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

**REQUEST**

**to provide technical and organizational information**

**via WANO**

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| 1. **NPP/Organization:** Zaporizhzhia NPP, SE “NNEGC “Energoatom” |
| 1. **Information request topic:** Detection of silver by the method of mass spectrometrywithinductively coupled plasma |
| 1. **Information request objective:** Implementation of the method ofsilver mass concentration measurement by the method of mass spectrometrywith high sensitivity. |
| 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. |
| 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 |
| 1. **Contact details of the requester:**   Head of Water Radiochemical Department  Mrs. Iryna Dobrovolskaya  Tel.: +3 8 06139 565 88  E-mail: [vrhl3048@mgw.npp.zp.](mailto:vrhl3048@mgw.npp.zp.)ua |
| 1. **Request date:** 30/01/2020 |

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Executed by

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