



March 22, 2010

Patriot Coal Company – Wells Preparation Plant  
Wharton, WV 25208  
Attention: Mr. Joe Benedict

Ref: CoalScan 3500 Coal Analyzer, Clean Coal Conveyor - Actuator Arm

Dear Mr. Benedict,

Per your request, we have reviewed a situation in which Kanawha Scales & Systems had locked the moveable actuator arm of the CoalScan model 3500 Ash Analyzer, which is located on your Clean Coal conveyor, so that the analyzer position is fixed in the "overbelt" normal operating position.

As a clarification, the CoalScan 3500 is a C-frame unit that straddles a conveyor, passing radioisotope signals (gamma rays from Americium and Cesium) through both the conveyor belt and the carried coal. It has a capability to rotate 90 degrees from this normal operating position to a position that is parallel with, but removed from, the conveyor belt. An electric actuator is utilized in its design to carry out this rotation procedure. The purpose of this capability is to provide a convenience to the user, so that periodic standardizations (empty belt or coal sample readings) can take place to assist in routine calibration procedures.

On 9-25-08, at the request of Patriot, Kanawha Scales & Systems came to your site to perform a service on this analyzer. Due to the failure of the actuator itself, the CoalScan 3500 actuator arm was locked in the "overbelt" normal operating position. The actuator device that performs this rotation is no longer available from the manufacturer. As this unit is now an older generation analyzer, it has become more and more difficult to locate service parts.

Eliminating the ability to rotate the C-frame away from the coal stream in no way affects the safety or integrity of the unit. The exposure level to personnel is actually lower when the unit is fixed over the belt. Additionally, the independent operation of the shutter is not affected by the position of the C-frame, which in turn poses no additional threat of exposure to personnel. The Wells Plant CoalScan 3500 source shutter assembly was in proper working condition when the C-frame was locked in the "overbelt" position. As a reference, the CoalScan 2500 analyzer (successor to the 3500) has a C-frame that is permanently positioned over the belt. This unit utilizes the same sources, source holder, shutter mechanism and detector assembly as the CoalScan 3500.

Attached are the 3500 shutter test documentation and the Coalscan 3500 Sealed Source & Device Registry documentation.

In conclusion, the operation of the actuator in no way compromises the integrity of the source holder or shutter mechanism. Therefore we see no infraction with any NRC regulations.

Best Regards,

A handwritten signature in black ink, appearing to read "Mark Bradbury". The signature is fluid and cursive, with the first name "Mark" being more prominent than the last name "Bradbury".

Mark Bradbury  
Systems Support Manager  
Kanawha Scales & Systems

CC:  
Raj Patel – Analyzer Product Manager  
Jerry Buhr - Radiation Safety Officer