



“Gheorghe Asachi” Technical University of Iasi, Romania



DETERMINATION OF THE DELAY ACCURACY OF THE COMPONENTS OF NON-ELECTRIC INITIATION SYSTEMS

Edward Gheorghiosu*, Emilian Ghicioi, Attila Kovacs, Gabriel Vasilescu, Daniela Rus

*National Institute for Research and Development in Mine Safety and Protection to Explosion – INSEMEX Petroșani,
32 34 G-ral Vasile Milea St., 332047 - Petroșani, Hunedoara Country, Romania*

Abstract

In quarries, hard rock blasting is done effectively using explosives for civil use. Perhaps, the most used technical solution for decreasing the seismic effects due to blasting is sequential blasting in front of the quarry. This technical solution involves the use of proper means of initiating explosives, which have to meet certain characteristics able of leading to the achievement of the intended purpose. This paper describes one of the methods of verification and the testing results for non-electric initiation system components, usually used to initiate the explosives in quarries, in terms of “delay accuracy”, which is an essential parameter for highlighting the possibility of using these products within blasting schemes.

Keywords: delay stage, explosives for civil use, non-electric detonators, surface connector, shock tube

Received: May, 2016; *Revised final:* May, 2017; *Accepted:* May, 2017

* Author to whom all correspondence should be addressed: e-mail: edward.gheorghiosu@insemex.ro; Phone: + 40 254 541621-22; Fax: +40 254 546277