



REScheck Inspection Checklist

Project Title: Model 123

Date: 03/04/05

Ceilings:

- Ceiling 1: Flat Ceiling or Scissor Truss, R-30.0 cavity insulation

Comments: _____

Above-Grade Walls:

- Wall 1: Wood Frame, 16" o.c., R-13.0 cavity insulation

Comments: _____

Windows:

- Window 1: Vinyl Frame:Double Pane, U-factor: 0.400

For windows without labeled U-factors, describe features:

#Panels ____ Frame Type _____ Thermal Break? ____ Yes ____ No

Comments: _____

Doors:

- Door 1: Solid, U-factor: 0.600

Comments: _____

Floors:

- Floor 1: All-Wood Joist/Truss:Over Unconditioned Space, R-19.0 cavity insulation

Comments: _____

Air Leakage:

- Joints, penetrations, and all other such openings in the building envelope that are sources of air leakage must be sealed.
- Recessed lights must be 1) Type IC rated, or 2) installed inside an appropriate air-tight assembly with a 0.5" clearance from combustible materials. If non-IC rated, the fixture must be installed with a 3" clearance from insulation.

Skylights:

- Minimum insulation requirement for skylight shafts equal to or greater than 12 inches is R-19.

Vapor Retarder:

- Required on the warm-in-winter side of all non-vented framed ceilings, walls, and floors.

Materials Identification:

- Materials and equipment must be installed in accordance with the manufacturer's installation instructions.
- Materials and equipment must be identified so that compliance can be determined.
- Manufacturer manuals for all installed heating and cooling equipment and service water heating equipment must be provided.
- Insulation R-values and glazing U-factors must be clearly marked on the building plans or specifications.

Duct Insulation:

- Supply ducts in unconditioned attics or outside the building must be insulated to R-8.
- Return ducts in unconditioned attics or outside the building must be insulated to R-4.
- Supply ducts in unconditioned spaces must be insulated to R-8.
- Return ducts in unconditioned spaces (except basements) must be insulated to R-2.
- Where exterior walls are used as plenums, the wall must be insulated to R-8.
- Insulation is not required on return ducts in basements.

Duct Construction:

- Duct connections to flanges of air distribution system equipment must be sealed and mechanically fastened.
- All joints, seams, and connections must be securely fastened with welds, gaskets, mastics (adhesives), mastic-plus-embedded-fabric, or tapes. Tapes and mastics must be rated UL 181A or UL 181B.
Exception: Continuously welded and locking-type longitudinal joints and seams on ducts operating at less than 2 in. w.g. (500 Pa).
- The HVAC system must provide a means for balancing air and water systems.

Temperature Controls:

- Thermostats are required for each separate HVAC system. A manual or automatic means to partially restrict or shut off the heating and/or cooling input to each zone or floor shall be provided.

Service Water Heating:

- Water heaters with vertical pipe risers must have a heat trap on both the inlet and outlet unless the water heater has an integral heat trap or is part of a circulating system.
- Insulate circulating hot water pipes to the levels in Table 1.

Circulating Hot Water Systems:

- Insulate circulating hot water pipes to the levels in Table 1.

Swimming Pools:

- All heated swimming pools must have an on/off heater switch and require a cover unless over 20% of the heating energy is from non-depletable sources. Pool pumps require a time clock.

Heating and Cooling Piping Insulation:

- HVAC piping conveying fluids above 105°F or chilled fluids below 55°F must be insulated to the levels in Table 2.

Table 1: *Minimum Insulation Thickness for Circulating Hot Water Pipes*

Heated Water Temperature (°F)	Insulation Thickness in Inches by Pipe Sizes			
	Non-Circulating Runouts		Circulating Mains and Runouts	
	Up to 1"	Up to 1.25"	1.5" to 2.0"	Over 2"
170-180	0.5	1.0	1.5	2.0
140-169	0.5	0.5	1.0	1.5
100-139	0.5	0.5	0.5	1.0

Table 2: *Minimum Insulation Thickness for HVAC Pipes. Hot Water Pipes*

Piping System Types	Fluid Temp. Range(°F)	Insulation Thickness in Inches by Pipe Sizes			
		2" Runouts	1" and Less	1.25" to 2.0"	2.5" to 4"
Heating Systems					
Low Pressure/Temperature	201-250	1.0	1.5	1.5	2.0
Low Temperature	106-200	0.5	1.0	1.0	1.5
Steam Condensate (for feed water)	Any	1.0	1.0	1.5	2.0
Cooling Systems					
Chilled Water, Refrigerant and Brine	40-55	0.5	0.5	0.75	1.0
	Below 40	1.0	1.0	1.5	1.5

NOTES TO FIELD: (Building Department Use Only)
