2002 TA Luft*
Technical Guideline for Clean Air

* effective since 1 October 2002

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held on
Achema 2006
Resolution of 26 April 2002

Source → http://www.bmu.de

Amendment to TA Luft

Initial general administrative regulations for the Federal Immission Control Act (Technical Guideline for Clean Air or TA Luft)


The new Technical Guideline for Clean Air supersedes the TA Luft from the year 1986. The 2002 TA Luft again provides the authorities with a modern clean air instrument that at the same time consolidates legal security and therefore planning reliability for the approval of installations. It embodies the requirements that must be observed for the approval of industrial and commercial installations by the competent environmental inspectorates. This helps both the authorities and the economy and serves to protect the environment.

Like the old TA Luft of 1986 the 2002 TA Luft too has an immission and an emission section.
2002 TA Luft
Pump Classifications

All pumps at XYZ works must be registered on a pump list

Pump delivers liquid organic substance

Pump is technically leakproof
See page 7

2002 TA Luft fulfilled

Notification to the GAA by 31 Dec 2004

Retrofit, replacement

yes

no

yes

no
At 20 °C (293.15 K) medium’s vapour pressure > 13 mbar (1.3 kPa) e.g. butane

Medium’s mass fraction of substances > 1% under 5.2.5 Class I (Annex 4), e.g. acrylic acid, 5.2.7.1.1 Class II, e.g. ethylene oxide, or 5.2.7.1.1 Class III, e.g. benzene, or 5.2.7.1.3, e.g. substances toxic to reproduction

Medium’s mass fraction of substances > 10 ppm (10 mg/kg) under 5.2.7.1.1 Class I, e.g. arsenic, or 5.2.7.1.2 mutagens

Medium under 5.2.7.2 (Annex 5), e.g. dioxin

Technically leakproof pump not necessary

Technically leakproof pump necessary

New installation?

Old pump may continue to operate until replaced

See page 8
When is a Pump “Technically Leakproof”?

Pump delivers medium under TA Luft 5.2.6

- yes
- no

Magnetically coupled pump, canned motor pump

- yes
- no

Piston diaphragm pump, diaphragm pump

- yes
- no

Pump with MS

- no
- yes

Pump with stuffing box

Pump does not fulfil TA Luft requirements

Pump with MS

- yes
- no

Single MS

Barrier medium classified under TA Luft 5.2.6

- yes
- no

Pump is “technically leakproof” and fulfils TA Luft requirements

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Appendix
The pumps used must be technically leakproof, e.g. canned motor pumps, pumps with magnetic coupling, pumps with multiple mechanical seal and quench or barrier medium, pumps with multiple mechanical seal and atmospheric-side dry seal, diaphragm pumps, or bellows-type pumps.
Existing pumps for liquid inorganic substances under 5.2.6 a) that do not exhibit any of the characteristics under b) to d) and do not fulfil the requirements under Para. 1 may continue to operate until replaced with new pumps. Once these administrative regulations have come into effect the competent authority should request an inventory and monitor the ongoing replacement of pumps and the maintenance work until the pumps are integrated in operations monitoring.
Liquid-lubricated Cartridge Double Seal, e.g. ISC

Barrier medium unpressurised API 52

Barrier medium pressurised API 53 A; B; C

Product-side MS

Atmospheric-side MS

Experience In Motion
Liquid-/gas-lubricated Cartridge Double Seal QBQ/GSL

API Plan
72 & 75

Product-side liquid-lubricated MS QBQ

Atmospheric-side gas-lubricated MS GSL

Experience In Motion
**Gas Seals for Pumps**

**GX-200**
- Face-to-face diaphragm bellows mechanical seal

**GF-200**
- Back-to-back pusher (spring-loaded) mechanical seal

**APG groove technology**

*Experience In Motion*