

# Great Smog of London

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# The Great Smog of London

- The **Great Smog of London**, was a severe air pollution event that affected London, England, in December 1952.
- It was a period of unusually cold weather
- This caused airborne pollutants—mostly arising from the use of coal—to form a thick layer of smog over the city.
- It lasted from Friday 5 December to Tuesday 9 December 1952, then dispersed quickly when the weather changed.

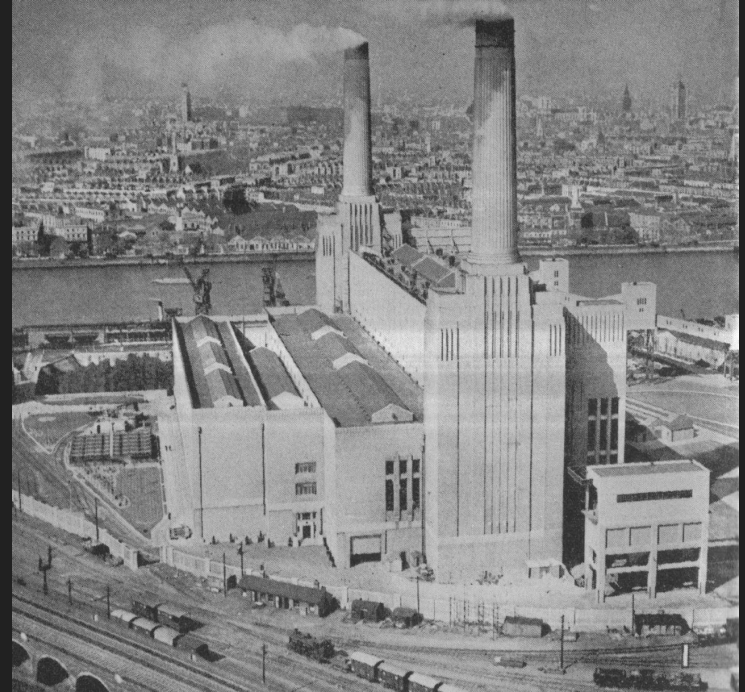
# What happened?

- The smog caused major disruption by reducing visibility.
- Government medical reports in the weeks following the event estimated that up to 4,000 people had died as a direct result of the smog and 100,000 more were made ill by the smog's effects on the human respiratory tract.



# Why did the fog happen?

- A period of unusually cold weather led to burning much more coal than usual to keep warm.
- Post-war domestic coal tended to be of a relatively low-grade
- There were also numerous coal-fired power stations in the Greater London area all of which added to the pollution.
- Additionally, there was pollution and smoke from vehicle exhaust, particularly from steam locomotives and diesel-fuelled buses



# Health effects

- The fog killed approx.4,000 people.
- Most of the victims were very young or elderly, or had pre-existing respiratory problems.
- Most of the deaths were caused by respiratory tract infections
- Hypoxia
- Lung infections



# Changes made since then

- a reduction in air pollution.
- open coal fires were replaced with alternatives (such as installing gas fires),
- central heating started using gas, electricity, oil or permitted solid fuel which was rare in most dwellings at that time



# Similar environmental problems in Estonia

- Similarly to London at that time. Estonia uses oil shale instead of coal to get heat.
- **Oil shale** is an organic-rich fine-grained sedimentary rock from which liquid hydrocarbons can be produced.
- Oil shale in Estonia has had an industrial use for over 100 years.
- It is currently the most economically important mineral resource in Estonia.
- Oil shale mainly produces electricity and heat



# Environmental problems (1)

- The use of oil shale produces a large amount of residual products ash and semi-coke.
- In Estonia, for example, at the current rate, about 5–7 million tons of ash and one million tons of semi-coke are added annually, of which only a very small part is reused.
- The biggest problem in oil shale mining is changing the water regime and polluting the water.





## Environmental problems (2)

- Loss of landscapes - soils, vegetation
- Noise from blasting work
- Local ambient air pollution - SO<sub>2</sub>, CO, VOC
- The contamination of lakes and rivers



Thank you for listening!