

Operation Kyrkesund, September 2011.

From the homepage of the Swedish Coast Guard:

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Oilspill on the west coast of Sweden

23 September 2011 kl 10:40

On September 15 the Swedish Coast Guard received the first indication of oil contaminated shores on the west coast of Sweden. It immediately led to response actions in the area, called **Operation Kyrkesund**.

- In **Operation Kyrkesund** approximately 360 cubic meters of oil has been recovered from the sea with response vessels, oil recovery vessels for shallow waters and skimmers. A large amount of booms to contain the oil has been deployed.
- The Swedish Coast Guard is working in close cooperation with the local rescue service. The Swedish Sea Rescue Society (SSRS) is also contributing by means of ships, booms and personnel.
- The recovering of the oil is a time-consuming work, complicated by hard weather and waves, and the oil has reached far in to the bays were it's harder to clean.
- The Swedish Coast Guard is planning to go on with **Operation Kyrkesund** at least until Sunday the 25th of September.
- It is still unclear where the oil on the Swedish west coast comes from. The source might be due to a ship collision that occurred on Danish water more than a week ago, but other possible sources are also being considered.
- On September 14 the Swedish Coast Guard was informed by the Danish authorities that there had been a ship collision outside the Danish west coast and that one of the ships was leaking oil. The Danish authorities recovered approximately 60 cubic meters of oil. The hard weather complicated the clean up **operation**.
- The weather conditions, with strong winds up to hurricane strength, made it more or less impossible to detect the oil since it might mix with the water or sink and displace under the water.”

Enzymex solutions case study:

The spill that hit the western coast of Sweden the 15th of September was even worse from the Coast Guards newsletter enclosed. All together 850 cubic metres floated from Denmark to Sweden, coming from a collision between tender vessel from Malta and a

Danish fishing vessel. As you can see, the Danes reported this in the Scandinavian/International Info system, but was not considered until it had already hit the inner Swedish water. This was a lack of communication in the information system. When the spill was discovered most oil had already landed. We were called out the same day and delivered 4 m3 to the command place, at that moment Kyrkesund. 2 water guns were immediately mounted on the deck of KBV 288 and also quick depl booms were delivered.



Photo Swedish Coastguard.



Photo Swedish Coastguard.

The first days of the operation all resources from entire Sweden were sent to Kyrkesund, even from northern east coast boats were trailered more than 800 kms. 9 vessels and a lot of minor shore-diggers were used since the oil quickly got thicker and thicker.

All equipment was carefully evaluated during the operation. The quick depl booms (qdb) were a success, easy to handle, easy to lift and especially easy to take care of after use. Also the sheen booms were very efficient, with the same advantage as thinner qdb:s. The water guns used also worked very well, the only thing is that one has to be sure of having enough amount of water and a min pressure of 9-10 bars. A good method to use the polymers distributed by water guns is that it gives a good possibility to build up a quick boom to limit the spill from floating away.



The entire time at the spill a lot of resources were used, crews were changed on the vessels and transported from all Sweden to assist. Compare to conventional methods using Ciagent products mean new thinking an possibility to a much cleaner and healthy way to deal with oil spills.

The Enzymex granule extinguisher were used frequently, especially at narrow and slippery conditions, spreading 6 ltr granules at each loading, covering more than 15 m2.

It is loaded in diver compressor, same connections as for breathing equipment.



The main reason for the success of Ciagent products is that the rest product can be taken care of in the existing systems that most coast guard vessels are equipped with, the Lamor brush system. The polymers have a positive effect on the brushes, keeping them clean during operations.

