


**APPENDIX U-12**

**EXECUTIVE SUMMARY OF  
INVESTIGATION OF A  
NELSON-KELLERMAN ANEMOMETER**



November 17, 2011

MEMORANDUM FOR NORMAN G. PAGE  
Accident Investigation Team Leader

FROM: JOHN P. FAINI   
Chief, Approval and Certification Center

SUBJECT: Executive Summary of Investigation of a Nelson-Kellerman  
Anemometer Recovered from Performance Coal Company's  
Upper Big Branch – South Mine

The Approval and Certification Center (A&CC), as requested by Upper Big Branch Mine Accident Investigation Team Leader, Norman Page, conducted a laboratory investigation of a Nelson-Kellerman Anemometer recovered from a fatal mine explosion at the Upper Big Branch Mine-South on April 5, 2010.

The component received was:

1. Exhibit No. PE-0075 Nielsen-Kellerman Company PMA-2008 Pocket Mining Anemometer (Found in crosscut 102 adjacent to S.S. 19871) as documented by the Evidence Identification Tag.

The exhibit was initially documented and photographed during a Preliminary Inspection in the condition in which it was received. The Preliminary Inspection included documenting visual observations and photographing conditions of the exhibit. This inspection was conducted as the equipment was received by the Primary Investigator during the accident investigation.

After the Preliminary Inspection was completed, a Detailed Inspection was conducted. The Detailed Inspection included noting any obvious signs of arcing, sparking, or electrical heating on both the outside and inside of the equipment. This involved taking apart the equipment and performing any applicable testing as modified per ASOP2026, Investigative Procedures for Evaluating Equipment from Mine Explosions. At the conclusion of the Detailed Inspection, the anemometer was compared to approval documentation.

The anemometer appeared to be functional in its as received condition. There were no obvious signs of internal heating, arcing, or sparking.

The anemometer had several minor discrepancies when compared with the approval documentation. None of these discrepancies affected the intrinsic safety of the anemometer.

