

*Library*



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Your reference:

24 January 1975

To all Chief Fire Officers

46905

Dear Chief Officer

SMOULDERING IN FOAM RUBBER

You will be aware that two members of Kent Fire Brigade recently lost their lives in the course of fighting a fire in an Admiralty storeroom at Chatham Dockyard containing foam rubber mattresses. Investigations into this fire, and into the circumstances which caused the loss of life, are not yet complete, and I hope in due course to be able to provide you with detailed information on what appears to be a new hazard. Preliminary experiment at FRS has shown that foam rubber, at least of certain types, has the property of smouldering and at the same time releasing unburned flammable vapour; other materials which are capable of smouldering do not have this property to the same extent, so far as we are aware. With foam rubber the vapours are generated at a relatively low temperature, and have a high calorific value, so that a flammable atmosphere can form readily.

It seems likely that in favourable circumstances quite substantial quantities of flammable vapour can be produced in an enclosed space where the heat and production of toxic gases would not be such as to prevent firemen from working in the space concerned. A chance source of ignition can at the same time ignite the vapour cloud with very serious consequences. If a smouldering fire in foam rubber cannot be immediately extinguished, or substantial ventilation be effected, firemen should be advised against remaining in the enclosure.

The foregoing advice should be treated as an interim measure until further guidance, which will be prepared as quickly as possible, becomes available and is issued to the Service.

Yours sincerely

*Annabel Shella*

No. 4/1975

