

Fire at Fredericia Harbour 2016 – Palm oil clean-up response



Fire at Fredericia Harbour 2016

112 emergency call from 9.15 - 9.16 PM.

- Fire in industrial building, Moellebugtsvej 7, 7000 Fredericia
- Large slorry spill, Moellebugtsvej 7, 7000 Fredericia
- Large chemical spill, Moellebugtsvej 7, 7000 Fredericia

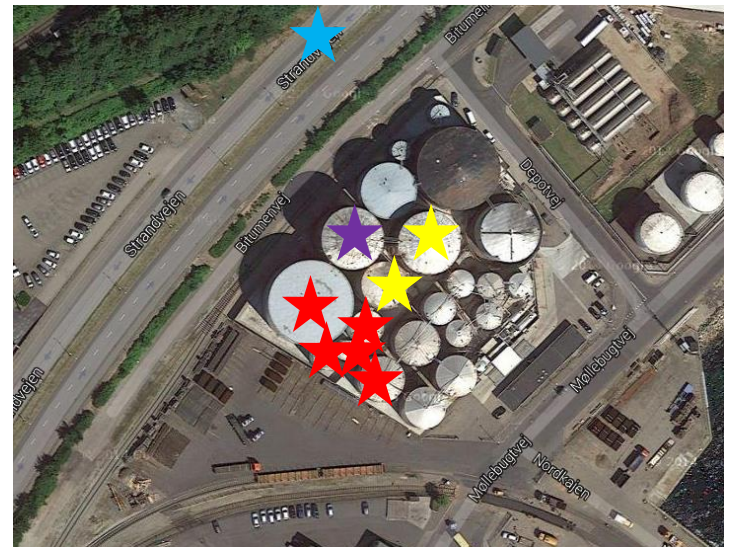
Arrived at the scene at 9.17 PM outside Dangoedning

Fire at Fredericia Harbour 2016

9.17 PM

The situation :

- Capsized storage tank with 9.500 M3 UAN 32
(Large hole in 6.000 M3 storage tank with palm oil)
- Called for backup and relevant HAZMAT equipment, personnel, as well as other authorities.
- Resource personnel from the port of Fredericia and surrounding companies came by themselves





Fire at Fredericia Harbour 2016

The ship Xanthia, Kaj 25



Fire at Fredericia Harbour 2016

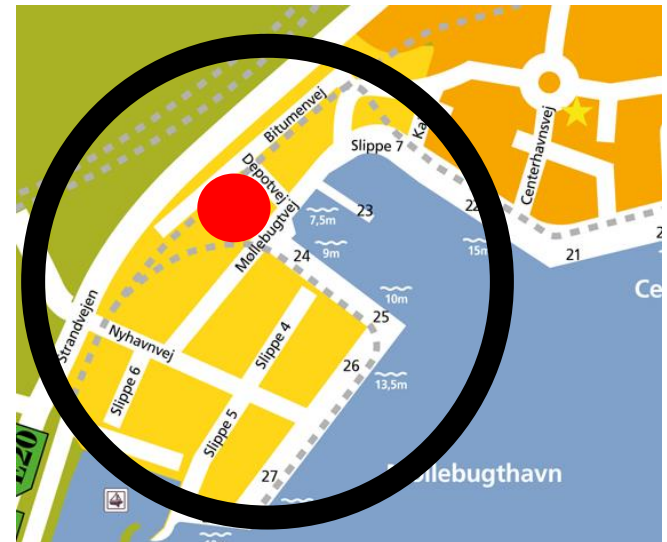
Chaos phase 1. 9.17 – 9.45 PM

- Large fertilizer spill and large palm oil spill
- The scene of the accident is 0.25 km²
- Arrangement of the inner and outer cordon
- Coordinating with incident commanders from police and prehospital
- Contact with chemical engineer from DEMA and municipal environmental officer

21.45 Fire in the tank farm

Chaos phase 2. 9.45 PM – 6.00 AM

- Contact with chemical engineer from DEMA



Fire at Fredericia Harbour 2016

The situationen at 10.45 PM

- Tug boat Svitzer Mjoelner began fighting the fire with 2 x 20.000 l/m.
- The fire could not be extinguished and continued to spread
- 2 major explosions from the area and intensity of the fire was getting bigger
- Risk of a BLEVE
- The area was evacuated to Prangervej/ Vestre ringvej

The situationen at 11.15 PM

- Public siren warning and emergency announcement
- Evacuation of all residents southeast from Prangervej approximately 500 M. from the fire
- Warning to all residents inside 1.000 M. from the fire

Fire at Fredericia Harbour 2016

The situationen at 2.30 AM

- Massiv extinguishing efforts
- 2 tugboats
- 7 crashtenders
- 125.000 l/m.
- 20 km. of firehose



Fire at Fredericia Harbour 2016

The two primary products in the tankfarm

- UAN 32
 - Urea
 - Ammonia
 - Nitrogen
 - 32% solution
- Palm oil
 - Density below 1
 - Heated to 72°c
 - Flash point 150 ° c
 - Ignition temperature 250° c

Palm oil is harmless to humans and animals - but it's greasy and sticky

First response oil spill equipment in the Port of Fredericia

Joint venture between SHELL, ADP and Trekant Brand

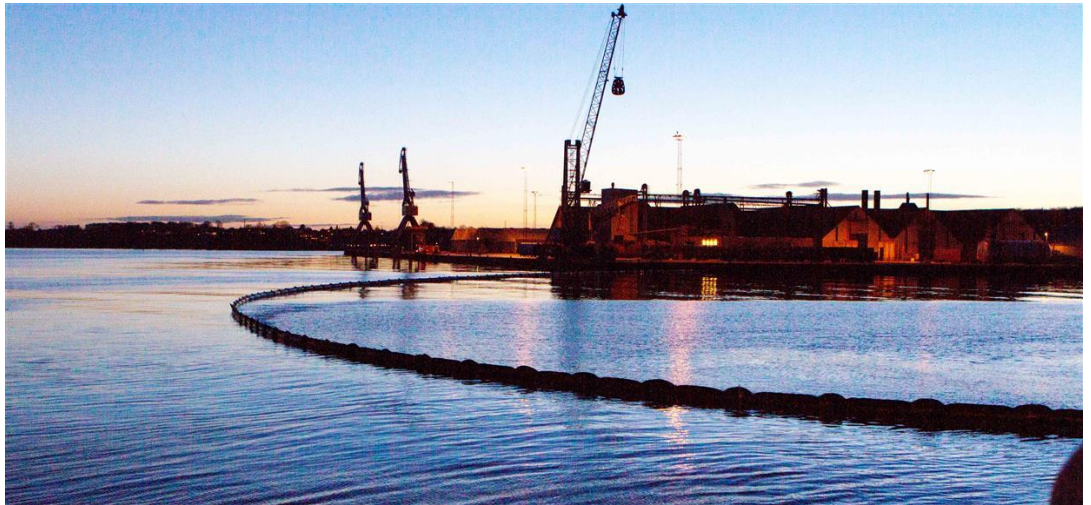
- Work boats
- Oil booms
- Oil skimmer



Palm oil clean-up response

BIG MISTAKE!

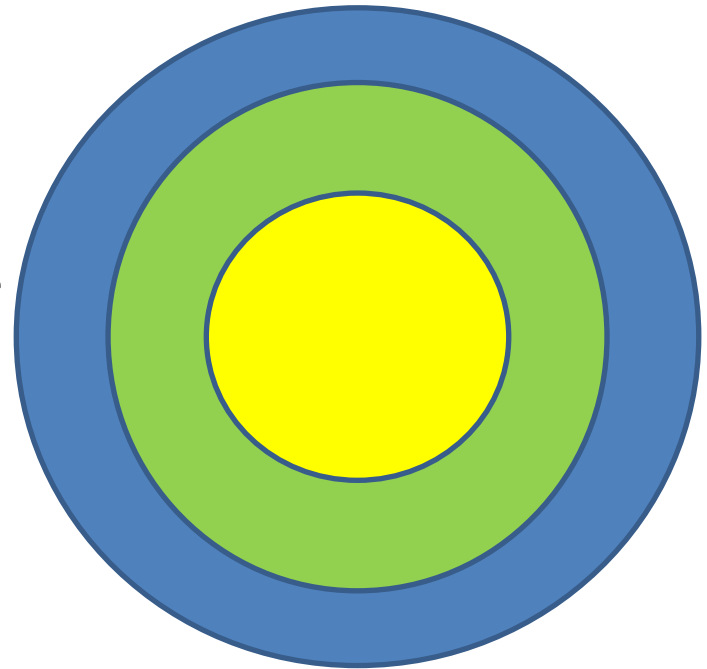
- Communication failure
- You can only do one thing at a time – focus on the fire or the oil spill
- Incident command leader's Staff too small



Incident command system

Who decides what and where?

- Inside the inner cordon:
Incident commander from the fire department
- Between inner and outer cordon:
Incident commander from the police
- Outside the outer cordon:
Municipality when it relates to the citizens



The water of Little Belt

Facts about Little Belt

- The area was formed after the ice age 25.000 years ago
- Little Belt connects the Baltic Sea and the Kattegat and a large amount of water is exchanged every day
- The small belt is narrow and therefore the current is very strong
- The water depth in Little Belt varies and is up to 80 meters deep in some areas
- The water is most often stratified with different current directions, both horizontally and vertically

The water of Little Belt

Wildlife and life in the water

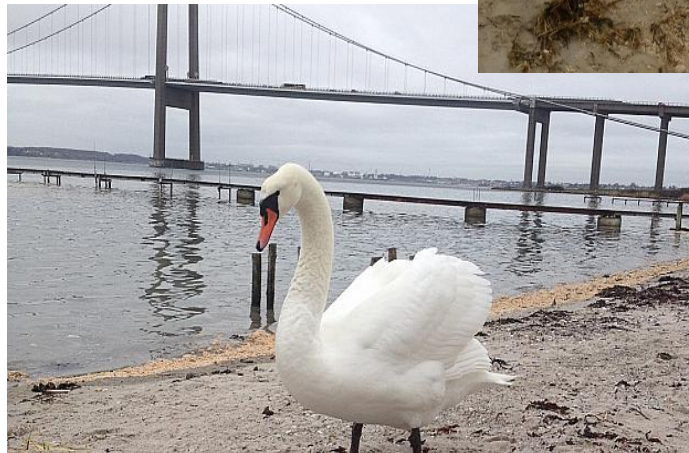


The water of Little Belt

Recreation area with beach and forest in the heart of Denmark



Palm oil clean-up response



Palm oil clean-up response



Use of drone was very valuable in terms of prioritizing where palm oil should first be collected

Palm oil clean-up response

Communication platform for citizens

Facebook post from Fredericia Kommune, dated 18. februar 2016.

RESTER AF PALMEOLIE?
Hvor har I været gode til at tippe os om rester af palmeolie fra branden på Fredericia Havn. Vores Vej & Park – Driftsfolk er nu ude at kigge på det. De starter i dag ved Strandagervænget i Erritsø og bevæger sig mod byen og broen. Finder du mere palmeolie på stranden, hører vi selvfølgelig stadig gerne fra dig. Du kan give vores miljøafdeling et praj ved at ringe til borgerservicecenteret på tlf.: 72107000. Så tager vi ud og kigger på det. Vi takker på forhånd 😊
Se mindre

68 likes, 19 kommentarer, 7 delinger

Synes godt om · Kommenter · Del


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Forfatter
Fredericia Kommune
Godt i gang 😊

Synes godt om · Svar · 5 år · 4 likes

Skriv et svar ...

Katrine Fauerskov
Skriv en kommentar ...



Palm oil clean-up response

The cleaning of the port area

The Port of Fredericia is one of Denmark's busiest ports, and is the port that handles the largest tonnage of goods in Denmark.

In addition, it is one of Denmark's few deepwater ports



Palm oil clean-up response

What are the consequences for the environment and wildlife in Littel Belt

- Briefly higher nitrogen concentrations in the water in Kattegat and Baltic Sea
- Palm oil in the seaside resort of Koserow, at the German-Polish border in the Baltic Sea – more than 500 km. from Fredericia - three months after the fire
- Lumps of palm oil still appear on the beaches a year and a half after the spill on the beaches of Fredericia and Middelfart
- No immediate consequences
Long-term impacts are also not expected

What did we learn from it?

Ask yourself and your organization about the following;

- What went well and why?
- What can we do differently to make it better?
- What if it was ...?
- How do we anchor this knowledge in the organization?
- How do we prepare for next time?
- How do we share this knowledge with others?

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Thank you for your time