Bhabha Atomic Research Centre

Health Safety and Environment Group

Confirmation of metal samples received from Thane Police as Depleted Uranium

On 30th Nov 2016 Bhabha Atomic Research Centre (BARC) received a metallic sample (~30 g) from Police for identification. Gamma spectrometry analysis of this sample showed that it is Depleted Uranium (DU) having Uranium-235 only 0.22 % compared to 0.7 % present in natural Uranium. Based upon the BARC report of analysis of this sample, Thane crime branch confiscated three metallic blocks (dimensions: ~12cm x 7cm x 2cm) weighing ~ 2.9 Kg each and handed over to BARC on 22nd December, 2016 in presence of officials from AERB, BARC and DAE security. All the three blocks have cuts at corners indicating the removal of pieces from it earlier.

The detail analysis of samples from these metallic blocks confirmed that all these three blocks are **depleted uranium (DU)**. The analysis of percentage composition of uranium isotopes shows that the Uranium 235 is 0.22 % in all three blocks. These DU blocks cannot lead to any detectable health hazard due to radiation. However, public is not authorized to purchase and possess it without license. At present all the metallic blocks and samples are in the custody of BARC. BARC confirmed that these DU metallic blocks have not originated from DAE and Police is investigating the source of this DU. Though DU cannot be used as nuclear fissile material, due to its high density, DU is used for various applications in industry.