

**“ Approved “
Chief Engineer of
“Lukoil-KaliningradMorNeft”, Ltd.**

M.A.Sobolev
Year of 2003

**S T A T E M E N T
On the results of ultrasound device CTRL UL101 trial tests**

Board of experts, comprising:

- Representatives of “Lukoil-Kaliningradmorneft”, Ltd.:
- Chief Plant engineer Mr. J.G.Mandrugin
- Engineer of Plant engineer Department Mr. V.K.Zhitin
- Superintendent of Power Supply shop Mr. A.D.Baboshkin
- Representative of CTRL Systems, Inc. in RUSSIA:
- Doctor V.N.Potapov,

Who in term from 02/26/2003 till 03/07/2003 has completed the trial tests of diagnostic abilities of device **CTRL UL101** at the following objects of “Lukoil-Kaliningradmorneft”, Ltd.:

- Gas-filling station (Nivensk settlement);
- Steelwork factory (Izhevsk settlement);
- Transformer plant (Vorobyovo settlement).

There has been revealed the following in the results of trial tests:

1. The device is capable to detect small leakages of different gases (nitrogen and air were used), which gases are being under pressure of 4 to 15 bars (from 58 to 217.5 psi) inside pipes, installations, gas fittings, cylinders, vessels, etc.
2. Use of this device enables to detect trustworthily the turbulent gas leaks out from damages in detachable joints (flange couplings, threads) and in permanent connections (weld seams) where the distance of leak location reached 7-8 meters (appr. 23 to 26.3 feet) with use of great ultrasound concentrator, and accuracy of leak pin-pointing was at least a few millimeters (at least 0.04”) with use of small convergent concentrator.
3. The device detects ultrasound emission from electric power equipment being under operation, which emission is generated at early stage of different failures in electric contacts and electrical insulation followed by spark, arc or corona discharge. Besides, it’s not necessary to switch off the tested equipment and use the close approach of operator to dangerous zones of this equipment.

4. The device responds to the ultrasound emission arising from the working adjacently welding sets, grinding and metal-cutting tools, and other processing equipment. It ought to be taken to consideration by operator that is carrying out the diagnosing.

5. The use of device **CTRL UL101** permits to decrease the efforts not less than 10 times and avoid nearly absolutely the missing of flaws- in comparison with the present procedure of gas leak detection (e.g. by lathering tested places).

6. The device **CTRL UL101** is high effective diagnostic measure for different objects of fuel and energy complex.

From “Lukoil-Kaliningradmorneft”, Ltd.:

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