

DEEPWATER HORIZON OIL SPILL

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MECHANICAL AND
MANUFACTURING
ENGINEERING

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WHAT IS DEEPWATER HORIZON OIL SPILL

- One of the largest environmental disaster in the United States.
- Occurred on April 20, 2010, in the Gulf of Mexico.
- The explosion spilled millions of barrels of oil into the ocean.
- The project was led by the British Petroleum Company. called as BP.
- There were three Chief Executive Officers in charge of the company and their names were John Browne, Tony Hayward and Bob Dudley.



CAUSES OF THE OIL SPILL

- The system used to seal the device after the explosion was not functioning properly.
- Incorrect interpretation of device pressure test results.
- Using a non-proportional coverage method.
- Cutting back on safeguards to reduce costs.
- Lack of emergency plans.
- Poor communication between managers.



ENVIRONMENTAL IMPACT

- The oil spill affected more than 800 species of animals, including fish and birds.
- About 1300 square miles of coastline were damaged.
- Chemicals had to be used to break up the oil slick. They further affected the environment.
- Disturbances in animal food chains.
- Increased beach erosion due to damage to coastal vegetation.



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ECONOMIC AND SOCIAL IMPACT

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- Fishing industry in the Gulf of Mexico was completely disrupted.
- Beaches were polluted by oil, which hampered the tourism industry.
- BP company had to a huge loss because of environmental cleanup, compensation and legal proceedings.
- Health problems for those who are regular in cleaning activities.



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ENGINEERING ETHICAL CONSIDERATIONS

- Safety should be important over profit.
- Existing safety regulations must always be followed properly.
- It is necessary to discuss well while making decisions.
- Even if the cost is high, the standard should be maintained.
- plan how to react at the emergency situation from the beginning.
- Helping the victims as much as possible.
- Always follow real engineering ethics.



THANK YOU

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