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The Pennsylvania State University 101P Office of Physical Plant University Park, PA 16802-1118

DATE: July 2, 2009

FROM: Ian Salada

REC'D JUL 0 2 2009

TO: Telecommunications & Software Support

Completed

RE: Design and Construction Standards Update

JUL 07 2009

DIVISION(S): 25

SECTION(S): 25 90 00

Minor change to correct format problem or typographical errors
No entry in the revision log required



Revision Log Entry Required

Description of Change: Updated temperature control sequence description and explanatory text

Reason for Change:

- To explain the purpose and use of the guide temperature control sequences in section 25 90 00.
- To add a descriptive text for each sequence to aid the Professional in use and selection of each sequence.



Copy of changes sent via email also

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At existing Section 25 90 00 (currently as follows):

25 90 00 Guide Sequence of Operation

Document	Version Date	Description
Pumps with VFD's	Ĭ.	
Pumps without VFD's	10	
Heat Exchanger with two valves, 1/3-2/3		
Heat Exchanger with two valves, 1/4-3/4		
Air Handling Units – VAV	January 2008	
Air Terminal Units – Single Duct Variable Air Volume with Hot Water and Perimeter Heating	November 2008	

Add the following explanatory text to Section 25 90 00 and update the Document Descriptions as follows:

25 90 00 Guide Sequence of Operation

Professional shall carefully review and edit these guidelines, adapting them as needed to achieve application-specific, fully developed sequences for each project.

Document	Version Date	Description
Pumps with VFD's	January 2008	Intended for variable flow HVAC pumping systems using duty/standby pumps with monthly exercise cycle and variable speed drives.
Pumps without VFD's	January 2008	Intended for constant (or staged) flow HVAC pumping systems using duty/standby pumps with monthly exercise cycle.
Heat Exchanger with two valves, 1/3-2/3	January 2008	Intended for steam to hot water heat exchangers that have relatively standard operating range and control precision requirements.
Heat Exchanger with two valves, 1/4-3/4	January 2008	Intended for steam to hot water heat exchangers that are anticipated to have a very wide operating range and/or require finer part load control precision.
Air Handling Units – VAV	January 2008	Intended for typical central station VAV Air Handling Units. Includes strategies for automatic trim and respond reset of fan speed control, discharge air temperature, minimum ventilation, and reset of terminal unit minimum airflow setpoint when in economizer. Sequence was developed for units with chilled water cooling and hot water/steam heating coils. Confer with OPP for other applications.
Air Terminal Units – Single Duct Variable Air Volume with Hot Water and Perimeter Heating	November 2008	Intended for typical single duct VAV terminal units. Includes requirements for dual maximum setpoint and discharge air temperature limiting controls.