

Things To Ask The Fire Marshall After He Declares Your House Fire To Be Caused By Wet Charcoal

- According to the 19th Edition of the National Fire Protection Association Handbook on page 6-331:

"Small quantities of charcoal are normally stored in heavy paper bags. The spontaneous heating hazard of individual small bags, as might be found in a dwelling, is not serious."

- According to the study, "Size Constraints on Self Ignition of Charcoal Briquets" by P.J. Pagni, B.R. Cuzzillo, F.C. Wolters and T.R. Frost, presented at the 7th International Symposium on Fire Safety Science, 16-21 June, 2002 Worcester Polytechnic Institute, Worcester, Massachusetts:

"At ambient temperatures (approximately 25°C) these data show a bag of charcoal briquets would have to exceed the volume of a typical house to self ignite."

"Self ignition at ambient temperatures of bagged charcoal briquets in commercially available sizes is impossible."

- According to Kirk's Fire Investigation, Fifth Edition, John D. DeHaan, page 151:

"Activated charcoal can self-heat in masses of a few pounds and requires several hours to a few days (but charcoal barbecue briquets are unlikely to self-heat to ignition unless presented in large masses [more than 50 pounds (20 kg)] or at high ambient temperatures (over 100°C)."

- According to NFPA 921 (2008 Edition) "Guide for Fire and Explosion Investigations":

"5.7.4.1.3.10 Charcoal Briquettes. ...rigorous laboratory testing has shown that common-size bags of briquettes do not even approach self-ignition, even when placed in unusually high ambient temperatures, such as in a closed automobile in the sun."

"Spontaneous combustion of bagged charcoal briquettes in commercially available sizes is not possible under any normal ambient conditions"

- Finally point the fire marshal to this recommendation from Kirk's Fire Investigation, Fifth Edition, John D. DeHaan, page 152:

"There is a temptation to label many accidental fires as 'spontaneous' because there is no identifiable ignition source or obvious human intervention, but this is not correct. If the materials and processes cannot be specifically characterized as susceptible to self-heating under the prevailing conditions, then the cause must be considered to be unknown. Spontaneous ignition (with very rare exceptions) does not occur instantaneously and the time frame for development is linked to the chemistry and mass of the reactant. Flaming ignition is always preceded by smoke and odors that should be detectable by anyone in the vicinity for some time prior to flaming ignition."

Note: These are serious questions that anyone blaming a house fire on wet charcoal must answer before rendering such a judgement. The NFPA, IAFSS and a respected fire investigation publication all say it cannot happen.