SECTION 230700 – HVAC INSULATION

PART 1 - GENERAL

1.1. Any deviance from the following instructions must be approved during design by WVU Facilities Management project manager.

PART 2 - PRODUCTS

2.1. All Discharge Air diffusers shall be insulated.

PART 3 - EXECUTION

3.1. Duct Insulation: Supply, return, mixed, and outside air ductwork shall be insulated. Ductwork shall only be insulated externally. Use 2" thick rolls of fiberglass batt, 0.75 pound per cubic foot density and a thermal conductivity (k value) of 0.29 @ 75 degrees F mean temperature. The blanket shall have a vapor barrier facing of an aluminum foil and kraft paper lamination sandwiching a fiberglass scrim, (FSK), for reinforcing. Insulation shall not be compressed more than 25%.

3.2. Ductwork installed out of doors shall be of a weatherproof double wall construction. Two inches of insulation shall be sandwiched between the layers of metal.

3.3. Piping:

A. Chilled Water, Condensate, & Hydronic Heating Piping:

1. Material: Inorganic glass fiber with a thermal conductivity, k, of 0.23 btu-in/hr-ft2-F @ 75 degrees F. Jacket: White kraft paper bonded to aluminum foil, reinforced with fiberglass scrim

2. Thickness:

Pipe Size	Insulation Thickness
0 – 1.5"nominal OD	1.5"
2" – 4"	2"
Over 4"	2.5"

B. Other:

1. All valves 2" and larger shall have removable insulation blankets. These are machine sewn with velcro fasteners.

2. All heating and cooling system pumps shall have removable insulation blankets. These are machine sewn with velcro fasteners.

3. All fittings, flanges, and unions shall be insulated the same as its corresponding piping.

4. Insulation shall continue unbroken through any hangers. The insulation shall rest on shields so as not to overly compress the insulation.

END OF SECTION 230700