

## EXPLOSIVES HAZARDS

### Fact Sheet No 17: Disposal of Explosives by Burning or Detonation.

The disposal of explosives poses special risks to both people and the environment. Explosives and explosives contaminated materials must only be disposed of by approved methods, as part of a safe system of work, in a specifically assigned location. Explosives must not be disposed of as general waste.

The disposal method and disposal location must be designed to take account of the characteristics and specific properties of the explosives being destroyed.

A risk assessment is required to determine the suitable method of disposal, and the specific hazards, precautions and controls necessary for that method. The risk assessment must address the storage, handling and preparation of the explosives and the ignition devices, the preparation of the disposal site, the procedures for a hangfire and/or misfire, and the completion of the disposal activity, including the approach to the disposal site, raking, damping down, clean up, and any dwell time before reuse.

When burning explosives the risk of burning to detonation has to be considered. The risk assessment, the safe system of work and the design of the disposal site, must ensure that the method minimises the risk of a burn to detonation, and protects people from the effects of a detonation, if a burn to detonation occurs. The risk of burning to detonation increases with increasing quantity and depth of explosives (bed depth). The method must ensure that these are minimised.

In general different explosive wastes should be segregated and disposed of separately. Incompatible explosives must not be burned together. If there is any doubt about the compatibility of the explosives they must be burned separately.

When the disposal method involves, or has the potential to involve, the detonation of explosives, suitable protective measures (distance and physical structures) are required to protect employees, and others, from the effects of blast and fragmentation. 'Site clear' procedures are also required, to ensure that all the explosives have been destroyed.

Some explosives can be destroyed or desensitised by a compatible solvent or diluent. The resultant waste can often be destroyed by burning. It is important to use, and maintain, the correct type and amount of solvent or diluent, and to protect the solution from environmental conditions which could degrade the effectiveness of the solvent or diluent.

It is important that disposal methods and procedures are clear, easy to understand and specific to the waste explosives being destroyed. Explosives must only be destroyed by the method specifically identified for that explosive. The disposal method, procedures and site rules must be followed. Any unusual events must be reported and acted upon.