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|  | **World Association of Nuclear Operators** **Moscow Centre****WANO – MC**25 Ferganskaya st, Moscow, 109507, RussiaPhone. +7 495 376 15 87Fax: +7 495 376 08 97info@wanomc.ru |

**REQUEST**

**to provide technical and organizational information**

**via WANO**

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| 1. **NPP/Organization:** Zaporizhzhia NPP, SE “NNEGC “Energoatom”
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| 1. **Information request topic:** Detection of silver by the method of mass spectrometrywithinductively coupled plasma
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| 1. **Information request objective:** Implementation of the method ofsilver mass concentration measurement by the method of mass spectrometrywith high sensitivity.
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| 1. **Problem description:** At present, taking into account the matrix impact, we have caused the measurements of the mass fraction of silver in grade A boric acid to be done, during the acceptance test using the mass spectrometer with inductively coupled plasma, sensitivity: 2х10-6 %. The new normative document will regulate the silver standard rate in boric acid: -5x10-7 %. In order to perform control by this indicator, the sensitivity we have achieved is not enough.
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| 1. **Specific questions:**

1. How do you measure the mass fraction of silver in boric acid on a mass spectrometer with inductively coupled plasma, sensitivity: 5х10-9 %?2. What is the sample preparation during this type of measurements (concentration, use of membranes, ion-exchange resins...)? 3. Experience and recommendations of the respective method use. |
| 1. **Organizations proposed for distribution of this request:**

All WANO centers |
| 1. **Department – request initiator:** Water Radiochemical Department
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| 1. **Contact details of the requester:**

Head of Water Radiochemical DepartmentMrs. Iryna DobrovolskayaTel.: +3 8 06139 565 88E-mail: vrhl3048@mgw.npp.zp.ua  |
| 1. **Request date:** 30/01/2020
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Responsible individual Dobrovolskaya I.Yu.

Executed by

Yuzva O.N.., tel. +3 8 06139 572 44