

# EPUK Developer's Guide

Garages & Petrol Stations

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## What is this about?

Over the next 20 years, the number of “traditional” petrol forecourts will decrease significantly

Retail fuel for road vehicles will be obtained in a different way and from potentially new locations

This will probably release a number of existing sites available for redevelopment.



# What's driving change?

- Alternative fuels will have an effect on where and when we fill up
- Vehicles already run on a mix of fuels – electricity, natural gas/LPG, petrol, diesel or hydrogen
- So, fuel retailers and oil companies will need to devise new strategies to use their real estate.

## Key UK Factors for Change

- In 2018 the UK Government published its policy paper “Road to Zero”, banning the sales of petrol and diesel engine cars. “Alternative” fuelled vehicles will thus become the new norm.
- Announcement by EU in April 2019 that in 2030, emissions from new cars will have to be 37.5% lower and emissions from new vans 31% lower, compared to 2021.

# How much lower will emissions be?

## Now

- emissions of today's typical family hatch/SUV are around 110-150g/km and up to 250g/km for larger engine SUV vehicles

## Future EU vehicles

- zero-emission vehicles, such as battery electric or fuel cell vehicles, and low-emission vehicles having tailpipe emissions of less than 50 g CO<sub>2</sub> per km

## What's this to do with Land Quality?

- All this means that there will be less need for the typical petrol station in the future.
- Although the demand continues for now, who will invest in oil sites in a few years' time?
- Lots of surplus sites will become available - again

# How many filling stations?

- Around 40,000 in the 1960s
- In 1990 there were still some 16,000 UK retail sites
- As at August 2019, some 8,384 sites

(source, Experian Catalist UK, 2019)



# How many electric charging stations?

- The UK now has twice as many electric vehicle (EV) charging points as petrol stations, according to government figures.
- Data released in July by Department for Transport (DfT) 18,265 public electric vehicle charging devices available in the UK.
- Of these, 3,206 were rapid devices
- Not uniformly spread around UK.



# Will electric charge points replace the pumps at filling stations?

- Many PFS sites will be inconveniently located
- Oil fuel takes about 10 mins to refuel
- Electric car may take as little as 30 minutes or greater than 12 hours, depending on the battery size and speed of the charging point
- What does a filling station customer do during that time?

## Electric cars pave way to end of filling stations

Charging at home or work will lead to 'deforestation' of them in inner cities

## The End of the Gas Station: How Electric Cars Will Transform the Rest Stop

'I haven't been to a gas station in 2 years other than to like — buy a coke'

Shell plans UK's first 'no-petrol' station as journey towards clean motoring continues

## Why a new guide?

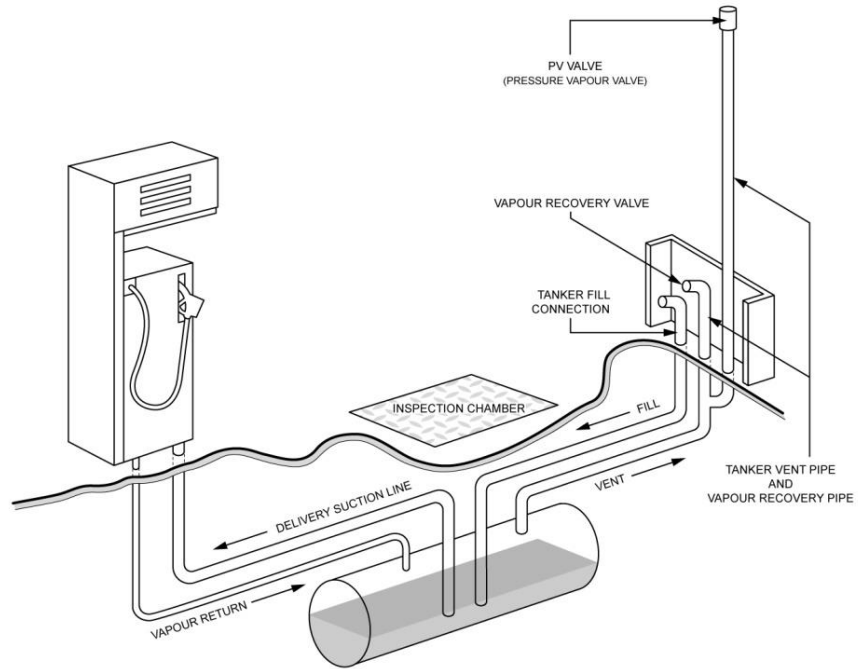
- If we don't need so many PFS sites in the places they are now, these sites may be sold for development
- They are mostly small sites in urban areas
- Most of the infrastructure is underground, needs specialists to decommission
- Most PFS sites are at least mildly contaminated.

# EPUK's New Guide

- Provides overview of the functioning of PFS sites
- Signposts to other guidance
- Overview of risk assessment and remediation approaches
- Case studies
- Aimed at the non-specialist to encourage them to seek help when necessary



# Forecourt Infrastructure

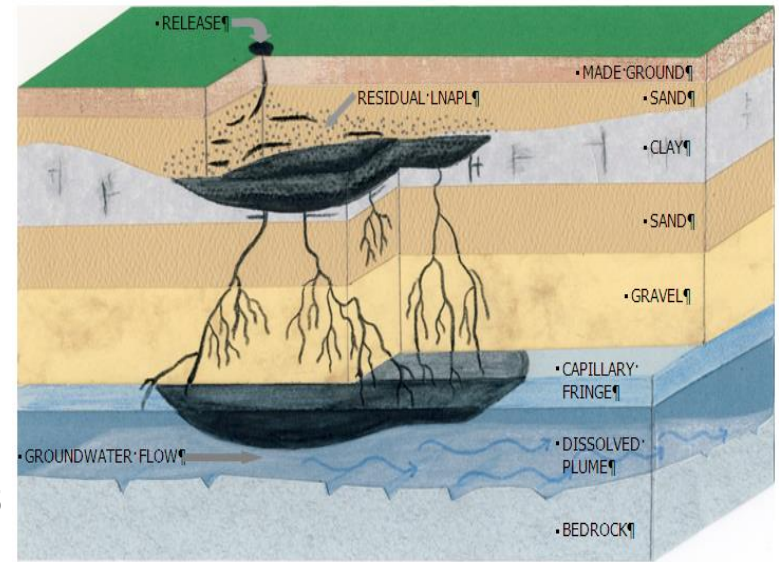


## Practical help

- Contamination is associated with petrol filling stations because of leak of fuels and other substances from
  - containment systems and
  - loss of fuel to the ground
- Often despite leak detection and automatic wetstock monitoring systems
- Case studies

# The process

- How filling stations work
- The processes of risk assessment and management
- Decommissioning
- Statutory obligations
- General safety and environmental precautions
- Remedial Treatment options
- Signposts for further information



## Why garages and filling stations?

- A number of serious incidents involving explosive vapours
- From 1951 Bristol, killing 11, to a 2017 incident in north London
- Maybe the basis of a series?

How do I get  
a copy?

- The publication is free to download:
- <https://www.environmental-protection.org.uk/resource/petrol-stations-guide/epuk-petrol-stations-guide-final-23-june-2020-issue24937/>

