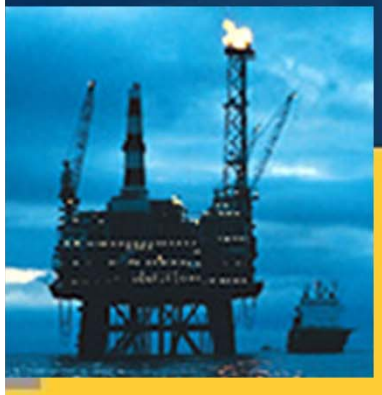
Design, construction, modification, maintenance and decommissioning of filling stations (the Blue Book)

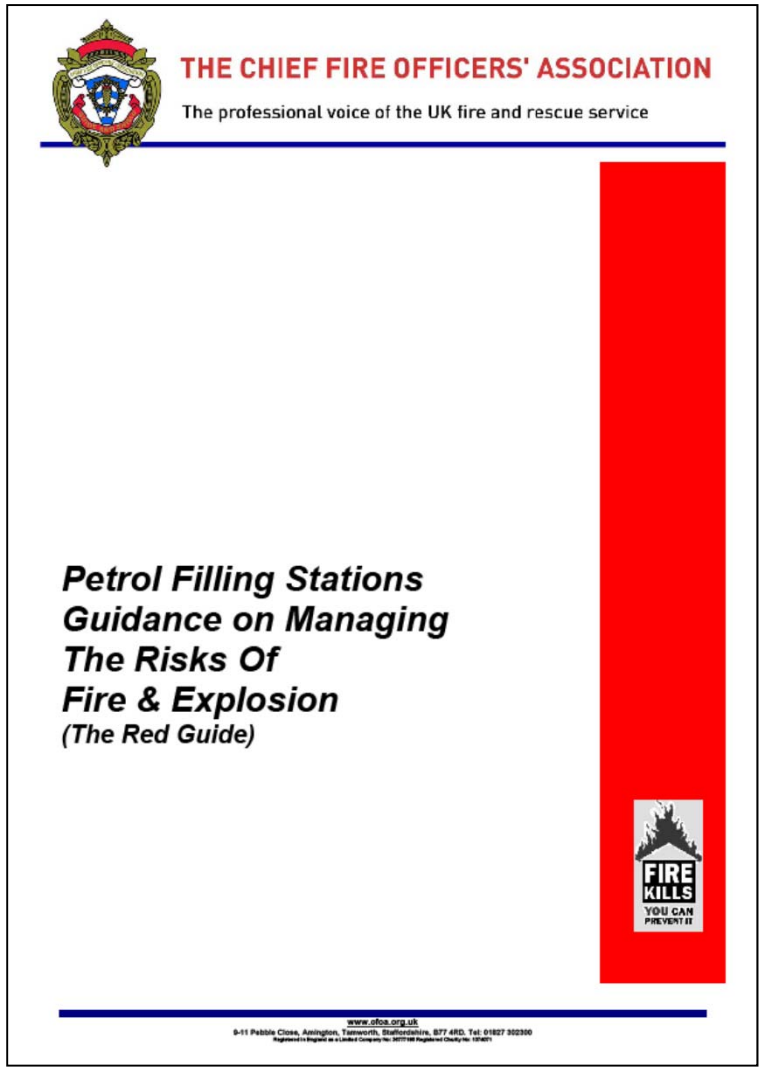


Summary of section 9.6- Control Systems by Patrick Howley

Section 9
Dispensers and control equipment

- New guidance in 9.5 *Installation of dispensers* (specifically: pipework connections (suction and pressure))
- **Updated guidance in 9.6 *Control systems***
  - **Attended service**
  - **Attended self service**
  - **Unattended self service**
  - **Unmanned site**
- **New guidance and table on engineering control measures, and application of engineering control measures**
- New section 9.8 *Dispensing fuels containing bio-component*

The Red Guide



Section 9.6 has been aligned with the Chief Fire Officers' Association document, Petrol Filling Stations Guidance on Managing The Risks of Fire & Explosion, known as the 'Red Guide'

Section 9.6 of the Blue Book concentrates on the Engineered control measures. The Red guide also considers the operational control measures

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Definitions

- **AS - Attended Service**
  - » Trained attendant operates dispensing equipment
- **ASS - Attended Self Service**
  - » Customers operate dispensing equipment under the supervision of a trained attendant
- **USS - Unattened Self Service**
  - » Customers operate dispensing equipment without the supervision of a trained attendant.
- **UMS - Unmanned site**
  - » A petrol filling station that is designed to operate without the day to day presence of staff, other than for routine safety/security checks, cleaning and scheduled maintenance work. Sometimes referred to as automated sites
  - » LPG not allowed to be dispensed at UMS

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Risk Assessment

- A site specific risk assessment must be prepared to determine the suitability of a site for USS or UMS. This should be undertaken in two phases.
  - Phase 1
    - A review of the location in terms of security and damage to dispensers and safety equipment. Effective control measures need to be adopted to deter damage / vandalism.
  - Phase 2
    - A more detailed assessment looking at
      - Location and incidents
      - Number of dispensing operations and throughput during USS or UMS mode.
      - Response procedure for dealing with emergencies
      - Proposed management and engineered control measures
      - Road tanker deliveries

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Engineered control measures

- Limiting devices on dispensers to prevent continuous operation.
  - 3 minutes
  - 100 litres
  - Equivalent monetary value
- Removal of any latching mechanism
- Adequate illumination at dispenser and emergency equipment positions
- Restricting sale of petrol to credit / debit or fuel card only
- Notice detailing restrictions on types of containers
- A CCTV system

Enhanced control measures

- To include a form of remote monitoring and supervision via a permanently manned control centre.
  - Live CCTV covering dispensing and emergency cabinet
  - Alarm at monitoring station when emergency stop is used
  - Two ways communication with customers
  - The capability of closing the site or switching off power to the dispensers
  - The capability of contacting the emergency services
  - The capability of despatching a trained responder to site

Enhanced control measures cont'

- Remote surveillance system with 'prompt' features for
  - Failure of CCTV cameras
  - Movement / mass / action system
  - Pre-set frequency prompts
  - Abnormal dispenser running time
  - Repeated rapid nozzle removal and replacement
  - Repeated authorisation attempts at payment system
  - Opening of emergency cabinet or operation of emergency switch
  - Operation of customer communication equipment
  - Activation of fire / smoke and or vapour detection system

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