**

Approved By : Date : 12/9.

Section E : Action

Action By : FWY NA hm

Targeted Completion : Immediate.

Actual Completion : 5/11/2014 Verified By : Shay

** Mark [X] where appropriate*

Distribution:

5.10 Type of Pipework

The types and quality of all pipework used shall comply with the following schedule:

(a) Refrigerant pipework shall be of copper to BS EN 1057.

(b) Chilled water pipework - up to and including 150mm bore pipes shall be black mild steel to BS EN 10255 medium gauge. Sizes above 150mm shall be of black mild steel to API 5L (Standard Weight).

(c) Condenser water pipework shall be as described in sub-paragraph (ii) hereof, but shall be galvanised. The galvanising of pipes shall be carried out by the pipe manufacturer.

(d) Condensate drain pipes up to and including 32mm bore shall be of copper to BS EN 1057, for installation above false ceiling, in plant rooms & cooling tower decks. All drain pipes shall not be less than 25mm diameter. For condensate drain droppers installed in pipe shaft, AHU Room, etc. hubless cast iron pipes shall be used.

(e) Air vent pipework shall be of galvanised steel to BS EN 10255 medium gauge.

For all pipe connections to valves, strainers and equipment, flanged or screwed joints shall be used. All screwed joints shall be made with Teflon thread sealing tape; hemp or similar organic substance shall not be used.

5.11 Steel Pipe Jointing

For black steel pipework, all joints up to and including 65mm diameter shall be made by means of screwed connections. Pipes 80mm diameter and above shall be joined by means of welding.

For galvanising steel pipework, joints up to and including 65mm diameter shall be made by means of screwed or flanged connections. Pipes 80mm diameter and above shall be joined by means of flanged connections.

In all cases where pipes are joined to flanged equipment, the appropriate mating flanges shall be used.

5.12 Flanges For Steel Pipes

Flanges in accordance with BS EN 1092-1 shall be mild steel. All flanged joints shall be flushed and aligned, and shall be made with corrugated jointing rings, coated on both sides with the recommended jointing compound. All bolts shall be hexagonal-headed steel in accordance with BS 916 with washer and nuts.

5.13 Steel Pipe Fittings

In all cases, galvanised pipe fittings shall be used on galvanised pipework and black pipe fittings on black steel pipework.

In general, all fittings shall be of the malleable iron type, but in all cases entirely suited to the working and test pressures of the circuit concerned.

On all changes of directions, proprietary made elbows and tees shall be used. Bends, offsets and other pipe fittings formed by welding together segmented pieces will be rejected. Short fill-in sections of piping less than 150mm long shall not be welded in to any pipe run.

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(b) Chilled water pipework - up to and including 150mm bore pipes shall be black mild steel to BS EN 10255 heavy gauge. Sizes above 150mm shall be of black mild steel to API 5L (Standard Weight).

(c) Condenser water pipework shall be the same as chilled water pipework but shall be galvanised. The galvanising of pipes shall be carried out by the pipe manufacturer.

(d) Condensate drain pipes up to and including 40mm bore shall be of copper to BS EN 1057. Sizes above 40mm shall be of hubless cast iron pipes to CISPI 301. All drain pipes shall not be less than 25mm diameter.

(e) Air vent pipework shall be of galvanised steel to BS EN 10255 heavy gauge.

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