# BEST PRACTICE

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| **LOCATION:** | **Asphalt/Coating plant** | **ARTICLE YEAR** | **2006** |
| **ACTIVITY:** | **Manual handling and storage** | **COMPANY:** | **Lafarge Aggregates** |
| **SUB ACTIVITY:** | **N/A** | **COMPANY LOCATION:** | **Renishaw Coating Plant, South Yorkshire** |
| **BEST PRACTICE No:** | **BP337** | **COMPANY TEL:** | **01246 432215** |
| **COUNTRY OF ORIGIN:** | **United Kingdom** | | |

## TITLE

**Bitumen delivery protocol**

## ARTICLE

The new driver-controlled delivery protocol at this coating plant combines logistical efficiencies with health and safety improvements. Drive-controlled deliveries were introduced at Renishaw due to the increased demands on haulage. Problems with the Working Time Directive and the increased congestion on the UK road system required a proactive approach from both the bitumen supplier, Shell Bitumen, and Lafarge.

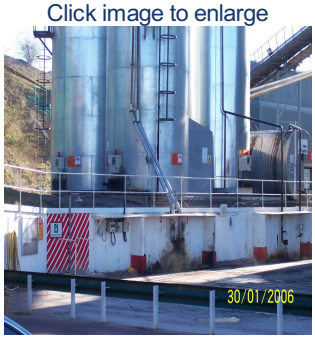
The companies worked together to ease the problem. This was achieved by allowing Shell Bitumen to stock manage the bitumen levels on site along with the flexibility of a 24 hour slot for deliveries seven days per week. Accompanying this is a robust protocol to ensure all parties understand and are competent to carry out these arrangements safely.

Engineering and management systems are in place to prevent:
? Overfills / spills – independent and ultimate high level alarms have been installed and diagrammatic references to the safe working capacity in each tank are displayed at the discharge points. Large 100 tonne storage tanks / tank gauge panel readings have been extended and are now located at the driver discharge point which enables drivers to check prior to delivery. Deliveries are only scheduled when telemetry – remote monitoring mechanism – indicates sufficient ullage.
? Cross-contamination of bitumen grades – each driver cross-references delivery documentation and flange connection prior to discharge. Delivery commences when each driver has signed the other's delivery documentation. Each tank and flange is clearly labelled with the grade and is padlocked and opened with a unique label to prevent a crossover. Keys for the padlocks are colour co-ordinated and locked in a cupboard to which only the Shell Bitumen driver has access.
? Bitumen delivery vehicle-related site traffic accidents – all deliveries are routed when the plant is closed and traffic movements are few or none.

Both Shell Bitumen and Lafarge have near-miss reporting processes in place. All deliveries are remotely monitored from Doncaster by CCTV. Drivers are required to inform Doncaster of their arrival on site using the phone number located on the gate. The site is locked during non-open hours and Shell Bitumen holds the key for entry.

## ARTICLE IMAGES

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**Bitumen discharge area**