Based upon a request by DYNAenergetics GmbH & Co. KG, Kaiserstrasse 3, D-53840 Troisdorf, Germany, the following items are classed in accordance with Section 173.56, Title 49, Code of Federal Regulations (49 CFR). A copy of your application, all supporting documentation and a copy of this approval must be retained and made available to DOT upon request.

**U.N. PROPER SHIPPING NAME AND NUMBER:**
Detonators, electric for blasting, UN0456

**U.N. CLASSIFICATION CODE:** 1.4S

**REFERENCE NUMBER**
EX1999110038

**PRODUCT DESIGNATION/PART NUMBER**
Instantaneous detonators Dynawell 0015FDE (with crimpling sleeve) in Division 1.4S Packaging;
Dynawell 0015 FDE (with side initiation block) in Division 1.4S Packaging

**NOTES:** This classification is only valid when the electric detonators are packaged as follows: Inner Packaging - Trayblock, multilayer plywood, with slots for each detonator evenly spaced not less than 25 mm apart (center to center) to hold not more than twenty-eight (28) detonators in up to a 4x8 array, and with a plywood pad not less than 25 mm thick positioned below the output ends of the detonators. The plywood trayblock and pad is sandwiched between steel plates and securely bolted together. Outer Packaging - UN 4A steel box lined with plywood not less than 15 mm thick on all sides, each containing not more than one inner packaging supported by its bolt extensions with sufficient dunnage to prevent movement during transport.

**DATED:** 08/01/2010

For Dr. Magdy El-Sibaie
Associate Administrator for Hazardous Materials Safety