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THE ERIKA OIL SPILL : PROCESSING OF TECHNICAL PROPOSALS Mr François-Xavier Merlin – Cedre – Rue Alain Colas BP 20413 – 29604 Brest François.merlin@le-cedre.fr Secondary authors: Mrs Pascale Le Guerroue, Messrs Julien Guyomarc'h, Ronan Jézéquel and Jérôme Le Pape

ABSTRACT

During Erika incident, the Authorities in charge of the response received a lot of technical propositions dealing with the different aspects of the oil spill control.

These propositions could been raised by public emotion resulting from the incident, or could result from commercial consideration.

All these proposals were directed towards Cedre which was already involved in the response operation : up to 770 propositions were received (470 from regular companies and 270 from simple citizens).

A commission was set in Cedre with the assistance of the European Commission. It involved 10 experts (3 from Cedre, 2 from IFP, 2 from IFREMER, and 3 from Norway, Sweden and Italy) to study these propositions.

These propositions covered all aspects of oil spill response :

At sea : detection, identification, modelling, techniques to sink the oil, to disperse it, to bioremediate it, to solidify it, techniques to recover the oil in the wreck or to recover the wreck itself, booming, mechanical recovery and waste disposal.

On shore: rock cleaning, sandy beach cleaning (sediment cleaners), use of specific chemicals (protective or antiadhesive agents, sorbents, cleaning and dispersing agents....), waste storage and disposal, and also, safety concerns such as personal protective clothes etc.....

Few of them were considered as potentially interesting.

In order to promote their techniques and to force Cedre to take their proposal into consideration, some people developed a strong lobbying towards politics and/or through media.

Different propositions were experimentally assessed sometimes because it has been judged by the commission as technically interesting; in many other cases, tests were carried out under mediatic pressure.

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Cedre laboratory team conducted tests in laboratory, and also in the field. For laboratory tests, regular standard procedures were used as often as possible (e.g. standard testing methods for sorbent and cleaning agents).

15 products were tested in laboratory in emergency (4 sorbents and 7 cleaning agents, 2 biograders, 2 antiadhesive agents), sediment cleaning process while shoreline cleaning techniques were assessed in the field (oil recovery using nets, "sand" blasting techniques using soda bicarbonate, silicate, the use of oxygenated water, or cryogenic process, sediment seiving technique, water filtration equipment...).

For most of these tests, the results were disapointing and far under those of the usual well recognised techniques. Quite often, the promoters of the techniques rejected the test results asking for additional tests.

All these investigations required an important work effort, involving 5 chemists of Cedre laboratory, who, therefore, were not fully available for the real response.

It is interesting to compare the approach adopted by the British Authorities to deal with the propositions during the Sea Empress incident:

In order to avoid any interference with the response itself, all proposals were directed for registration towards a dedicated person located far away from the incident.

MAFF authority rejected any use of any product which would not have been approved previously. In summary, only the well recognised techniques were actually used on field, considering that there was no time left during the incident to test new methods. As a consequence of this approach, it has been impossible to test in the spill situation any method, even really promissing, even when been proposed by official laboratory such as AEAT.

In between these two opposite approaches, the French one which considered all proposals, approach which is time consuming in the difficult period of the operational response, and the British one which rejected any new techniques, approach which denied any possibility for improvements, there should be an alternative solution : technical proposals should be tested only when such assessment is requested by an accepted scientific committee which role is to select the really promising proposals. *Cedre* starts thinking on how to set up and coordinate such a committee for future crisis.

Technical lessons learnt from the Erika incident and other oil spills - Brest, 13-16 march 2002