BEST PRACTICE

LOCATION:	**Asphalt/Coating plant**	**ARTICLE YEAR**	**2014**
ACTIVITY:	**Maintenance & Housekeeping**	**COMPANY:**	**Aggregate Industries**
SUB ACTIVITY:	**N/A**	**COMPANY LOCATION:**	**Darwen Express Asphalt**
BEST PRACTICE No:	**BP904**	**COMPANY TEL:**	**07802 260584**
COUNTRY OF ORIGIN:	**United Kingdom**		

TITLE

Installing "Fire Fan" on sealed asphalt plant house

ARTICLE

DESCRIPTION

The Darwent Asphalt Plant is located within a sealed building. This results in a build up of both heat and fine respirable dust with a high concentration of silica creating a hazardous environment. Operators undertaking repair and maintenance work were required to use respiratory protection suits which were uncomfortable to wear at air temperatures of +40 C. Furthermore, the fire brigade had identified potential casualty recovery difficulties in the event of a fire due to smoke build up.

Having identified these issues, the site staff was involved in the process of developing a solution. It was decided to install a blower fan onto the side of the building that would purge contaminated air and to a system that would produce a fine mist of water that would encapsulate particulate matter, help control the spread of a fire. The system is activated prior to maintenance staff entering the building or by the fire alarm.

BENEFITS

- Total respirable dust reduced from 3.86 to 1.09 mg/m3 8 hour TWA
- Respirable crystalline silica reduced from 0.27 to 0.12 mg/m3 8 hour TWA.
- Air temperatures maintained below 24 C while the fan is operating.
- Temperature reduction achieved within 7 minutes
- Visually, all fumes are evacuated within 2 minutes.
- Respiratory protection is no longer required
- Safer environment for operators
- Improved dust control and housekeeping standards
- Better control of risks in event of fire
- Improved morale and sense of pride in what has been achieved.

ARTICLE IMAGES