

OJSC United Chemical Company “Uralchem”
Azot branch of OJSC United Chemical Company

“Uralchem” in Berezniki

Churtanskoye shosse, 75, Berezniki,

Perm region, 618401

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RNNBO 67273753

PSRN 1077761874024

TIN/KPP 7703647595/591143001

ATTN. HEAD OF COMPANY

Request for Proposal

You are hereby invited to submit your proposal for development of design and engineering documentation for “**NS Nitrate Sulfate Fertilizer Granulation Unit**”.

Determination of the winning bidder for this project will not be based solely on the cost of the design activities. The main determining factor will be the cumulative cost of design documentation, equipment, construction and startup, i.e. the entirety of the project.

Please submit your competitive bid before July 20, 2011 by tel./fax: +7-3424-29-86-34 or e-mail: alexander.pavlov@azot.uralchem.com

Contact person: Alexander Pavlov, tel.: +7-3424-29-89-09

A competitive bid shall include the following information:

- general information on the bidder;
- key elements of the process description; positioning solutions of the proposed technology in 3D layout;
- price (know-how and basic engineering, detailed engineering, critical imported equipment);
- budget estimate and main parameters determining the general cost of the turnkey project, including a list of critical imported equipment:
- metal intensity of main equipment (materials, tonnage, heights and diameters of devices and equipment);

- metal intensity of piping, fittings, heat insulation, etc. (materials, tonnage, diameters, operating pressure of pipelines and fittings);
- amount of construction materials required (in tons), scope of excavation (in cubic meters), site improvement;
- performance time and payment terms;
- project operability guarantees, conditions of support activities, construction supervision and startup.

Appendix:

1. Technical requirement specification for design and engineering documentation for “**NS Nitrate Sulfate Fertilizer Granulation Unit**”.

Head of Design Office

A.V. Pavlov

Notice of Request for Proposals

The Azot branch of the United Chemical Company URALCHEM, OJSC in Berezniki (hereinafter – the Initiator) hereby announces this request for proposals (RFP) procedure and invites companies to submit their contract proposals for development of design and engineering documentation for “**NS Nitrate Sulfate Fertilizer Granulation Unit**”.

Performance period:

start – August, 2011;

end – no later than six month after the start of works.

1. Additional information on this request for proposals will be made available to participants on their request submitter in any form, paper or electronic, addressed to the Initiator of the procedure as follows:

Contact person: Alexander V. Pavlov, tel. +7-3424-29-89-09,

e-mail: alexander.pavlov@azot.uralchem.com

2. This notice of request for proposals (hereinafter – the RFP Notice) is not a public tender announcement and is not regulated by Articles 447 to 449 and 1057 to 1061 of the Civil Code of the Russian Federation.

This RFP Notice, together with the RFP documentation, is an invitation to make offers, in accordance with Article 437 of the Civil Code of the Russian Federation.

The participant shall bear all the costs and expenses associated with preparation and submission of a proposal. The Initiator is under no obligation to compensate the incurred expenses or to sign a contract as a result of this request for proposals.

3. General requirements for proposals.

3.1. A competitive bid shall include:

- general information on the bidder;
- key elements of the process description; positioning solutions of the proposed technology in 3D layout;
- price (know-how and basic engineering, detailed engineering, critical imported equipment);
- budget estimate and main parameters determining the general cost of the turnkey project, including a list of critical imported equipment:
 - metal intensity of main equipment (materials, tonnage, heights and diameters of devices and equipment);
 - metal intensity of piping, fittings, heat insulation, etc. (materials, tonnage, diameters, operating pressure of pipelines and fittings);
 - amount of construction materials required (in tons), scope of excavation (in cubic meters), site improvement;
 - performance time and payment terms;
 - project operability guarantees, conditions of support activities, construction supervision and startup.

4. Requirements for participants:

An eligible bidder shall be an engineering company specializing in design of chemical facilities, rated among TOP-50 by capital turnover.

The participants are responsible for delivery of their proposals to the Initiator's location. Delivery via e-mail is allowed. **Proposal submission deadline: 05.08.2011, 15:00 Moscow time.** Proposals received after the aforementioned deadline will be rejected by the Initiator without consideration, regardless of the reasons for the delay.

If deemed necessary, the Initiator reserves the right to extend the submission deadline, with notification to all participants.

5. Examination of proposals and identification of the winning bidder.

5.1. Proposals shall be examined in accordance with the Initiator's internal procedures.

The Initiator reserves the right to ignore the proposals that fail to comply with the requirements set forth in this RFP Notice.

The Initiator has the right to request additional information from the participants regarding their proposals.

In the course of examination of proposals, the Initiator has the right to negotiate with any participant on the contents of his proposal.

The Initiator of the RFP reserves the right to allow participants to voluntarily increase the competitiveness of their proposals by dropping the initial price and/or other means.

The Initiator reserves the right to reject all proposals at own discretion.

5.2. The participant that has complied with the above requirements and offered the best conditions for the Initiator's enterprises, as deemed by the Initiator's committee, shall be announced the winning bidder.

5.3. A contract between the Initiator and the winning bidder will be signed within 30 days after the identification of the winning bidder, provided the parties have no disagreement on the essential terms and conditions of the contract.

“APPROVED”
Business development director of
United Chemical Company “Uralchem”, OJSC

_____ M.V. Genkin
«_____» _____ 2011

TECHNICAL REQUIREMENT SPECIFICATION
for Development of Design and Engineering Documentation for
“NS Nitrate Sulfate Fertilizer Granulation Unit”

This specification was generated in order to provide competitive selection of an engineering company for development of design documentation.

The main selection criterion is the lowest construction cost of the turnkey project in its entirety *.

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| 1. | Client: | United Chemical Company Uralchem, OJSC |
| 2. | Initial data developed by: | The Client |
| 3. | Facility name: | NS Nitrate Sulfate Fertilizer Production Unit |
| 4. | Geographical location of the object: | Perm region, Berezniki, industrial site of the Azot branch of United Chemical Company Uralchem, OJSC, NS Nitrate Sulfate Fertilizer Production Unit, shop No. 3A |
| 5. | Design based on: | Minutes of investment committee meeting №____ dated _____. |
| 6. | Construction type: | Technical reequipment (new construction) of a capital facility for industrial activity. |
| 7. | Requirements for the developer: | <ol style="list-style-type: none">1. An engineering company specialized in design of chemical facilities rated among TOP-50 by capital turnover.2. If deemed necessary, the developer has the right to employ a Russian design office to adapt the design documentation to the specific industrial conditions and to obtain all required permits according to the Russian legislation. The Russian design office shall be certified to perform works associated with safety of dangerous, technically complex and non-standard facilities, as specified in Article 48.1 of the Town Planning Code of the Russian Federation.3. The developer shall be responsible for compulsory assistance and supervision in obtaining all required approvals and expert records, as well as construction supervision, start-up and commission. |
| 8. | Design stages: | The design activities shall include two stages: <ol style="list-style-type: none">1. Development of design documentation;2. Development of engineering documentation adjusted to the conditions of the existing production. The documentation shall correspond to Decree No. 87 of the Russian Federation Government and GOST R 21.1101-2009. |
| 9. | Contents of the design documentation (types of design activities): | The design documentation shall consist of the text and graphical parts. The text part shall include information on the capital facility, description of the applied technical and other solutions, explanations, references to the regulatory and/or other documents used for development of the design documenta- |

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| | | <p>tion, as well as calculations justifying the applied solutions. The graphical part shall reflect the applied technical and other solutions in the form of drawings, schemes, layouts and other graphical documents. The design documentation shall include the following sections:</p> <ol style="list-style-type: none"> 1. Explanatory note; 2. Site layout; 3. Architectural solutions; 4. Structural and 3D planning solutions; 5. Information on process equipment, engineering infrastructure, list of operation and maintenance activities, contents of technological solutions; 6. Industrial safety measures, including fire safety; 7. Construction management plan; 8. List of environment protection measures; 9. Capital construction estimate; 10. Industrial safety declaration. |
| 10. | Conditions of design documentation commissioning: | Positive expert appraisal of the of the design documentation, according to the requirements of Federal Law No 116-FZ of July 21, 1997 “On Industrial Safety of Hazardous Production Facilities” (as amended on July 27, 2010) and the Town Planning Code of the Russian Federation. |
| 11. | Requirements for alternate and competitive development: | Other site options are not considered. The Client will provide the site plan, layouts of adjacent engineering infrastructure, borders of process flows, and the results of the site engineering survey. |
| 12. | Initial data for design documentation: | <p>Granular NS Nitrate Sulfate Fertilizer is produced from solutions obtained by neutralization of nitric and sulfuric acids with gaseous ammonia.</p> <p>The technological process of NS granulation includes the following phases:</p> <ol style="list-style-type: none"> 1) obtaining a suspension containing a solution of ammonium sulfate in ammonium nitrate and water (liquid phase) and ammonium sulfate (solid phase) as a result of neutralization of nitric and sulfuric acids with gaseous ammonia; 2) evaporation of the NS solution; 3) granulation of the NS melt; 4) sorting of NS granules; 5) cooling of NS granules; 6) purification of gaseous by-products including: <ul style="list-style-type: none"> - vapor resulting from the neutralization reaction; - used process air from the fluidized bed and granule cooling. <p><i>Suspension characteristics:</i></p> <ul style="list-style-type: none"> - water content of 0,5% to 8%, the optimum estimated at 3% (in this case the granulation will be an autothermic process requiring no additional heating or cooling by the process air); - the anhydrous melt (100%) shall contain: <ul style="list-style-type: none"> ammonium nitrate 75% to 40%; ammonium sulfate 25% to 60%; - solid to liquid phase ratio in melt – 1:10 to 1:2; - crystal size in NS melt: <ul style="list-style-type: none"> average 100 µm; |

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| | | <p>maximum 200 µm; - melt input temperature of 165°C to 185°C; - melt viscosity shall be between those of melts of ammonium nitrate and calcium ammonium nitrate, depending on the proportion of the components, which are ammonium nitrate, ammonium sulfate and water.</p> <p><i>Finished product characteristics:</i> - particle size: 95% between 2 and 5 mm; average granule size: 3.2 mm ±0.2 mm; - moisture content: not more than 0.5%; - oil retention: not more than 2%.</p> |
| 13. | Requirements to the technical solutions: | <ol style="list-style-type: none"> 1. Positioning of the equipment shall take into account the existing NS production scheme and neighboring buildings and infrastructure; 2. The following units shall be new construction: evaporation, granulation, classification, cooling and purification of exhaust gases; 3. Construction solutions for the evaporation unit shall provide drying of NS suspension to the solid to liquid (S:L) ratio of 1:2, where S represents crystals of ammonium sulfate, and F is the solution of ammonium sulfate in ammonium nitrate and water. 4. Dynamic and other equipment (pumps, etc.) shall be structurally capable of coping with the characteristics of the substances to be processed (solid to liquid (S:L) ratio of 1:2, where S represents crystals of ammonium sulfate, and F is the solution of ammonium sulfate in ammonium nitrate and water). 5. The design can provide for any granulation methods with the exception of granulation in a prilling tower. The granulation unit daily capacity shall be of 1500 metric tons. The facility shall either include a single granulator (with a possibility of reduced load operation down to 35% of its nominal capacity), or be composed of two units with daily capacity of 750 tons each. The granulator shall have integrated sorting and cooling unit. The cooling unit shall be based on heat exchange equipment (plate, for instance); 6. If required, the Client will provide technical solutions for the external nuclei source and the gaseous by-product purification unit. The design shall be limited to the outfeeder for the cooled granules. 7. <i>Based on the production safety conditions, the Client recommends the following granulation process parameters:</i> - granulation temperature of 80°C, with acceptable deviations of -5°C to +4°C; - temperature of the fluidizing agent (if any): between 25°C (in case of anhydrous melt) and 160°C (if the melt contains 7% of water). - maximum temperature of the fluidizing agent: 170°C, in accordance with safety requirements for processes involving melts containing ammonium nitrate. - fluidizing agent heating source: steam heater. - relative humidity of the gaseous by-products: 20% to 40%. |

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| 14. | Requirements for the contents and format of the design and engineering documentation: | The construction and design documentation shall correspond to the requirements of the Unified system for design documentation and the Unified system of program documentation, GOST R 21.1101-2009, Decree No. 87 of the Government of the Russian Federation. |
| 15. | Requirements to the architectural, 3D planning and structural solutions: | The architectural, 3D planning and structural solutions shall comply with the existing regulatory requirements. The general layout shall include a geodesic grid and reflect coordinates of buildings, facilities and infrastructure. |
| 16. | Work health and safety requirements: | According to the existing regulatory requirements and instructions / internal standards of the Azot branch of United Chemical Company Uralchem OJSC. |
| 17. | Environment protection requirements and conditions: | <p>1. Technical solutions included in the design documentation shall not aggravate the environmental characteristics of the existing production. Design documentation shall include calculations of ground level concentrations of pollutants, provide suggestions regarding maximum allowable emissions, composition and quantity of waste water.</p> <p>2. The Client shall provide the developer with allowable atmospheric emission and waste water rates.</p> |
| 18. | Main supplies of consumable resources: | <p>1. Consumable resources (electricity, steam, water, compressed air, etc.) shall be provided by the existing infrastructure of shop 3A of the Azot branch of OJSC United Chemical Company Uralchem.</p> <p>2. The Client shall provide the developer with technical specifications for each type of consumable resource supply.</p> |
| 19. | Additional mandatory requirements: | <p>1. The design shall take into account the climate and environmental conditions of the subject region, according to the requirements of SNiP 2.01.01-82;</p> <p>2. The developer is required to employ the “Research and Design Institute for Nitrogen and Organic Synthesis Production”, OJSC (GIAP) for expert appraisal of the design industrial safety;</p> <p>3. The developer of the design documentation shall provide the main cost determining parameters (in relation to materials and equipment):</p> <ul style="list-style-type: none"> - metal intensity of main equipment (materials, tonnage, heights and diameters of devices and equipment); - metal intensity of piping, fittings, heat insulation, etc. (materials, tonnage, diameters, operating pressure of pipelines and fittings); - amount of construction materials required (in tons), scope of excavation (in cubic meters), site improvement; - positioning solutions in 3D layout. <p>4. If the designed equipment represents an integral part of the proposed technology, the Client has a right to consider purchasing that equipment from (via) the Developer.</p> |
| 20. | Adverse conditions: | None. |
| 21. | Design period: | Six months after the announcement of the winning bidder based on the request for proposal procedure. |

All clauses of this technical requirement specification are mandatory for the design activities.

In the process of work, introduction of additional details and data is possible in a separate exhibit made in the form of the main document.

* - Determination of the winning bidder for this project will not be based solely on the cost of the design activities. The main determining factor will be the cumulative cost of design documentation, equipment, construction and startup, i.e. the entirety of the project..

Head of Design Office

A.V. Pavlov

Deputy Chief Engineer for Development

A.A. Nikolayev