

SHOULD I RUN MY AIR CONDITIONER WHILE I'M AWAY?

By Paul L. Osley, PE, BCEE, CIH, CSP



Nearly all of us at one time or another leave home on an extended trip or have a vacation house/rental property that is unoccupied for extended periods of time. The million dollar question is, “how should I operate the air conditioning system to protect the property from adverse relative humidity (RH) and potential mold/odor impacts?”.

The Summer 2006 issue of ASHRAE IAQ Applications (Vol. 7, No. 3) has an excellent article titled “Humidity Control in Vacant Homes” that addresses this very dilemma. The following is a brief synopsis of the information presented. Before implementing one of these methods/strategies, it is recommended that you review the original article for the specific supporting information necessary to make an informed decision.

Recent research in 2004 by the Florida Solar Energy Center, funded by Florida Power and Light Company, looked at the following five methods and/or strategies: 1) no space conditioning; 2) AC set between 83 and 85°F; 3) AC operation from 3 a.m. to 5 a.m. at 74°F; 4) operate a dehumidifier; and 5) space heating. Two target objectives were used to evaluate these strategies: 1) RH should stay below 70%, essentially all the time, and 2) RH should stay below 65% most of the time.

Based upon the aforementioned evaluation criteria and the test results, indications are that two of the methods/strategies are not recommended for addressing unoccupied indoor space over extended periods of time. They are: 1) no space conditioning at all; and 2) setting the AC system to 83-85°F.

Test results confirmed the following three methods/strategies were found to be effective in controlling RH and are recommended based upon your specific circumstances: 3) AC operation from 3 a.m. to 5 a.m.; 4) operating a dehumidifier on a timer system; and 5) heating the house to about 89°F, which lowers indoor RH effectively for nearly all hours of the summer without removing moisture from the room air.

Please note that each of these three methods/strategies may have specific circumstances or conditions that would make them either more or less effective in your particular situation. Therefore, please refer to the original ASHRAE article for this information.

For a copy of the article, or for further information, contact Paul Osley at Chastain-Skillman’s Tampa office.

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