

Environmental Protection – Mechanical Recovery

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ABSTRACT

Globally, there is an increased need for energy. Even if there is an aim to introduce alternative sources of energy, oil and gas production will still remain for years. With oil production, particularly offshore production, there will always be a risk that an oil spill may occur, hence creating a threat to the environment. The main purpose for maintaining an oil spill response capability is therefore to ensure environmental protection.

To protect the environment and conduct oil spill recovery, a major principle is to do a Net Environmental Benefit Analyses (NEBA) together with a Spill Impact Mitigation Assessment (SIMA). Regardless of conditions the best way to protect the environment is by removing the pollution without adding other substances hence avoiding exposure to the environment. Mechanical recovery is a mean to achieve this.

Improved and increased mechanical capability makes it possible to combat a wide range of different oils with different weathering conditions. This can be documented through large scale trials and actual spills on the Norwegian Continental Shelf.

Efficiency of using mechanical recovery has increased by the introduction of high speed systems and increased capability in remote sensing, including surveillance, detection and guidance of oil spill response resources. The benefit of mechanical recovery may also help reaching the UN sustainability goals.

This paper will describe how mechanical recovery is underestimated and how it, through improvements, represents a valid contribution to environmental protection and sustainability goals.

INTRODUCTION

When describing mechanical recovery by creating a poster, the elements showed must give the viewer a first glimpse understanding of the message.

The poster cannot be too busy, but it still has to display essential elements related to environmental protection and mechanical recovery.

This poster will show a combination of pictures of mechanical means for the conduct of mechanical recovery, tables showing characteristics of different crude oils, tables with results from real time operations using different booms.

Experiences and conditions on the Norwegian Continental Shelf will be used for this purpose.

DESCRIPTION

An introductory part of the poster will make a statement regarding why mechanical recovery in the way of completely remove pollution from the environment, rather than adding chemicals in order to change the state of the pollution.

As the characteristics of crude oil differs, the use of different means of recovery will have different effects. A table showing different characteristics must therefore be included in the poster. Different crude oils on the Norwegian Continental Shelf will be used to illustrate this.

The poster will show images and pictures of different booms used for mechanical recovery. The pictures will show both conventional booms and high speed booms. This will illustrate the evolution of booms through the last decade.

Weather conditions and efficiency in using different kind of booms will be shown together with test result made through large scale trials.

It will be worth adding an illustration of different means for oil spill recovery in different barriers, hence showing the importance of using NEBA/SIMA as tools to decide how to conduct a particular oil spill response operation.