

Emergency Shutdown of Bitumen Delivery Vehicles

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Introduction

- Shutting down the delivery vehicle in an emergency:
 - Would you know what to do ?
 - Do **NOT** put yourself or others at risk.
 - If the driver becomes incapacitated during a delivery how do you make the delivery vehicle safe?
 - Everybody involved in the bitumen delivery should know what to do.



Bitumen Delivery Vehicle Emergency Shutdown

- For pressure discharge, bitumen delivery vehicle barrels are typically charged to 2 Bar pressure. This is sufficient to spray hot bitumen a considerable distance if something goes wrong during the delivery.
- Flange shrouds, the 6-metre exclusion zone, site supervision and the presence of the delivery driver at all times are all controls designed to minimise the risk.
- But what happens if one of those controls fail?
- If the driver becomes incapacitated what would you do?
- You need to know how to shut down the vehicle **safely** without putting yourself or others at risk.

Bitumen Delivery Vehicle Tank Design

- Bitumen delivery vehicles have a similar configuration:
 - Manually operated Homir outlet valves.
 - Pneumatically operated secondary outlet and vent valves.
 - Emergency shutdown buttons strategically placed at various locations on the delivery barrel.
- Ask your supplier or a delivery driver to demonstrate the activation of the emergency stops.

Location of Emergency Stops

- Bitumen delivery vehicles are typically fitted with 4 emergency stop buttons – 1 on each corner front and rear, near and offside. Some vehicles have additional stops in the middle.



Emergency Stop Activation

- When any emergency stop button is pressed the air operated secondary outlet valve shuts immediately.
- If there is a spray or leak of hot bitumen this will subside very quickly.
- There is no need to close the manual Homir valve.
- When it is safe to go into the 6-metre exclusion zone you **MUST** wear the appropriate PPE if there is hot bitumen in the exclusion zone or on the driver.
- Do **NOT** move the delivery vehicle or disconnect the flexible delivery hose.
- Immediately inform the bitumen supplier of the incident.

Bitumen Safety Documents

Guidance documents on a range of bitumen safety related subjects can be downloaded free from the Eurobitume website:

- UK Version of the 2018 Guide to Safe Delivery of Bitumen.
- Safety Showers
- Eurobitume Bitumen Burns Card
- Safety Footwear Risk Assessment for Bitumen Delivery Drivers
- Operational considerations for Hot Bitumen Storage Tanks and Off-loading Systems.
- Design and use of Ground Based Pumps (EBUK/MPA document).
- Safe Bitumen Tank Management (EBUK/MPA document).
- Returning Bitumen Storage Tanks to Service.

See also the Energy Institute Model Code of Safe Practice Part 11: Bitumen Safety Code

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Other Bitumen Toolbox Talks

The following toolbox talks can be downloaded free from the Eurobitume website:

- Bitumen Delivery Driver Induction
- Bitumen Discharge Permit
- Personal Protective Equipment
- Emergency Safety Showers
- Ground Based Pumps
- Blocked/Partially Blocked Pipelines
- Trace Heating of Bitumen Pipelines
- 'Pocket' Guide to the Safe Delivery of Bitumen

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