

## **Requalification of Demilitarized HMX for Use in DOD and DOE Applications**

Large quantities of good HMX are burned and detonated in the disposal of scrap and obsolete or aged formulations. As the closing of Hawthorn and Sierra have shown, however, environmental regulation may force the use of other disposal or reclamation methods in the near future. TPL developed an efficient and environmentally sound method of reclaiming HMX from these formulations, but the prime users of the material are off limits, limiting the quantities that can be recycled. DOD and DOE regulations will not allow use of recycled material. Crane Division of the Naval Surface Warfare Center has obtained funding for the qualification of demilitarized HMX for use in DOD and DOE formulations. This is a joint program between TPL, Inc., Los Alamos National Laboratories and NAVSEA / Indian Head. TPL's part involves developing techniques for reclamation of HMX from four different explosive formulations in current use and developing a method to classify the reclaimed material into useful MIL standard classes. Indian Head and Los Alamos are involved with this program to supply independent verification that the recycled HMX meets the material specification as given in the MIL standard (HMX MIL-DTL-45444C Nov. '96 & Amendment #1 April '99) as well as additional morphological characterization. Additionally, they will carry out small and medium-scale tests to characterize the HMX performance in DOD and DOE explosive formulations. Current status and progress will be discussed.