

# Report



## Commissioning of Ultrasonic Gas Leak Detectors

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## 4 EXAMPLE OF TEST RESULTS AND RECOMMENDATIONS



Ultrasonic background noise measurements were performed at all detector locations and all detectors were tested and trigger levels were set.

On an offshore platform there are two main areas in terms of background noise, Low and High noise areas. In a low noise area the background noise can be from < 58 dB to 68 dB. In these areas a trigger level of 74dB is recommended.

In a high noise area the background noise can be from 65 dB to 78 dB. In these areas a trigger level of 84dB is recommended.

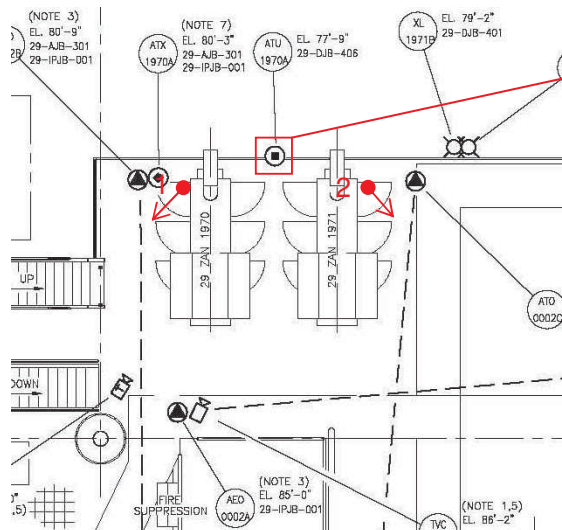
All leak simulations made and illustrated in this report was with a leak-rate of 0.1kg/s unless otherwise stated. Only the most relevant leak simulations will be illustrated in this report.

### Key:

- 1  Leak simulation number and direction of the leak.
-  Test detector position and photo.
- ★ New/moved detector position.

### 4.1 Detector 1

This detector is situated on the west side of the upper deck, between the two turbines.



### Leak simulation and coverage:

Leak 1 and 2 were detected by Detector 1.

This indicates good coverage of fuel gas inlets to the turbines. There is no overlapping of coverage with other acoustic detectors.

### Test results:

|                              |                                      |
|------------------------------|--------------------------------------|
| Ultrasonic background noise: | <b>72 dB</b>                         |
| Gain test with 1701:         | <b>Pos. 5 - 74 dB</b>                |
| Delay test with 1701:        | <b>27 sec.</b>                       |
| New trigger level:           | <b>Pos. 6 - 84 dB</b>                |
| New Gain test with 1701:     | <b>Pos. 6 - 84 dB (in tolerance)</b> |