Sustainable Treatment of Drilling Waste

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General information on IESC:

- IESC is a unique facility in Cyprus incorporated in 2011 and licenced for management of Hazardous Waste.
- IESC provides solutions for the collection and treatment of hazardous waste streams including drilling waste in the **Southeast Mediterranean Region**.
- IESC group employs well trained permanent personnel and enforces best available technologies towards a sustainable development in a greener future.

IESC Integrated services include:

- Oil & Gas Industry Total Waste Management
- Petroleum Waste
- Marpol Hazardous Waste
- Industrial & Chemical Waste
- Medical & Pharmaceutical Waste
- Laboratory Waste
- Natural Occurring Radioactive Materials (NORM) management

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Sustainable Treatment of Drilling Waste

Drilling operations generate significant waste—including **drill cuttings**, **spent drilling mud**, **contaminated water**, and **produced solids**. Sustainable treatment aims to **minimize environmental impact**, **reduce disposal volumes**, and **recover usable resources**.

Principles of Sustainable Drilling Waste Management:

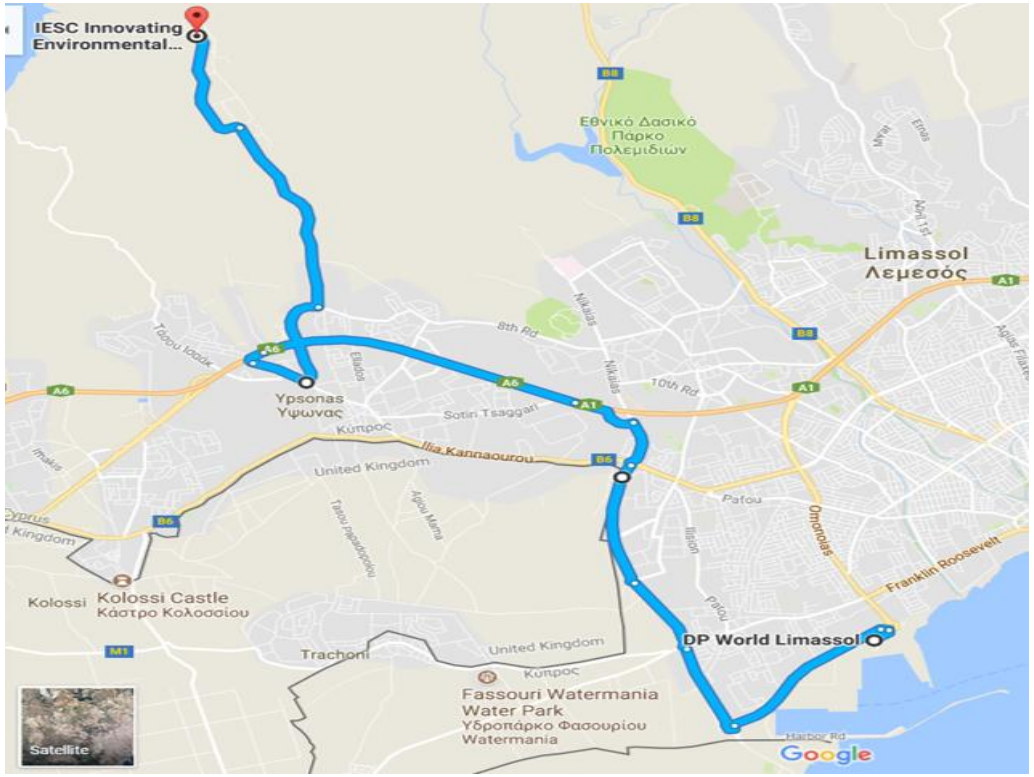
On the platform upon generation

- Reduce waste generation
- Reuse materials wherever possible
- Enforce Zero Disposal Policy

Transportation and Treatment

- **Ensure safe collection and transportation**
- **Enforce best available technology to achieve: Recycle base oil, recovered solid raw materials, and clean water and avoid disposal**
- **Traceability and Comply with all strict environmental regulations**

Safe Collection and Transportation



Transportation of Waste

Journey Management

Treatment Methods

Treatment Method	Achievable Oil Conc.	Advantages	Limitations
Thermal Desorption	Very low (<0.5%)	High efficiency; oil recovery	Energy intensive
Vertical Cuttings Dryer	~6–10%	Fast; offshore-friendly	Less effective than thermal
Chemical Washing	2–8%	Good removal; moderate cost	Chemical handling, wastewater
Bioremediation	1–3% (long term)	Low cost; eco-friendly	Slow; regulatory limits
Solidification	N/A	Simple; cheap	No oil recovery
CRI	Zero discharge	Offshore viable	Requires suitable geology

Cuttings Treatment

IESC has the only treatment line licensed in Cyprus for the treatment of oil drilling cuttings, oily mud and drilling slops. IESC employs Thermomechanical Cuttings Cleaner (TCC).

TRACEABILITY UNDER ENVIRONMENTAL REGULATIONS

In every campaign a report is submitted to the authorities to provide complete traceability on the monitoring, collection, transportation, and treatment activities of the waste, as well as of the products or waste produced during treatment and their final recovery.

Thank you

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