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Draft Letter Report On
Fire Suppression for Offshore Oil Platforms

Fire suppression is defined as extinguishing a growing air-fuel flash fire/explosion within a small fraction of a second after ignition. This report describes the principles and components of suitable fire suppression systems for offshore oil well drilling and production platforms, and recommends conducting preliminary research leading to demonstration of the state of the art in fire suppression systems for these offshore environments.

In addition, improvements in fire fighting and fire prevention for offshore platforms appear feasible, and recommendations for conducting experimental work in these areas are also presented.

Need and Goals: The need for fire protection on offshore platforms will continue for the forseeable future. This is true because present and foreseeable technology cannot provide practical platforms without flammable components, cannot assure a complete absence of leaks of flammable fluids, and cannot avoid the occasional presence of an ignition source. Because of these facts, future fires must be expected, and fire protection on offshore platforms will continue to be necessary. Since fire protection is necessary, the best feasible fire protection should be the goal, because outside help is not readily available in most cases, and in many cases it is not possible for personnel to evacuate a platform faced with life threatening fire.

Requirements: Optimum fire protection for offshore platforms would provide the following characteristics:

1. Suppression of flash fire/explosion within a fraction of a second.

2. Prevention of reignition even if a flammable fluid leak and a continuing source of ignition are both present.

3. Extinguishing of a slowly developing fire.

4. Successful fighting of a sustained fire which was not suppressed.

5. Operational suitability for tropic, temperate, and arctic climatic environments.

6. Operational suitability for platforms which are completely open, completely closed, or any combination thereof.