

Questionnaire for the Proficiency Test 2027 – Emergency Samples for the Analysis of Polonium-210 in Urine

The Coordinating Office for Incorporation Monitoring of the German Federal Office for Radiation Protection is planning in cooperation with EURADOS Working Group 7 a proficiency test with emergency samples for 2027. The aim is to determine polonium-210 in urine samples. We would therefore like to ask you to take part in the following questionnaire. Based on your feedback, the proficiency test will then be planned in detail and you will be sent a separate invitation to register for the 2027 proficiency test.

1. Laboratory Details

- Name of the laboratory:
- Contact person:
- Email:
- Telephone:

2. Analytical Capability

Is your laboratory able to analyse polonium-210 in urine samples?

- ☐ Yes
☐ No

If yes: Which method(s) do you use?

3. Samples and Activity Levels

As part of the emergency proficiency test, each laboratory will be sent 9 urine samples, each 200 mL in volume.

Of these, 3 samples contain different activity levels of polonium-210.

- Total activity: $\leq 50 \text{ Bq}$
- Maximum activity per single sample: $\leq 30 \text{ Bq}$

Is your laboratory capable of handling these levels of activity?

- ☐ Yes
☐ No

Is your laboratory able to process 9 samples within the specified parameters?

- ☐ Yes
☐ No

4. Objective and Processing Time (Emergency Scenario)

In the context of an emergency scenario, the results are expected to be available within 5 working days after arrival of the samples. The objective is to identify the 3 samples containing Po-210 activity. In addition, a dose assessment should be carried out. In this scenario, this dose assessment is intended to assist the relevant authorities (not the internal dosimetry units or the radiochemical laboratory!) in deciding which further measures (e.g. decorporation or follow-up measurements) would be necessary.

Can your laboratory meet this deadline?

- ☐ Yes
☐ No

If not, what timeframe would be feasible for you:

Does your laboratory have a strategy for handling large numbers of samples in a short period of time (emergency plan)?

- ☐ Yes
☐ No

If so, please describe briefly:

5. Organisation of the Proficiency Test

The proficiency test is scheduled to take place over a four-week period in May/June. Each laboratory may select a week in which the samples are to be delivered. Delivery is planned via DHL express, so the samples should arrive at the laboratory on a Wednesday.

Your preferred week for sample delivery:

- | | |
|---------------------------------|---------------------|
| ☐ Week 1 | 24.05. – 30.05.2027 |
| ☐ Week 2 | 31.05. – 06.06.2027 |
| ☐ Week 3 | 07.06. – 14.06.2027 |
| ☐ Week 4 | 15.06. – 22.06.2027 |

Is there another carrier you'd prefer instead of DHL?

6. Fees and Charges

The fee amounts to €353.00 (incl. VAT). The fee includes the preparation, shipment, and evaluation of the test samples.

Fees for participants from countries outside Germany will most likely have to be paid in advance.

7. Interest in Participation

Are you generally interested in taking part in the proficiency test? (This does not constitute a binding registration on your part!)

☐ Yes

☐ No

8. Comments/Questions from Your Side:

Please send your response to:

ikm-berlin@bfs.de

If you have any questions or comments, please add them to the corresponding sections or send them by email to the address given above.

Thank you very much!

Kind regards

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