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Ageing: The Effects of Energetic Materials on System IM Response

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Abstract

The importance of IM properties being maintained throughout the service life of a munition has long since been recognised by IMEMG and it was postulated that age-related changes to the intrinsic safety properties of energetic materials could affect the IM response of munitions.

The Ageing IMEMG Expert Working Group has developed a Fault Tree Analysis to identify the potential links between properties of cast-cure PBXs and IM response.

A preliminary conclusion was that the properties of aged, cast-cure PBXs were unlikely to influence IM response.

This analysis used a generic approach that could be applied to other classes of energetic materials. Shortfalls in surveillance programmes and relevant STANAGs were also highlighted by this analysis.