

APPLICATION FOR HEALTH AND SAFETY REVIEW  
AND REGISTRATION OF DEVICE CONTAINING RADIOACTIVE MATERIALS

Device: The COALSCAN Model 9000  
Sulfur, Ash and Moisture Monitor

Submitted by: COALSCAN, INC.  
240 Arch Street  
York, Pennsylvania 17403  
  
(717) 843-8671

Contact: Dr. D. W. Devins  
Vice President, Technology

## 1.00 GENERAL INFORMATION

The Model 9000 Sulfur, Ash and Moisture Monitor is manufactured by COALSCAN, INC., for the continuous monitoring of sulfur, ash and moisture in bulk coal streams. The instrument uses neutron capture gamma rays to monitor selected elemental contents of the coal and gamma-ray absorption to deduce the ash content. Moisture is measured by a capacitance technique.

All radiation sources required are housed inside a shielded frame. The user does not require access to the interior of the device, either during installation or operation. Indeed, user access to the interior is quite difficult to accomplish.

## 2.00 REGISTRANT

The name and address of the applicant for device registration is:

COALSCAN, INC.  
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York, Pennsylvania 17403  
(717) 843-8671

Contact: Dr. D. W. Devins  
Vice President, Technology

## 3.00 DESCRIPTION OF RADIOACTIVE MATERIAL

The COALSCAN Model 9000 Sulfur, Ash and Moisture Monitor uses Californium-252, Americium-241 and Cesium-137 sealed sources of 10, 20 or 50 microgram (200.1, 400.2 or 1000.5 MBq), 300 mCi (11.1 GBq) and 5 mCi (185 MBq) activity, respectively. These sources are manufactured by the Amersham Corporation.

## 4.00 SEALED SOURCE REGISTRATION

NOT APPLICABLE

## 5.00 DEVICE REGISTRATION

### a. Manufacturer and Model Designation

The prototype Model 9000 device has been manufactured in Australia by Mineral Controls Instrumentation, Ltd., Forrestville, South Australia. Commercial versions of