

SCOPE

Substrates: all types
Pollution: moderate to heavy
Pollutant: light fluid pollutants
Sea: with (or without) tides



EQUIPMENT NEEDED

Basic equipment:

- Lighter fluid
- Smoke suppressant

Extra equipment:

- Fire fighting equipment (prevention)

DESCRIPTION/PRINCIPLE

Involves burning slicks stranded on the shore. For this, it is necessary to use some sort of lighter fluid. This technique is most often considered offshore in certain countries, and sometimes on the shoreline on sites far from residential areas. It is rarely used on the shoreline despite research in this domain. It is subject to many limiting factors relating to the characteristics of the pollutant (compounds, thickness, water content etc.), the weather conditions etc.

CONDITIONS OF USE

Pollution: thick slicks (> 2 mm); not very emulsified, fresh oil: water content < 20 % (heavy crude oil weathered for less than 24h), < 40% (light crude oil weathered for less than 48h)

Substrate: all types

Site: far from residential areas; sites which are difficult to access therefore preventing the use of other techniques.

IMPACT ON THE ENVIRONMENT

Physical: risk of shattering/fracturing the substrate due to thermal shock (stones, rocks) or parching (mud); risk of infiltration into the substrate of reliquefied oil which has not been completely burnt.

Biological: direct impact by thermal shock (burns), by (little known) toxicity of residues, by smoke, gas, soot.

PERFORMANCE

Yield: variable according to pollutant and product characteristics, weather conditions.

Waste: major atmospheric pollution (gas, smoke, soot); tarry residues likely to be difficult to extract from certain substrates, partially burnt oil.

OBSERVATIONS

- Thoroughly assess the possibility of setting slicks on fire and the risks involved.
- The fire must be controlled to prevent it from spreading.
- This technique is rarely used: implementation on rare occasions on certain types of marshland (e.g. small reed beds, salt grass); however its use is generally contested.