

## **The Gulf of Mexico Oil Spill**

### **A Technical Proposal to Stop the Catastrophe**

Karlsruhe and Monaco, 15.05.2010

We propose a technical solution to stop the oil outflow into the Gulf of Mexico oil spill, if you did not yet find a solution to terminate it. We think we found a practicable and optimal way to stop the oil outflow. It can be done in a few days.

The proposal includes the following points:

- installing a conic pipe which is pressed into the ground
- installation of a heating system to avoid formation of gas hydrates
- stabilizing the conic pipe with help of a sufficient huge amount of concrete, and finally
- gathering the oil outflow with a standard industry piping system.

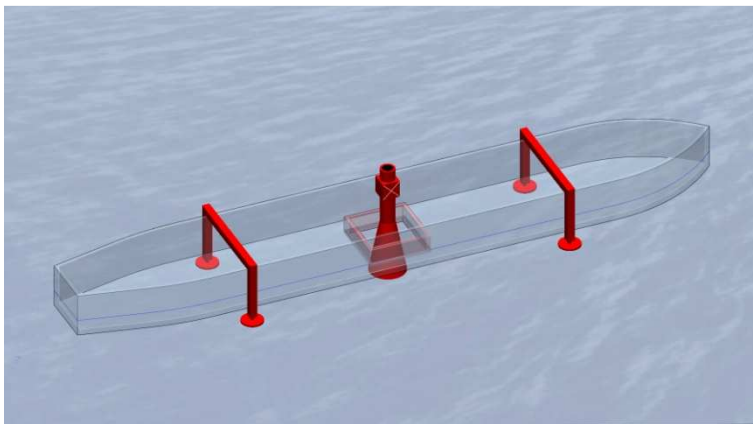
The unique idea consists in transporting the concrete down to the borehole at sea bottom with the help of an old barge which will be sunk into the sea. The diameter of the conic pipe is to be chosen sufficiently wide for future operations and safety installations.

Our operation will be run under the supervision of the TSW – International Board for Science and Technology, Zürich, and associated international partners for construction, marine engineering and geology, under the presidency of TSW Honorary President, Dipl.-Ing., Phys. Edmond D. Krecké, together with the scientific advisory board, Dr. Ing. J. Gottlieb.

Due to time constraints it is necessary to find quickly a discarded concrete barge with 9,000 tons register, and a shipyard, in order to prepare the concrete barge.

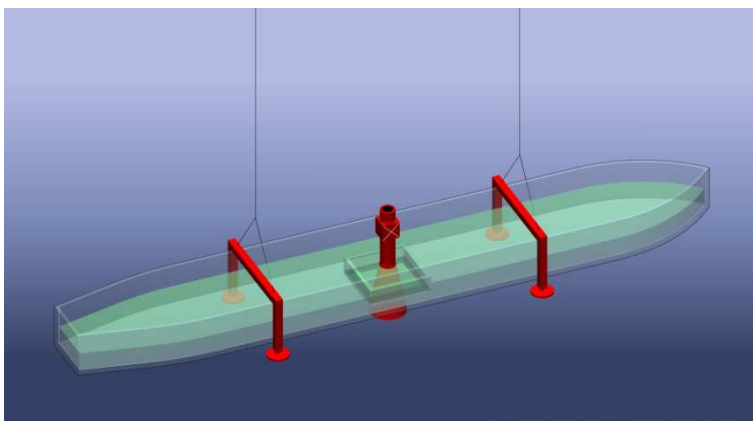
On the basis of available data, we propose a technical solution to fight the oil spill directly at the bottom of the sea.

- (A) The bottom of the barge will be opened in a area of about 10m x 10m, were a conical pipe and a temporary sealing box is installed. This box is equipped with a simple opening and safety technology that allows the soft special concrete to flow out relatively slowly. This prevents the mixing up of concrete and sea water. The heated conical riser pipe above the safety valve is equipped with a quick release.
- (B) The barge will be filled with about 5 -6.000 m<sup>3</sup> of concrete. Before filling, we install a simple frame to guarantee a good outflow of concrete. The concrete should be steel fiber- or Dacron fiber-reinforced.

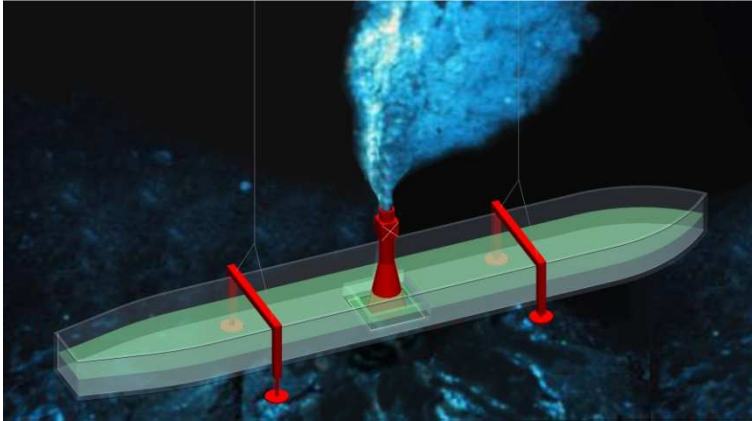


However, the concrete barge is usually keeled, we install at the bow and stern and port side und starboard side at the outside four legs up to the lowest point of the keel with base plates. This will prevent a tipping of the concrete barge.

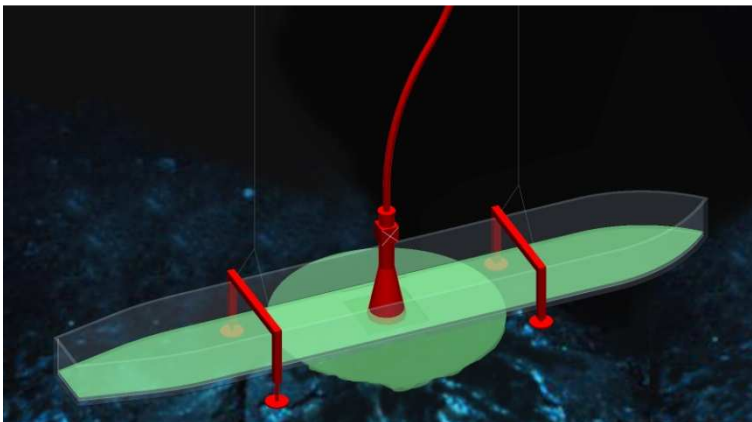
- (C) The concrete barge is filled with concrete so far, until it will sink. With ropes it is led exactly above the opening of the hole.



- (D) The conical tube is placed over the hole and pressed due to the weight of the concrete barge into the ocean floor. Then, the opening mechanism is activated and the concrete flows from the bottom of the boat and stabilizes the conical tube.



- (E) In order to avoid pressure build ups, the top of conical tube remains open and allows the oil to flow upwards until the concrete has hardened. Then the hole will be closed and the oil is pumped out.



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