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Document ISO/TC 147/SC 5 N 902
Document ISO/TC 147/SC 5/WG 9 N 95

NA 119-01-03-05-09 AK N 110

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INFORMATION
for participation in the
Interlaboratory trial for validation of

ISO 19040 "Water quality – Determination of the estrogenic potential of water and waste water"

Part 1: Yeast estrogen screen (YES, *Saccharomyces cerevisiae*)

Part 2: Yeast estrogen screen (A-YES, *Arxula adenivorans*)

Part 3: In vitro human cell-based reporter gene assay

Within the scope of ISO/TC 147/SC 5 „Water quality - Biological methods“ and the national committee DIN NA 119-01-03-05-09 „Gentoxizität und hormonelle Wirkungen (Xenohormone)“, an interlaboratory trial for the validation of the above mentioned three ISO committee drafts will be performed in autumn 2015.

These international standards declare methods for the detection of estrogenic effects in water and waste water samples using genetically modified yeast cells or human cell lineages.

National clearance for the work with genetically modified organisms may be necessary for the performance of these methods, e.g. the safety level S1 for Germany.

The described methods are applicable for surface waters, waste waters, drinking waters, aqueous extracts and eluates, pore waters, eluates from sediments, aqueous solutions of compounds and compounds mixtures as well as organic extracts of aqueous samples.

For the interlaboratory study six water samples are to be tested two times independently.

These samples include:

- Influent of sewage treatment plant
- Effluent of sewage treatment plant
- Spiked effluent of a sewage treatment plant
- Surface water
- Spiked surface water
- Field blank

Additionally, two mixtures of compounds with known estrogenic activity in an organic solvent (ethanol) can be tested as surrogates for extracts of environmental water samples. These samples are not part of the interlaboratory trial of the actual method validation but are highly useful for a further characterization of the methods.

The samples will be shipped frozen on 11 November 2015. Testing must be concluded by 18 December 2015.

A joint publication of the results obtained by the interlaboratory study is proposed for submission to an international peer reviewed journal.

Interested laboratories that have experience with one or more of the mentioned bioassays respectively can gain experience before the start of the trial are invited to register until the **25th of October 2015**

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