BEST PRACTICE

LOCATION:	**Asphalt/Coating plant**	**ARTICLE YEAR**	**2012**
ACTIVITY:	**Production and Processing**	**COMPANY:**	**Midland Quarry Products**
SUB ACTIVITY:	**Asphalt & coated stone**	**COMPANY LOCATION:**	**Ettingshall ASphalt Plant**
BEST PRACTICE No:	**BP825**	**COMPANY TEL:**	**07968 544064**
COUNTRY OF ORIGIN:	**United Kingdom**		

TITLE

Prevention of fire and explosion at an asphalt plant

ARTICLE

Description

Following a near hit at Ettingshall Asphalt Plant which had the potential to cause a major fire or explosion, a root cause analysis review of the event was carried out to determine why this happened and to suggest possible 'safer by design' remedies.

The investigation revealed that the drive belts on the dryer barrel motor had snapped resulting in the dryer barrel ceasing to rotate. However, as the drive motor continued to run, the program control continued to provide heat to the now static mix. The high heat caused the bitumen to exceed its flashpoint and a small fire/explosion resulted. Fortunately, the plants fixed CO2 installation was activated and nobody was injured.

A motion sensor has now been mounted next to the dryer barrel and, in future, if the barrel stops rotating, the burner will be cut off and an alarm will be raised. A similar motion sensor has been installed to monitor the cooling fan which will also cut off the burner if the fan is not operating effectively.

MQP believe that similar asphalt plants could benefit from these cost effective modifications.

Benefits

- Elimination of potential fire and explosion risk
- Improved workplace engagement and shared problem solving
- Involvement of all team members in root cause analysis

ARTICLE IMAGES