



## The management of waste in marine spills



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### Aim

- To highlight the importance of careful waste management during shoreline clean-up, and to introduce the regulations that will apply



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### Outline

- Waste Contingency Planning
- The Waste Management Group
- The Waste Hierarchy
- Storage, treatment and disposal
- The Regulations
- Case study
- The Beachmaster's role
- Questions?



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## Waste contingency planning

National Contingency Plan for Marine Pollution from Shipping and Offshore Installations (NCP)

- Major Incidents (Tier 3)
- National Resources
- Tactical Co-ordination Group (TCG)
  - Waste Management Group




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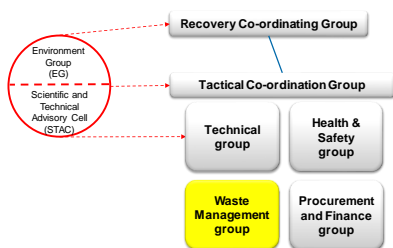
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## The Waste Management Group

Waste Management Role

- Disposal Strategy
- Minimisation and segregation
- Temporary storage plan
- Location and format of Storage
- Comply with Waste Legislation




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The Waste Hierarchy

- Reduce
- Re-use
- Recycle
- Recover
- Dispose



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The waste hierarchy: Reduce

- Most cost-effective option
- Produces as little oily waste as possible
- Requires careful action on the ground to avoid cross-contamination of waste materials



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The waste hierarchy: Re-use

- Make best use of the waste that is produced e.g. as a fuel or a raw material such as road construction
- Again, segregation is vital



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The waste hierarchy: Recover

- Involves treating the oily waste to recover useful materials
- Washing, thermal treatment (incineration), oil/water separation, biological treatments



Environment Agency

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The waste hierarchy: Disposal

- Most expensive, least desirable option
- Hazardous waste landfills require pre-treatment
- Very few available sites



Environment Agency

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Liquids



Solids



Sorbents



Fauna

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## Storage, treatment and disposal

- Temporary emergency storage at beach-heads
- Medium-term storage prior to treatment
- Transport straight to refinery/incinerator for recovery
- Direct to landfill
- When do you need a permit from the Environment Agency?




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## Waste Management Legislation

- The Environmental Permitting (England & Wales) Regulations 2016
- The Hazardous Waste (England & Wales) Regulations 2005
- The Control of Pollution (Amendment) Act 1989




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## Environmental Permitting Regs (2016)

- Sites where waste is kept, treated or disposed of require an environmental permit
- In an *emergency*, waste can be stored without a permit
- The decision of when an emergency ends will be taken by us
- Medium and long-term storage sites will need an environmental permit




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## Hazardous Waste Regulations (2005)

- ➔ Moving Hazardous Waste
- ➔ Every movement must be accompanied by a Hazardous Waste Consignment Note(3 copies)
  - ➔ Producer
  - ➔ Carrier
  - ➔ Consignee
- ➔ Keeping Records of Hazardous waste movements
  - ➔ Producer should keep copies for minimum of 3 years
  - ➔ Consignee should send back completed Part E section




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## Environmental Protection Act (1990)

- ➔ All carriers of controlled waste must be registered with the Environment Agency
- ➔ Check your contractors or you could be breaking the law by giving them your waste
- ➔ <https://www.gov.uk/guidance/access-the-public-register-for-environmental-information>




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## Case Study

- ➔ Erika, Bay of Biscay, 1999
  - ➔ Broke in two in severe storms and sank 60 miles offshore
  - ➔ All crew rescued
  - ➔ 20,000 tonnes of Heavy Fuel Oil spilled
  - ➔ Oil beached on Christmas Day, affecting over 400km of the Brittany coast




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Case Study

- Oil over 27cm thick in places
- Over 4,000 people working on shoreline clean-up – volunteers, councils, military
- French govt insisted that 100% of oil removed
  - Tourism Industry – public perception
  - State-owned oil company – political pressure
- 250,000 tonnes of waste produced in total
- 10 tonnes of waste for every 1 tonne of oil



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Case Study

- After initial segregation wastes were then mixed up at storage sites
- It took six months to re-segregate mixed wastes
- Waste took over four years to treat



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## Role of the Beachmaster

- ➡ Manages waste generated on their site
  - ➡ Follows the **Waste Hierarchy** (reduce, re-use, recycle, recover, dispose)
  - ➡ Ensures wastes are **segregated** by type and label so everyone can see
  - ➡ Takes responsibility for **paperwork**
  - ➡ Ensures that **no secondary pollution** is caused




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## Role of the Beachmaster (Ctnd...)

- ➡ Paperwork and Checks
  - ➡ Keep a **Log** of waste created for Audit purposes (Waste type, how much and when)
  - ➡ **Waste Transfer Notes**
  - ➡ **Hazardous Waste Consignment Notes** (List the waste type, quantity / tonnage, destination, etc)
  - ➡ **Waste Carriers** – ensure companies transporting waste are registered.




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## Role of the Beachmaster (Ctnd...)

- ➡ Preventing Secondary Pollution
  - ➡ Site Security
  - ➡ Clear procedures / training
  - ➡ Segregation / signs / labelling
  - ➡ Containment




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Summary

- The Environment Agency will provide advice
- Consider the various options for your waste **in advance** of an incident
- Develop and test contingency plans
- Have regard for the regulations that apply
- Proper waste management will save you time and money and protect the environment from further damage
- Getting it wrong could be very expensive



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