

# **PLANNING CONSENT P2014/0729**

## **ENERGYBUILD Ltd. (Or the Operating Company) ABERPERGWM COLLIERY HAUL ROAD MANAGEMENT AND MAINTENANCE PLAN**

### **Condition 8**

A Haul Road Management and Maintenance Plan shall be submitted to and approved in writing by the Local Planning Authority within 12 months of the date of re-Commencement of underground operations at the mine as notified in accordance with Condition 3 above. The scheme shall be implemented as approved.

#### **Reason**

The prevention of pollution from surface water drainage and to ensure the integrity of the road is sufficient to cater for the vehicular traffic along its length.

#### **Haul Road Maintenance Plan**

The haul road to the mine waste repository is vital keeping mine productivity at an optimum level and consequently it is critical that it is maintained in good and serviceable condition. Refer to attached plan Ref. AC/HMRS/10/19-01 for location and orientation.

Regular maintenance of the haul road guarantees that road degradation is controlled and a high standard is maintained. The haul road is generally well-constructed and has been substantially improved over the recent years. Although haulage machinery (ADT's ) are designed to cope with rough conditions, the less damage there is to machinery, the lower the costs of maintenance and operation. An irregular road surface resulting from the formation of potholes, ruts, depressions and bumps increases wear on every part of the vehicle. Such road damage also has a major impact on tyre-life.

Running surface deterioration, most importantly, will also serve to generate unacceptable levels of pollution of the water treatment facilities and hence the consented discharged water quality.

The maintenance of a clean and stable running surface so that environmentally acceptable water quality discharges are achieved is of the highest priority.

### **1. INSPECTION**

The haul road inspection scheme will be scheduled and exercised in the following way;

**Daily Inspection.** The haul road will be inspected visually on a daily basis. This inspection will be bolstered by haulage vehicle drivers and site supervisor's verbal reports. The inspection will cover the following factors:

- Wheel rutting
- Spillage of material from trucks
- Heavy rainfall: - washing away any fines and loosening and scouring the surface material and turning it to a mud layer or rutted surface.
- flooding of the pavement and causing soft spots and subgrade failure
- Damage by tracked machines
- Incorrect load positioning on trucks, incorrect use of haul road i.e. driving track, left side up, right side down.
- Condition of drains, catchment pits, lagoons.
- Condition of edge protection.

**Weekly Inspection.** Will again focus on the points above but will be a more detailed inspection taking into account lagoon and discharge water quality, condition of culverts and drainage channels.

**Six Monthly Inspection.** The haul road and ancillary structures, lagoons, drainage channels, culverts will be examined for instability or other defects by a Geotechnical Engineer.

Corrective measures will be carried out as required and as is informed by the inspection and reporting regime. Situations which hold the potential for environmental damage or safety concerns will be rectified immediately. General penetrative maintenance will be carried out throughout the operations phase of the haul road.

## **2. Reporting.**

Records of all examinations and inspection reports will be made. Defects recorded will be addressed according to the severity of the circumstances. Priority issues will be addressed immediately others will be addressed as part of routine maintenance.

## **3. Preventative Measures**

In order to prevent erosion of the haul road surface and the associated generation of rubble and fine material **all haulage operations will cease during heavy rain fall episodes or other adverse conditions.**

## **4. Maintenance.**

Some of the basic maintenance requirements are:

- Scarify soft spots

- Remove wet spots and backfill and compact.
- Maintain good drainage
- Top up the running surface material
- Remove any truck spillage material when grading. This will help prevent contamination to the surface running material.
- Maintain the cross fall and super elevation profile, use grader when conditions require.
- Adequate water is to be applied during any maintenance grading.
- Regularly scarify areas that show signs of laminations.
- Road profiles must be maintained at or near to the original design profile. This includes maintaining the drainage systems, the road pavement and the road delineation.
- Replenishment of flocculent in settling ponds.
- De-silting of catchment pits and lagoons. Catchment pits and lagoons will be de-silted when they reach 50% of their capacity or otherwise on an annual basis.

Grading is a major component of the haul road maintenance system. Clean-up of spilled materials and maintaining the drainage system, the road design parameters, and the road bases all rely on the operation of a grader.

When the road pavement reaches a thickness that can no longer support vehicles, the road will be re-sheeted. Fresh surface materials that are laid will be compacted by heavy rubber-tyred machinery.

More substantial road maintenance is required when the road surface is corrugated or contains hollows or potholes; repairs may consist of loosening the existing surface and reshaping it. As long as the surface is of sufficient thickness, it can be ripped with a grader and then reshaped and compacted. If the surface layer is not thick enough, fresh materials will be brought in and laid.

Depressions in the road that grading cannot sufficiently correct, will be lightly scarified and filled with material similar to the surrounding surface material. To restore areas affected by large potholes, the pothole/s and the immediate area surrounding area will be dug out to competent ground and refilled and compacted with suitable material.

The clearance of spillage on haul roads will normally be carried out with a rubber-tyred shovel loader.

### **Maintenance of Drains**

Roadside drains and culverts need to be kept clear of obstructions to prevent overflowing in heavy rainfall leading to damage to road pavements or saturation of the sub-bases. Inspection of these facilities and action to clear the drains if need be, will be carried out as detailed above.

All drainage channels located alongside the haul road and are a key component of the drainage system. These drains are essential to maintain the integrity of the haul roads, thus must be kept in good condition to protect the roads.

### **Maintenance of Signs and Safety Equipment**

Warning signs are an integral part of the safety scheme on the haul road. Road signs need to be unambiguous and obvious to drivers in all conditions. It is important to keep signage clean so they are clearly readable at all times. Signs should be washed after periods of rain to ensure that they remain clear and free build-up of dirt and spray.

### **Reviews**

During Aberpergwm's operational phase reviews will be held every 5 years. A review may also be instigated in response to an incident or at the request of the Local Planning Authority or Natural Resources Wales.

Relevant stakeholders, the Planning Authority, Natural Resources Wales and other interested parties will be requested to input to the review process as it proceeds.

J N Price



Energybuild Ltd.