Klif’s regulation of remote monitoring in Offshore installations

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Offshore requirements

Discharge permits
- Early detection of acute pollution
  - Manned installations: 3 hours
  - Unmanned installations: 12 hours
  - BAT should be used to detect and prevent acute pollution

HSE-regulations, Activity Regulations, § 57

The operator shall establish a remote measurement system that promotes sufficient information to ensure that acute pollution from the facility is quickly discovered and mapped.
Requirements in the HSE-regulations, Activity Regulations § 57, cont.

Guidelines:
• Remote measurement means a system which, regardless of visibility, light and weather conditions, can detect and map the position, area, quantity and properties of acute pollution. Such a system may consist of sensors and equipment deployed in satellites, airplanes and helicopters, or on facilities and vessels with associated services and procedures.

A plan for remote measuring, based on a risk analysis focusing on environmental aspects, should be in place.

Klif expect that:
- The plan/system for remote monitoring includes subsea leakage detection (SSDL).
- The system is based on BAT
Future challenges

Subsea systems in vulnerable areas/close to shore/arctic conditions
- Early detection is more critical
- Lack of daylight and rough weather conditions will make it harder to observe leakages on the surface
- SSDL will increase the possibility of getting early warnings of small and medium sized leakages for further monitoring and corrective actions.

Future regulation:
- Existing requirements for detection of subsea leakages have to be evaluated to meet new technology and new exploration areas
- Example: Gjøa (close to shore) - detection within 1 hour
- For new installations it is important that SSLD is integrated in the design of the system. A description of a SSLD-system should be included in the EIA as part of the PDO.
Future challenges, cont.

New technology

• There is a need for further development of SSDL-technology.
• Klif expects contribution from the operators.
• Activity Regulation, § 78
  • *The operators shall contribute to further development of relevant remote measurement tools.*
• Research programmes on petroleum activities (Petromaks, OG21) include development of systems for leak detection