BEST PRACTICE

LOCATION:	**Asphalt/Coating plant**	**ARTICLE YEAR**	**2012**
ACTIVITY:	**Production and Processing**	**COMPANY:**	**Aggregate Industries**
SUB ACTIVITY:	**Asphalt & coated stone**	**COMPANY LOCATION:**	**Bardon Aggregates > Westleigh**
BEST PRACTICE No:	**BP823**	**COMPANY TEL:**	**07733 300271**
COUNTRY OF ORIGIN:	**United Kingdom**		

TITLE

Bitumen safety valve

ARTICLE

Description

The bitumen weigh kettle at Aggregate Industries' Westleigh Asphalt Plant is operated hydraulically. The hydraulic cylinder fails to the open position. The cylinder uses hydraulic pressure to keep it shut. If a power cut occurs or the hydraulic system fails, the bitumen weigh kettle cylinder opens when there is a weight of bitumen in the kettle. If the seal of the mixer door is not perfect or
the door is open, the bitumen gets thrown out of the mixer onto the ground below.

To overcome the potentially fatal consequence of this, staff at the plant suggested a solution. This has now been implemented. It involves introducing a 'double relief safety system' into the hydraulic line feeding the bitumen weigh kettle cylinder. It works by keeping a positive 500psi hydraulic pressure on both sides of
the weigh kettle cylinder. This means that the cylinder cannot open until the hydraulic system is fully operational before, during or after a power failure.

Benefits

• No unexpected loss of hot bitumen through the weigh kettle
during site power failures
• A safer working environment and a potentially fatal hazard eliminated
• Site personnel motivated by seeing their ideas explored and
acted on.

ARTICLE IMAGES