

# **POTENTIAL COST CUTTING METHODS FOR PERMITTING DEACTIVATION FURNACES/EXPLOSIVE WASTE INCINERATORS**

Katherine L. Heineken, Kim David Murphy, Timothy J. Tope, P.E.  
Radian International LLC  
1093 Commerce Park Drive, Suite 100  
Oak Ridge, Tennessee 37830

## **ABSTRACT**

One method for small arms disposal is the use of a deactivation furnace or explosive waste incinerator. There are numerous hurdles a facility typically encounters to get the furnace or incinerator fully operational and permitted. For example, one Department of Defense installation was in the permitting process 7 years, which included numerous facility upgrades and modifications. This paper will discuss the technical approach for proactively addressing permitting issues and requirements and will identify potential pitfalls to avoid as well as ways to reduce costs. For example, when determining the waste profile, the facility should forecast its treatment needs (taking into account the net explosive weight limits of the furnace/incinerator) and then classify the wastes into "chemical families" based on the type and composition of the wastes. One waste from each family should then be selected for potential inclusion in the trial burn. Modeling the waste disposal can help to narrow down the number of wastes requiring characterization during a trial burn, as well as the number of analyses.