OFFSHORE AND SHIPPING ACTIVITIES WILL ALWAYS INVOLVE A RISK OF OIL SPILL. HOWEVER, BY IMPLEMENTING A RISK-BASED ENVIRONMENTAL STRATEGY, DNV GL BELIEVES THAT OIL AND GAS ACTIVITY CAN BE CARRIED OUT EFFICIENTLY AND WITH A MINIMUM OF ENVIRONMENTAL RISK.

The DNV GL approach

DNV GL has extensive experience in carrying out contingency analyses, preparing oil spill response plans and translating these into operational oil spill preparedness for offshore, coastal and shoreline areas. We work with operators to implement measures including:

- Assessing existing oil spill response capacity
- Selecting the optimal solution for oil spill preparedness based on contingency analysis
- Developing preparedness plans to handle an oil spill response
- Evaluating and verifying existing strategies for oil spill preparedness based on industry standards.

Our goal is to enable our customers to implement applicable and effective measures to ensure robust oil spill preparedness for accidental discharges of oil during offshore operations.
Our methodology

We begin oil spill contingency analysis (OSCA) by identifying defined situations of hazard and accident (DSHA), including dimensioning accident situations. Once identified, we establish functional requirements for emergency preparedness and relevant measures to define the required preparedness resources. The OSCA serves as the basis for the establishment of emergency preparedness, including emergency preparedness plans, as well as informing requirements for training and exercises. The OSCA also helps customers to select the optimal solution between available options and recommendations for oil spill combat methods and equipment.

Our global team of experts uses statistical and single scenario analysis of oil spill contingency based on the OSCAR 3D oil spill trajectory and fate model. Depending on the availability of data and customer requirements, other methods such as response analysis calculators may be used. Using these techniques we are able to analyse oil spills both offshore, in coastal waters, onshore and in Arctic conditions. The team collaborates closely with our customers to assess resource requirements for dimensioning, as well as worst case scenarios, including undertaking specialised studies for sensitive areas. Our approach is aligned with the OGP/IPIECA guideline for Oil Spill Risk Assessment and Oil Spill Response Planning for Offshore Installations (2013).

DNV GL can also supply oil spill response planning, and training and exercises to translate the results of contingency analysis into operational and cost-effective preparedness solutions. We perform response planning based on best practices and international standards such as IPIECA and API. Driven by good communication with our clients, we ensure that our solutions are based on customer requirements and aligned with authority regulations. DNV GL also performs evaluation and verification of exercises, preparedness plans and equipment, either as internal support or as an independent third party.

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FOCUSING ON ARCTIC OIL SPILL PREPAREDNESS

Oil and gas operations will require advanced technologies and the application of new knowledge if the industry is to manage the environmental effects of operations in Arctic areas. By combining our expertise in environmental risk and oil spill preparedness, DNV GL aims to play a key role in this sector, helping customers to safely and securely meet the demands of this challenging new environment.