

Problems with two apartments sharing one heating source

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When two apartments share the same heat source and only have one thermometer, someone is always unhappy. If the thermostat is upstairs, the downstairs people are too cold, and if the thermostat is downstairs, the upstairs people have to open the windows, to keep from getting cooked although those roles can be reversed depending on the building insulation and heat loss. When the heating system is a forced air system, there is an additional problem. Everyone is actually sharing the same air -- the same cooking odours, the same smoke smell and the same airborne germs. In most municipalities, the fire regulations will not allow forced air heating ducts to serve two separate families. Although in reality, many people do live with such a system.

First let's talk about temperature control. If there is good cooperation between the two families, putting a thermostat in each apartment will give some individual control, but the reality is that the furnace will go to the highest setting of the two. In the apartment that we showed in the TV episode, the landlord lived upstairs but was often not there. So, she put a thermostat downstairs, as well as, upstairs. When she was gone, she set her thermostat way back and the people downstairs had total control. When she thought that her neighbours were making things too hot for her upstairs, she had a cut-off switch that eliminated the control of the downstairs thermostat, giving her total control. That's not a perfect arrangement, but it helps.

Fire separation and separate temperature control is why most apartments in Canada have water radiator heating or baseboard electrical heating -- there are no air ducts to spread a fire from one unit to the other. The boiler furnishes the same temperature water to all apartments, hopefully, and each apartment can open or close the valves on each radiator to reduce the heat, if necessary. For even better control, it is possible to install room by room thermostats that control electric solenoid valves, installed on each radiator. That actually gives you total zone control from a single heat source and a very good control of the temperature in each room.

It is possible to get zone control in a hot air system as well. Install the thermostat in the apartment that needs the most heat, probably upstairs if the building is not well insulated. That will assure that enough heat coming out of the furnace to do the job. The apartment that is overheating with that can then install thermostat controlled duct dampers -- that simply shut off or reduce the hot air flow to that apartment, without shutting down the furnace which the other apartment needs.

If you do share a common air stream with another family, you may not be able to cut out the odors but you can reduce the spreading of germs by using UV lamps inside the ductwork.

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