BEST PRACTICE

LOCATION:	**Quarry**	**ARTICLE YEAR**	**2012**
ACTIVITY:	**Production and Processing**	**COMPANY:**	**Aggregate Industries**
SUB ACTIVITY:	**Face activity**	**COMPANY LOCATION:**	**Geological Services**
BEST PRACTICE No:	**BP815**	**COMPANY TEL:**	**01274 871778**
COUNTRY OF ORIGIN:	**United Kingdom**		

TITLE Run Video

The Rockfall Hazard Appraisal System (RHAS) - a practical approach to rockfall management

ARTICLE

DESCRIPTION

Aggregate Industries have developed a Rockfall Hazard Appraisal System (RHAS) for use by non geotechnical specialists in UK quarries. The system complies with the requirements of the 1999 Quarries Regulations and can be used to quantify and manage rockfall hazard, it clearly identifies when a geotechnical specialist should be consulted.

Research has shown that the systems currently in place for the routine inspection of rock faces and rock slopes do not adequately measure or quantify the hazard posed by rockfall. As a result, operators may be exposing people to risk and may be in breach of a number of regulations.

Al's system identifies simple, visual, non subjective methods of estimation of the most significant parameters relating to rockfall hazard which do not rely on a high level of experience and expertise.
In line with the requirements of the 1999 Quarries Regulations, the appraisal systems focuses only the consequences of rockfall, the risk of rockfall actually occurring is not considered.

The visual appraisal is recorded on a form which assigns scores depending on a variety of relevant factors. The scoring system assesses 3 areas;

Rockfall Potential – visual evidence of stresses on face, records and observations of the magnitude and frequency of falls

Rock trap efficiency – the effectiveness of mitigation measures in place

Exposure to risk – the likely exposure of individuals to the hazard

The 3 sub totals are then multiplied to give a final score and depending on the score, appropriate action for the operator to take is recommended. The appraisal is repeated at appropriate intervals or whenever significant change to circumstances affecting the hazard occurs.

BENEFITS

- Provides an analytical system that is easily accessible to the non geotechnical specialists
- Employees can be easily trained to use the system
- Enables operators to quantify and manage the hazard created by rockfall
- The system has been extensively trialled over 2 years
- It can be applied to historic rock slopes, final faces, working faces, and natural rock slopes.
- Increases management awareness and understanding of rockfall hazard

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ARTICLE IMAGES