Erika cargo neutralization
15/12/1999 – 7/09/2000

The information days of CEDRE
P. Guyonnet – 6th October 2003
Wreck of the Erika

Erika:
- Date and place of built: 1975, Japan; flag: Malta
- Deadweight: 37,000 tons
- Owner: Tevere Shipping
- Manager: Panship Management
- Classification company: RINA (Italy)

Chartered « spot » by Total Transport Corporation for ENEL (electricity):
- Saling from Dunkirk to Livourno
- Loading in Dunkirk # 31,000 tons on the 08/12/99

Ship breaking on the 12/12/99 at about 60 km south of Penmarch (Brittany)

About 12,000 tons of heavy fuel oil trapped in the two parts of the wreck
Erika cargo neutralisation

« crisis » phases

12/12/99
Erika breaking
CMC
Activation

07/01/00
Start of the
operations at
sea

01/08/00
End of the main
pumping
« risk of major pollution
is from now isolated »

25/12/99
Oil arrival
on the
coast

01/06/00
End of operations on
the wreck

06/09/00
End of operations on
the wreck

Crisis management cell shipping

Cargo neutralisation

POLMAR Terre assistance

Waste treatment
Erika cargo neutralisation

« An uncommon start »

Events

Crisis Management Cell (CMC)
- Shipwreck: 12/12
- Oil on the coast: 25/12

Cargo neutralisation project
- off-shore project manager mobilisation
- benchmarking neutralisation
- objectives definition (planning, cost)
- team project + engineering mobilisation
- meeting SG Mer + P&I / Erika insurer
- proposal to SG Mer
- neutralisation protocol signing

December 99

January 00

P. Guyonnet
06.10.2003
Totalfina operates, under State control

State control: Ministère de l’Équipement des transports et du Logement

- Central level (General secretariat of the sea)
  - Steering committee (12 members)
  - Experts committee (9 members)

- Local level (Préfecture maritime): operationnal coordination

Project team gathers Totalfina offshore expertise
# Pumping operations planning

<table>
<thead>
<tr>
<th>Month</th>
<th>January</th>
<th>February</th>
<th>March</th>
<th>April</th>
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**SURVEY**
- Wrecks survey

**STUDIES**
- Studies and concept choices
- Pumping Pilot
- Purchase of equipment
- Tenders

**OPERATIONS**
- Operations preparedness
- Diving ships mobilization
- Preliminary works: Bow

- Preliminary works: Stern
- Crystal Ocean Mobilization
- Main pumping bow
- Main pumping stern
- Finish pumping
- Worksite demobilization

Prevision

Survey, studies, and operations preparedness

At sea operations
## Erika cargo neutralization
### Comparison of technical options

<table>
<thead>
<tr>
<th>Feasibility</th>
<th>References</th>
<th>Risk</th>
<th>Maîtrisable</th>
<th>Delay</th>
<th>Cost</th>
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<td>Concrete sarcophages</td>
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<td>Pumping</td>
<td>Many methods available</td>
<td>Yes</td>
<td>Bohlen Tanio Yiul 1 Osung 3</td>
<td>Yes</td>
<td>Yes 6 months without bad weather 400MF</td>
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Pumping operations planning (previsions/realizations)

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Survey, Studies and operations preparedness

At sea operations

- 24 days