

Procedure No. ADP-1.6.705	Appendix 5.5 Specification Sheet for ⁷ Li Hydroxide Ion Exchange Resin, Mixed, Nuclear Grade SC:AQ	NEK/T0.KM
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1. PERFORMANCE REQUIREMENTS

Nuclear grade, Augmented quality (AQ) (definition in paragraph 4.1.2)

This specification covers ion exchange mixed resin used for pH control and removal of impurities from primary coolant. The mixture shall consist of a cation resin (strong acid sulphonated polystyrene) in the ⁷Li form, and an anion resin strong base, quaternary aminated polystyrene, Type 1) in the hydroxide form. The cation resin shall be converted to the ⁷Li form from the hydrogen form by neutralization exclusively with ⁷Li hydroxide.

Chemical composition of ⁷LiOH·OH used in resin production (definition in paragraph 4.1.3) expressed in percent by weight (definition in paragraph 4.1.4) listed below shall be provided by the supplier.

	Percent by weight (%)	Concentration (ppm)
⁷ Li, of elemental lithium, min.	99.9	/
⁷ Li hydroxide, ⁷ LiOH	48 to 58	/
Water, (monohydrate)	42 to 52	/
Chloride, Cl, max.	0.5	5000
Fluoride, F, max.	0.5	5000
Lead, Pb, max.	0.001	10
Zinc, Zn, max.	0.0005	5
Mercury, Hg, max.	0.00005	0,5

Final mixed bed ion exchange resin shall not contain total impurities in concentrations greater than the following (definition in paragraph 4.1.6):

	Percent by weight (%)	Concentration (ppm)
Fluoride, F, max.	0.0002	2
Iron, Fe, max.	0.01	100
Sodium, Na, max.	0.005	50
Copper, Cu, max.	0.005	50
Heavy Metals (as Lead, Pb) max.	0.005	50

All item(s) provided on the purchase order shall be supplied in the new condition (not used or refurbished in any way).

2. INSPECTION AND TESTES

Latest revision of the Material Safety Data Sheet and Chemical Risk Assessment (when required) shall be prepared in compliance with currently applicable Regulation (EC) of the European Parliament and of the council, and shall be submitted together with the Proposal. Product analysis report must demonstrate that the chemical meets the requirements described in previous section.

The supplier should provide following information for performed product analysis:

- PRODUCT NAME
- PART NUMBER
- PURCHASE ORDER NUMBER

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- DATE OF ANALYSIS
- BATCH/LOT NUMBER
- TEST METHOD AND REFERENCE STANDARD
- CHEMICAL CONTENT ANALYSIS
- PRODUCT CRITICAL PROPERTIES TEST RESULTS AS SPECIFIED
- RESPONSIBLE PERSON SIGNATURE, TITLE AND DATE OF SIGNING

3. MARKING AND IDENTIFICATIONS

All items are to be packaged individually and identified and identified with the specific part number, or all items of a given part number to be packaged together and identified with the specific part number and the following:

- THE PURCHASE ORDER NUMBER
- NEK ITEM NUMBER
- HEAT NO./BATCH NO./LOT NO./CODE
- MANUFACTURER'S NAME
- MATERIAL DESCRIPTION OR COMPOSITION
- CONTRACT OR. P.O.

4. PACKING AND HANDLING

Supplier shall provide packaging and shipping methods for protection from the effects of temperature extremes, humidity and transit shocks and jarring (caps and plugs shall be used to seal the openings and to protect threads and weld end preparations).

5. RECORDS

Requests for waiver, deviation, notification or submittal to be directed to the NEK Import Department Manager shall be sent to the following address:

INTERNATIONAL PROCUREMENT MANAGER
Nuklearna elektrarna Krško
8270 Krško, Vrbina 12
SLOVENIA
tel:+386 748 02 329

The sales office and/or importer receiving this purchase order shall transmit all NEK purchase orders requirements to the chemical manufacturer. If a controlled copy of the latest revision of the manufacturer's quality assurance program manual has not been previously sent to NEK, submit a copy as a part of quotation documentation or send it directly to:

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QUALITY & NUCLEAR OVERSIGHT DIRECTOR Nuklearna elektrarna Krško 8270 Krško, Vrbina 12 SLOVENIA tel:+386 748 02 506 If a revision to the supplier's quality assurance manual is made during the conduct of work associated with a purchase order, a copy of the revision shall be submitted to the above address prior to implementation of the change. A record system (retention time for lifetime and non-permanent records) shall be established and maintained by the supplier that provides documentary evidence of the quality of the items and activities affecting quality. These QA records shall include results of reviews, inspections, test, audits, monitoring of work performance and material analysis. Records shall, as a minimum, identify the inspector or data recorder, date inspections was performed, type of observation, procedures used, results, acceptability, and action taken for deficiencies noted. Additional records of supporting data shall also be maintained. All quality verification records, procedures and qualifications shall be identifiable to the item or activity involved. These records shall be retrievable and available for examination. The supplier may dispose of non-permanent records after the required retention period. If the supplier goes out of business before the end of the retention period of these records, the supplier will send one copy of these records to the NEK Import Department superintendent. 6. RIGHT OF ACCESS NEK shall have the right of access to the supplier's and any subtier supplier's facilities and accessibility to the related records for inspection and/or audit by NEK, their designated representative and/or other parties authorized by NEK. This shall include, but is not limited to, the right to audit material, test, inspection services and quality records; make surveillance visits during manufacturing; and witness tests to the extent NEK deems necessary to assure that work is being performed in accordance with all product design and manufacturing requirements. The supplier shall have the right to have its representatives present during visits by NEK or its designated representatives, to the supplier's sub tier facilities. Inspections or examinations performed by NEK, or its designated representatives, do not relieve the supplier or its responsibility to meet the requirements of the purchase order. 7. QA PROGRAM REQUIREMENTS Supplier shall ensure compliance with the requirements of international standards as ISO 9001, ISO/IEC 17025 or other relevant recognized standards.		

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8. SHELF LIFE

The supplier shall provide the following material data:

- MATERIAL DESCRIPTION
- CURE/MANUFACTURING DATE
- EXPIRATION DATE/SHELF LIFE

The supplier shall not ship any item that has less than 75% remaining shelf life at the time of shipment. If the above requirements are not met, the item will be shipped back to the supplier at the supplier's expense.

9. 10CFR21 REPORTING

N/A

10. SUPPLIER DOCUMENTATION REQUIREMENTS

All required documents shall be supplied in English or English/Multilingual. All required documents shall be supplied in original hard copy. All required documents shall be traceable to the NEK purchase order. Documents supplied which are associated with specific items on the order, such as test reports, shall be identified in order to establish traceability to that item or group of them. Documents submitted prior to shipment or subsequent to shipment including revisions of these documents, shall be directed to the following:

INTERNATIONAL PROCUREMENT MANAGER
Nuklearna elektrarna Krško
8270 Krško, Vrbina 12
SLOVENIA
tel:+386 748 02 329

Every page of each document shall be traceable to the NEK's purchase order and applicable item(s) number. The certificate of compliance with purchase order requirements shall satisfy the following criteria:

- IDENTIFY THE PURCHASE ORDER NUMBER, INCLUDING ITEM NUMBERS AND CHANGE ORDER NUMBER APPLICABLE TO THE ITEM BEING CERTIFIED.
- A PERSON IDENTIFIED IN THE SUPPLIER'S QUALITY ASSURANCE PROGRAM DESCRIPTION AS RESPONSIBLE FOR CERTIFICATION SHALL ATTEST TO THE CERTIFICATE BY SIGNATURE, TITLE AND DATE OF SIGNING.
- SUPPORTING DOCUMENTATION TO SUBSTANTIATE THE CERTIFICATE SHALL BE INCLUDED, UNLESS OTHERWISE WAIVED BY NEK.
- NEK RESERVES THE RIGHT TO DETERMINE THE VALIDITY OF THE CERTIFICATE OF COMPLIANCE BY AN AUDIT OF THE SUPPLIER OR BY AN INSPECTION OR TEST OF THE ITEM(S).

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11. NON CONFORMANCE REPORT

The supplier shall not substitute other items for the items requested without specific written approval of NEK prior to shipment. If the supplier identifies changes, nonconformances, or seeks waivers from other requirements of the purchase order, the supplier shall describe such condition and this information shall be transmitted, in written, to NEK import department superintendent. If the requested information is approved by NEK, the supplier shall include an approved copy of the information statement with the items shipped. Changes as part of the supplier's product improvement program shall also be identified and transmitted in writing to the NEK Import department superintendent for approval.

12. SHIPPING REQUIREMENTS

Shipping containers or cartons are to be clearly marked or tagged with:

- THE PURCHASE ORDER NUMBER
- SHORT DESCRIPTION
- NEK ITEM NUMBER
- MANUFACTURER'S NAME
- LOT OR BATCH NO.
- SUPPLIER'S NAME

Packing slips are to be shipped with order.

Material and all certifications or accompanying documentation supplied under this order shall be directly shipped from the manufacturer to NEK. The distribution shall not take possession of material or documentation.