2016 Pre Rulemaking Workshop120.0-120.9

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Efficiency

Pre Rulemaking Workshop
Hearing Room A
November 3, 2014

New §120.2(f)2 and 3

Dampers for Air Supply/Exhaust Equipment.

Automatically close during unoccupied periods, except:

- During pre-occupancy
- When enabled by an occupant sensor
- When enabled by an override signal with dampers open to provide outdoor air ventilation

Remain closed during setback heating and cooling, except:

- When equipped with an economizer

Changes to §120.2(i)1-8

Clean up language

Added:

- Stand alone or integrated
- Heating, only when applicable
- How faults are reported (EMCS, Annunciated locally, Remotely to a HVAC service provider)

Removed:

- Examples of unitary dx systems and references to AHRI
- Refrigerant pressure sensor accuracy

New §120.2(j)

- DDC to the zone is required in certain applications, see Table 120.2-A.
- DDC system capabilities:
  - Monitoring zone and system demands
  - Information transfer
    - Between zones and air distribution system controllers
    - Between air distribution system to heating and cooling plant controllers
  - Detect zones and systems that are driving reset logic excessively and inform system operator
  - Allow operator to remove zone(s) from algorithm
  - Trending and graphically displaying inputs and outputs (new buildings)
  - Resetting heating and cooling setpoints in all non-critical zones when signal is received.

New §120.2(k)

Optimum Start/Stop Controls for systems with DDC to the zone level.

- Optimum start controls (defined in §100.1) automatically adjust the start time of the HVAC system each day to bring the space to the desired temperature at the beginning of scheduled occupancy
- Optimum stop controls (defined in §100.1) setup or setback thermostat setpoints before scheduled unoccupied periods based on thermal lag and acceptable thermal comfort limits.

Changes to §120.3 and Table 120.3A

- Formatting and clean up
- Increasing insulation thickness from ½ inch ¾ inch for space cooling system piping (40-60 deg F)

TABLE 120.3-A PIPE INSULATION THICKNESS

FLUID TEMPERATURE RANGE (°F)	CONDUCTIVITY RANGE (in Btu-inch per hour per square foot per °F)	INSULATION MEAN RATING TEMPERATURE (°F)	NOMINAL PIPE DIAMETER (in inches)				
			< 1	1 to <1.5	1.5 to < 4	4 to < 8	8 and larger
			INSULATION THICKNESS REQUIRED (in inches)				
Space heating, Hot Water systems (steam, steam condensate and hot water) and Service Water Heating Systems (recirculating sections, all piping in electric trace tape systems, and the first 8 feet of piping from the storage tank for nonrecirculating systems)							
Above 350	0.32-0.34	250	4.5	5.0	5.0	5.0	5.0
251-350	0.29-0.31	200	3.0	4.0	4.5	4.5	4.5
201-250	0.27-0.30	150	2.5	2.5	2.5	3.0	3.0
141-200	0.25-0.29	125	1.5	1.5	2.0	2.0	2.0
105-140	0.22-0.28	100	1.0	1.5	1.5	1.5	1.5
Space cooling systems (chilled water, refrigerant and brine)							
40-60	0.21-0.27	75	~~0.5~~0.75	~~0.5~~0.75	1.0	1.0	1.0
Below 40	0.20-0.26	50	1.0	1.5	1.5	1.5	1.5

New §120.6(f)

Elevators

- Lighting power density for cab lighting ≤ 0.6 W/sqft.
- Cab ventilation fans for elevators without AC ≤ 0.33 W/CFM at maximum speed.
- Occupancy controls to shut off lighting and ventilation fan when the cab is unoccupied more than 15 min.
- Controls to ensure lighting and ventilation remain operational in the event the elevator cabin gets stuck.

New §120.6(g)

Escalators and Moving walkways

- Applies to airports, hotels and transportation function areas
- Speed control to automatically slow to the minimum permitted speed when not conveying passengers
- Minimum speed determined by ASME A17.1/CSA B44(2013)

Changes to §120.7 and §120.8

- Moved the insulation placement requirements from §110.8(e) to §120.7(a)3.
- Moved the insulation requirements for demising walls from §110.8(f) to §120.7(b)7.
- Removed unnecessary reference to §120.6 given the scope of §120.8 excludes covered processes.