

# Welcome

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# Parallel Four

## REGULATION – DECOMMISSIONING OF MATTRESSES

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# Mattresses – Health & Safety Regulations

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## **The Pipelines Safety Regulations 1996**

### **Regulation 14 – Decommissioning**

- A pipeline should be left in a safe condition
- Any work done is performed safely

## **The Management of Health and Safety at Work Regulations 1999**

### **Regulation 3(1) - Risk assessment**

Every employer needs to assess:

- H&S risks to persons in his employment
- H&S risks to persons not in his employment
- Measures needed to comply with statutory provisions

# Examples of Risks to Mitigate Against

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## Mattresses Left Behind

- Fishermen Snagging risk
  - Degradation with time
  - Seabed movements
- Monitoring vessel exposure
- Future remedial works

## Mattresses Removed

- Diver exposure
  - Saturation diving issues
  - Possible contamination
  - Manual handling
  - Dropped object
- Deck Crew & Onshore Personnel
  - All of the above except saturation diving

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**Department of Energy & Climate Change**

## Mattresses – 40,000 in the UKCS

### Mattresses

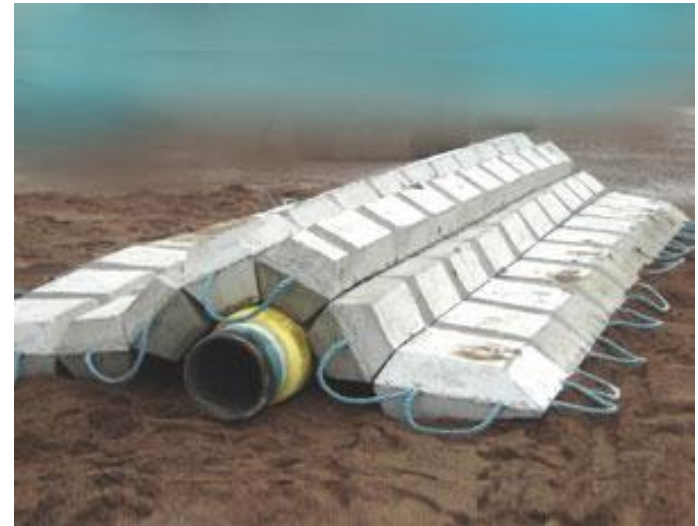
Solution for removal or leave in situ is taken on consideration of the impact on:

- Environment
- Safety,
- Technical feasibility,
- Other users of the sea
- Cost

Mattress caught in net



- Views of other users of the sea – fishermen, both SFF and NFFO
- Views of the DECC Environmental managers
- Views of the Environmental NGOs
- Views of Industry
- Views of the HSE



- Problems with lifting loops being cut
- Locating mattresses can be a challenge
- New technology being developed for diverless removal, or for trenching



## Mattresses

### Baseline Principles

It is expected that mattresses, grout bags, or contained rock deposits which have been installed to protect pipelines or other infrastructure during their operational life should be removed for disposal onshore.

- If it is considered by an Operator that this is not the optimal decommissioning solution, they must provide evidence in support of the alternative proposals
- The fundamental principle underpinning a proposal to leave in situ (LISU) is that evidence must be provided to demonstrate that the deposits would not interfere with other uses of the sea, e.g. they would not present a snagging hazard that could interfere with fishing operations.

### Operators should address the following key criteria in assessing mattresses for LISU option

- location
- burial status and depth
- Integrity
- levels of fishing activity, and if appropriate options for mitigating safety risks and interference for other users of the sea
- Level of post decommissioning monitoring, overtrawlability of the area

**David Ogilvie**  
**Operations Unit Manager**  
**SEPA**

# Decommissioning Mattresses

David Ogilvie

North Sea Decommissioning manager

# The Problem

- It is estimated that there are 35,000 - 40,000 mattresses that will need to be brought ashore for disposal or recycling.
- Composition of these will vary depending on age and manufacturer, for example:
  - Bitumen coated
  - Internal steel wire threaded
  - Plastic coated
- Many have been in North Sea for considerable time and may have started to degrade structurally .
- It is hoped that since the introduction of BS EN197-1:2011 we have a better handle on the composition and coatings that have been used.
- Mattresses have previously been brought on shore, disposed of (landfill), or re-used in a variety of engineering projects including:
  - Crushing for secondary aggregate – use in roads
  - Hard coastal engineering
  - River engineering – to stabilise banks & prevent erosion
  - Floors of agricultural buildings

# Mattresses – Disposal and Reuse

- Because chemical composition before introduction of BS EN197-1:2011 is unknown, SEPA has concerns about impact on ground and surface water.
- Because mattresses are controlled waste, re-use requires authorisation under Waste Management Licensing regulations, via WML exemption.
- Alternatively, where used as secondary aggregate, use must meet WRAP protocol.
- SEPA requires any re-use under exemption, where mattresses are not manufactured in accordance with BS EN197-1:2011, to be supported by:
  - a demonstration (chemical / structural or both) that the materials are suitable for the proposed re-use
  - that re-use presents no significant environmental risk
- Scheme of testing will be required – scope dependent on re-use option.
  - For landfill disposal – WAC testing
  - For use under exemption etc. leachability may be a problem. WAC test determines potential for leachable substances, so similar testing may give operators and SEPA confidence that no environmental impact will accrue.
- Need to discuss and justify proposed sampling and testing regime with SEPA prior to exemption application.

# Active Discussion

# Thanks for coming