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Offshore Decommissioning Conference

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Decommissioning and the Marine Environment – Mitigating the Impacts Upon Sea Mammals and their Ecosystems

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The Offshore Decommissioning Conference is jointly organised by:



Offshore Decommissioning and the Marine Environment



Mitigating the Impacts of Activities Upon Sea Mammals and their Ecosystems

- Offshore decommissioning and best practice in the marine environment go hand in hand.
- The industry has both a social and environmental obligation to ensure its activities are conducted in the most environmentally-sensitive manner possible.
- Consideration is of utmost importance to highly-sensitive marine mammals which may be directly harmed or injured by these activities.



Marine mammals in British waters are protected by law under the UK Wildlife & Countryside Act (1981)



- Agreement on the Conservation of Small Cetaceans in the Baltic & North Seas (ASCOBANS) (1992)
- European Habitats & Species Directive (1992)
- Offshore Petroleum Activities (Conservation of Habitats) Regulations (2001)

Additional Guidelines from:

Offshore Marine Conservation Regulations (2007 + amendments) – beyond 12 nm

Conservation of Habitats & Species Regulations (2010) – within territorial waters



Underwater Noise / Acoustic Disturbance



Underwater Noise / Acoustic Disturbance

- = Behavioural changes
- = Displacement
- = Physiological changes
- = Masking
- = Hearing impairment
- = Deafness
- = Other injury
- = Stranding
- = Death



Decommissioning and the Environment

The Planning Stage

- 1) Are marine mammals likely to be present in the asset area or not?
- 2) If so, assess any seasonal considerations for the species (e.g. migration, breeding, calving/pupping)
- 3) Consult relevant regulatory guidance notes (DECC)
- 4) Assess likelihood of injuring or disturbing any European Protected Species (committing an offence)
- 5) Implement best practice measures (e.g. planning timing of work, use of trained Marine Mammal Observers for mitigation/clearance, seek to reduce unnecessary high frequency noise, use of pre-cutting acoustic deterrents and acoustic monitoring – of both ambient noise and cetacean detections)



Decommissioning and the Environment

Use of MMOs

- ✓ In areas of known importance for marine wildlife, the services of experienced Marine Mammal Observers (MMOs) should be employed.
- ✓ In particularly important areas and/or where daylight exceeds 12 hours (north of 57°N between 1st April and 1st October) a minimum of 2 x MMOs are required.
- ✓ During periods of poor visibility/bad weather or where activities may continue after dark, the use of a PAM Operator may be necessary for acoustic monitoring of the immediate asset area.
- ✓ Towed or static PAM configurations available.

Comparison of Guidelines:

	Mitigation Zone	Pre-operations watch	Delay	Soft start	Shutdown	Acoustic Deterrent Devices	Start up at night allowed?	PAM	Report	Other
Seismic	500 m	≥ 30 mins (< 200m depth) ≥ 60 mins (> 200m depth)	≥ 20 mins	≥ 20 mins, not significantly longer Soft start (and pre-shooting search) after gap in operations of ≥ 10 mins	Not required (soft start or full power)	Not used	Whenever possible start in daylight, or use PAM at night, in poor visibility and increased sea states	May be required	Required	Line change - gun volumes ≤ 180 cu. in. and line change expected to be < 40 mins, continue firing during turn. Undershooting - MMO should be on source vessel.
Piling	Agreed with regulators; at least 500 m	≥ 30 mins	≥ 20 mins	≥ 20 mins Soft start (and pre-piling search) after gap in operations of > 10 mins	Required during soft start (or no further increase) Not required at full power	Should be considered; subject to conditions	Should not start at night, in poor visibility or sea states > 4	May be required	Required	Operator to demonstrate best available technique is being used
Explosives	Default 1 km	≥ 60 mins Post detonation ≥ 15 mins	≥ 20 mins	Sequencing of charges, smallest first	N/A	Should be considered; subject to conditions	Only start during daylight and good visibility	May be required	Required	



