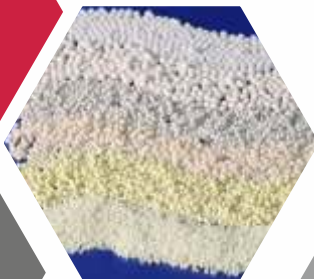




NIIK,
R&D INSTITUTE OF UREA



REFERENCE LIST (since 2006)

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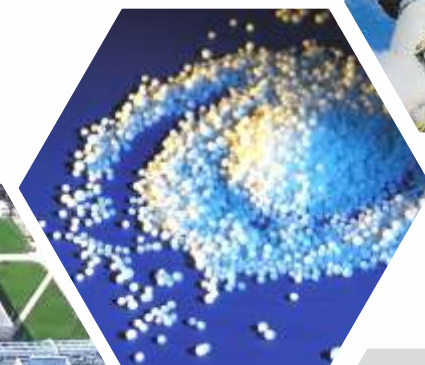




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Customer	Project	Scope of services of NIIK	Year
EPC/TURNKEY PROJECTS			
Metafrax, Gubakha, Russia	Ammonia-urea-melamine complex	- Construction of OSBL facilities on a turn-key basis (basic and detail design, equipment procurement, assembly& installation, start-up & commissioning)	2016 to present
Not disclosed (Confidential Information)	Non- concentrated nitric acid production unit UKL-7-76M with capacity of 130 000 TPY (monohydrate)	- Construction on a turn-key basis (basic and detail design, equipment procurement, assembly& installation, start-up&comissioning)	2017 to present
PhosAgro, Cherepovets, Russia	Ammonia production unit AM-3 (capacity 2200 TPD)	- Turn-key project for construction of a new analytical laboratory (ammonia production plant)	2016-2017
Mitsubishi Heavy Industries, Japan			
Ammoni, Mendeleevsk, Tatarstan, Russia	Ammonia-methanol-urea complex	- Construction of OSBL facilities on a turn-key basis (basic and detail design, equipment procurement, assembly& installation, start-up & commissioning)	2010-2015
Zawolzhsy Motorny Zawod, Zavolshye, Russia	Construction of testing station for diesel engines	- Turnkey project	2009
Zawolzhsy Motorny Zawod, Zavolshye, Russia	Revamp of sulphuric acid storage unit	- Turnkey project	2006-2007
	Petrol storage unit	- Turnkey project	2006
Nizhegorodsky machine-building plant, Russia	Revamping of chlorine storage unit and chlorinator	- Turnkey project	2006-2007
DESIGN ENGINEERING			
Production complexes			
Not disclosed (Confidential Information)	Ammonia-urea- complex	- Adaptation of licensor's basic engineering package to Russian norms and regulations	2020
Metafrax, Gubakha, Russia, Casale S.A., Switzerland	Ammonia-urea-melamine complex	- Basic design for OSBL facilities (Melamine 2 unit) - Revision of basic design for prilling tower with capacity 1150 TPD	2018 to present
Metafrax, Gubakha, Russia	Ammonia-urea-melamine complex	- Development of detail design for site arrangement - Adaptation of licensor's basic engineering package to Russian norms and regulations - Authority package development (ISBL/OSBL) - Construction of OSBL facilities on a turn-key basis (detail design, equipment procurement, assembly& installation, start-up&comissioning)	2016 to present





Customer	Project	Scope of services of NIIK	Year
Metafrax, Gubakha, Russia Casale S.A., Швейцария	Ammonia-urea-melamine complex	- Development of basic design for OSBL facilities and prilling tower - Detail design (ISBL facilities' architectural and civil documentation)	2016 to present
Ammoni, Mendeleevsk, Tatarstan, Russia	Ammonia- methanol- urea complex	- Development of authority package (ISBL/OSBL) - Construction of OSBL facilities on a turn- key basis (detail design, equipment procurement, assembly& installation, start- up & commissioning)	2010-2015
Ammoni, Mendeleevsk, Tatarstan, Russia Mitsubishi Heavy Industries, Ltd. (MHI), Japan	Ammonia- methanol- urea complex	- Adaptation of licensor's documentation on ISBL facilities to Russian norms and regulations - Detail design (architectural and civil documentation for urea production ISBL facilities) - Licensor's equipment certification	2010-2015
ICM, Saint-Petersburg, Russia	Ammonia –urea complex (Vistino, Kingisepp, Leningrad region)	- Adaptation of BE/FEED licensor's documentation to Russian norms and Regulations - Development of authority package (ISBL/OSBL)	2013-2015

Ammonia production units

Giammarco Vetrocoke Srl, Italy	CO ₂ removal system modernization (ammonium production unit designed by TEC) aimed at capacity increase up to 2000 TPD at Perm mineral fertilizer site.	- Authority package development	2018-2019
Haldor Topsoe (HTAS), Denmark	Ammonia unit modernization aimed at capacity increase up to 2000 TPD at Uralchem site (Kirovo-Chepetsk, Kirov region)	- Adaptation of design basis to Russian norms and regulations - Development of authority package including documentation for CO ₂ removal unit	2015-2017
Tulagiprohim, Tula, Russia	Ammonia production unit and liquid ammonia storage unit (Kingisepp Plant)	- Development of authority package for OSBL facilities	2014-2015
PhosAgro, Cherepovets, Russia	Ammonia production unit AM-3 (capacity 2200 TPD)	- Adaptation of licensor's basic engineering package to Russian norms and regulations - Development of basic and detailed design	2013-2017
PhosAgro, Cherepovets, Russia	Ammonia production unit AM-3 (capacity 2200 TPD)	- Detail design (architectural and civil documentation) - Turn-key project for construction of a new analytical laboratory (ammonia production plant)	2014-2017 2016-2017



Customer	Project	Scope of services of NIIK	Year
Not disclosed (Confidential Information)	Ammonia production unit	- Adaptation of licensor's basic engineering package to Russian norms and regulations - Authority package development - Detail design development	2013-2017
EuroChem, NevAzot, Nevinnomysk, Russia	Commercial grade aqua ammonia production unit (plant №11)	- Authority package development - Detail design development	2013-2014

Nitric acid production units

Not disclosed (Confidential Information)	Non- concentrated nitric acid production unit UKL-7-76M with capacity 135 000 TPY (monohydrate)	- Construction on a turn-key basis (basic and detail design, equipment procurement, assembly& installation, start-up&comissioning)	2017 to present
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Methanol production units

Not disclosed (Confidential Information)	Methanol production unit	- Adaptation of FEED licensor's documentation to Russian norms and Regulations - Authority package development	Under development
Metafrax, Gubaha, Russia	Technical modernization of methanol production unit (integration within an ammonia-methanol-urea complex)	- Detailed design development	Under development
Technolizing, Skovorodino, Russia	Methanol production unit with capacity 3000 TPD	- Adaptation of licensor's basic engineering package to Russian norms and regulations - Engineering research assistance - Engineering&Consulting services on organizational issues related to public hearings	2018 to present
Nizhnekamskneftekhim, Nizhnekamsk, Tatarstan	Methanol production with capacity 500 000 TPY	- Authority package development - Detailed design development - Field supervision	Under development
Metafrax, Gubakha, Russia, Casale SA, Switzerland	Methanol production unit modernization including integration to ammonia-urea-methanol complex	- Adaptation of licensor's basic engineering package to Russian norms and regulations - Detailed design of civil part	2018 to present
Shchekinoazot, Shchekino, Russia	Methanol production unit with capacity 500 TPD	- Adaptation of licensor's basic engineering package to Russian norms and regulations - Authority package development - Detail design development - Field supervision	2018 to present
Baltic Gas Chemical Company, Saint-Petersburg, Russia	Baltic methanol production plant	- Adaptation of licensor's basic engineering package to Russian norms and regulations - Authority package development Detail design development	2015 to present





Customer	Project	Scope of services of NIIK	Year
Urea production units			
Not disclosed (Confidential Information)	Urea production unit	- Detail design development (civil, electrical, HVAC sections) - Adaptation of detail design to Russian norms and regulations	Under development
KuibyshevAzot, Togliatti, Russia	Technical modernization of urea plant №4	- Authority Package development - Detail design development	2018 to present
Novgorodsky GIAP, Veliky Novgorod, Russia	Urea unit №6 modernization aimed at capacity increase to 2050 TPD (Acron site)	- Main technical solutions development - Authority Package development - Detail design development	2018 to present
	Urea granulation unit with capacity 2000 TPD (Acron site)	- Authority package development - Detail design development	2018 to present
	New urea production unit №6 with capacity 600 TPD (Acron site)	- Authority package development - Detail design development	2018
	Urea unit №5 modernization aimed at capacity increase to 1250 TPD (Acron site)	- Authority package development - Detail design development	2017
KuibyshevAzot, Togliatti, Russia	Urea production unit with capacity 1500 TPD (at KuibyshevAzot site)	- Adaptation of licensor's documentation on ISBL facilities to Russian norms and regulations - Basic design for urea production OSBL facilities - Authority Package development	2017 to present
Stamicarbon, The Netherlands			
KuibyshevAzot, Togliatti, Russia	Technical modernization of urea unit № 4 (evaporation, hydrolysis and desorption sections)	- Detail design development	2016 - 2017
Minudobreniya, Perm, Russia	Urea production unit modernization aimed at capacity increase to 2700 TPD, new prilling tower construction	- Adaptation of licensor's basic engineering package to Russian norms and regulations - Basic design documentation development for prilling tower - Authority package development	2015 - 2019
Stamicarbon, The Netherlands	Urea production unit modernization aimed at capacity increase to 2700 TPD, new prilling tower construction	- Detail design development	
Not disclosed (Confidential Information)	Urea production unit and new prilling tower construction (capacity 2200 TPD) at TogliattyAzot site	- Adaptation of licensor's basic engineering package to Russian norms and regulations - Authority package development (including prilling tower and handling system) - Detailed design development - Field supervision	2015 to present

Customer	Project	Scope of services of NIIK	Year
PhosAgro-Cherepovets, Cherepovets, Russia	Urea granulation unit, capacity 1500 TPD	- Authority package development - Detailed design development	2014-2017
	Technical modernization of urea production unit №2 aimed at capacity increase to 1650 TPD	- Authority package development - Detailed design development	2014 -2016
EuroChem, Nak Azot, Novomoskovsk, Russia	Technical modernization of urea production unit №2 aimed at capacity increase to 1500 TPD	- Authority package development - Detailed design development	2013 -2017
	Technical modernization of urea plant № 3 (second line) with capacity increase to 1450 TPD	- Authority package development - Detailed design development	2013 -2016
	UAN production unit on the basis of urea production plant № 2 (capacity 1200 TPD)	- Authority package development - Detailed design development	2013 -2014
	Revamp of urea unit №2 (gas vent elimination)	- Authority package development - Detailed design development	2012 -2015
	32,5% urea solution production unit (capacity 100000 TPY) including urea solution treatment unit on the basis of urea plant №2 evaporation unit	- Authority package development - Detailed design development	2011 -2015
Chemoproject, Czech Republic	AZOMURES S.A. plant's prilling tower modernization aimed at capacity increase from 900 to 1425 TPD, keeping the tower's height and ensuring the same quality level	- Authority package development - Detailed design development	2012
Acron, Veliky Novgorod, Russia	Urea production units (№1-4) revamping aimed at capacity increase up to 2000 TPD and feedstock / energy saving	- Authority package development - Detailed design development	2009-2016
	Urea synthesis unit revamp (№5)	- Authority package development - Detailed design development	2013-2014
Azot, Kemerovo, Russia	Urea production unit revamp with high speed drum granulator installation	- Authority package development - Detailed design development	2011-2013
Kuibyshev Azot, Togliatti, Russia	Acid ammonia recovery unit downstream urea unit absorption tower	- Authority package development - Detailed design development	2011-2012
EuroChem, NAK Azot, Novomoskovsk, Russia	Technical modernization of evaporation unit № 5 for urea production unit №2 (capacity 1000 TPD)	- Authority package development - Detailed design development	2011-2012



Customer	Project	Scope of services of NIIK	Year
Acron, Veliky Novgorod, Russia	Implementation of computer process simulator for personal training and knowledge assessment	- Computer-generated technological simulator for urea production assembly №5	2011-2012
	Evaporation system for urea production unit and prilling tower modernization with capacity increase	- Detailed design development	2011-2013
Maxam-Chirchik, Chirchik, Uzbekistan	Modernization and technical upgrading of urea unit	- Authority package development - Detailed design development	2010-2012
EuroChem, NevAzot, Nevinnomyssk, Russia	Modernization of unit №2 (urea plant №2)	- Authority package development - Detailed design development	2010-2011
EuroChem, NAK Azot, Novomoskovsk, Russia	Implementation of computer process simulator for personnel training and knowledge assessment	- Hard- and software complex	2010-2011
PhosAgro, Cherepovets, Russia	Urea plant production unit with capacity 1500 TPD, procured by «Chemoproject» (Czech Republic)	- Authority package development - Detailed design development	2010-2012
Design Institute «Salavatgasonephthemproect», Salavat, Republic of Bashkortostan, Russia	Prilling tower for urea plant №24	- Adaptation of licensor's basic engineering package («TEC», Japan) to Russian norms and regulations	2010-2011
		- Authority package development - Detailed design development	
PhosAgro, Cherepovets, Russia	Implementation of computer process simulator for personnel training and knowledge assessment	- Hard- and software complex	2010 - 2011
	Revamp of urea synthesis evaporation unit	- Authority package development - Detailed design development	2010
Kuibyshev Azot, Togliatti, Russia	Prilling tower revamp (urea plant №4)	- Detailed design development	2010
	Revamp of evaporation unit (urea plant №1, unit № 4)	- Detailed design development	2010
Salavatnefteorgsintez Salavat, Russia	Prilling towers revamp (urea plant №24)	- Authority package development - Detailed design development	2009-2010
Yokogawa Electric, Moscow	Development of control system for CO ₂ compressor with arrangement of a room for a set of technical devices at NAK «Azot»	- Detailed design development	2009
Acron, Veliky Novgorod, Russia	Design of granulated urea unit based on Rotoform technology	- Detailed design development	2009
PhosAgro AG - Cherepovetsky Azot, Cherepovets, Russia	Urea production unit with capacity 1500 TPD, procured by «Chemoproject» (Czech Republic)	- Authority package development - Detailed design development	2008-2012

Customer	Project	Scope of services of NIIK	Year
Togliattiazot, Togliatti, Samara, Russia	Prilling tower modernization (urea plant)	- Detailed design development	2008-2009
Acron, Veliky Novgorod, Russia	Urea unit revamp with capacity increase and energy saving	- Authority package development - Detailed design development	2008
		- Authority package development	2008
UralChem, Voskresensk Mineral Fertilizers, Voskresensk, Russia	Urea production unit with capacity 600 (1200) TPD	- Authority package development	2008
Acron, Veliky Novgorod, Russia	Urea unit №5 on the basis of relocated unit	- Authority package development - Detailed design development	2007-2011
EuroChem, NevAzot, Nevinnomyssk, Russia	Prilling tower revamp (urea unit, plant 2A)	- Authority package development - Detailed design development	2007-2009
Grodno Azot, Grodno, Belarus	Revamp of urea plant №4 with capacity increase	- Feasibility study - Architectural and civil design	2007-2012
EuroChem, NAK Azot, Novomoskovsk, Russia	Urea production unit on the basis of relocatable unit with capacity increase and energy saving	- Authority package development - Detailed design development	2007-2010
	Revamp of urea plant №3 with capacity increase to 2000 TPD	- Authority package development - Detailed design development	2007-2010
Severodonetsk Azot Association, Severodonetsk, Ukraine	Development of basic design for urea unit revamp with capacity increase from 1200 up to 1500 TPD	- Authority package development - Detailed design development	2007-2010
EuroChem, NevAzot, Nevinnomyssk, Russia	Urea evaporation unit for melamine plant	- Authority package development - Detailed design development	2008-2010
TogliattiAzot, Togliatti, Russia	Technical upgrading of urea unit with integration of melamine unit	- Authority package development	2007-2008
KuibyshevAzot, Togliatti, Russia	Revamp of urea unit with capacity increase	- Authority package development - Detailed design development	2007-2008
Salavatnefteorgsintez Salavat, Russia	Basic design for urea prilling tower	- Authority package development - Detailed design development	2007-2008
Severodonetsk Azot Association, Severodonetsk, Ukraine	Development of basic design for urea unit revamp with capacity increase from 1000 up to 1200 TPD	- Authority package development - Detailed design development	2006-2007
AB Achema, Lithuania	Urea production unit based on relocatable equipment	- Authority package development - Detailed design development - Development of operational manuals	2006-2008
PhosAgro, Cherepovets, Russia	Revamping of distillation unit with capacity increase (urea production plant)	- Authority package development - Detailed design development	2007



Customer	Project	Scope of services of NIIK	Year
EuroChem, NAK Azot, Novomoskovsk, Russia	Implementation of computer process simulator for personnel training and knowledge assessment	- Hard- and software complex	2006-2008
Ostchem Group, Azot, Cherkassy, Ukraine	Revamping of urea unit M-6	- Authority package development - Detailed design development	2006-2010
Salavatnefteorgsintez, Salavat, Russia	Revamping of urea plant №50	- Authority package development - Detailed design development	2006-2008
Fertalge Industries SPA, Algeria	Prilling tower for urea production	- Authority package development - Detailed design development	2006-2008
Dorogobuzh, Verkhnedneprovsky, Smolensk region, Russia	Urea production unit based on relocatable equipment, urea storage unit, prilling tower	- Authority package development	2006-2007
Grodno Azot, Grodno, Belarus	Revamp of urea production unit, installation of recuperator	- Detailed design development	2006
Acron, Veliky Novgorod, Russia	Installation of the 5th urea synthesis reactor	- Detailed design development	2006
NevAzot, Nevinnomyssk, Russia	Revamp of urea production unit №2	- Authority package development - Detailed design development	2006

Melamine production

EuroChem, NevAzot, Nevinnomyssk, Russia	Melamine unit by LURGI AG technology	- Authority package based on foreign licensor's basic engineering package - Detailed design of architectural and civil part	2007-2011
TogliattiAzot, Togliatti, Russia	Technical upgrading of urea unit with integration of melamine unit	- Authority package development	2007-2008
Acron, Veliky Novgorod, Russia	Melamine production unit	- Feasibility study - Environmental impact investigation	2006-2007

Hydrogen production

Shchekinoazot, Shchekino, Russia	Hydrogen recovery unit	- Acting as general design contractor - Authority package development based on foreign licensor's basic engineering package - Detailed design development	2010-2011
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Ammonium nitrate production

NIUIF, Cherepovets, Russia	High speed drum granulation unit for urea and ammonium nitrate based fertilizers production	- Technical solutions development	2018-2019
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Customer	Project	Scope of services of NIIK	Year
KazAzot, Aktau, Kazakhstan	Ammonia nitrate production unit modernization: HSDG for ammonia nitrate manufacturing	- Technical solution development - Detail design development	2011-2012
TomskAzot, Seversk, Tomskiy region, Russia	Modernization of the existing Drum Granulation unit to shift it to the production of the granulated ammonium nitrate	- Design documentation development	2017

Other production

Not disclosed (Confidential Information)	Gas treatment plant (OSBL facilities, household building with canteen)	- Authority package development	Under development
	Gas treatment plant (OSBL facilities, fire station & gas rescue service)	- Authority package development	Under development
	Gas treatment plant (intershop racks)	- Authority package development	Under development
Not disclosed (Confidential Information)	Installation of the hydro foamy filtrationsystem (wet scrubbing)	- Detail design development - Field supervision Technical assistance during commissioning	Under development
UralChem, Berezniki, Russia	Technical modernization of nitrate- nitrite salt production unit (building 449)	- Technical solution development - Basic Engineering Design	2018-2019
Volzhskiy Orgsintez-Volzhsky, Volgograd region, Russia	Sodium dimetilditiocarbamate production unit, capacity 15000 tons per year	- Adaptation of licensor's (EPC) detailed design	2018 to present
	Sodium dimetilditiocarbamate production unit, capacity 15000 tons per year	- Authority package development - Detailed design Development	2017-2018
FCE plant named after Sverdlov, Dzerzhinsk, Nizhny Novgorod region, Russia	Modernization aimed at construction of a small-scale hexogen production unit (using technology № 2.1.6.100)	- Construction design supervision	2018 to present
	Technical modernization providing production process mechanization and automation	- Construction design supervision	2018-2019
Salavat Neftekhimremstroy, Salavat, Russia	Development of detailed projects for additional heating equipment U-EA 602, U-EA 603, U-EA 604 based on technical projects M/DK-14-169.00.00.BO. Development of design and estimate documentation for steam tracing change.	- Detailed design development - Estimate documentation - Field supervision	2018



Customer	Project	Scope of services of NIIK	Year
Korund-Cyan, Dzerzhinsk, Russia	Sodium cyanide production unit modernization& construction (second stage: additional engineering system monitoring)	- Detail design development	2018-2019
	Sodium cyanide production unit modernization. Additional equipment installation (buildings B60, B40)	- Adaptation of licensor's (EPC) detailed design	2018-2019
	Modernization and construction of railway tracks	- Authority package development - Detailed design development	2018-2019
	Modernization of administrative and service building A 13	- Authority package development - Detailed design development	2017
Korund-Cyan, Dzerzhinsk, Russia	Testing the feasibility of repairing furnace lining (building B70)	- Detailed design development	2017
	Technical modernization of the cooling water unit (Sodium cyanide production unit, building B50)	- Authority package development - Detailed design development	2016-2017
	Sodium cyanide production unit modernization& construction	- Detailed design development	2016
	Alkali storage unit modernization (sodium cyanide production unit, building B80)	- Authority package development - Detailed design development	2016
	Sodium cyanide storage unit technical modernization	- Detailed design development	2015
	Sodium cyanide production unit with capacity of 80000 TPD (first and second line)	- Acting as general design contractor - Authority package development based on foreign licensor's basic engineering package (EPC, Germany) - Detailed design development	2010-2012
QAFCO (Qatar Fertilizer Company), Qatar	Multipurpose High Speed Drum Granulation (HSDG) Pilot Plant for production of granulated urea with additives, capacity 100 kg per hour	- Technology licensing - Engineering	2014-2015
SNF Flopam	Acrylamide and polyacrylamide production unit with capacity of 60 000 TPY	- Authority package development	2017
PVFCCo, Phu My I, Ba Ria Vung Tau, Vietnam	High Speed Drum Granulation unit for production of compound fertilizers (capacity 100 kg/h)	- Technology licensing - Engineering	2014-2015

Customer	Project	Scope of services of NIIK	Year
Kuibyshev Azot, Togliatti, Russia	Implementation of catalytic purification system, compressor plant, outdoor installations and production buildings (energy efficient cyclohexanol production unit installation project, capacity 140000 TPY)	- Authority package development - Detailed design development	2012-2014
Nizhfarm, Nizhny Novgorod, Russia	Grass-root gel production plant	- Adaptation of licensor's basic engineering package («Chemofarm engineering», Belgrad, Serbia) to Russian norms and regulations	2011
Zawolzhsky Motorny Zavod, Zavolshye, Russia	Technical upgrading of pipelines for acids solution discharge in heat-treating workshop	- Detailed design development	2011
TIKO-Plastic, Dzerzhinsk, Russia	Expanding capacity of plastic film production plant. Production building construction	- Acting as general design contractor - Authority package development - Detail design development (architectural and civil documentation)	2010-2011
Nexis, Perm, Russia	CAN (capacity 10 000 TPY) and magnesium nitrate production units (solid or liquid form)	- Development of initial data for design works - Development of design documentation for nonstandardized equipment	2010
AutoVAZ, Togliatti, Russia	Technical upgrading of liquid ammonia evaporation unit	- Authority package development - Detailed design development - Adaptation of technical rules to current regulations	2010
Zawolzhsky Motorny Zavod, Zavolshye, Russia	Construction of testing station for diesel engines	- Turnkey project	2009
Korund, Dzerzhinsk, Russia	Lacquer, paint and polyester resins production unit	- Acting as general design contractor - Detailed design development (infrastructure)	2009
Storage units			
Metafrax, Gubaha, Russia	Revamp of urea storage unit unloading section	- Authority package development - Detailed design development	2013
Korund, Dzerzhinsk, Russia	Revamp of chlorine storage unit, adaptation to industry safety requirements	- Detailed design development	2009
Ammoni, Mendeleevsk, Russia	Construction of urea storage complex	- Basic design	2009-2008
Pervouralsky novotrubny works, Perovuralsk, Russia	Revamp of liquid ammonia storage unit № 33	- Authority package development - Detailed design development	2006-2007

Customer	Project	Scope of services of NIIK	Year
Zawolzhsy Motorny Zavod, Zavolshye, Russia	Revamp of sulphuric acid storage unit	- Turnkey project	2006-2007
	Petrol storage unit	- Turnkey project	2006
Nizhegorodsky machine-building plant, Russia	Revamping of chlorine storage unit and chlorinator	- Turnkey project	2006-2007
Kuibyshev Azot, Togliatti, Russia	Revamping of urea storage unit	- Authority package development - Detailed design development	2007
TIKO-Plastic, Dzerzhinsk, Russia	Feedstock and final product storage facilities	- Authority package development - Detailed design development	2006

Customer	Project	Scope of services of NIIK	Year
PRE-DESIGN SERVICES			
Not disclosed (Confidential information)	Urea production	- Investment feasibility study	Under development
Apatite, Cherepovets, Russia	Ammonia production	- Consulting services on effective facility arrangement, estimation of the project cost	2019-2020
Not disclosed (Confidential information)	Ammonia - methanol - urea\ other nitrogen products complex	- Front-end engineering (detailed estimation of overall scope, reviewing options for site location)	2019-2020
Not disclosed (Confidential information)	Ammonia - methanol - urea complex	- Front- end engineering (developing options for different construction sites)	2019
Not disclosed (Confidential information)	Methanol production complex in extreme conditions of the Far North	- Investment feasibility study - Declaration of intention development	2019
Not disclosed (Confidential Information)	Ammonia- urea production complex	- Feasibility study - Environmental impact assessment	2018
Not disclosed (Confidential Information)	Methanol production	- Investment feasibility study - Declaration of intention development	2018
Angarsk Nitrogen Fertilizer Plant, Angarsk, Russia	Technical modernization of prilling tower air treatment system (plant №33/36)	- Investment feasibility study	2018
ORELMETACHIM Orel, Russia	Ammonia- urea production complex	- Investment feasibility study	2018
ULGA company, Safonovo, Russia	Methanol production unit with capacity 1 000 000 TPY	- Feasibility study	2018
Meleuz mineral fertilizers, Meleuz, Russia	Repair of UKL-7-76 №2 for ammonium nitrate production and shipment. Capacity 450 000 TPY	- Investment feasibility study	Under development
Askom, Russia	Methanol production with capacity 5 000 TPD	- Investment feasibility study	2018
	Methanol production with capacity 2 500 TPD	- Investment feasibility study	2018
Kazphosphate, Kazakhstan	Ammonia production with capacity 1 000 000 TPY	- Investment feasibility study	Under development
Kazphosphate, Kazakhstan	Ammonia\urea and (or) natural gas deep processing products production complex	- Investment feasibility study	2017
Novgorodsky GIAP, Veliky Novgorod, Russia	Ammonia and urea production complex (Dorogobuzh site)	- Feasibility study	2017



Customer	Project	Scope of services of NIIK	Year
Yakut gas processing complex, Saha, Yakutsk, Russia	Preliminary planning and engineering at feasibility study stage (Methanol production unit with capacity 10000 TPD)	- Preconstruction surveys	2017
	Development of environmental impact assessment reports	- Environmental impact assessment - Assisting with ecological expertize approval	2017
Not disclosed (Confidential Information)	Methanol production	- Feasibility study	2017
Amec Foster Wheeler, Moscow, Russia	Methanol production unit with capacity 10000 TPD for Yakut Fuel and Energy Company	- Investment feasibility study	2017
Not disclosed (Confidential Information)	Methanol production unit	- Investment feasibility study	2017
Baltic Gas Chemical Company, Saint-Petersburg, Russia	M-15 production unit with capacity 15000 TPY for Chayandinskoye field	- Development of declaration of intention	2017
CREON-ENERGY, Moscow, Russia	Methanol production unit with capacity 1mln TPY (Novoroscement site)	- Methanol production unit tie-up for site infrastructure	2017
Jugterminalproect, Moscow, Russia	Methanol- Ammonia- Urea complex (Taman region)	- Front-end engineering design	2017
Azot, Kemerovo, Russia	UAN production unit with capacity 150000 TPD	- Investment feasibility study	2017
Technoleasing, Moscow, Russia	Methanol production unit (Skovorodino, Amur region)	- Investment feasibility study	2017
Novgorodsky GIAP, Veliky Novgorod, Russia	- Sulfuric acid production unit - Wet-process phosphoric acid production unit - Monoammonium phosphate (MAP) and/or diammonium phosphate (DAP) production unit	- Investment feasibility study	2016
Metafrax, Gubakha, Russia	Ammonia-urea-melamine complex	- Reviewing options for site location - Development of declaration of intention - Environmental impact assessment - Conducting public hearings	2015-2016
OJSC MMC Norilsk Nickel, Moscow, Russia	Urea production complex (Dudinka site)	- Investment feasibility study	2016



Customer	Project	Scope of services of NIIK	Year
LLC Zhilevskaya kremniorganika, Sitne-shchelkanovo, Moscow region, Russia	Ammonia-urea complex	- Investment feasibility study	2016
ShchekinoAzot, Shchekino, Russia	Methanol production unit with capacity 500000 TPY	- Reviewing options for methanol unit location at ShchekinoAzot site	2016
	Ammonia-urea complex	- Development of declaration of intention	2016
	Sulphuric acid production unit construction	- Site location estimation	2015
Grodno Azot, Grodno, Belarus	Nitrogen complex (ammonia-urea-hydrogen)	- Investment feasibility study	2015
KuibyshevAzot, Togliatti, Russia	Urea production unit	- Investment feasibility study	2014
Sibmetahim, Tomsk, Russia	Chemicals manufacturing unit (synthetic fluid \ ammonia-urea melamine complex)	- Expert economic assessment	2014
CREON-ENERGY, Moscow, Russia	Methanol production with capacity 5000 TPD (Ust-Luga region)	- Investment feasibility study	2014
Rosstroy, Novocherkassk, Russia	Ammonia-urea complex	- Investment feasibility study	2014
PhosAgro, Cherepovets, Russia	Granulated urea production unit with capacity 1500 TPD	- Pre-feasibility study	2014
	Ammonia production unit AM-3 (capacity 2200 TPD)	- Pre-feasibility study	2013-2014
National Chemical Company, Russia	Gaz-chemical complex (Kozmino, Primorsky territory)	- Declaration of intention development - Environmental Impact assessment - Conducting public hearings	2013
ICM, Saint-Petersburg, Russia	Ammonia-urea complex (Kingisepp region, Leningrad region)	- Declaration of intention development - Environmental Impact assessment	2012-2013
Minudobreniya, Rossosh, Russia	Ammonia-urea complex	- Investment feasibility study	2012
ShchekinoAzot, Shchekino, Russia	Ammonia-urea complex	- Investment feasibility study	2010-2011
	Hydrogen production unit	- Investment feasibility study	2011
Balakovo Mineral Fertilisers (PhosAgro), Balakovo, Russia	Above-ground ammonia storage unit	- Investment feasibility study	2010





Customer	Project	Scope of services of NIIK	Year
TECHNICAL ASSESSMENT & INSPECTION SERVICES			
EuroChem, NevAzot, Nevinnomyssk, Russia	Urea production unit 2A inspection to improve synthesis unit efficiency when operating urea unit and melamine production facility jointly	- Technical inspection	2019
Maxam-Chirchik, Chirchik, Uzbekistan	Urea production unit inspection to develop options to reduce emissions and minimize the amount of effluents	- Technical inspection	2019
EuroChem, NAK Azot, Novomoskovsk, Russia	Technical inspection of evaporation unit (urea plant № 2)	- Technical inspection - Issuing recommendations	2019
Maxam-Chirchik, Chirchik, Uzbekistan	Technical inspection of nitric acid production units AK-72M\AK-72	- Technical inspection	2019
PMU, UralChem, Perm, Russia	Certification of measurement procedures	- Evaluation and confirmation of compliance of measurement procedures with the established requirements - Modifying measurement procedures to bring them in line with the requirements	2018
Grodno Azot, Grodno, Belarus	Complex inspection of Urea 3 plant	- Technical inspection	2018
TechnoChimReagentBel, Grodno, Belarus	Certification of measurement procedures	- Evaluation and confirmation of compliance of measurement procedures with the established requirements - Modifying measurement procedures to bring them in line with the requirements	2018
	Certification of measurement procedures	- Evaluation and confirmation of compliance of measurement procedures with the established requirements - Modifying measurement procedures to bring them in line with the requirements	2017
Union of producers and consumers of automobile chemical goods, Moscow, Russia	Certification of measurement procedures	- Evaluation and confirmation of compliance of measurement procedures with the established requirements - Modifying measurement procedures to bring them in line with the requirements	2017
PhosAgro, Cherepovets, Russia	Revision of existing operating procedures (urea production units № 1 and №2)	- Making amendments to the operating procedures	2017
Salavatnefteorgsintez Salavat, Russia	Field supervision and technical support during construction and commissioning (modernization of urea production unit №24 granulation section, capacity 1400 TPD)	- Field supervision - Technical support during construction - Commissioning	2017



Customer	Project	Scope of services of NIIK	Year
Gasprombank, Moscow, Azot, Kemerovo, Russia	Technical inspection of SDS- Azot urea production facilities	- Equipment & urea production process condition assessment, development of engineering solutions optimizing technological processes, reducing energy consumption and enhancing reliability of unit operation	2017
Grodno Azot, Grodno, Belarus	Development of technical solutions for distillation gases treatment unit (urea plant №2)	- Investment feasibility study	2017
EuroChem, NAK Azot, Novomoskovsk, Russia	Technological inspection of the prilling tower (complex fertilizers production plant, ammonium nitrate unit)	- Technical inspection - Issuing recommendations and developing engineering solutions optimizing prilling tower technological mode	2016
Azot, Kemerovo, Russia	Complex technical inspection of urea production plant (Tecnimont technology)	- Technical inspection - Development of engineering solutions optimizing technological processes, reducing energy consumption and enhancing reliability of unit operation - Investment evaluation	2015
EuroChem, NevAzot, Nevinnomyssk, Russia	Technical inspection (urea plant № 2, urea units 1-3)	- Technical inspection - Development of engineering solutions reducing energy consumption and increasing capacity - Feasibility study	2015
Research Institute for Mineral Fertilizers (NIUIF), Moscow, Russia	Development of a reference guide on most appropriate technologies used to produce ammonia, mineral fertilizers and mineral acids (sections developed by NIIK: ammonia, NA, AN, CAN, urea, UAN). Scientific and technical support to get the approval of expertise		2015
EuroChem, NevAzot, Nevinnomyssk, Russia	Complex technical inspection (melamine\urea units №2a)	- Technical inspection - Development of engineering solutions optimizing technological process during operation with melamine unit	2014
FNTC Group spol.s r.o, Czech Republic	Technical inspection of urea plant at FerganaAzot	- Technical inspection	2013
EuroChem, NAK Azot, Novomoskovsk, Russia	Technological inspection (urea plant №3, second line) aimed at capacity increase to 1600 t/d	- Technical inspection	2012
	32,5% urea solution production unit (capacity 100000 TPY) including urea solution treatment unit on the basis of urea plant №2 evaporation unit	- Urea units technical inspection considering the construction of a new unit	2011
Acron, Veliky Novgorod, Russia	Technical inspection of urea plant aimed at capacity increase and energy saving	- Technical inspection	2010-2011





PhosAgro, Cherepovets, Russia	Technological monitoring of urea unit performance in order to reduce ammonia consumption	- Technical inspection	2009
Severodonetsk Azot Association, Severodonetsk, Ukraine	Process monitoring of urea unit operation	- Technical inspection - Recommendation issuing for capacity increase and energy saving	2008
Minudobreniya, Perm, Russia	Monitoring of urea production unit equipment	- Technical inspection	2006

Customer	Project	Scope of services of NIIK	Year
DIAGNOSTICS & REPAIR SERVICES			
Grodno Azot, Grodno, Belarus	Technical supervision of lining repair (urea synthesis unit pos. R-201, urea plant 4)	- Repair works	Under development
EuroChem, NevAzot, Nevinnomyssk, Russia	Technical supervision of repair works (distillation column for heavy fractions pos.D-2203, №12A)	- Repair works	Under development
	Repair of cylindrical section of the lining of synthesis reactor pos. 6/1 (urea plant 2)	- Repair works	2020
Apatite, Volkhov, Russia	Eddy-current testing of heat exchanger tubes (for equipment operating under excessive pressure)	- Eddy-current testing	2019
EuroChem, NevAzot, Nevinnomyssk, Russia	Corrosion and technical inspection of urea synthesis reactors pos. 6/1, 6/4, distillation columns pos. K-7/1, K-7/2, stripper-distillation units pos. T8/1, 8/2, mixers pos. 5/1, 5/2, 5/3, 5/4, air heaters pos. 20/3 (urea unit №2A)	- Corrosion inspection	2019
MOPCO, Egypt	Urea production unit MOPCO-2 corrosion inspection	- Corrosion inspection	2019
	Urea production unit MOPCO-3 corrosion inspection	- Corrosion inspection	2019
Industrial group Phosphorite, Leningrad region, Kingisepp, Russia	Eddy-current testing of heat recovery boiler and air heaters' heat-exchanger tubes	- Eddy-current testing	2019
AlexFert, Egypt	Recirculation heater internal surface heat exchanger tubes cleaning by thermo-pneumo-abrasive method	- Repair works	2019
KuibyshevAzot, Togliatti, Russia	Urea synthesis reactor pos. № 6/1 (№202KB) repairing	- Repair works	2019
EuroChem, NAK Azot, Novomoskovsk, Russia	Corrosion and technical inspection of urea production unit 3 main equipment (line 1)	- Corrosion inspection	2019
Azot, Kemerovo, Russia	Inspection and replacement of the urea synthesis reactor pos. R-901 lining (dome, cylindrical sections)	- Repair works	2019
Grodno Azot, Grodno, Belarus	Lining repair of synthesis reactor pos. R-201 urea plant №3	- Repair works	2019



Customer	Project	Scope of services of NIIK	Year
Meleuz mineral fertilizers, Meleuz, Russia	Repair of heat exchanger tubes of evaporation unit pos. T-10 (ammonium nitrate production unit)	- Repair works	2019
EuroChem, NevAzot, Nevinnomyssk, Russia	Synthesis reactor relining (pos. 6/3, urea plant № 2)	- Repair works	2019
Apatite, Cherepovets, Russia	Eddy-current testing of pressure vessels' heat exchanger tubes	- Eddy-current testing	2019
Nitrogénművek Zrt., Hungary	Urea reactor R202 relining	- Relining&repair	2018
Metafrax, Gubakha, Russia Casale SA, Switzerland	Ammonia-urea-melamine complex	- Technical assistance during commissioning and guarantee testing of the prilling tower - Field supervision	2018 to present
PG Phosphorite, Leningrad region, Kingisepp, Russia	Eddy-current testing of heat recovery boiler tubes	- Eddy-current testing - Issuing recommendations for repairs	2018
TogliattiAzot, Togliatti, Russia	Equipment corrosion and technical inspection (urea plant № 08K)	- Corrosion inspection - Issuing recommendations for repairs	2018
UralChem, Berezniki, Russia	Corrosion inspection	- Corrosion inspection - Issuing recommendations for repairing	2018
Minudobreniya, Rossosh, Russia	Eddy current testing	- Eddy current testing - Issuing recommendations for repairing	2018
EuroChem, NevAzot, Nevinnomyssk, Russia	Corrosion and technical inspection of plant №2	- Corrosion and technical inspection - Issuing recommendations for repairing	2018
KuibyshevAzot, Togliatti, Russia	Relining of distillation column pos. K-7/2 of plant №4	- Repair works	2018
Grodno Azot, Grodno, Belarus	Lining repair of synthesis reactor pos. R-201 urea plant №4	- Repair works	2018
TogliattiAzot, Togliatti, Russia	Technical assistance on liner repair	- Issuing recommendations for repairing	2018
Apatite, Cherepovets, Russia	Replacement of mass-transfer trays in urea synthesis reactor pos. R-201 in urea plant №2	- Repair works	2018
	Eddy-current testing of pressure vessels' heat exchanger tubes	- Nondestructive testing - Issuing recommendations for equipment operating and repairing	2018
Belenergomash, Belgorod, Russia	Steel tubes samples intergranular corrosion testing	- Testing	2018

Customer	Project	Scope of services of NIIK	Year
EuroChem, NAK Azot, Novomoskovsk, Russia	Corrosion and technical inspection of heat exchanger tubes of high pressure stripper pos. E-201 using eddy current method	- Corrosion and technical inspection - Issuing recommendations for equipment operating and repairing	2017
Nitrogénművek Zrt., Pétfürdő Hungary	Corrosion and technical inspection of stripper pos. E-201 (urea production)	- Nondestructive testing	2017
	Cleaning heat exchanger tubes of stripper pos. E-201 (urea production)	- Electro-hydro- mechanical cleaning of heat exchanger tubes	2017
Meleuz mineral fertilizers, Meleuz, Russia	Replacement of old tubes of evaporation unit (pos. T-10, ammonium nitrate production unit)	- Nondestructive testing - Development of repair method & technique - Repair works	2017
EuroChem, NevAzot, Nevinnomyssk, Russia	Technical and corrosion inspection of urea synthesis reactors pos. 6/1 and 6/3 (urea plant №2)	- Recommendations issue for equipment operating and repairing	2017
	Cleaning heat exchangers pos. E-302 and E-302B (urea production plant № 2A)	- Nondestructive testing - Equipment cleaning by thermo-pneumo- abrasive method	2017
Minudobreniya, Rossosh, Russia	Technical inspection of heat-exchanging tubes (plant AM-2)	- Nondestructive testing - Recommendations issue for equipment operating and repairing	2017
Grodno Azot, Grodno, Belarus	Repair of the lining of the synthesis reactor manhole (pos. R-201, urea plant №3) Technical and corrosion inspection of urea synthesis reactor pos. R-201 and HP condenser pos. E-202 (urea plant №3)	- Technical documentation development - Quality control of the works performed - Inspection - Issuing recommendations for repairing	2017
	Technical and corrosion inspection of urea synthesis reactor pos. R-201, HP stripper pos. E-201 and HP condenser pos. E-202 (urea plant № 4)	- Inspection - Issuing recommendations for repairing	2017
TogliattiAzot, Togliatti, Russia	Inspection and development of recommendation for 14-R-1 synthesis reactor relining (urea production unit 08K)	- Nondestructive testing - Issuing recommendations for repairing	2017
Kuibyshev Azot, Togliatti, Russia	Corrosion and technical inspection of the main technological equipment of urea production unit	- Nondestructive testing - Issuing recommendations for repairing	2017
EuroChem, NevAzot, Nevinnomyssk, Russia	Corrosion inspection and technical supervision of repair works on distillation column for heavy fractions (pos. D-2203, №12A)	- Nondestructive testing - Recommendations' issue for repairing - Quality control of the works performed	2017



Customer	Project	Scope of services of NIIK	Year
PhosAgro Cherepovets, Russia	Eddy-current testing of pressure vessels' heat exchanger tubes	- Nondestructive testing - Issuing recommendations for equipment operating and repairing	2017
ZNIGO, Borisoglebsk, Voronezh region, Russia	Inspection of heat exchanger tubes of reflux condenser (urea production unit)	- Nondestructive testing - Issuing recommendations for equipment operating and repairing	2017
Sorovskneft, Tyumen, Russia	Inspection of heat exchanger tubes of S&T oil heaters	- Nondestructive testing - Issuing recommendations for equipment operating and repairing	2016
EuroChem, NevAzot, Nevinnomyssk, Russia	Inspection of heat exchanger tubes (urea plant 2A)	- Nondestructive testing - Issuing recommendations for equipment operating and repairing	2016
	Synthesis reactor dome relining (pos.6/1, plant №2)	- Development of repair method & technique - Repair works	2016
Grodno Azot, Grodno, Belarus	Synthesis reactor relining on 2400 mm height (pos. R-201, Urea-3)	- Nondestructive testing - Issuing recommendations for equipment operating and repairing	2016
	Technical and corrosion inspection of HP reactor pos. R-201, HP stripper pos. E-201 (Urea-3)	- Nondestructive testing - Issuing recommendations for equipment operating and repairing	2016
Egyptian Fertilizers Company (EFC), El Ain Sukhna, Egypt	Relining of urea reactor 322-R-00 (Urea Plant EFC-1 Suez Fertilizers Co.)	- Inspection - Development of repair method & technique - Repair works	2016
UralChem, Azot, Berezniki, Russia	Relining of urea synthesis reactor pos. R-901	- Development of repair method & technique - Repair works	2016
EuroChem, NAK Azot, Novomoskovsk, Russia	Inspection of heat exchanging tubes using eddy current method (urea plant № 3, second line)	- Nondestructive testing - Issuing recommendations for equipment operating and repairing	2016
	Corrosion and technical inspection of urea synthesis reactor pos. 6/1 (urea plant №2)	- Nondestructive testing - Issuing recommendations for equipment operating and repairing	2016
PhosAgro Cherepovets, Russia	Eddy-current testing of heat-exchanger tubes working under pressure	- Nondestructive testing - Issuing recommendations for equipment operating and repairing	2016
	Eddy-current testing of heat-exchanger tubes of carbamate condenser pos. E-202	- Nondestructive testing - Issuing recommendations for equipment operating and repairing	2016
«Meleuz mineral fertilizers», Meleuz, Russia	Replacement of old tubes of evaporation unit (pos.T-10, ammonium nitrate production unit)	- Nondestructive testing - Development of repair method & technique - Repair works	2015



Customer	Project	Scope of services of NIIK	Year
Grodno Azot, Grodno, Belarus	Corrosion and technical inspection of synthesis reactor pos.R-201, high-pressure scrubber pos. E-203, high-pressure stripper pos. E-201, high-pressure condenser pos.E-202 (urea unit 3 and urea unit 4)	- Nondestructive testing - Issuing recommendations for equipment operating and repairing	2015
Nitrogénművek Zrt., Pétfürdő Hungary	Corrosion and technical inspection of stripper pos. E-201 (urea production)	- Nondestructive testing - Issuing recommendations for equipment operating and repairing	2015
Azot, Cherkassy, Ukraine	Development of technical documentation to replace three lining belts of cylindrical section of urea synthesis reactor	- Technical documentation development - Field supervision during manufacturing of equipment parts	2015
Minudobreniya, Rossosh, Russia	Inspection of heat exchanging tubes of nitrous gases coolers (nitric acid production unit AK-72, the second stage)	- Nondestructive testing - Issuing recommendations for equipment operating and repairing	2015
TogliattiAzot, Togliatti, Russia	Corrosion and technical inspection of the main technological equipment, pipelines and valves for urea plant №1,2	- Nondestructive testing - Issuing recommendations for equipment operating and repairing	2015
PhosAgro Cherepovets, Russia	Eddy-current testing of pressure vessels' heat exchanger tubes	- Nondestructive testing - Issuing recommendations for equipment operating and repairing	2015
DniproAZOT, Dneprodzerzhinsk, Ukraine	Technical inspection of heat exchanger equipment (urea plant №1, urea plant №2)	- Nondestructive testing - Issuing recommendations for equipment operating and repairing	2014
Grodno Azot, Grodno, Belarus	Corrosion inspection of HP urea synthesis reactor pos. R-201, HP stripper pos. E-201, HP scrubber pos. E-203 (urea plant №3); HP stripper pos. E-201, HP condenser pos. E-202, additional heat exchanger section for preheater pos. E-302 (urea plant №4)	- Nondestructive testing - Issuing recommendations for equipment operating and repairing	2014
	Repair of two lining belts (urea synthesis reactor pos. R-201, urea plant №3)	- Technical documentation development - Quality control of the works performed	2014
Azot, Cherkassy, Ukraine	Corrosion and technical inspection of gas pipelines, HP heat exchangers, tanks and vessels of plant M-6 (synthesis reactor pos. R-201, stripper pos. E-201, condenser pos. E-202, pipelines reg. No 481, 532, 534, 535)	- Nondestructive testing - Issuing recommendations for equipment operating and repairing	2014
	Inspection of heating chamber exchanging tubes evaporation unit pos. 5/1 and 5/2, plant M-9)	- Technical documentation development - Quality control of the works performed	2014



Customer	Project	Scope of services of NIIK	Year
DniproAZOT Dneprodzerzhinsk, Ukraine	Corrosion and technical inspection of lining and internal devices (reactor, stripper, condenser, scrubber) for urea plant № 1 and urea plant № 2	- Nondestructive testing - Issuing recommendations for equipment operating and repairing	2014
Kuibyshev Azot, Togliatti, Russia	Corrosion and technical inspection of main equipment for urea plant № 4	- Nondestructive testing - Issuing recommendations for equipment operating and repairing	2014
EuroChem, NAK Azot, Novomoskovsk, Russia	Corrosion inspection of heat exchange equipment (urea plant №3 (line 2)	- Nondestructive testing - Issuing recommendations for equipment operating and repairing	2014
Severodonetsk Azot Association, Severodonetsk, Ukraine	Corrosion and technical inspection of synthesis reactors internal surface (urea plant M-3)	- Nondestructive testing - Issuing recommendations for equipment operating and repairing	2013
Azot, Cherkassy, Ukraine	Inspection and surveying of reformer and heat exchanger equipment for plant A-5	- Nondestructive testing - Issuing recommendations for equipment operating and repairing	2013
Grodno Azot, Grodno, Belarus	Corrosion inspection of urea synthesis reactor for urea plant № 4	- Nondestructive testing - Issuing recommendations for equipment operating and repairing	2013
	Technical inspection of urea synthesis reactor and HP condenser for urea plant №3	- Nondestructive testing - Issuing recommendations for equipment operating and repairing	2013
Azot, Kemerovo, Russia	Synthesis reactor repair support services	- Technical documentation development - Technical inspection - Quality control of the works performed	2013
PhosAgro Cherepovets, Russia	Eddy-current testing of pressure vessels' heat exchanger tubes	- Nondestructive testing - Issuing recommendations for equipment operating and repairing	2013
EuroChem, NAK Azot, Novomoskovsk, Russia	Corrosion and technical inspection of main technological equipment (urea plant №3 (first line)	- Nondestructive testing - Issuing recommendations for equipment operating and repairing	2013
Acron, Veliky Novgorod, Russia	Inspection of heat exchanging tubes of condenser pos. T-506 (urea unit № 5)	- Nondestructive testing - Issuing recommendations for equipment operating and repairing	2013
	Corrosion and technical inspection of urea synthesis reactor K-501 (urea unit № 5)	- Nondestructive testing - Issuing recommendations for equipment operating and repairing	2013
EuroChem, NevAzot, Nevinnomyssk, Russia	Corrosion inspection using eddy current testing of equipment (plant № 2A, 12A)	- Nondestructive testing - Issuing recommendations for equipment operating and repairing	2013
AB Achema, Lithuania	Corrosion inspection of urea synthesis reactor (Ø1600mm) and HP mixer	- Nondestructive testing - Issuing recommendations for equipment operating and repairing	2013

Customer	Project	Scope of services of NIIK	Year
FNTC Group spol.s r.o, Czech Republic	Corrosion and technical inspection of urea plant, ammonium nitrate and nitric acid units for FerganaAzot	- Nondestructive testing - Issuing recommendations for equipment operating and repairing	2013
Azot, Cherkassy, Ukraine	Corrosion and technical inspection of equipment (urea plant M-2)	- Nondestructive testing - Issuing recommendations for equipment operating and repairing	2013
Grodno Azot, Grodno, Belarus	Inspection of absorber ferromagnetic heat exchanger tubes (ammonia plant № 4)	- Nondestructive testing - Issuing recommendations for equipment operating and repairing	2013
Razi Petrochemical Company Iran	Corrosion inspection of urea plant equipment	- Nondestructive testing - Issuing recommendations for equipment operating and repairing	2012-2013
Acron, Veliky Novgorod, Russia	Corrosion and technical inspection of distillation column pos. 7/2 (urea plant)	- Nondestructive testing - Issuing recommendations for equipment operating and repairing	2012
Salavat Neftekhimremstroy, Salavat, Russia	Repair of urea synthesis reactor pos. 6-1, 6-2 (Gas and Chemical plant «Gasprom neftehim Salavat», plant № 50)	- Corrosion and technical inspection - Repair works - Quality control of the works performed	2012
Grodno Azot, Grodno, Belarus	Heat-exchanger tubes inspection (HP equipment of urea plant №3)	- Nondestructive testing	2012
Azot, Cherkassy, Ukraine	Ferromagnetic heat-exchanger tubes inspection (pos. 1140-C, ammonia plant A-5)	- Nondestructive testing	2012
	Corrosion and technical inspection of equipment (urea plant M-6)	- Nondestructive testing - Issuing recommendations for equipment operating and repairing	2012
Azot, Kemerovo, Russia	Emergency repair of the lining of synthesis reactor pos. R-901 (urea plant)	- Location of the defect - Reactor body repairing - Quality control of the works performed	2012
EuroChem ,NevAzot, Nevinnomyssk, Russia	Corrosion and technical inspection of equipment (urea plant №2)	- Nondestructive testing - Issuing recommendations for equipment operating and repairing	2012
Concern Stirol, Gorlovka, Ukraine	Complex repair of synthesis reactor pos. R-901 (urea plant, location1)	- Technical documentation development - Repair works - Technical inspection of the works performed	2012-2013
	Emergency repairing of synthesis reactor pos. R-901 (urea plant, location 1)	- Location of the defect - Reactor body repairing - Technical inspection of the works performed	2012-2013
EuroChem, NAK Azot, Novomoskovsk, Russia	Corrosion and technical inspection of critical equipment (urea plant № 3, second line)	- Nondestructive testing	2012



Customer	Project	Scope of services of NIIK	Year
Acron, Veliky Novgorod, Russia	Lining replacement of synthesis reactor pos. 6/4 (urea plant)	- Technical documentation development - Technical inspection - Quality control of the works performed	2012-2013
UralChem, Azot, Berezniki, Russia	Repair of cylindrical section of the lining of synthesis reactor pos. R-90 (urea plant)	- Corrosion and technical inspection of lining - Technical documentation development - Technical inspection - Quality control of the works performed	2012
Gazprom Neftekhim Salavat Salavat, Russia	Lining replacement of the bottom parts of urea synthesis and distillation column (urea plant №50)	- Technical documentation development	2012
Agro-Cherepovets, Cherepovets, Russia	Corrosion and technical inspection of critical equipment (urea plant)	- Corrosion and technical inspection of lining using NDT - Recommendation issue for equipment operating and repairing	2012
Azot, Kemerovo, Russia	Emergency repairing of the heat exchanger cover pos. E-902 (urea plant)	- Location of the defect - Repair support services	2012
Togliattiazot, Togliatti, Russia	Repair of the lining of HP stripper of urea plant	- Location of the defect - Repair support services	2012
Gazprom Neftekhim Salavat, Salavat, Russia	Emergency repairing of synthesis reactor 6/1 (urea plant №50)	- Location of the defect - Repair support services	2011
EuroChem, NAK Azot, Novomoskovsk, Russia	Corrosion and technical inspection of critical equipment (urea plant № 3, first line)	- Inspection	2011
Odessa Port Plant, Yuzhny, Ukraine	Corrosion and technical inspection of high pressure equipment (urea plant № 2)	- Inspection	2011
Acron, Veliky Novgorod, Russia	Corrosion and technical inspection of urea synthesis reactor (urea plant № 5)	- Inspection	2011-2012
UralChem, Azot, Berezniki, Russia	Repair of the lining of urea unit synthesis reactor	- Location of the defect - Repair support services	2011
EuroChem, NevAzot, Nevinnomyssk, Russia	Repair of two lining belts in urea reactor (urea plant 2A)	- Technical documentation development - Repairing works assistance - Quality control of the works performed	2011
PhosAgro, Cherepovets, Russia	Cleaning of heat exchanging equipment of evaporation unit (first stage)	- Removing scales from evaporating unit (first stage) tubes by thermo-pneumo-abrasive method	2011
Acron, Veliky Novgorod, Russia	Technical guidance for relining of urea synthesis reactor pos. 6/2 of urea plant	- Technical documentation development - Repairing works assistance - Quality control of the works performed	2011
Odessa Port Plant, Yuzhny, Ukraine	Corrosion and technical inspection of high pressure equipment (urea plant № 2)	- Inspection	2011

Customer	Project	Scope of services of NIIK	Year
DniproAZOT Dneprodzerzhinsk, Ukraine	Corrosion and technical inspection of equipment (urea plant №1 and urea plant №2)	- Nondestructive testing - Recommendation issue for equipment operating and repairing	2011-2012
Concern Stirol, Gorlovka, Ukraine	Corrosion and technical inspection of sections №1 and №2 (urea plant)	- Inspection	2011
Odessa Port Plant, Yuzhny, Ukraine	Corrosion and technical inspection of equipment (urea units №1 and №2)	- Inspection	2010
EuroChem, NevAzot, Nevinnomyssk, Russia	Corrosion and technical inspection of equipment (urea plant №2)	- Inspection	2010
	Technical guidance for partial relining of synthesis reactor 6/3	- Technical documentation development - Technical guidance of repair works	2010
Acron, Veliky Novgorod, Russia	Corrosion inspection of urea synthesis reactor 6/2	- Inspection	2010
	Industrial safety expertise	- Diagnostics of urea synthesis reactor 6/1 and 6/4	2010
	Cleaning of heat exchanging equipment of MP distillation	- Removing scales from heat exchanging tubes by pneumocurrent method	2010
Azot, Cherkassy, Ukraine	Corrosion inspection of equipment (urea plant M-2 and M-6)	- Inspection	2010
	Relining of upper part of urea synthesis reactor (plant M-2)	- Development of technical documentation - Repair works - Quality control of the works performed	2010
PhosAgro, Cherepovets, Russia	Corrosion and technical inspection of urea plant equipment	- Nondestructive testing	2010
DniproAzot, Dneprodzerzhinsk, Ukraine	Corrosion and technical inspection of equipment (urea plant №1 and urea plant №2)	- Inspection	2010
EuroChem, NAK Azot, Novomoskovsk, Russia	Technical guidance of partial relining of synthesis reactor 6/2	- Technical documentation development - Repairing works assistance - Quality control of the works performed	2010
Azot, Kemerovo, Russia	Corrosion inspection of urea synthesis reactor	Inspection	2010
EuroChem, NevAzot, Nevinnomyssk, Russia	Corrosion and technical inspection (urea units №2 and №2a)	- Inspection	2010
	Industrial safety expertise of technical devices (urea plant №2)	- Corrosion and technical inspection	2008



Customer	Project	Scope of services of NIIK	Year
EuroChem, NAK Azot, Novomoskovsk, Russia	Repair of the lining of synthesis reactor, separator and stripper (urea plant №3)	- Technical assistance	2008
Azot, Kemerovo, Russia	Repair of urea synthesis reactor	- Development of technical documentation and technical guidance for urea synthesis reactors repair	2008
DniproAzot, Dneprodzerzhinsk, Ukraine	Industrial safety expertise of technical means	- Corrosion and technical inspection	2008
R&D Institute of Measurement Systems, Nizhny Novgorod, Russia	Process diagnostic to determine the remaining service life of equipment and pipelines of treatment plants	- Inspection	2007
Rikor Electronics, Arzamas, Russia	Industrial safety expertise of technical means	- Equipment diagnostics	2007
PhosAgro, Cherepovets, Russia	Industrial safety expertise of pressurized vessels (urea plant)	- Equipment diagnostic and expert conclusion for service life extension of equipment	2007
EuroChem, NevAzot, Nevinnomyssk, Russia	Repair of two lining belts (urea reactor)	- Development of technical documentation - Supervising manufacturing of the material - Technical assistance - Field supervision	2007
EuroChem, NAK Azot, Novomoskovsk, Russia	Inspection of stripper tubes by eddy-current method	- Inspection	2007
	Corrosion inspection of stripper	- Inspection	2007
FerghanaAzot, Uzbekistan	Corrosion inspection of critical vessels and pipelines (urea plant)	- Inspection	2007
DniproAzot, Dneprodzerzhinsk, Ukraine	Corrosion and technical inspection of HP reactor, stripper, condenser (plant №2)	- Inspection - Repair procedure development - Repair works	2007



Customer	Project	Scope of services of NIIK	Year
EQUIPMENT PROCUREMENT			
For production complexes			
Metafrax, Gubakha, Russia	Ammonia-urea-melamine complex	- Equipment procurement for OSBL facilities	2016 to present
Metafrax, Gubakha, Russia	Ammonia-urea-melamine complex	- Equipment procurement for prilling tower construction	
Casale SA, Switzerland			
Ammoni, Mendeleevsk, Russia	Ammonia- methanol-urea complex	- Equipment procurement for OSBL facilities	2010-2015
For ammonia production units			
PhosAgro, Cherepovets, Russia	Ammonia production unit AM-3 (capacity 2200 TPD)	- Equipment procurement for analytical laboratory	2016-2017
For nitric acid production units			
Not disclosed (Confidential Information)	Non-concentrated nitric acid production unit UKL-7-76M with capacity 130000 TPY (monohydrate)	- Equipment procurement	2018-2019
For urea production units			
Not disclosed (Confidential Information)	UAN production unit	- Package procurement	Under development
Not disclosed (Confidential Information)	UAN production unit	- Equipment procurement (vortex mixer)	Under development
Not disclosed (Confidential Information)	Urea production unit	- Critical equipment procurement for urea unit modernization project	Under development
Chambal Fertilisers and Chemicals Limited (CFCL), India	Urea production unit modernization (procurement & installation of Vortex Mixer to urea synthesis reactor) aimed at energy saving	- Equipment procurement& installation	2018
Acron, Veliky Novgorod, Russia	Urea production unit №6 construction with capacity 600 TPD	- Equipment procurement	Under development
Rashtriya Chemicals and Fertilizers Ltd., Mumbai, India	Urea units modernization (Thal)	- Procurement & installation of three sets of Internal Devices	Under development
Gujarat Narmada Valley Fertilizers & Chemicals Ltd, India	Urea unit modernization	- Procurement & installation of vortex mixer into urea synthesis reactor	2017





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KuibyshevAzot, Togliatti, Russia	Technical modernization of urea unit № 4 (evaporation, hydrolysis and desorption sections)	- Equipment procurement	2016-2017
Rashtriya Chemicals and Fertilizers Ltd., Mumbai, India	Trombay V urea plant modernization	- Procurement & installation of a Set of Internal Devices comprising Vortex Mixer and Conversion Booster for urea synthesis reactor	2015-2016
Casale SA, Switzerland	Urea production unit and new prilling tower construction (capacity 2200 TPD) at TogliattyAzot site	- Equipment procurement for prilling tower and new urea reactor support facilities	2015 to present
EuroChem, NAK Azot, Novomoskovsk, Russia	Revamp of urea unit 2 (gas vent elimination)	- Equipment procurement	2012-2015
PhosAgro- Cherepovets, Cherepovets, Russia	Urea production plant (section № 2) technical modernization with capacity increase to 1600 TPD	- Supervising equipment manufacturing	2014-2016
EuroChem, NAK Azot, Novomoskovsk, Russia	Technical modernization of the urea production plant №2	- Equipment procurement	2013-2016
	32,5% urea solution production unit (capacity 100000 TPY) including urea solution treatment unit on the basis of urea plant № 2 evaporation unit	- Equipment procurement	2013-2015
Nagarjuna Fertilizers and Chemicals Limited, India	Urea synthesis unit № 2 modernization	- Procurement & installation of vortex mixer into urea synthesis reactor	2013
Acron, Veliky Novgorod, Russia	Urea production units (1-4) revamping aimed to capacity increase up to 2000 TPD and feedstock/energy saving	- Equipment procurement	2016
Azot, Cherkassy, Ukraine	Design and procurement of HP stripper pos. E-201 with capacity increase up to 1500 tpd (urea plants M-2)	- HP stripper design and procurement	2011-2012
Azot, Kemerovo, Russia	Urea production unit revamping with high speed drum granulator installation	- Equipment procurement	2011-2013
Acron, Veliky Novgorod, Russia	Evaporation system for urea production unit and prilling tower modernization with capacity increase	- Equipment procurement	2011-2013
Maxam-Chirchik, Chirchik, Uzbekistan	Modernization and technical upgrading of urea unit	- Equipment procurement - Commissioning	2010-2012
UralChem, Azot, Berezniki, Russia	Urea synthesis reactor modernization	- Set of Internal Devices procurement - Field supervision	2010



Customer	Project	Scope of services of NIIK	Year
Salavatnefteorgsintez Salavat, Russia	Prilling towers' modernization for urea plant №24	- Equipment procurement - Commissioning	2010-2012
PhosAgro Cherepovets, Russia	Prilling tower for urea production (capacity of 1500 TPD)	- Equipment procurement	2008-2012
Acron, Veliky Novgorod, Russia	Urea unit №5 on the basis of relocated unit	- Equipment procurement	2007-2011
EuroChem, NAK Azot, Novomoskovsk, Russia	Revamp of urea plant №3 with capacity increase to 2000 TPD	- Material procurement	2007-2010
Severodonetsk Azot Association, Severodonetsk, Ukraine	Urea unit revamp with capacity increase from 1200 up to 1500 TPD	- Equipment procurement	2007-2010
EuroChem, NevAzot, Nevinnomyssk, Russia	Urea evaporation unit for melamine plant	- Equipment procurement	2008-2010
KuibyshevAzot, Togliatti, Russia	Revamp of urea unit with capacity increase	- Equipment procurement - Field supervision	2007-2008
Severodonetsk Azot Association, Severodonetsk, Ukraine	Urea unit revamp with capacity increase from 1000 up to 1200 TPD	- Equipment procurement	2006-2007
PhosAgro, Cherepovets, Russia	Revamping of distillation unit with capacity increase (urea production plant)	- Equipment procurement	2007
Salavatnefteorgsintez Salavat, Russia	Revamping of urea plant №50	- Equipment procurement	2006-2008
Azot, Kemerovo, Russia	Revamp of urea synthesis unit	- Procurement of internals into reactor pos. R-101	2006
Grodno Azot, Grodno, Belarus	Revamp of urea production unit, installation of recuperator	- Equipment procurement - Field supervision	2006
Acron, Veliky Novgorod, Russia	Installation of the 5th urea synthesis reactor	- Equipment procurement	2006
NevAzot, Nevinnomyssk, Russia	Revamping of urea production plant №2	- Equipment procurement - Field supervision	2006
Azot, Kemerovo, Russia	Revamp of urea synthesis unit	- Procurement of internals into reactor pos. R-101 - Field supervision	2006
For ammonia nitrate production unit			
KazAzot, Aktau, Kazakhstan	Ammonia nitrate production unit modernization: HSDG for ammonia nitrate manufacturing	- Equipment procurement	2011-2012





Customer	Project	Scope of services of NIIK	Year
For warehouses			
Pervouralsky novotrubny works, Perovuralsk, Russia	Revamp of liquid ammonia storage unit № 33	- Equipment procurement	2006-2007
Zawolzhsky Motorny Zawod, Zavolshye, Russia	Revamp of sulphuric acid storage unit	- Turnkey project	2006-2007
	Petrol storage unit	- Turnkey project	2006
Nizhegorodsky machine-building plant, Russia	Revamping of chlorine storage unit and chlorinator	- Equipment procurement	2006-2007
For other facilities			
Not disclosed (Confidential information)	Installation of the hydro foamy filtration system (wet scrubbing)	- Equipment procurement	2019
QAFCO (Qatar Fertilizer Company), Qatar	Multipurpose High Speed Drum Granulation (HSDG) Pilot Plant for production of granulated urea with additives, capacity 100 kg per hour	- Equipment procurement - Field supervision - Commissioning	2014-2015
PVFCO, Phu My I, Ba Ria Vung Tau, Vietnam	HSDG unit for production of compound fertilizers (capacity 100 kg/h)	- Equipment procurement - Field supervision - Commissioning	2014-2015
Zawolzhsky Motorny Zawod, Zavolshye, Russia	Project development and construction of testing station for diesel engines	- Turnkey project	2009
For equipment repairing			
EuroChem, NevAzot, Nevinnomyssk, Russia	Repair of cylindrical section of the lining of synthesis reactor pos. 6/1 (urea plant 2)	- Equipment procurement	Under development
Meleuz mineral fertilizers, Meleuz, Russia	Replacement of old tubes of evaporation unit (pos. T-10, ammonium nitrate production unit AS-72M)	- Metal structures procurement for repairing works	2017
Grodno Azot, Grodno, Belarus	Repair of the lining of the synthesis reactor manhole (pos. R-201, urea plant №3)	- Metal structures procurement for repairing works	2017
Egyptian Fertilizers Company (EFC), El Ain Sukhna, Egypt	Relining of urea reactor 322-R-00 (Urea Plant EFC-1 Suez Fertilizers Co.)	- Metal structures procurement for repairing works	2016
Meleuz mineral fertilizers, Meleuz, Russia	Replacement of old tubes of evaporation unit (pos. T-10, ammonium nitrate production unit)	- Equipment procurement	2015

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Grodno Azot, Grodno, Belarus	Repair of two lining belts (urea synthesis reactor pos. R-201, urea plant №3)	- Metal structures procurement for repairing works	2014
	Corrosion inspection of urea synthesis reactor (urea plant №4)	- Metal structures procurement for repairing works	2013
Azot, Kemerovo, Russia	Synthesis reactor repair support services	- Metal structures procurement for repairing works	2013
Concern Stirol, Gorlovka, Ukraine	Complex repair of synthesis reactor pos. R-901 (urea plant, location 1)	- Metal structures procurement for repairing works	2012-2013
Acron, Veliky Novgorod, Russia	Lining replacement of synthesis reactor pos. 6/4 (urea plant)	- Metal structures procurement for repairing works	2012-2013
UralChem, Azot, Berezniki, Russia	Repair of cylindrical section of the lining of synthesis reactor pos. R-901 (urea plant)	- Metal structures procurement for repairing works	2012
EuroChem, NevAzot, Nevinnomyssk, Russia	Repair of two lining belts in urea reactor (urea plant 2A)	- Metal structures procurement for repairing works	2011
Acron, Veliky Novgorod, Russia	Set of internal devices installation into urea plant reactor №5	- Metal structures procurement for repairing works	2011
	Technical guidance for relining of urea synthesis reactor pos. 6/2 of urea plant	- Metal structures procurement for repairing works	2011
Azot, Cherkassy, Ukraine	Relining of upper part of urea synthesis reactor (plant M-2)	- Metal structures procurement for repairing works	2010
EuroChem, NAK Azot, Novomoskovsk, Russia	Technical guidance of partial relining of synthesis reactor 6/2	- Metal structures procurement for repairing works	2010
EuroChem, NevAzot, Nevinnomyssk, Russia	Repair of two lining belts (urea reactor)	- Supervising manufacturing of material	2007
Kuibyshev Azot, Togliatti, Russia	Revamping of urea storage unit	- Field supervision - Commissioning works	2007
Fertalge Industries SPA, Algeria	Prilling tower for urea production	- Field supervision	2002-2005