

Customer	Name of project	Country	Description	Year	Service	ses
Å Design						olex
Confidential	Mineral Fertilizer Complex, RF	Russia	Development of Project Documentation (PD) and Front-end-engineering and design (FEED) for Mineral Fertil- izer Complex, RF	In prog- ress	Design	Complexes
Confidential	Industrial site of existing plant, RF	Russia	Development of Basic Technology Package for Non-concen- trated Nitric Acid Unit, Ammonium Nitrate Solution Unit and Urea-Ammonium Nitrate (UAN) Unit	In prog- ress	Design	-
LLC Irkutsk Oil Company, Irkutsk, RF	Natural Gas Processing Complex producing acetylene and 1,4-butandiol, and converting syngas as by-product of the acetylene production into methanol and its downstream products	Russia	Engineering services under the project "Natural Gas Processing Complex producing acetylene and 1,4-butandiol, and converting syngas as by-product of the acetylene production into methanol and its downstream products»	In prog- ress	Design	Ammonia
JSC Metafrax Chemicals, Gubakha	Acetylene, Acetalde- hyde, Butanediol, THF, Polytetramethylene Ether Glycol Complex	Russia	Works for the construction of the facility "Acetylene, Acetal- dehyde, Butanediol, THF, Polytetramethylene Ether Glycol Complex"	2023	Design	
OJSC Akron, Veliky Novgorod	Urea and Ammonia Nitrate Mix Unit	Russia	Development of design documentation	2013	Design	
LLC MendeleyevskA- zot, Mendeleyevsk	Joint Ammonia and Methanol Plant (1492 и 668 tpd for integrated production)	Russia	Adaptation of FEED from foreign licensor in all sections and according to RF engineering standards Development of design documentation for state expert review, positive findings	2010	Design	Nitric acid
OJSC Ammonium, Perm	Ammonia and Meth- anol Plant Liquid ammonia storage	Russia	Development of design documentation for state expert review, positive findings	2009	Design	Ž
JSC Shchekinoazot, Shchekino	Caprolactam and Methanol Plant	Russia	Development of detail design documentation Waste gas disposal system	2004	Design	
Baltic Transshipment Complex, Saint- Petersburg	Liquid ammonia and methanol terminal on Vysotsky Island west coast	Russia	Development of design documentation	2001	Design	onia te
() Other activities						Ammonia nitrate
LLC GTM 1	Nitrogen complex	Russia	Definition of layout solutions and investment feasibility study for the ammonia, urea, nitric acid, ammonia nitrate complex and offsites on LLC Himprom site, Volgograd	2023	Pre-project activities	
LLC IOC	Complex for converting natural gas to urea and mineral fertilizers	Russia	Development of Investment Feasibility Study for the complex converting natural gas to urea and mineral fertilizers, including offsite facilities	2023	Pre-project activities	loc
JSC NAK Azot, Novomoskovsk	Compound Fertilizers Shop	Russia	Services for bringing of Compound Fertilizers Shop at JSC NAK Azot in compliance with the engineering documents	2021	Consulting services	Methanol
PJSC Metafrax, Gubakha	Acetylene, Acetaldehyde, Butanediol, THF, Polytetramethylene Ether Glycol Complex	Russia	Services for the development of Investment Feasibility Study for Acetylene, Acetaldehyde, Butanediol, THF, Polytetramethylene Ether Glycol Complex	2020	Feasibility Study	Mei
PJSC Metafrax, Gubakha	Ammonia/Urea/ Melamine Complex running on Methanol Plant Blowdown Gas	Russia	Technical audit of DD and engineering surveys for the project	2017	Consulting services	
OJSC LiNOS, Lissichansk	Joint Methanol and Hydrogen Plant based on 30 ktpa hydrogen unit	Russia	Pre-feasibility study, feasibility study and justification of investments	2001	Feasibility Study	Other

Other

					1	
S	Customer	Name of project	Country	Description	Year	Service
plexe						
Complexes	OJSC Grodno Azot	Revamping of Ammo- nia-4 Shop	Belarus	Development of Architectural and Civil packages for revamping stage 1, comprehensive equipment delivery, installation supervision and commissioning services, warranty tests and personnel training under the project "Revamping of Ammonia-4 Shop (GIAP). Stage 1".	In prog- ress	EP
	Å Design					
onia	JSC NIUIF, Moscow	Ammonia Unit	Russia	Development of design documentation and detail design documentation for the capital project "Ammonia recovery from residual gases and flash gases"	In prog- ress	Design
Ammonia	OJSC GrodnoAzot, Grodno	Ammonia-3	Belarus	Development of basic engineering process design package for revamping of Ammonia Plant to achieve 2100 tpa ammonia capacity and power consumption of max. 7.9 Gcal/ton of ammonia	In prog- ress	Design
	PJSC TOAZ, Togliatti	Ammonia conditioning for transportation shop site	Russia	Engineering for APCS refurbishment. Shop No. 013 2021	In prog- ress	Design
	PJSC KuibyshevAzot, Togliatti	Ammonia Plant	Russia	Development of detail design documentation for the project for the Project "Refurbishment of Ammonia Storage #1 of Shop 13. Aligning with industrial safety requirements in 2021"	2022	Design
Nitric acid	PJSC KuibyshevAzot, Togliatti	Ammonia Plant	Russia	Development of detail design documentation for the project for the Project "Refurbishment of Liquid Ammonia Storage #2 of Shop 13. Aligning with industrial safety requirements in 2021" PJSC KuibyshevAzot, Togliatti	2022	Design
Nitr	JSC NIUIF	Liquid ammonia storage	Russia	Development of detail design documentation and support to industrial safety expert review under the project of arranging additional (alternative) engineering and anti-terrorist security for the capital project of JSC VB Apatit: 490 ton Liquid Am- monia Storage (LAS)	2022	Design
	OJSC GrodnoAzot, Grodno	Ammonia-4	Belarus	Development of basic engineering process design package for revamping of Ammonia Plant to achieve 2100 tpa ammonia capacity and power consumption of max. 7.9 Gcal/ton of ammonia	2022	Design
Ammonia nitrate	JSC Minudobreniya, Rossosh	Ammonia Plant	Russia	Development of detail design documentation "Enhancement of the "Warm" Ammonia Distribution Circuit", and issue of positive findings following the Industrial Safety Expert Review of documentation	2020	Design
Am	JSC Nevinnomyssky Azot, Nevinnomyssk	Liquid Ammonia Storage	Russia	Development of detail design documentation "Refurbishment of cryogenic storage tanks, Tag Nos. 1001-F and 1001-FA, of Cryogenic Liquid Ammonia Storages Nos 1 and 2 in Shop No. 1-B"	2020	Design
	JSC Nevinnomyssky Azot, Nevinnomyssk	Liquid Ammonia Storage	Russia	Development of detail design documentation ""Emergency ventilation system in Block 525 with tie-in to the gas monitoring system of Cryogenic Storage 1001-F and in Block 537 with tie-in to the gas monitoring system of Cryogenic Storage 1001-FA	2020	Design
Methanol	JSC NAK-Azot, Novomoskovsk	Ammonia unit of Ammonia-3 workshop with capacity of 1740 tpd	Russia	Services for mass balance calculations, revision of explosion hazard categories for process units and reassessment of throughput capacities for safety valves of Ammonia Plant sized up to 1740 tpd in Shop Ammonia-3, including the development of data sheets for safety valves to be replaced	2020	Design
Σ	PJSC Dorogobuzh, Dorogobuzh	2100 tpd ammonia production unit	Russia	Development of design documentation, detail design documentation, engineering documentation Ammonia unit refurbishment with expansion to 2100 tpd Designer supervision	2019	Design
	JSC Nevinnomyssky Azot, Nevinnomyssk	Liquid ammonia storage	Russia	"Development of Detail Design Documentation ""Gas detection system of isothermic ammonia storage"" Gas detection system of isothermal ammonia storage pos.1001-F and 1001 with connection to existing SCADA of isothermal ammonia storage of ammonia plant No. 1 and No. 2"	2019	Design, Safety Expert Review
Other	JSC Gazprom Neftekhim Salavat, Salavat	Ammonia plant AM-76, max. capacity 1750 tpd	Russia	Development of design basis for engineering project "Revamp of AM-76 unit to achieve daily output of 1750 tpd"	2019	Design
0	JSC Minudobreniya, Rossosh	AM-2 ammonia plant	Russia	"Development of Detail Design Documentation Reliability improvement of level control unit in steam drum 109 of AM-2 plant"	2018	Design
	JSC Minudobreniya, Rossosh	Liquid ammnia storage	Russia	"Development of Detail Design Documentation Water curtains installation in order to suppress gas ammonia cloud expansion during accidental releases at liquid ammonia storages"	2018	Design
	JSC NIUIF, Moscow	Liquid ammonia storage	Russia	Development of main technical solutions. 490 tons liquid ammonia storage for JSC Metachem, Volkhov	2018	Design
	JSC NIUIF, Moscow	Liquid ammonia storage	Russia	Development of Design Documentation. 490 tons liquid ammonia storage for JSC Metachem, Volkhov	2018	Design

Customer	Name of project	Country	Description	Year	Service	es
JSC Apatit, Balakovo branch	Liqiuid ammonia unit	Russia	"Development of Detail Design Documentation Technical re-equipment of liquid ammonia unit for railcars hydrotesting with installation of displacement signaling devices for rail tank cars"	2018	Design	Complexes
JSC Minudobreniya, Rossosh	Liquid ammonia storage	Russia	"Development of main technical solutions Water curtains installation in order to suppress gas ammonia cloud expansion during accidental releases at liquid ammonia storages"	2017	Design	ů
PJSC Dorogobuzh, Dorogobuzh	2100 tpd ammonia plant	Russia	Acceptance and adaptation of basic design prepared by foreign licensor, in all parts and according to technical standards and design rules of the Russian Federation. Development of design documentation for industrial safety expert review, development of detail design documentation.	2017	Design, Scientific and Technical Support	nia
AB ACHEMA, Jonava	Ammonia plant No. 1	Lithuania	Technical project development, analysis and development of main technical solutions (reconstruction)	2016	Design	Ammonia
AB ACHEMA, Jonava	Fresh syngas dryer system for ammonia unit-2 (AM-80)	Lithuania	Development of Basis and Detail Design Documentation. Development of detail design of package equipment. Designer's surveillance and technical support during plant construction. Pre- commissioning	2016	Design, Equipment, Supervision	Αm
PJSC Acron, Veliky Novgorod	Construction of 2060 tpd ammonia plant	Russia	Adaption of basic design prepared by foreign licensor. Development of Design Documentation. Obtaining of State expert review positive finding. Equipment supply engineering support. Documentation supervision. Obtaining of permit for use	2016	Design	p
LLP KazAzot, Aktau	Construction of ammonia recovery unit from flash and purge gases of Ammonia plant to produce ammonium nitrate solution	Kazakhstan	Development of Basis and Detail Design Documentation. Equipment supply	2016	Design	Nitric acid
JSC NAK-Azot, Novomoskovsk	Ammonia plant (Ammonia unit-3)	Russia	"Development of Design Documentation (Revamping) Waste for heat recovery system of primary reformer furnace of ammonia plant-3"	2015	Design	
JSC Apatit, Balakovo branch, Balakovo	Ammonia pipeline	Russia	Development of Detail Design Documentation (Branch from operating ammonia pipeline Togliatti-Odessa to JSC Apatit, Balakovo branch)	2015	Design	Ammonia nitrate
PJSC Acron, Veliky Novgorod	Ammonia plant	Russia	Development of Detail Design Documentation (Connection of water cooler pos. 1118-c of unit No. 2 for hydronitric mixture cooling)	2015	Design	Amr nit
AB ACHEMA, Jonava	Ammonia plant -2 (AM-80)	Lithuania	Development of basic design (initial data), detail design and package supply of licensed equipment	2015	Design	-
JSC Minudobreniya, Rossosh	Ammonia plant	Russia	Development of Detail Design Documentation technical re- equipping of ammonia refrigerating system with installation of additional evaporative type condensers in unit No. 2)	2015	Design	loc
JSC NAK-Azot, Novomoskovsk	Hydrogen recovery from synthesis purge gases of ammnia planr	Russia	Development and approval of main technical solutions, Feasibility Study	2015	Design	Methanol
JSC NAK-Azot, Novomoskovsk	Ammonia plant	Russia	Development of Basis and Detail Design Documentation for heat recovery system of primary reformer furnace of ammonia plant	2015	Design	Σ
JSC NAK-Azot, Novomoskovsk	Ammonia plant (Ammonia unit-3)	Russia	Development of plant operational documentation (process operating procedures, operating manuals etc.)	2015	Design	
JSC MFP of Kirovo- Chepetsk Chemical Plant, Kirovo-Chepetsk	Ammonia plants AM-70 and AM-76	Russia	SIS parameters list development	2015	Design	5
JSC Moscow Cold Storage Facility No.14, Moscow	Equipment for instrumentation room of ammonia refrigerating system No. 1 of compressor section	Russia	Development of Basis and Detail Design Documentation	2015	Design	Other
JSC Togliattiazot, Togliatti	Ammonia plant AM-76 No. 6	Russia	Development of Design Documentation. Technical re-equipment of Ammonia plant No. 6 (AM-76) with capacity increase to 1750 tpd of ammonia.	2015	Design	
JSC Togliattiazot, Togliatti	AM-76 ammonia plant	Russia	Development and approval of main technical solutions, development of infrastructure, Design Documentation. Industrial safety expert review	2015	Design	_
PJSC KuibyshevAzot, Togliatti	Ammonia gas absorption column	Russia	Development of design and detail design documentation (receiving tanks in Building 460 to receive ammonia water from LindeAzotTogliatti ammonia plant and liquid ammonia isothermal storage)	2015	Design	

S	Customer	Name of project	Country	Description	Year	Service
Complexes	PJSC KuibyshevAzot, Togliatti	Liquid ammonia storage	Russia	Development of detail design documentation (plant storage revamping with the construction of additional isothermal storage with capacity of 10000 tones. Instrument air receiver)	2015	Design
Сол	LLP KazAzot, Aktau	Ammonia recovery unit from flash and purge gases of ammonia plant	Kazakhstan	Development of Detail Design Documentation	2015	Design
	AB ACHEMA, Jonava	Ammonia plant -2 (AM-80)	Lithuania	Development of basic design, detail design documentation for ammonia plant modernization in order to decrease specific power consumption by min 0.5 GCal/ton of ammonia	2014	Design
σ	JSC Minudobreniya, Rossosh	Ammonia pipeline Togliatti-Odessa	Russia	Expert`s report development	2014	Design
Ammonia	JSC Minudobreniya, Rossosh	Ammonia plant	Russia	Development of Detail Design Documentation (Further equipping of sulfuric acid and caustic soda storage unit of demiwater section of unit No.1 ammonia plant)	2014	Design
An	PJSC Acron, Veliky Novgorod	Ammonia plant unit No.2 with capacity increase up to 1750 tpd	Russia	Development of Design Documentation	2014	Design
	PJSC Acron, Veliky Novgorod	2060 tpd ammonia plant "Ammonia 4"	Russia	Development of engineering design of non-standardized equipment (engineering design of absorber CO2 pos. C303B)	2014	Design, Equipment, Supervision
σ	PJSC Acron, Veliky Novgorod	Liquid ammonia storage	Russia	Development of Design Documentation (New liquid ammonia starge with isothermic tank)	2014	Design
Nitric acid	JSC MFP of Kirovo- Chepetsk Chemical Plant, Kirovo-Chepetsk	Ammonia plant	Russia	Development of main technical solutions	2014	Design
Nitr	JSC Moscow Cold Storage Facility No.14, Moscow	Ammonia plant	Russia	Development of technical solutions	2014	Design
Ammonia nitrate	JSC Togliattiazot, Togliatti	Coils of steam-gas mixture and steam-air mixture located in heat recovery equipment area of ammonia unit AM-76 No.6	Russia	Development of Basis and Detail Design documentation	2014	Design
mmon nitrate	PJSC Dorogobuzh, Dorogobuzh	Ammonia plant primary reforming	Russia	Development of plant operational documentation (process operating procedures, operating manuals etc.)	2014	Design
\triangleleft	PJSC KuibyshevAzot, Togliatti	Ammonia plant	Russia	Development of Detail Design Documentation (System of purification of converted gas from carbon dioxide in unit No.1 of ammonia plant)	2014	Design
	JSC "UCC "URALCHEM", Azot Branch, Berezniki	Flare unit of ammonia plant 1B	Russia	Expert`s report development	2014	Design
lou	PJSC Acron, Veliky Novgorod	NPK fertilizerunit of plant 1,2	Russia	"Development of Detail Design Documentation Cooling method of finished product"	2013	Design
Mernanol	AB ACHEMA, Jonava	Ammonia plant -2 (AM-80)	Lithuania	Development of modernization basic design. Analysis and development of main technical solutions	2013	Design
Σ	JSC Angarsk Petrochemical Company, Angarsk	Ammonia plant	Russia	Agreement of process regulation amendments	2013	Design
	JSC Minudobreniya, Rossosh	Ammonia plant	Russia	Analysis and evaluation of technical and commercial proposals	2013	Design
_	JSC Nevinnomyssky Azot, Nevinnomyssk	Mixing unit of flue gases with mixture of ammonia-containing gases in workshop No.1-B	Russia	Scientific and technical documentation development	2013	Design
Uther	PJSC Acron, Veliky Novgorod	Ammonia plant unit No. 3 with capacity increase up to 1750 tpd	Russia	Development of Design Documentation	2013	Design
	PJSC Acron, Veliky Novgorod	Liquid ammonia storage pos.101F of ammonia units 2 and 3	Russia	Development of Detail Design Documentation (technical re- equipment)	2013	Design
	JSC Togliattiazot, Togliatti	Ammonia plant	Russia	Development of plant operational documentation (process operating procedures, operating manuals, etc.)	2013	Design
	JSC Togliattiazot, Togliatti	Radiant section of AM-76 ammonia plant primary reforming No. 06A	Russia	Calculation	2013	Design
	PJSC Dorogobuzh, Dorogobuzh	TEC ammonia plant	Russia	Development of Design Documentation	2013	Design

		Ì		ĺ.	ĺ.	
Customer	Name of project	Country	Description	Year	Service	S
PJSC Dorogobuzh, Dorogobuzh	Ammonia plant	Russia	Explanatory and calculation report development	2013	Design	Complexes
PJSC Dorogobuzh, Dorogobuzh	Pipework of additional coils for heating steam- and-gas/steam-and-air mixture	Russia	Development of Detail Design Documentation	2013	Design	ů
UkrGIAP, Kamianske	3270 t liquid ammonia storage	Ukraine	Detail design	2013	Design	-
JSC Balakovo Mineral Fertilizers, Balakovo	Liquid ammonia storage	Russia	"Development of Design Documentation Capacity 8000 t."	2012	Design	Ammonia
LLC KAMAZ-Energo, Naberezhnye Chelny	Live storage of liquid ammonia	Russia	"Development of Design Documentation Replacing coolant from steam to water "	2012	Design	Ar
PJSC KuibyshevAzot, Togliatti	Liquid ammonia storage	Russia	Revamping of existing liquid ammonia storage with the construction of additional isothermal storage with capacity of 10000 tones: pre-feasibility study, feasibility study and justification of investment. Development of Design Documentation	2012	Design	
PJSC Acron, Veliky Novgorod	Heaters pos. 123-C1/C2 of unit No.2 ammonia plant	Russia	Development of Basic and Detail Design Documentation	2012	Design	cid
JSC Fertilizers, Perm	Flare unit of gas ammonia combustion from isothermal storage	Russia	Development of Design Documentation	2012	Design	Nitric acid
JSC Rivneazot, Rivne	Hydrogen recovery plant , unit A2	Ukraine	Detail design. Supervision	2012	Design, Supervision	Z
JSC Rivneazot, Rivne	Technical retrofitting of gaseous ammonia liquefaction plant	Ukraine	Detail design (Construction Organization Plan and EIA sections)	2012	Design	
PJSC Dorogobuzh, Dorogobuzh	Primary reformer furnace pos.101-B of ammonia plant	Russia	Development of plant operational documentation (process operating procedures, operating manuals, etc.)	2012	Design	ate
JSC Minudobreniya, Rossosh	Liquid ammonia storage	Russia	"Development of Detail Design Documentation Water curtain around isothermal storage build.460 ofunit No.2 of ammonia plant"	2011	Design	Ammonia nitrate
JSC Cherepovetsky Azot, Cherepovets	Ammonia plant unit AM-1	Russia	"Development of Design Documentation (revamp) Gas ammonia condensation system from build. 304,334 in unit AM-1"	2011	Design	
JSC Cherepovetsky Azot, Cherepovets	Ammonia cooling unit	Russia	Development of Detail Design Documentation (revamp with expansion of condenser unit and supply of "warm" liquid ammonia to users in unit AM-1)	2011	Design	0
JSC Cherepovetsky Azot, Cherepovets	Intermediate storage for "warm" liquid ammonia with pumping station in ammonia unit No.1	Russia	Development of Detail Design Documentation	2011	Design	Methanol
PJSC Dorogobuzh, Dorogobuzh	Ammonia plant (capacity increase to 1750 tpd)	Russia	Development of Design Documentation. Technical re-equipment of ammonia unit (TEC) in order to increase capacity to 1750 tpd	2011	Design	2
OJSC Fertilizers, Perm	Ammonia recovery unit from flash gases of ammonia unit	Russia	Development of Basic and Detail Design Documentation	2010	Design	
JSC Rivneazot, Rivne	Ammonia plant	Ukraine	Detail Dresign. Natural gas supply scheme without compressor. Adjustment	2010	Design	
LLC MendeleevskAzot, Mendeleevsk	Coproduction of ammonia and methanol (1492 and 668 tpd correspondingly as a result of integrated production)	Russia	Adaption of basic design prepared by foreign licensor in all parts and according to technical regulations. Development of design documentation for state expert review, positive result	2010	Design	Other
PJSC Dorogobuzh, Dorogobuzh	Compressor 105-J of ammonia unit	Russia	Development of Design Documentation	2010	Design	
JSC Minudobreniya, Rossosh	Compression and condensation section of gas ammonia for 10000t isothermal storage of unit No.1	Russia	Re-equipment of gaseous ammonia condesation dryer of liquid ammonia storage. Replacement of piston compressors (two- stage) with two new process lines with screw compressor units	2009	Design	_
JSC NAK-Azot, Novomoskovsk	Ammonia plant	Russia	Development of Detail Design Documentation (Stimulation of ammonia production up to 1700 tpd). Substation No.4-A, p.214.	2009	Design	

	Customer	Name of project	Country	Description	Year	Service
Complexes	JSC Ammoniy, Perm	Ammonia and methanol plant. Liquid ammonia storage	Russia	Development of Design Documentation for State Expert Review, positive finding	2009	Design
Com	JSC Togliattiazot, Togliatti	Ammonia plant AM-76	Russia	"Development of Detail Design Documentation Ammonia plant AM-76 No. 6. System of heating gas mixture"	2009	Design
onia	JSC Balakovo Mineral Fertilizers, Balakovo	Liquid ammonia pipeline from liquid ammonia section to phosphate fertilizer unit and gaseous ammonia from the plant to high speed ammoniator-evaporator (SAI)	Russia	Development of Design Documentation	2009	Design
Ammonia	JSC Minudobreniya, Rossosh	Ammonia plant unit No.2	Russia	Development of Detail Design Documentation (Correction of interstage separator system of air compressor pos.402)	2009	Design
	JSC Ammoniy, Perm	Ammonia, Methanol and Urea complex	Russia	Development of Design Documentation	2009	Design
	JSC Cherepovetsky Azot, Cherepovets	Ammonia plant No.1	Russia	Development of Detail Design Documentation (Upgrading of flare unit pos.7 buld.337 in ammonia unit No.1)	2009	Design
acid	JSC Nevinnomyssky Azot, Nevinnomyssk	AM-70 ammonia plant	Russia	Development of detail design documentation. Reconstruction of finish heating up stage of steam-and-gas mixture up to 525° in heat recovery equipment of tube furnace with additional coil mounting	2008	Design
Nitric acid	JSC Voskresensk Mineral Fertilizers, Voskresensk	Ammonia plant	Russia	"Development of Detail Design Documentation (changeover switching of plant from instrument system for automatic process control system)"	2008	Design
	PJSC Dorogobuzh, Dorogobuzh	TEC ammonia plant	Russia	Development of Detail Design Documentation in order to expand ammonia refrigeration system of ammonia unit	2008	Design
D	PJSC Dorogobuzh, Dorogobuzh	TEC ammonia plant	Russia	"Development of Detail Design Documentation Ammonia extraction from flash gases unit under pressure of 40 bar "	2008	Design
Ammonia nitrate	AB ACHEMA, Jonava	AM-70 ammonia plant	Lithuania	Development of conceptual process design applicable to capacity expanding and increasing, energy efficiency and equipment replacement. Basic design using proprietary technologies	2008	FEED, Design, Technology
4	JSC NAK-Azot, Novomoskovsk	Section for filling 40 lts cylinders with argon, with the capacity of 200 ths mn3/year in build. 1090 of argon section Ammonia-3 plant	Russia	Development of Design Documentation	2008	Design
lone	JSC GrodnoAzot, Grodno	Ammonia plant AM-76, 1700 tpd	Belarus	Basic design using proprietary technologies (reconstruction)	2008	Design
Methano	JSC Salavatnefteorgsintez, Salavat	Cleaning section of carbon dioxide from combustion gases	Russia	Development of Design Documentation	2008	Design
	Sumychimprom Ltd, Sumy	Ammonia water plant with the capacity of 300 ktpa of 25% ammonia water	Ukraine	Development of Detail Design Documentation	2008	Design
ler	JSC Uralchimmash, Yekaterinburg	Tail gases catalytic treatment reactor P-40	Russia	"Development of engineering design for JSC Acron. Designer supervision of reactor manufacture. Designer supervision during installation and commissioning "	2008	Design, Consulting Services
Other	JSC Cherepovetsky Azot, Cherepovets	Section of converted gas temperature reduction before reactor in ammonia unit No.1	Russia	Development of Design Documentation	2008	Design
	JSC Cherepovetsky Azot, Cherepovets	Ammonia plant (AM-76)	Russia	Development of individual sections of the project documentation (Installation of separators on ammonia refrigerating system in ammonia unit No. 2)	2007	Design
	JSC Cherepovetsky Azot, Cherepovets	Ammonia pipeline	Russia	"Calculating ammonia storage-to-pipeline supply system. Capacity is 455 KTPA. Ammonia is supplied from IRTEC or IRAM- 77 storage Interplant ammonia pipeline Cherepovetsky Azot – Ammophos"	2007	Design
	JSC Minudobreniya, Rossosh	Heating and cooling system of nitrogen containing waste waters	Russia	Development of Design Documentation	2007	Design

Customer	Name of project	Country	Description	Year	Service	S
JSC Minudobreniya, Rossosh	Liquid ammonia receiving system from ammonia pipeline	Russia	Development of Design Documentation	2007	Design	Complexes
JSC Minudobreniya, Rossosh	System of liquid ammonia cleaning from oil after compressors of storage cycle of isothermal storage 30000 t	Russia	Development of Design Documentation	2007	Design	Com
JSC Azot, Cherkassy	Ammonia plant A-5	Ukraine	Adaption of basic design prepared by foreign licensor in all parts and according to technical regulations of Russia and Ukraine (reconstruction with capacity increasing from 1412 to 1700 tpd.) Development of an approved part for expert review, positive result, detail design	2007	FEED, Design	Ammonia
PJSC Dorogobuzh, Dorogobuzh	Partially desalted water unit	Russia	Development of Design Documentation	2007	Design	ů
JSC Minudobreniya, Rossosh	Ammonia plant No.1 and No.2	Russia	"Development of Detail Design Documentation Heat insulation and warming up hydrogen and liquid ammonia release unit from flash gases and purge gases "	2006	Design	Ar
JSC Cherepovetsky Azot, Cherepovets	Liquid ammonia storage	Russia	Development of Design Documentation (compliance of liquid ammonia storage with requirements of industrial safety rules. Double loop and double level system of ammonia leak-monitoring and SIS).	2006	Design	
PJSC Dorogobuzh, Dorogobuzh	Steam pipeline	Russia	"Development of Design Documentation Steam pipeline under pressure of 40 atm from disposal thermal power station to ammonia plant"	2006	Design	acid
AB ACHEMA, Jonava	AM-80 ammonia plant	Lithuania	Development of process solutions within Basic Design, Detail Design development, supervision, warranty tests	2006	Design, Supervision	Nitric
JSC Minudobreniya, Rossosh	NP evaporator station of units No.1,2. Cooling plant	Russia	Development of Detail Design Documentation (revamping)	2006	Design	Z
JSC Cherepovetsky Azot, Cherepovets	Hydrogen release unit from purge gases of ammonia units No.1 (TEC) and No.2 (AM-76)	Russia	Development of Design Documentation	2006	Design	
PJSC Dorogobuzh, Dorogobuzh	Cryogenic nitrogen generator	Russia	Development of Design Documentation	2006	Design	onia ate
JSC Minudobreniya, Rossosh	Gas purification section build.460	Russia	"Development of Detail Design Documentation (Operation reliability improvement) Liquid ammonia heaters pos.4/1,2 in gas purification section build.460"	2005	Design	Ammonia nitrate
JSC Minudobreniya, Rossosh	Ammonia production unit No.1 and No.2	Russia	Development of Detail Design Documentation (Heat insulation and warming up hydrogen and liquid ammonia release unit from flash gases and purge gases, utility connection)	2005	Design	
UGP Ukrkhimtransammonia", Kyiv	Ammonia pipeline Togliatti - Odessa	Ukraine	Development of Detail Design Documentation. Process audit. Survey and finding of bottlenecks	2005	Design, Scientific and Technical Support	Methanol
JSC Minudobreniya, Rossosh	"Loading rack "	Russia	"Development of Design Documentation Automation of liquid ammonia loading into railway cars in workshop "	2004	Design	Meth
JSC Minudobreniya, Rossosh	Ammonia plant (AM-1)	Russia	Development of Detail Design Documentation (Installation of 4 air cooled condensers of ammonia on the rack in ammonia plant AM-1)	2004	Design	
JSC Minudobreniya, Rossosh	Ammonia plant (AM-2)	Russia	Development of Detail Design Documentation (Additional feed water pump unit for starting up boiler in AM-1 unit)	2004	Design	-
OJSC Azot, Nevinnomyssk	Liquid ammonia storage	Russia	Development of Design Documentation (Localization of gas ammonia cloud in case of liquid ammonia spilling inside fencing of isothermal storage)	2004	Design	Other
JSC NAK-Azot, Novomoskovsk	Liquid ammonia isothermal storage of liquid-2 in Ammonia plant-4	Russia	Development of Design Documentation (Overhaul of control system)	2004	Design	Otl
JSC Rivneazot, Rivne	Ammonia plant	Ukraine	Proprietary Basic Design (Changeover of ammonia plant to operation without natural gas compressor)	2004	Design, Technology	
PJSC Dorogobuzh, Dorogobuzh	Turbine universal combustion chamber	Russia	Development of working construction documentation	2004	Design	-
JSC Cherepovetsky Azot, Cherepovets	Liquid ammonia storage	Russia	Pre-feasibility study, feasibility study and justification of investments. Development of Basic and Detail Design Documentation (reconstruction, upgrading to applicable rules and regulations)	2003	Design	

Customer	Name of project	Country	Description	Year	Service
JSC Rivneazot, Rivne	Ammonia water distillation facility on the equipment of HMDA production unit with capacity of 9,3 m3/h.	Ukraine	Development of Detail Design Documentation. Supervision и and technical support	2003	Design, Supervisior Scientific and Technical Support
JSC Voskresensk Mineral Fertilizers, Voskresensk	Liquid ammonia storage	Russia	Pre-feasibility study, feasibility study and justification of investment (expansion and reconstruction)	2002	Design
JSC Transammiak, Togliatti	Ammonia pipeline	Russia	"Development of Detail Design Documentation Location of flow-metering mechanism and calibration setup on HC-1 of ammonia pipeline"	2002	Design
JSC Cherepovetsky Azot, Cherepovets	Ammonia pipeline	Russia	Ammonia pipeline from ammonia plant TUC company to weak nitric acid plant	2002	Design
PJSC Dorogobuzh, Dorogobuzh	Liquid ammonia storage	Russia	Development of Design Documentation for compliance of liquid ammonia storage with Fire Safery Rules 03-182-98 requirements	2001	Design
() Other activities					
JSC Apatit	Double-walled isother- mal storage tank with a self-supporting inter- nal tank roof for liquid ammonia storing	Russia	Safety expert review of a double-walled isothermal storage tank with a self-supporting internal tank roof for liquid am- monia storing	In prog- ress	Safety Expe Review
MAQUIMPORT	Mineral Fertilizers Plant	Cuba	Examination of cryogenic liquid ammonia tank of Nitrogen Fertilizers Plant in Nuevitas, Cuba	In prog- ress	Engineerir
JSC Apatit, Balakovo	Ammonia Plant	Russia	Designer supervision over implementation of the Project "Refurbishment of Liquid Ammonia Section" under the Project "Installation of ammonia pipe from Liquid Ammonia Storage to Phosphorous Fertilizers Shop" for JSC BB Apatit	n prog- ress	Supervisior
JSC Apatit, Cherepovets	Ammonia Plant	Russia	Extension of overhaul intervals for ammonia shops	2023	Engineeri
PJSC TOAZ, Togliatti	6th Ammonia Plant (AM-76)	Russia	Analysis and identification of non-compliances in operating documents with the industrial safety requirements, elaboration of suggestions and recommendations for elimination of the non- compliances to extend working hours of the 6th Ammonia Plant (AM-76) and time between repairs to 3 years	2022	Engineeri
Mitsubishi Heavy Industries Engineering LTD	Low-carbon Ammonia Plant	Russia	Support and verification of documentation, consideration of Russian standards, codes and regulations for use, development of conceptual plant safety solutions	2022	Engineerir
PJSC Dorogobuzh, Dorogobuzh	Ammonia production	Russia	ISER of technical equipment	2020	Safety Expe Review
Quimimpex, Havana	Isothermal tanks of liquid ammonia of Nitrogen Fertilizer plant	Cuba	Tank examination	2019	Consulting Services
JSC Minudobreniya, Rossosh	Ammonia Plant	Russia	Development of options for the ammonia plant development concept	2019	Consulting Services
JSC NAK-Azot, Novomoskovsk	Ammonia plant-2	Russia	Rendering of consulting and engineering services for perfomance of repair and commissioning works during JSC NAK-Azot ammonia plant-2 turnaround	2019	Engineerin services
UGP Ukrkhimtrans- ammiak, Kyiv	Ammonia pipeline	Russia	Service rendering: scan copies of technical documentation for pump and distribution statetions of "Togliatti-Horlivka-Odessa" main ammonia pipeline	2019	Equipmen
JSC Apatit, Cherepovets	Ammonia plant	Russia	Technical support during construction. Interstage coolers replacement of syngas compressor pos. 401: air coolers pos. 429- stages 1,3,4	2018	Equipmen
JSC NAK-Azot, Novomoskovsk	Ammonia plant-2	Russia	"Rendering of technical services Ammonia-2 plant process diagrams compliance with GOST standards"	2018	Consulting Services
JSC Apatit, Balakovo branch	Ammonia pipeline	Russia	"Approval of permanent process regulations Branch from operating ammonia pipeline Togliatti-Odessa to liquid ammonia storage "	2018	Consulting Services
JSC Apatit, Balakovo branch	Liqiuid ammonia unit	Russia	"Development of main technical solutions Technical re-equipment of liquid ammonia unit for railcars hydrotesting with installation of displacement signaling devices for rail tank cars"	2018	FEED
JSC Apatit, Balakovo branch, Balakovo	Ammonia pipeline	Russia	"Construction supervision Branch from operating ammonia pipeline Togliatti-Odessa to liquid ammonia storage"	2017	Supervisio

Other

		1		1		
Customer	Name of project	Country	Description	Year	Service	S
LLC Novgorod GIAP, Veliky Novgorod	Ammonia plant	Russia	"Development of main technical solutions Additional protection systems for boiler pos. 101-BU of units No.2 and No.3 in ammonia plant at PJSC Acron"	2017	Equipment	Complexes
JSC NAK-Azot, Novomoskovsk	Ammonia plant-4	Russia	Ammonia-4 plant overhaul, including vacuuming of methanol synthesis catalyst in nitrogen medium, catalyst charge and regeneration; bringing of unit to operating condition	2017	Scientific and Technical Support	Con
JSC Apatit, Balakovo branch, Balakovo	Liquid ammonia unit	Russia	Approval of permanent process regulations	2017	Consulting Services	
JSC Kemerovo Azot, Kemerovo	AM-70 ammonia plant. AM-76 ammonia plant	Russia	Process audit. Survey and finding of bottlenecks at chemical plants. (reconstruction, capasity increase)	2016	Consulting Services	J
JSC NAK-Azot, Novomoskovsk	Ammonia plant	Russia	Development and supply of equipment for waste heat recovery system of primary reformer furnace	2015	Equipment	inor
JSC NAK-Azot, Novomoskovsk	Waste heat recovery system of primary reformer furnace of ammonia plant-3	Russia	Industrial safety expert review support	2015	Safety Expert Review	Ammonia
JSC Moscow Cold Storage Facility No.14, Moscow	Equipment for instrumentation room of ammonia refrigerating system No. 1 of compressor section	Russia	Industrial safety expert review support	2015	Safety Expert Review	
JSC Togliattiazot, Togliatti	lsothermic storage	Russia	Industrial safety expert review support	2015	Safety Expert Review	c acid
LLC Mendeleevsk Azot, Mendeleevsk	Liquid ammonia storage	Russia	Liquid ammonia storage technology. Cylinders receiving, storage, release to consumer and filling scheme. Development of cylinders receiving, storage, release to consumer and filling scheme. (Technical retrofitting)	2015	Technology	Nitric
PJSC Dorogobuzh, Dorogobuzh	Ammonia plant hardware	Russia	Industrial safety expert review support	2015	Safety Expert Review	
PJSC Acron, Veliky Novgorod	Technical equipment of 2060 tpd ammonia plant "Ammonia 4"	Russia	Industrial safety expert review support	2014	Safety Expert Review	onia te
JSC Togliattiazot, Togliatti	Coils of steam-gas mixture and steam-air mixture located in heat recovery equipment area of ammonia unit AM-76 No.6	Russia	Industrial safety expert review support	2014	Safety Expert Review	Ammonia nitrate
PJSC Dorogobuzh, Dorogobuzh	Ammonia plant hardware	Russia	Industrial safety expert review support	2014	Safety Expert Review	-
PJSC KuibyshevAzot, Togliatti	System of purification of converted gas from carbon dioxide in unit No.1 of ammonia plant	Russia	Industrial safety expert review support	2014	Safety Expert Review	anol
JSC Minudobreniya, Rossosh	Ammonia plant AM-76M	Russia	Development of conceptual process design applicable to capacity expanding and increasing, energy efficiency and equipment replacement.	2013	FEED	Methanol
JSC Nevinnomyssky Azot, Nevinnomyssk	1-B plant hardware	Russia	Industrial safety expert review support	2013	Safety Expert Review	
PJSC Acron, Veliky Novgorod	2060 tpd ammonia plant "Ammonia 4"	Russia	Consulting and engineering services for development of technical assignment; organization, supervision and acceptance of measuring works and technical survey of plant buildings, structures and foundations	2013	FEED	
JSC Togliattiazot, Togliatti	Absorption refining section of conversion gases from carbon dioxide of unit AM-76	Russia	Process audit. Survey and finding of bottlenecks at chemical plants	2013	Consulting Services	Other
JSC "UCC "URALCHEM", Azot Branch, Berezniki	Ammonia plant (unit 1B)	Russia	Industrial safety expert review support	2013	Safety Expert Review	
PJSC Acron, Veliky Novgorod	Ammonia plant unit No. 2	Russia	Obtaining of permit for use (Pipelines of portable water heaters pos. 123-C1/C2 for syngas)	2011	Maintenance services	
JSC Cherepovetsky Azot, Cherepovets	Refrigerators for MDEA- solution	Russia	Industrial safety expert review support	2011	Safety Expert Review	-
PJSC Acron, Veliky Novgorod	Ammonia plant process equipment and pipelines	Russia	Industrial safety expert review support	2010	Safety Expert Review	

GIAP. Reference

9

S	Customer	Name of project	Country	Description	Year	Service
plexe	JSC Rivneazot, Rivne	Ammonia plant	Ukraine	Safety declaration of major hazard facility. Revision and clarification	2010	Safety Expert Review
Complexes	JSC Fargonaazot, Fergana	Ammonia plant	Uzbekistan	All kinds of activities and services related to passivation, unloading, loading and reduction of catalysts	2010	Scientific and Technical Support
ia	Gansu Lihua Group Co. Ltd, Liujiaxia	600 tpd ammonia plant based on "TANDEM" scheme	China	Natural gas reforming technology for ammonia plant. Development of complete Process Design Package and detail engineering drawings for equipment. Development of process operating manual and performance test run procedure. Participation in pre-commissioning/commissioning and performance test run.	2009	Technology
Ammonia	JSC NAK-Azot, Novomoskovsk	Ammonia unit	Russia	Section for filling 40 lts cylinders with argon, with the capacity of 200 ths nm³/year in build. 1090 of argon section Ammonia-3 plant	2009	Equipment
Ā	JSC Nevinnomyssky Azot, Nevinnomyssk	Carbon Dioxide plant	Russia	Development and supply of equipment for ammonia plant	2009	Equipment
	JSC Angarsk Nitrogen Fertilizers Plant, Angarsk	100 ktpa ammonia plant	Russia	"Pre-feasibility study, feasibility study and justification of investment. Two options of construction are suggested. Nonconventional raw material source- electrolytic hydrogen Capacity 100 ktpa"	2008	FEED
Nitric acid	JSC Minudobreniya, Rossosh	Hydrogen recovery unit	Russia	Process audit. Survey and finding of bottlenecks at chemical plants Adjustment of material balance of AM-1 and AM-2 ammonia units due to the commissioning of hydrogen recovery unit	2008	Consulting Services
litric	JSC Dneprazot, Kamianske	Ammonia unit in plant 1B 1550 -1600 tpd	Ukraine	Pre-feasibility study, feasibility study and justification of investments	2008	Feasibility study
2	JSC NAK-Azot, Novomoskovsk	Ammonia plant (AM-70)	Russia	Pre-feasibility study, feasibility study and justification of investments (modernization with cost-performance ratio improvement)	2007	Feasibility study
	JSC AZOT, Novomoskovsk	Ammonia plant (AM-76)	Russia	Development of conceptual process design. Reconstruction with capacity increasing to 1730 tpd, energy saving and equipment replacement (Unit No. 2)	2007	FEED
Ammonia nitrate	JSC Ammophos, Cherepovets	Liquid ammonia storage	Russia	Development of conceptual process design applicable to storage turnover increase due to ammonia consumption increase by liquid nitrogen station, including ammonia pipeline Dn increase	2007	FEED
Amr nit	JSC KAMAZ, Naberezhnye Chelny	Live storage of liquid ammonia	Russia	Liquid ammonia storage technology. Cylinders receiving, storage, release to consumer and filling scheme. Storage technical retrofitting. Development of cylinders receiving, storage, release to consumer and filling scheme	2007	Technology
	JSC Minudobreniya, Rossosh	Ammonia plant (AM-1)	Russia	Pre-feasibility study, feasibility study and justification of investments (Reconstruction. Capacity increasing up to 1700 tpd)	2006	Feasibility study
lou	JSC Minudobreniya, Rossosh	Ammonia plant	Russia	Development of conceptual process design applicable to capacity expanding and increasing, energy efficiency and equipment replacement	2006	FEED
Methano	JSC NAK-Azot, Novomoskovsk	Ammonia plant AM-70	Russia	Development of conceptual process design applicable to capacity expanding and increasing, energy efficiency and equipment replacement	2006	Scientific and Technical Support
	JSC GrodnoAzot, Grodno	Liquid ammonia tank	Belarus	Liquid ammonia storage technology	2006	Process technology
5	Sumychimprom Ltd, Sumy	Liquid ammonia base storage	Ukraine	Liquid ammonia storage technology. Development of project documentation and detail design (technical re-equipping, storage capacity = 2000t, P = 0.4 MPaG. Replacing of compessor units with offshore ones, replacing of valves. Bringing into compliance with standards)	2006	Process technology
Other	JSC Cherepovetsky Azot, Cherepovets	Ammonia receiving and supply system in build. 2.85	Russia	Pre-feasibility study, feasibility study and justification of investments (Ammonia storage turnover increasing)	2006	FEED
	JSC Cherepovetsky Azot, Cherepovets	Ammonia production unit No.1 (TEC) and No.2 (AM-76)	Russia	Pre-feasibility study, feasibility study and justification of investments	2006	FEED
_	JSC Dneprazot, Kamianske	AM-76 Ammonia plant	Ukraine	Pre-feasibility study, feasibility study and justification of investments (reconditioning repair)	2005	Feasibility study

Customer	Name of project	Country	Description	Year	Service	es
(2) EPC						olex
JSC Minudobreniya, Rossosh	AK-72 Nitric Acid Plant	Russia	Revamping of Plant AK-72 with shift to low-temperature selective catalytic treatment of exhaust gases	2021	EPC	Complexes
Å Design						Ŭ
JSC Nevinnomyssky Azot, Nevinnomyssk	UKL-7 units of work- shop No. 5 of Nitric Acid Plant	Russia	Development of design documentation. Refurbishment of Units UKL-7 in Shop No. 5 of the Nitric Acid Plant to increase working pressure to 7.3 atm.	2021	Design	<u>.</u>
JSC Nevinnomyssky Azot, Nevinnomyssk	UKL-7 units of work- shop No.6/1 of Nitric Acid Plant	Russia	Development of DD and DDD. Refurbishment of Units UKL-7 in Shop No. 6/1 with steam pressure rise to 20 atm	2020	Design	Ammonia
JSC Minudobreniya, Rossosh	Ignition system of cata- lysts grid in contacting apparatus of AK-72, AK- 72M Nitric Acid Plant	Russia	Development of detail design documentation, industrial safety expert review of documents and issue of positive findings	2019	Design	An
JSC TechInnovatsii, Cherepovets	UKL-7-76 nitric acid production plant with capacity 120000 tpa	Russia	Engineering design in the context of scientific and technical support of an object	2019	Design, Sci- entific and Technical Support	cid
JSC Minudobreniya, Rossosh	Weak nitric acid plant	Russia	"Development of Detail Design Documentation Replacement of shutoff devices on gas ammonia supply line into catalytic converters in AK-72, AK-72M units of weak nitric acid plant"	2018	Design	Nitric acid
JSC Kemerovo Azot, Kemerovo	Nitric acid plant AK-72 No.1,2 units, of work- shop No. 15	Russia	Development of Design Documentation. Technical re-equip- ment of AK-72 No.1,2 units, of workshop No. 15 with capacity increasing to 1320 mtpd	2018	Design	
PJSC Dorogobuzh, Dorogobuzh	AK-72 Unit No.1 with selective treatment of exhaust gases con- version	Russia	Development of basic design	2017	Design	<u>a</u> .
JSC Nevinnomyssky Azot, Nevinnomyssk	Packaged equipment — 2 UKL-7 units	Russia	Development of plant operational documentation (process operating procedures, operating manuals etc.)	2015	Design	Ammonia nitrate
JSC MFP of Kiro- vo-Chepetsk Chemical Plant, Kirovo-Chepetsk	AK-72 nitric acid units	Russia	SIS parameters list development	2015	Design	\triangleleft
JSC MFP of Kiro- vo-Chepetsk Chemical Plant, Kirovo-Chepetsk	UKL-7 nitric acids units	Russia	Development of Design Documentation, Industrial Safety Expert Review	2015	Design, Construc- tion, Safety Expert Review	-
JSC Fargonaazot, Fergana	AK-72M non-concen- trated nitric acid units	Uzbekistan	Development and approval of process flow parameters	2015	Design	Methanol
LLC Mendeleevsk Azot, Mendeleevsk	Non concentrated nitric acid unit	Russia	Determination of process flow critical data	2015	Design	Σ
PJSC Dorogobuzh, Dorogobuzh	Nitric acid plant	Russia	Approval of technical solutions	2015	Design	_
JSC MFP of Kiro- vo-Chepetsk Chemical Plant, Kirovo-Chepetsk	AK-72 plants with capacity increasing to 1320 mln. Tpd	Russia	PD development. Safety Expert Review	2014	Design	
JSC MFP of Kiro- vo-Chepetsk Chemical Plant, Kirovo-Chepetsk	Electrical ignition facili- ty for UKL-7	Russia	Development of detail design documentation and design equipment documentation for non-standard equipment	2014	Design	Other
JSC MFP of Kiro- vo-Chepetsk Chemical Plant, Kirovo-Chepetsk	Economizer pos. Э-21 on AK-72 unit No.2	Russia	Development of Detail Design Documentation	2013	Design	
JSC MFP of Kiro- vo-Chepetsk Chemical Plant, Kirovo-Chepetsk	Electrical ignition facility for UKL-7 nitric acid unit	Russia	Development of Detail Design Documentation and design equipment documentation for non-standard equipment	2013	Design	_
PJSC Dorogobuzh, Dorogobuzh	Nitric acid plants (AK- 72/1,2)	Russia	Explosion category calculation of units, determination of parameters, defining explosion hazard of process, categories calculation of buildings, rooms, outdoor installation, indicat- ed in list of buildings, rooms, outdoor installation	2013	Design	

						_
Ň	Customer	Name of project	Country	Description	Year	Service
lexe	PJSC Dorogobuzh, Dorogobuzh	Nitric acid plants (AK- 72/1,2)	Russia	Explosion category calculation	2013	Design
Complexes	JSC Minudobreniya, Rossosh	Nitric acid plant	Russia	"Development of Detail Design Documentation Further equipping of nitric acid storage in nitric acid produc- tion plant AK-72"	2012	Design
-	JSC Minudobreniya, Rossosh	AK-72 nitric acids units	Russia	Process procedure agreement	2012	Design
	JSC Nevinnomyssky Azot, Nevinnomyssk	Weak nitric acid unit in section 1 of plant No. 6	Russia	Development of Detail Design Documentationfor technical re-equipment (change of type 1/3,5 units for UKL-7 units)	2012	Design
<u>.</u>	JSC Rivneazot, Rivne	Expansion of nitric acid storage to 4000 m3	Ukraine	Detail Design. Supervision	2012	Design, Supervision
Ammonia	LLC Novgorod GIAP, Veliky Novgorod	AK-72 nitric acids units	Russia	Design and equipment design documentation of not typical equipment for changeover of UKL-7/71 unit at JSC Doro-gobuzh for selective treatment	2012	Design
An	JSC Nevinnomyssky Azot, Nevinnomyssk	Packaged equipment — 2 UKL-7 units	Russia	Obtaining a permit for using of packaged equipment	2011	Design
	JSC Nevinnomyssky Azot, Nevinnomyssk	Ammonia unit in sec- tion No. 1 of plant No. 6	Russia	Development of Design Documentation.	2010	Design
	JSC Nevinnomyssky Azot, Nevinnomyssk	Nitric acid unit in sec- tion No. 1 of plant No. 6	Russia	Development of Detail Design Documentation	2010	Design
acid	PJSC Dorogobuzh, Dorogobuzh	AK-72 nitric acid plant	Russia	Development of Design Documentation. Development of operating documentation (process regulations, operating manuals, etc.)	2010	Design
Nitric acid	PJSC Dorogobuzh, Dorogobuzh	AK 72/1 unit exhaust fan installation	Russia	Development of Basic and Detail Design Documentation	2010	Design
Nit	JSC Minudobreniya, Rossosh	Liquid ammonia filters installation in AK-72 unit	Russia	Development of Detail Design Documentation	2009	Design
σ	JSC Minudobreniya, Rossosh	Exhaust fans for main- taining of required exhaustion in burner area PVG -1200 of AK- 72 unit	Russia	Calculations and Development of Plant Detail Design Docu- mentation	2008	Design
Ammonia nitrate	JSC Minudobreniya, Rossosh	Separation device on nitrous gas pipeline before nitrous blower of AK-72 and AK-72M units	Russia	Development of Plant Detail Design Documentation	2008	Design
	JSC Minudobreniya, Rossosh	AK-72M non-concen- trated nitric acid units	Russia	Development of Detail Design Documentation (installation of liquid ammonia filter. Installation of separation device. Installation of ID-fans B-103. Electricity supply of electric motors)	2008	Design
	JSC MendeleevskAzot, Mendeleevsk	Nitric acid plant	Russia	Development of Detail Design Documentation for changing of cooler-condenser for brazed plate heat exchanger CPK 75- H-250 in UKL-7 unit No.2	2007	Design
Methanol	JSC Minudobreniya, Rossosh	Liquid complex fertiliz- er storage	Russia	"Development of Design Documentation Liquid complex fertilizer storage (with possible use of 58% nitric acid storage)"	2004	Design
Μe	Nitrogenmuvek RT, Pétfürdő	Nitric acid UKL-7 unit	Hungary	Revamping based on low temperature selective treatment of exhaust gases	2004	Technology Design, Sci- entific and Technical Support, catalyst, Supervision
	AB ACHEMA, Jonava	Nitir acid plant UKL-7 units (No.7, No.8, No.9)	Lithuania	Construction	2004	Design
Other	JSC Azot, Berezniki	Nitric acid UKL-7 unit	Russia	Detail design of UKL-7 unit technology improvement based on selective catalytic treatment with energy saving	2003	Design
ō	PJSC Acron, Veliky Novgorod	Nitric acid AK-72 unit	Russia	Detail design of low temperature selective treatment of tail gases in nitrile of acrylic acid-2 production unit	2003	Design
	JSC MendeleevskAzot, Mendeleevsk	Nitric acid UKL-7 unit	Russia	Detail Design	2003	Design
	PJSC Dorogobuzh, Dorogobuzh	Nitric acid AK-72 unit	Russia	Detail design of low temperature selective treatment of tail gases on UKL-7 units	2003	Design
	JSC Cherepovetsky Azot, Cherepovets	Nitric acid plant	Russia	"Development of Detail Design Documentation Lower automation of nitric acid units control system"	2002	Design
	JSC NAK-Azot, Novo- moskovsk	Weak nitric acid units type 1/3,5	Russia	Development of Design Documentation for revamping of weak nitric acid units type 1/3,5 using catalytic oxidation of molecular nitrogen method without the use of ammonia	2001	Design

Customer	Name of project	Country	Description	Year	Service	10
JSC Nevinnomyssky Azot, Nevinnomyssk	Weak nitric acid units type 1/3,5	Russia	Development of Detail Design Documentation (revamping using the new method of nitrogen fixation)	2001	Design	Complexes
() Other activities						dmo
JSC PSI, Balashikha	Weak Nitric Acid unit as part of two plants with capacity of 500 tpd	Russia	Scientific and technical support to KJSC Azot, Kemerovo	2020	Scientific & Technical Support	0
JSC "UCC "URAL- CHEM",Kiro- vo-Chepetsk	Nitric acid production	Russia	Collection of solids which contain platinum group metals	2019	Service	<u>ם</u> .
Industrial Innovations Limited, Uvarovo	Nitric acid plant	Russia	"Development of main technical solutions. 2000 tpd nitric acid plant (expressed as 100% HNO3) with 60-64% concentration and 2500 tpd ammonium nitrate, grade B, premium quality according to GOST 2-2013 with nitrogen content not less than 34,4%"	2018	FEED	Ammonia
JSC Apatit, Chere- povets	Unclaimed vapor recovery of UCL-7-76 units	Russia	Development of main technical solutions and preliminary cost estimate	2018	FEED	-
Kirovo-Chepetsk Chemical Plant Branch of JSC UCC URALCHEM, r. Kiro- vo-Chepetsk	Ignition equipment for catalyst grids of catalytic converter pos. P-201 of UKL-7 unit in weak nitric acid plant using electric igniter device	Russia	Development of detail design documentation and equip- ment design documentation	2017	Technical solutions, Safety Ex- pert Review	Nitric acid
JSC Kemerovo Azot, Kemerovo	AK-72 nitric acid units	Russia	Process audit. Survey and finding of bottlenecks	2016	Consulting Services	Nit
JSC Angarsk Nitro- gen Fertilizers Plant, Angarsk	Nitric acid plants	Russia	Process audit. Survey and finding of bottlenecks	2016	Consulting Services	
PJSC KuibyshevAzot, Togliatti	Non concentrated nitric acid unit	Russia	Technical support during state expert review (GlavGosExper- tiza) 120 KTA weak nitric acid plant based on UKL-7-76 unit	2015	Consulting Services	_
JSC Meleuz Mineral Fertilizers, Meleuz	UKL-7 nitric acids units	Russia	Industrial safety expert review support	2015	Mainte- nance services	Ammonia nitrate
JSC Nevinnomyssky Azot, Nevinnomyssk	UKL-7 nitric acids units	Russia	Catalyst supply on Client request	2015	Mainte- nance services	Amn nitr
JSC Nevinnomyssky Azot, Nevinnomyssk	Packaged equipment — 2 UKL-7 units	Russia	Industrial safety expert review support	2015	Safety Ex- pert Review	
PJSC Acron, Veliky Novgorod	UKL-7 nitric acids units	Russia	Process audit. Survey and finding of bottlenecks at chemical plants. Equipment supply on Client request	2015	Mainte- nance services	-
JSC MFP of Kiro- vo-Chepetsk Chemical Plant, Kirovo-Chepetsk	AK-72 nitric acids unit No. 2	Russia	Process equipment decontamination	2015	Mainte- nance services	anol
LLC Mendeleevsk Azot, Mendeleevsk	UKL-7 nitric acids units	Russia	Process equipment decontamination	2015	Mainte- nance services	Methanol
PJSC Dorogobuzh, Dorogobuzh	UKL-7 nitric acids units	Russia	Catalyst supply on Client request	2015	Mainte- nance services	
AB ACHEMA, Jonava	UKL-7 nitric acids units	Lithuania	Process equipment decontamination	2014	Mainte- nance services	
JSC Rivneazot, Rivne	Weak nitric acid section of weak nitic acid and ammonium nitrate unit. UKL-7 unit No.2.	Ukraine	Construction supervision	2014	Supervision	Other
JSC "UCC "URAL- CHEM", Azot Branch, Berezniki	UKL-7 nitric acids units	Russia	Process equipment decontamination	2014	Mainte- nance services	_
JSC Meleuz Mineral Fertilizers, Meleuz	UKL-7 nitric acids units	Russia	Process equipment decontamination	2013	Mainte- nance services	
JSC "UCC "URAL- CHEM", Azot Branch, Berezniki	UKL-7 nitric acids units	Russia	Process equipment decontamination	2013	Mainte- nance services	
JSC Minudobreniya, Rossosh	AK-72 nitric acids units	Russia	Process procedure agreement	2012	Consulting Services	

S	Customer	Name of project	Country	Description	Year	Service
Complexes	LLC Eurochem-Belore- chensk Mineral Fertil- izers, Belorechensk	Weak nitric acid plant	Russia	Pre-feasibility study, feasibility study and justification of investments (Plant rehabilitation)	2012	FEED
Сол	JSC "UCC "URAL- CHEM", Azot Branch, Berezniki	UKL-7 nitric acids units	Russia	Process equipment decontamination	2012	Mainte- nance services
	JSC Meleuz Mineral Fertilizers, Meleuz	UKL-7 nitric acids units	Russia	Process equipment decontamination	2011	Mainte- nance services
nia	JSC MFP of Kiro- vo-Chepetsk Chemical Plant, Kirovo-Chepetsk	AK-72 nitric acids units	Russia	Process equipment decontamination	2011	Mainte- nance services
Ammonia	JSC Angarsk Nitro- gen Fertilizers Plant, Angarsk	Weak nitric acid unit No. 8	Russia	Process audit. Plant debottlenecking	2011	Consulting Services
Ar	PJSC Dorogobuzh, Dorogobuzh	AK-72 nitric acids units	Russia	Process equipment decontamination	2011	Mainte- nance services
	PJSC Dorogobuzh, Dorogobuzh	UKL-7 nitric acids units	Russia	Process equipment decontamination	2011	Mainte- nance services
<u>q</u>	JSC Nevinnomyssky Azot, Nevinnomyssk	GTU-8 gas turbine unit	Russia	Change of obsolete GTT-3M for new one	2010	Equipment
Nitric acid	JSC Nevinnomyssky Azot, Nevinnomyssk	UKL-7 nitric acids units	Russia	Catalysts supply on Customer request	2010	Mainte- nance services
Nit	PJSC Acron, Veliky Novgorod	AK-72 nitric acids units	Russia	Process equipment decontamination	2010	Mainte- nance services
	JSC MFP of Kiro- vo-Chepetsk Chemical Plant, Kirovo-Chepetsk	UKL-7 nitric acids units	Russia	Process equipment decontamination	2010	Mainte- nance services
D	JSC Kemerovo Azot, Kemerovo	AK-72/2 nitric acid unit	Russia	Process audit and development of initial data for revamping designing	2009	Consulting Services
Ammonia nitrate	PJSC "Concern Stirol", Horlivka	Nitric acid UKL-7 units No. 3,4	Ukraine	Revamping of two units based on change of obsolete GTT-3M for two new GTU-8 gas turbine units	2008	Equipment
Amr nit	JSC "UCC "URAL- CHEM", Azot Branch, Berezniki	UKL-7 unit with using of selective catalytic treatment of tail gas	Russia	Safety expert review of detail design	2008	Consulting Services
	JSC Nevinnomyssky Azot, Nevinnomyssk	Revamping of two units based on change of obsolete GTT-3M for two new GTU-8 gas turbine units	Russia	Development of Technical Documentation	2007	Equipment
	JSC MendeleevskAzot, Mendeleevsk	UKL-7 unit revamping	Russia	Revamping of UKL-7 with new equipment installation	2007	Equipment
Methano	JSC MFP of Kiro- vo-Chepetsk Chemical Plant, Kirovo-Chepetsk	Selective catalytic treatment stage of UKL-7 unit tail gases	Russia	Reconstruction	2006	Equipment
Σ	JSC Meleuz Mineral Fertilizers, Meleuz	Nitric acid UKL-7 unit	Russia	Revamping based on selective catalytic treatment with energy saving	2005	Technology
	JSC Cherepovetsky Azot, Cherepovets	Nitric acid UKL-7 unit selective catalytic treatment unit	Russia	Revamping	2005	Technology
	JSC CherkassyAzot, Cherkassy	Nitric acid UKL-7 unit	Ukraine	Technology improvement of UKL-7 unit based on selective treatment with recuperative heating of tail gases	2005	Technology
Other	PJSC Dorogobuzh, Dorogobuzh	Nitric acid UKL-7 unit	Russia	Revamping based on selective catalytic treatment with energy saving	2005	Technology
Ó	JSC Navoiyazot, Navoiy	Nitric acid UKL-7 unit	Uzbekistan	Revamping based on selective catalytic treatment with energy saving	2004	Technology
	JSC NAK-Azot, Novo- moskovsk	Nitric acid UKL-7 unit	Russia	Revamping based on low temperature selective treatment of exhaust gases	2004	Technology

Customer	Name of project	Country	Description	Year	Service	S
EPC						olex
KJSC Azot, Kemerovo	Ammonia Nitrate Plant AC-72/1	Russia	Procurement of equipment, construction and installation, commissioning under the Ammonia Nitrate Plant refur- bishment project Steam/air mix purification system of Plant AC-72/1	In prog- ress	EPC	Complexes
PJSC KuibyshevAzot, Togliatti	2300 tpd ammonia nitrate pelletization unit and evaporation of 2nd stage	Russia	EPC-Agreement for Engineering Design, supply of complete equipment and construction and installation works	2022	EPC	
General designer's	activities					onia
JSC Kemerovo Azot, Kemerovo	№1,2 AC-72M ammo- nia nitrate production units	Russia	Process-oriented examination, definition of BES options, engineering surveys, development of DD, technical propos- als and equipment data sheets for ordering, development of DDD, design estimates, arrangement for conduct of and support to industrial safety expert review	2018	General designer's activities	Ammonia
PJSC KuibyshevAzot, Togliatti	Ammonium sul- phate-nitrate plant	Russia	Development of Design Documentation	2015	General designer's activities	_
Å Design						acid
JSC Nevinnomyssky Azot, Nevinnomyssk	Construction of a new prilling unit in the am- monia nitrate shop	Russia	Development of FEED and design documentation for the project "Construction of new prilling unit (tower) in the am- monia nitrate shop 3-A at Nevinnomyssky Azot"	In prog- ress	Design	Nitrica
OJSC Grodno Azot	Ammonium nitrate unit	Belarus	Development of FEED for 1500 tpd ammonium nitrate unit	2023	Design	Z
JSC Apatit, Cherepovets	Ammonia Nitrate Unit	Russia	Bearing capacity analysis for frame members of the granula- tion tower after repair and recovery activities	2022	Design	
PJSC KuibyshevAzot, Togliatti	AC-60 NS production unit. Unit №3	Russia	Replacement of distillation gas neutralization scrubbers	2022	Design	<u>ia</u>
JSC "UCC "URAL- CHEM", Azot Branch, Berezniki	AC-72 NS production unit	Russia	Expansion of Plant AC-72 to 2100 tpd and greenfield con- struction of 16 tph NS Plant	2022	Design	Ammonia nitrate
JSC "MAX- AM-CHIRCHIQ", Chirchiq	AC-72M ammonia ni- trate production unit	Uzbekistan	Process-oriented examination of the unit.	2019	Design	Ч Ч
PJSC Dorogobuzh, Dorogobuzh	Ammonia nitrate plant AC-72, unit No. 1	Russia	Foundations for equipment building. 560 Foundations for equipment building. 544. Technical re-equipment	2019	Design	
JSC Minudobreniya, Rossosh	Ammonia nitrate plant AC-72	Russia	"Development of Detail Design Documentation Technical re-equipment of prills cooling unit in AC-72 ammo- nium nitrate plant"	2018	Design	Methanol
PJSC Dorogobuzh, Dorogobuzh	Ammonia nitrate plant AC-72, Unit No. 1	Russia	Feasibility study, design documentation, state expert review support, detail design documentation, cost estimate docu- mentation. Revamping of ammonia nitrate plant AC-72, Unit No. 1 to 2300 tpd capacity	2018	Design	Σ
PJSC Dorogobuzh, Dorogobuzh	Ammonia nitrate plant AC-72, Unit No. 1	Russia	Development of documentation for technical re-equipment. Technical re-equipment for capacity increasing of AC-72 No.1 plant to 1800 tpd and justification of plant safe operation at loads, beyond design loads	2018	Design	
PJSC Dorogobuzh, Dorogobuzh	Ammonia nitrate plant AC-72, Unit No. 2	Russia	Development of documentation for technical re-equipment. Technical re-equipment for capacity increasing of AC-72 No.1 plant to 1800 tpd and justification of plant safe operation at loads, beyond design loads	2018	Design	Other
LLP KazAzot, Aktau	Neutralization and evaporation section	Kazakh- stan	Detail design	2018	Design	
JSC PhosAgro, Chere- povets	Prilling tower scrubber pos. X-29	Russia	Development of detail design documentation for scrubber revamping project	2016	Design	
JSC MFP of Kiro- vo-Chepetsk Chemical Plant, Kirovo-Chepetsk	AC-72M ammonium nitrate units	Russia	Development and approval of process flow parameters	2015	Design	
JSC Fargonaazot, Fergana	AC-72M ammonium nitrate units	Uzbekistan	Development and approval of process flow parameters	2015	Design	-
LLC Mendeleevsk Azot, Mendeleevsk	Ammonium nitrate plant	Russia	Determination of process flow critical data	2015	Design	

					1	
S	Customer	Name of project	Country	Description	Year	Service
Complexes	JSC "UCC "URAL- CHEM", Azot Branch, Berezniki	Granular calcium-am- monium nitrate plant. AC-71 ammonia nitrate plant	Russia	Development of design and estimate documentation (tech- nical solutions, basis and detail design documentation) for technical re-equipment	2015	Design
ů	JSC Navoiyazot, Navoiy	Ammonia nitrate plant	Uzbekistan	Feasibility study and justification of investments	2014	Design
	PJSC "Concern Stirol", Horlivka	Sodium nitrate plant	Ukraine	Development of plant operational documentation (process operating procedures, operating manuals etc.)	2014	Design
i.a	JSC Meleuz Mineral Fertilizers, Meleuz	AC-72M ammonium nitrate units	Russia	Process procedure agreement	2012	Design
Ammonia	PJSC KuibyshevAzot, Togliatti	Secondary steam con- densation processing unit of ammonium nitrate plant. Work- shop No.3	Russia	Development of Detail Design Documentation	2012	Design
	PJSC Dorogobuzh, Dorogobuzh	Air-conditioning system supplied to 3rd section of X-33 unit of AC-72 ammonium nitrate plant	Russia	Development of Basic and Detail Design Documentation	2011	Design
cid	JSC Minudobreniya, Rossosh	Ammonia Nitrate plant	Russia	Development of Detail Design Documentation (reconstruc- tion of lifting facilities of granulation and cooling section of AC-72 unit)	2009	Design
Nitric acid	JSC Minudobreniya, Rossosh	Loading unit of ammo- nium nitrate and NPK fertilizers big bags in AC-72 unit	Russia	Development of Design Documentation	2008	Design
	Neochem PLC, Dimi- trovgrad	Revamp of ammonium nitrate plant, capacity increasing from 1430 up to 2 150 tpd	Bulgaria	Basic Design, detail design, complete procurement of equip- ment. Designer's supervision	2007	Design, equipment
ia a	JSC Cherepovetsky Azot, Cherepovets	AC-72 and AC-72M ammonium nitrate production plants	Russia	Development of Design Documentation (transfer of evapora- tor pos.T-10 of AC-72 unit to AC-72M unit)	2005	Design
Ammonia nitrate	JSC Minudobreniya, Rossosh	Heaters system for conversion fluid of ammonium nitrate in AC-72 unit	Russia	Development of Detail Design Documentation	2004	Design
4	JSC Rivneazot, Rivne	Calcium-ammonium nitrate plant	Ukraine	Proprietary Basic Design	2004	Design, Technology
	JSC Cherepovetsky Azot, Cherepovets	Ammonium nitrate unit	Russia	Development of Detail Design Documentation	2004	Design
_	() Other activities					
Jano	JSC Kemerovo Azot, Kemerovo	Waste-water treatment in UAN production	Russia	Delivery of complete equipment	2020	Equipment
Methanol	Quimimpex, Havana	Nitrogen-containing fertilizers production plant	Cuba	Engineering services	2019	Consulting Services
	JSC Angarsk Nitro- gen Fertilizers Plant, Angarsk	Air cleaning system of prilling towers №1,2, ammonia nitrate pro- duction	Russia	Development of investment feasibility study (IFS)	2019	Pre-project activities
	JSC Apatit, Chere- povets	AC-72M ammonia nitrate plant	Russia	Designer supervision during construction "Installation of additional evaporator pos. T-10/1 at AC-72M plant"	2019	Supervision
Other	JSC Kemerovo Azot, Kemerovo	Nitric acid neutral- ization unit by gas ammonia	Russia	"Development of basic design, license agreement of right to use of Know-How (neutralization unit). Engineering services agreement (with 89-92% concentration ammonium nitrate solution obtaining, nominal capacity 288 tpd (expressed as 100% NH4NO3) at Kemerovo Azot)"	2017	Equipment
	JSC Apatit, Chere- povets	Installation of addition- al evaporator pos. T-10/1 at AC-72M plant	Russia	Construction supervision	2017	Consulting Services
	PJSC KuibyshevAzot, Togliatti	2300 mtpd ammoni- um nitrate prilling unit	Russia	Development of Design Documentation	2017	FEED
	JSC Kemerovo Azot, Kemerovo	AC-72 ammonium nitrate units	Russia	Process audit. Survey and finding of bottlenecks at chemical plants.	2016	Consulting Services
	JSC Angarsk Nitro- gen Fertilizers Plant, Angarsk	AC-62 ammonium nitrate unit	Russia	Process audit. Survey and finding of bottlenecks at chemical plants.	2016	Consulting Services

GIAP. Reference

Customer	Name of project	Country	Description	Year	Service	S
JSC MFP of Kiro- vo-Chepetsk Chemical Plant, Kirovo-Chepetsk	Neutralizing heat recovery system of unit No.57	Russia	Engineering Services	2015	Consulting Services	Complexes
JSC "UCC "URAL- CHEM", Azot Branch, Berezniki	Granular calcium-am- monium nitrate plant. AC-72 ammonia nitrate plant	Russia	Industrial safety expert review support	2015	Safety Ex- pert Review	Соп
JSC MFP of Kiro- vo-Chepetsk Chemical Plant, Kirovo-Chepetsk	Ammonia nitrate solu- tion unit	Russia	Industrial safety expert review support	2014	Safety Ex- pert Review	nia
JSC MFP of Kiro- vo-Chepetsk Chemical Plant, Kirovo-Chepetsk	Installation of melting filter for ammonium nitrate (unit AC-72/1)	Russia	Industrial safety expert review support	2014	Safety Ex- pert Review	Ammonia
LLP KazAzot, Aktau	Ammonia nitrate plant	Kazakh- stan	Pre-feasibility study, feasibility study and justification of investments	2014	FEED	<
PJSC Acron, Veliky Novgorod	Ammonia nitrate plant	Russia	Calculation of explosion hazard energy indicators	2013	FEED	
JSC MFP of Kiro- vo-Chepetsk Chemical Plant, Kirovo-Chepetsk	90% ammonia nitrate solution production unit	Russia	Industrial Safety Expert Review of DD "Technical re-equip- ment of Ammonia nitrate solution production unit with max. capacity 60 t/h using 100% ammonia nitrate.	2013	Consulting Services	id
JSC MFP of Kiro- vo-Chepetsk Chemical Plant, Kirovo-Chepetsk	4 sections of evapo- rator unit. Workshop No.58, build. 503	Russia	Industrial safety expert review support	2012	Safety Ex- pert Review	Nitric acid
JSC MFP of Kiro- vo-Chepetsk Chemical Plant, Kirovo-Chepetsk	AC-72/1 ammonium nitrate unit	Russia	Industrial safety expert review support	2012	Safety Ex- pert Review	Nit
PJSC Dorogobuzh, Dorogobuzh	Ammonia nitrate plant	Russia	Industrial safety expert review support	2011	Safety Ex- pert Review	
JSC MFP of Kiro- vo-Chepetsk Chemical Plant, Kirovo-Chepetsk	AC-72 unit of plant No. 57	Russia	Stipulation of safe operation condition	2010	Safety Ex- pert Review	<u>.</u>
JSC MFP of Kiro- vo-Chepetsk Chemical Plant, Kirovo-Chepetsk	Equipment associat- ed with compound NPK-fertilizers produc- tion	Russia	Stipulation of safe operation condition	2010	Safety Ex- pert Review	Ammonia nitrate
PJSC Dorogobuzh, Dorogobuzh	Neutralizing heat recovery system of am- monium nitrate plant	Russia	Industrial safety expert review	2010	Safety Ex- pert Review	4

omplexes	Customer	Name of project	Country	Description	Year	Service
	🛽 General designer's	activities				
)	JSC Nakhodka Fertiliz- er Plant, Nakhodka	Methanol Plant	Russia	Package of engineering services for 5400 tpd Methanol Plant construction project: General Designer functions performing; Basic Design Adaptation of EPC-Contractor and Licenser. Development of Design Documentation. Development of Detail Design Documentation. Supervision.		General designer's activities
	LLC Tomet, Togliatti	1600 tpa methanol production	Russia	1600 tpa Stabilization Unit	2020	General designer's activities
	Å Design					
Ammonia	JSC "Technoleasing", Skovorodino	Methanol production unit with capacity 1 MTPA	Russia	FEED of auxiliary facilities/systems in the southern part of the 1 Mtpa Methanol Complex in Skovorodino, Amur Region	2021	Design
	JSC "Technoleasing", Skovorodino	Methanol production unit with capacity up to 1 MTPA	Russia	Front-end engineering of vessels for the proposed complex, Skovorodino	2020	Design
Nitric acid	LLC Sibmetachim, Tomsk	Methanol plant M-750	Russia	Development of main technical solutions for capacity in- creasing (development of design and detail design docu- mentation)	2017	Design
NITLIC	PJSC Metafrax, Gu- bakha	Methanol plant (II stage)	Russia	Development of technical solutions and Detail Design Doc- umentation for flare unit technical re-equipment; Industrial safety expert review support	2016	Design, Safety Ex- pert Review
Ammonia nitrate	PJSC Metafrax, Gu- bakha	Methanol plant unit No. 10 (recirculation system)	Russia	Development of technical solutions and Detail Design Doc- umentation	2016	Design
	PJSC Metafrax, Gu- bakha	Rectification system of methanol plant unit No. 1	Russia	Development of technical solutions and Detail Design Doc- umentation	2016	Design
	LLC Tomet, Togliatti	Convection area of reformer pos. H-1701	Russia	Development of Detail Design Documentation	2015	Design
	LLC Tomet, Togliatti	Methanol plant	Russia	Determination of process parameters	2015	Design
	LLC Sibmetachim, Tomsk	Methanol plant M-750	Russia	Basis Proprietary Engineering Design. Development of main technical solutions for capacity increasing (development of design and detail design documentation)	2015	Design, FEED
ō	PJSC Metafrax, Gu- bacha	Methanol plant (unit 08 (compression)	Russia	Development of Basic and Detail Design documentation	2014	Design
Methanol	PJSC Metafrax, Gu- bacha	Methanol plant M-750	Russia	Development of Basic and Detail Design documentation for technical re-equipment of flow-type converter	2014	Design
ž	UCC Shchekinoazot, Shchekino	Methanol plant M-450 (methanol storage site)	Russia	Development of Detail Design Documentation	2013	Design
	JSC Cherepovetsky Azot, cherepovets	"Methanol plant "	Russia	"Development of Detail Design Documentation Revamp of syngas cooling system after methanator in unit AM-2"	2011	Design
_	JSC Ural Methanol Group, Nizhny Tagil	600 ktpa methanol plant	Russia	Adaption of basic design prepared by foreign licensor in all parts and according to technical regulations of RF. Devel- opment of Design Documentation for State expert review, positive finding	2011	Design
Other	UCC Shchekinoazot, Shchekino	450 ktpa methanol plant	Russia	Acceptance and adaption of basic design prepared by foreign licensor in all parts and according to technical reg- ulations of RF. Development of Approvable part and Detail design. State expert review, positive finding. Construction supervision and technical support during plant construction	2011	Design, Safety Ex- pert Reviev Supervisior
	UCC Shchekinoazot, Shchekino	Methanol-rectificate plant	Russia	"Development of Design Documentation (expansion of production) 1350 tpd capacity"	2008	Design
	UCC Shchekinoazot, Shchekino	Methanol plant M-450	Russia	Development of Detail Design Documentation	2008	Design
	Oil refinery plant, Tula	Commodity storage facility, methanol intermediate tanks, pumping stations of filling, discharge and mixing unit, automatic discharge	Russia	Development of Design Documentation	2004	Design

Customer	Name of project	Country	Description	Year	Service	S
LLC Sintop, Moscow	Universal pilot plant for water-methanol mixture processing	Russia	Development of Design Documentation	2004	Design	Complexes
JSC NAK-Azot, Novo- moskovsk	Methanol plant	Russia	"Development of Detail Design Documentation (second start-up complex of methanol plant with capacity of 300 ktpa). Base storage of methanol"	2003	Design	Com
JSC NAK-Azot, Novo- moskovsk	Methanol plant M-300	Russia	"Development of Design Documentation Water treatment unit"	2003	Design	
JSC NAK-Azot, Novo- moskovsk	Methanol plant M-300	Russia	Development of Design Documentation. Pre-commission- ing/commissioning. Process audit. Survey and finding of bottlenecks at chemical plants	2003	Design, Sci- entific and Technical Support	iia
CJSC EuroChem Min- eral & Chemical Com- pany, Novomoskovsk	300 ktpy methanol plant	Russia	Detail Design development, supervision, equipment supply, start-up, process adjustment	2003	Design, Supervision, Scientific and Techni- cal Support	Ammonia
UCC Shchekinoazot, Shchekino	Methanol plant M-100- 2 to 140 ktpa	Russia	Detail design documentation. Designer's surveillance and technical support during plant construction. Equipment de- sign. Commissioning. Adjustment of process conditions and designer's surveillance of operation (overhaul and revamp)	2003	Design, Supervision, Scientific and Techni- cal Support	
AB ACHEMA, Jonava	74 ktpa methanol plant	Lithuania	Feasibility study and justification of investments. Basic and detail design documentation, supervision. Process monitor- ing of plan operation	2001	Design, Feasibility study, Sci- entific and Technical Support	Nitric acid
PJSC Metafrax, Gu- bacha	750 ktpa methanol plant	Russia	Basic and Detail Design development, construction and installation supervision (Upgrading)	2001	Design, Supervision	Z
() Other activities						
PJSC Metafrax Chemi- cals, Gubakha	Methanol Plant 2	Russia	Investment feasibility study (IFS) for construction of Metha- nol Plant 2 in PJSC Metafrax Chemicals	2022	Pre-project activities	a
JSC NAK-Azot, Novo- moskovsk	"Methanol plant"	Russia	Rendering of consulting and engineering services for perfo- mance of repair and commissioning works during JSC NAK- Azot methanol plant turnaround	2019	Engineering services	Ammonia nitrate
LLC Tomet, Togliatti	240 tons intermediate tank for methanol loading into tank trucks	Russia	Development of main technical solutions, development of design documentation, development of detail design documentation	2018	FEED	Am
LLC Tomet, Togliatti	Highly demineralized water preparation and supply unit with capac- ity of 500 t/hour	Russia	Development of design documentation, development of detail design documentation	2018	FEED	
LLC Tomet, Togliatti	1600 tpd Methanol plant. (Expansion to 1 000 000 tpa)	Russia	Development of measures for comprehensive tempera- ture reduction in the zone of elevation burners of reformer furnace H-1701, pos. No. 00087114 (Feasibility study with explanatory and calculation report)	2018	FEED	Methanol
China Machinery Industry Internation- al Cooperation Co, Henan	Methanol plant M-330	China	Engineering services	2017	Engineering Services	Me.
JSC NAK-Azot, Novo- moskovsk	Methanol plant M-300	Russia	M-300 methanol unit overhaul, including surface passiva- tion and unloading of methanol synthesis catalyst, catalyst charge and regeneration; bringing of unit to operating condition	2017	Scientific and Techni- cal Support	
JSC Togliattiazot, Togliatti	Methanol plant	Russia	Pre-feasibility study, feasibility study and justification of investments	2015	FEED	er
LLC Nefteterminal, Skovorodino	Methanol plant	Russia	Pre-feasibility study, feasibility study and justification of investments	2015	FEED	Other
PJSC Metafrax, Gu- bacha	Methanol plant M-750	Russia	Development of main technical solutions for capacity in- creasing (pre-feasibility study)	2014	Feasibility study	
LLP EPCService, Almaty	Methanol plant	Kazakh- stan	Consulting services during negotiations between Client and foreign licensor on methanol technology purchase. Preparing Technical Appendices to Contract with Licensor	2014	Consulting Services	
JSC NAK-Azot, Novo- moskovsk	Methanol plants M-300, M-100	Russia	Pre-feasibility study, feasibility study and justification of investments	2013	Feasibility study	

S	Customer	Name of project	Country	Description	Year	Service
Complexe	LLC VNIIGAS Gazprom, Moscow	Oil-and-gas conden- sate filed	Russia	Pre-feasibility study, feasibility study and justification of investments in gas-chemical complex hydrocarbons Sobinsk oil and gas condensate field" as a part of the ammonia production, nitric acid with a warehouse, ammonium nitrate, urea, methanol and dimethyl ether	2010	FEED
	LLC VNIIGAS Gazprom, Moscow	Gas condensate filed	Russia	Section "gas-chemical production" of investment plan of building an experienced gas production, gas processing / gas chemical complex on the Chikanskoye condensate field basis with the creation of the production of methanol and dimethyl ether	2010	FEED
nia	PJSC Acron, Veliky Novgorod	Methanol plant	Russia	Reduction of methanol synthesis canalyst and units ACM-4, ACM-5 и ACM-6 commissioning	2009	Scientific and Techni- cal Support
Ammonia	JSC GrodnoAzot, Grodno	Methanol plant	Belarus	Process audit. Survey and finding of bottlenecks at chemical plants	2009	Consulting Services
Am	AB ACHEMA, Jonava	130 ktpa methanol plant	Lithuania	Recovery of synthesis and conversion catalysts. Start-up, pro- cess adjustment and designer supervision of operation	2008	Scientific and Techni- cal Support
	PJSC Acron, Veliky Novgorod	160 ktpa methanol plant	Russia	Pre-feasibility study, feasibility study and justification of investments	2008	Feasibility study
σ	PJSC Acron, Veliky Novgorod	Methanol plant	Russia	Reduction of methanol synthesis canalyst and unit ACM-7 commissioning . Process monitoring of operation of ACM-4, ACM-6 and ACM-10 units	2008	Scientific and Techni- cal Support
c aci	JSC Yasinovskiy Coke Plant, Yasinovka	85 ktpa methanol plant	Ukraine	Pre-feasibility study, feasibility study and justification of investments	2006	Feasibility study
Nitric acid	Industrial site of Dmi- triev Chemical Plant, Kineshma	Methanol and acetic acid plants	Russia	Pre-feasibility study, feasibility study and justification of investments (Chemical plant development concepa)	2006	FEED
	AB ACHEMA, Jonava	130 kpta Methanol plant	Lithuania	Pre-Feasibility study, Feasibility study and justification of investments. Proprietary Basic Design	2004	FEED
	AB ACHEMA, Jonava	130 kpta Methanol plant	Lithuania	Methanol synthesis and conversion catalysts reduction. Startup, adjustment of process conditions and designer's surveillance of plant operation.	2004	FEED
mmonia nitrate	JSC NAK-Azot, Novo- moskovsk	Methanol plant M-300	Russia	Reduction of methanol synthesis catalyst, unit commission- ing .	2003	Scientific and Techni- cal Support
Ammonia nitrate	Zapolyarnoe gas condensate field", set- tlement of Tazovsky	"Methanol plant "	Russia	Pre-feasibility study, feasibility study and justification of investments. Pilot unit for methanol from natural gas pro- duction on Zapolyarnoe gas condensate field	2002	FEED
	AB ACHEMA, Jonava	74 ktpa methanol plant	Lithuania	Reduction of methanol synthesis catalyst, unit commission- ing. Process monitoring of plant operation	2001	Scientific and Techni- cal Support
_	JSC NAK-Azot, Novo- moskovsk	Methanol plant M-100- 4	Russia	Reduction of methanol synthesis catalyst, unit commission- ing. Process monitoring of plant operation	2001	Scientific and Techni- cal Support
thanol	JSC GrodnoAzot, Grodno	Methanol plant, KCM -3	Belarus	Reduction of methanol synthesis catalyst, unit commission- ing. KCM-4 operation process monitoring	2000	Scientific and Techni- cal Support

Customer	Name of project	Country	Description	Year	Service	S
Ceneral design	er's activities					olex
PJSC KuibyshevAzot, Togliatti	Magnesium nitrate solution preparation unit	Russia	Development of FEED-package which includes development of main technical solutions, project documentation, supervision of expert review of project documentation, informative and consulting project support at RF State Expert Evaluation Department, bid evaluation of potential equipment suppliers, detailed design	2019	General designer's activities	Complexes
A Design						
PJSC KuibyshevAzot, Togliatti	Distillation gas neutralization scrubbers of unit №3.	Russia	Development of main technical solutions, indicative planning figures, detailed design, engineering of non-standard equipment. Technical re-equipment of unit No.3 in urea production plant. Replacement of distillation gas neutralization scrubbers.	In progress	Design	onia
JSC Volzhsky Org- sintez, Volzhsky	20,000 tpa Potassium Butyl Xanthate Plant	Russia	Development of design documentation	In progress	Design	Ammonia
JSC NAK Azot, Novomoskovsk	Cooling water cycle w/ cooling tower	Russia	Services for the development of detail design documentation for interfacing 3-section acid cycle cooling tower CWC-22 in Mineral Fertilizer and Urea Shop No. 1, JSC NAK Azot	In progress	Design	A
LLC DCC, Dzer- zhinsk	Chlorine and Caustic Soda Plant	Russia	Adaptation of Licensor's FEED, development of design doc- umentation, development of detail design documentation, designer supervision under the project	In progress	Design	
LLC SmartPack	Water-soluble Monoammonium Phosphate Plant	Russia	Works and services for the design of packaging line for the new Water-soluble Monoammonium Phosphate Plant Project facil- ities: Packaging line for the new Water-soluble Monoammoni- um Phosphate Plant	In progress	Design	ic acid
LLC PromTech- Engineering, Moscow	2-Ethylhexanol Plant	Russia	Development of design documentation for the project "75 ktpa 2-Ethylhexanol Plant"	2022	Design	Nitric
JSC Apatit, Bala- kovo	Air chilling unit	Russia	Development of detail design documentation for the project "Refurbishment of air chilling unit"	2022	Design	
Yanchang Petrochemical (Group) Corporation, Shengze	40 000 MTPA acetylen production	China	Acetylene pruduction process. Process licence, development of basic design, operation manuals, technical services and training of personnel, supply of licenced equipment, guarantee tests	2020	Production process, Design, Scientific and Technical Support, equipment, supervision	mmonia nitrate
JC "Technip Rus", St. Petersburg	Warehouse block of LLC "Day Isolan"	Russia	Development of engineering documentation in the context of scientific and technical support and development of geotechnical monitoring program	2020	Design, Scientific and Technical Support	Ar
CJSC "PIRS", Omsk	Oil tank farm	Russia	Development of engineering documentation in the context of scientific and technical support for oil tank farm revamping project at FSI «Gorki» of the Federal State Reserve Agency in Far Eastern Federal District	2020	Design, Scientific and Technical Support	
JSC "UMEDO GROUP", Makarov	Sterilization department (workshop) with ethylene oxide utilization	Ukraine	Development of detail design for revamping of Sterilization Section (Shop) with ethylene oxide utilization	2020	Design	Methanol
JSC "PromTech Engineering", Moscow	2-Ethylhaxanol production plant	Russia	Development of detail design documentation "CO2 cooldown unit upstream of Turbo-compressor K-102, Block 871, Section 3, Urea Shop" for JSC Apatit, Cherepovets	2020	Design	Meth
JSC LIZINVEST, Rubizhne	Plasticizer plant	Ukraine	Design works in scope of basic design, design and detail design documentation. Technical re-equipment of plasticizers unit in order to receive the new product - DOTF (Dioctyl Terephtalate)	2019	Design	
JSC Nevinnomyssky Azot, Nevinnomyssk	Nitric acid plant No. 6/2	Russia	Making changes to DD. Technical re-equipment of the automated process control system and the SIS and S systems in workshop No. 6/2. Stage I. Autoclave department	2019	Design	
JSC Procter & Gamble, Novomoskovsk	Reception gas flue gas heater Maxon	Russia	Engineering Design of gas flue gas heater	2019	Design	Other
PrJSC "Severodonetsk Azot Association", Severodonetsk	Polyethylene plant	Ukraine	Assessing reasonability of restoring polyethylene production at Polyethylene plant at PrJSC "Severodonetsk Azot Association	2019	Feasibility study, Engineering services	Õ
PJSC Dorogobuzh, Dorogobuzh	Steam supply pipeline	Russia	Amendment of Detail Design Documentation for object D-342-650 "Steam-supply pipeline from building 650 of NPK plant to sand tanks, pos. 15/1,2 of preliminary water removal unit	2019	Design	
JSC Apatit, Balakovo branch, Balakovo	Liquid ammonia unit	Russia	"Development of Detail Design Documentation for Industrial Safety Expert Review Technical re-equipment of piosphate plant liquid ammonia unit for railcars hydrotesting with installation of displacement signaling devices for rail tank cars"	2019	Design	
JSC DME Aerosol, Novomoskovsk	Dimethyl ether plant	Russia	"Adjustment of DD following the construction results for repeated expert review 20 000 tpy dimethyl ether plant"	2018	Design	

S	Customer	Name of project	Country	Description	Year	Service
Complexes	JSC Procter & Gamble, Novomoskovsk	Household chemical goods plant	Russia	"Introduction of amendments to RD NaDCC system modernization, workshop No.12, elev. +31,200"	2018	Design
Com	JSC Procter & Gamble- Novomoskovsk, Novomoskovsk	Household chemical goods plant	Russia	"Development of Detail Design Documentation Upgrading of supply system by compressed air of unit No.14 in detergents production system and liquid detergents production system"	2018	Design
	JSC Procter & Gamble, Novomoskovsk	Technical re-equipment of second stage of baby diapers production line	Russia	"Development of Detail Design Documentation Техническое перевооружение "	2018	Design
Ammonia	JSC NIUIF, Moscow	Unit No.1 in urea production plant	Russia	Development of Detail Design Documentation. Technical re- equipment of unit No.1 in urea production plant. Steam condenser replacement pos. E-101, building 851, for JSC Apatit, Cherepovets	2018	Design
Ar	JSC Minudobreniya, Rossosh	Technical re-equipment of air separation unit in Liquid Mineral Fertilizer Plant	Russia	"Development of Design Documentation Technical re-requipment of air separation unit. Installation of ASU type SNO 3.000"	2018	Design
	JSC Minudobreniya, Rossosh	Dosing and aspiration system of colored pigment in units No.1,2 of PHC plant	Russia	Development of main technical solutions, Development of Detail Design Documentation	2018	Design
acid	JSC DME Aerosol, Novomoskovsk	20 000 tpy dimethyl ether plant	Russia	"Development of Detail Design Documentation 20 000 tpy dimethyl ether plant"	2017	Design
Nitric	JSC Minudobreniya, Rossosh	Construction of new chalk disposal	Russia	"Development of Detail Design Documentation Construction of new chalk disposal"	2015	Design
2	UCC Shchekinoazot, Shchekino	Ammonia sulphate	Russia	Development of alternation to scientific and technical documentation	2015	Design
	LLC KNAUF Insulation, Krasnoyarsk	Air separation unit EOX 40	Russia	Air separation unit EOX 40 with required utilities, building for unit installation with utilities, utility lines and equipment for tanks with liquid oxygen.	2015	Design
onia ate	PJSC Dorogobuzh, Dorogobuzh	Air separation unit	Russia	Explanatory and calculation report development	2015	Design
Ammonia nitrate	JSC "UCC "URALCHEM", Azot Branch, Berezniki	Process units of high aliphatic amine production	Russia	Determination of explosion hazard category	2015	Design
	LLC NPP Heftekhimia, Moscow	Evaporating line	Russia	"Development of Detail Design Documentation Transfer of unloaded valve LV231A and decontamination additive supply into reactor downstream evaporating line "	2014	Design
	JSC Meleuz Mineral Fertilizers, Meleuz	Fertilizer plant	Russia	Investment program analysis	2014	Design
lou	PJSC Acron, Veliky Novgorod	Demineralized water plant	Russia	Development of Detail Design Documentation	2014	Design
Methano	JSC GrodnoAzot, Grodno	Dehydrogenation units in heat exchanger pos. T607	Belarus	Process procedure standards/code agreement	2014	Design
2	JSC Eurochem - Belorechensk Mineral Fertilizers, Belorechensk	Membrane unit of purge nitrogen receiving	Russia	Development of Design Documentation	2014	Design
	JSC Procter & Gamble, Novomoskovsk	Plastic packaging production unit (SUNSHINE). Stage 2	Russia	Development of Detail Design Documentation (technical re- equipment)	2014	Design
er	JSC Procter & Gamble, Novomoskovsk	Synthetic detergent production. Diamond- North Star, Stage 2	Russia	Development of Detail Design Documentation (technical re- equipment)	2014	Design
Other	JSC Procter & Gamble, Novomoskovsk	Liquid and detergent rack	Russia	Development of Detail Design Documentation (revamping)	2014	Design
	LLC Shchekino GRES, Shchekino	Installation of two steam boilers with capacity of 25 t/h in main building	Russia	Development of Detail Design Documentation	2014	Design
	Chongqing Ciyuan Chemical Material Co.,Ltd, Chongqing	22 000 mtpy acetylene plant	China	Process license, basic design, operating manual, technical services and personnel training services, proprietary equipment supply, and warranty tests.	2013	Technology, Design, Scientific and Technical Support, Equipment, Supervision

Customer	Name of project	Country	Description	Year	Service	S
Chongqing Changshou Chemical Co.,Ltd, Chongqing	60 000 mtpy acetylene plant	China	Process license, basic design, operating manual, technical services and personnel training services, proprietary equipment supply, and warranty tests.	2013	Technology, Design, Scientific and Technical Support, Equipment, Supervision	Complexes
Sichuan Tianhua Fubang Chemical Co., Ltd, Rongshan	30 000 mtpy acetylene plant	China	Process license, basic design, operating manual, technical services and personnel training services, proprietary equipment supply, and warranty tests.	2013	Technology, Design, Scientific and Technical Support, Equipment, Supervision	Ammonia
JSC DME Aerosol	Dimethyl ether plant	Russia	"Development of Design Documentation 20 000 tpy dimethyl ether plant"	2013	Design	Amm
JSC Minudobreniya, Rossosh	Melting unit of tetrahydrate calcium nitrate	Russia	"Development of Detail Design Documentation (technical re- equipment) Heat exchanger and pump system in SI unit of perfluorocarbon plant "	2013	Design	-
JSC Balakovo Mineral Fertilizers, Balakovo	Liquid ammonia storage	Russia	"Development of Design Documentation Gas ammonia cloud localization system with collection tank for ammonia water from water curtain and tank for collecting liquid ammonia spillages"	2013	Design	acid
JSC Procter & Gamble, Novomoskovsk	Household chemical goods plant	Russia	"Development of Design Documentation Modernization of Lenor white base preparation"	2013	Design	Nitric acid
JSC Procter & Gamble, Novomoskovsk	Dreft & Ariel Gel preparation section	Russia	"Development of Detail Design Documentation Improvement of microbiology standards"	2013	Design	2
JSC Minudobreniya, Rossosh	Apatite concentrate unit	Russia	Development of conclusion regarding replacement of apatite concentrate, made by JSC Apatit, for another type of phosphate raw material in utilized technology	2013	Design	_
JSC Nevinnomyssky Azot, Nevinnomyssk	Melamine plant	Russia	Obtaining a permit for use	2013	Design	onia te
PJSC Acron, Veliky Novgorod	Urea solution and ammonium nitrate mixture production unit	Russia	Development of Design Documentation	2013	Design	Ammonia nitrate
JSC Sintez, Kurgan	Station of ammonia dissociation into JSC Sintez	Russia	Development of Detail Design Documentation	2013	Design	
JSC Procter & Gamble, Novomoskovsk	Lenor-concentrate production (Dolce & Prada)	Russia	Development of Design Documentation (technical re-equipment)	2013	Design	-
JSC Procter & Gamble, Novomoskovsk	Bulk raw materials ensilage in preparation section (organic semi- product)	Russia	Development of Design Documentation	2013	Design	Methanol
LLC Ekotechprom, Moscow	Disposal site for hazardous wastes of Novomoskovsk enterprises	Russia	Development of Design Documentation	2013	Design	Σ
JSC Minudobreniya, Rossosh	"Weight station BAT-100- 24-3-4 "	Russia	"Development of Detail Design Documentation Automobile weight station BAT-100-24-3-4"	2012	Design	
JSC Procter & Gamble, Novomoskovsk	Filling and packing line for synthetic detergents (Salamandra)	Russia	"Development of Design Documentation (technical re-equipment)"	2012	Design	_
JSC Procter & Gamble, Novomoskovsk	Synthetic detergent production. Jubilee Deneb wave 2	Russia	"Development of Detail Design Documentation (technical re-equipment)"	2012	Design	Other
PJSC Dorogobuzh, Dorogobuzh	Cryogenic nitrogen generator unit NGS No.2 made by company Air Liquide (France) in air separation facility	Russia	Development of Detail Design Documentation	2012	Design	
JSC Minudobreniya, Rossosh	Package unit of nitrogen containing effluents cleaning	Russia	Development of Detail Design Documentation	2011	Design	
JSC Minudobreniya, Rossosh	Receiving and supply system of concentrate nitrogen containing effluents in NPK-plant	Russia	Development of Detail Design Documentation	2011	Design	-

	Customer	Name of project	Country	Description	Year	Service
	JSC Minudobreniya, Rossosh	Cooling unit of conversion calcium carbonate in build. 342 of perfluorocarbon plant	Russia	Development of Design Documentation	2011	Design
	JSC NAK-Azot, Novomoskovsk	Automobile electronic weighting unit	Russia	Development of Design Documentation	2011	Design
	JSC Nevinnomyssky Azot, Nevinnomyssk	Packaged equipment "Melamine production plant"	Russia	Obtaining a permit for using of packaged equipment	2011	Design
	JSC Procter & Gamble, Novomoskovsk	Lenor-concentrate production (Rubens)	Russia	Development of Design Documentation (technical re-equipment)	2011	Design
	JSC Procter & Gamble, Novomoskovsk	Dishwashing detergent production (Nil Bac)	Russia	Development of Design Documentation (technical re-equipment)	2011	Design
	JSC Procter & Gamble, Novomoskovsk	Installation of blowing machine "Dreft" for liquid cleaning detergent production	Russia	Development of Design Documentation	2011	Design
	PJSC KuibyshevAzot, Togliatti	Caprolactam plant	Russia	Determination of process flow critical data	2011	Design
	JSC Nevinnomyssky Azot, Nevinnomyssk	Urea plant (unit 2A)	Russia	Obtaining a permit for using of packaged equipment	2011	Design
	JSC Minudobreniya, Rossosh	Safety instrumented system of tanks for nitrophosphate solution in workshop No. 1,2 of perfluorocarbon plant	Russia	Development of Detail Design Documentation	2010	Design
	JSC Minudobreniya, Rossosh	Packing and shipment unit of NPK fertilizers big bags in perfluorocarbon plant	Russia	Development of Detail Design Documentation	2010	Design
	JSC Balakovo Mineral Fertilizers, Balakovo	Phosphate fertilizers production	Russia	Development of Design Documentation (improvement of ammonia using schemes)	2010	Design
itrate	JSC Procter & Gamble, Novomoskovsk	Plant heat supply station	Russia	Development of Design Documentation (technical re- equipment)	2010	Design
	JSC Procter & Gamble, Novomoskovsk	Liquid cleaning detergent plastic container production	Russia	Development of Detail Design Documentation (revamping of plastic container production and and compressed air system)	2010	Design
	JSC NAK-Azot, Novomoskovsk	"Urea plant "	Russia	"Development of Detail Design Documentation (technical re-equipment of high pressure loop, plant expansion based on 150 tpd. plant relocated from Serbia)"	2010	Design
	OJSC Tulachermet, Tula	Air separation complex KA-27/5. Compression section	Russia	"Development of Detail Design Documentation Air separation complex KA-27/5. Compression section"	2009	Design
	JSC Procter & Gamble, Novomoskovsk	Household chemical goods plant	Russia	"Development of Detail Design Documentation (Re-equipment) Fairy production preparation section (Supersonic)"	2009	Design
	JSC Fat Processing Plant, Yekaterinburg	Vegetable fat hydrogenation unit, compression and storage of technical grade hydrogen	Russia	Development of Detail Design Documentation	2009	Design
	JSC Procter & Gamble, Novomoskovsk	AE-3S, SCS, amine oxides and neodol receiving and storage system	Russia	Development of Design Documentation (reconstruction)	2009	Design
	JSC Procter & Gamble, Novomoskovsk	Synthetic detergent shop (project Galix)	Russia	Development of design and detail design documentation for technical re- equipment	2009	Design
)	JSC Nevinnomyssky Azot, Nevinnomyssk	Urea plant (unit 2A)	Russia	Development of Design Documentation. Revamping with capacity increasing up to 1500 tpd	2009	Design
	JSC Nevinnomyssky Azot, Nevinnomyssk	Installation of 6th carbon dioxide compressor in urea unit No. 2	Russia	Development of Design Documentation (technical re-equipment)	2009	Design
	JSC Minudobreniya, Rossosh	Perfluorocarbon plant	Russia	"Development of Detail Design Documentation Dryer, storage and shipment unit of calcium carbonate"	2008	Design

Other

GIAP. Reference

						[
Customer	Name of project	Country	Description	Year	Service	S S
Yulin Energy and Chemical Co. Ltd, Shaanxi	150 000 mtpy acetic acid plant	China	Acetic acid production technology License transfer for process and know-how, development of basic design, operational manual and rendering of technical services and training services	2008	Technology, Design, Scientific and Technical Support, Equipment, Supervision	Complexes
JSC Vanadiy-Tula, Tula	Sulfuric acid storage	Russia	"Development of Design Documentation Capacity of 500m3"	2007	Design	
JSC Togliattiazot, Togliatti	Production of concentrated nitrogen oxide	Russia	Development of technical projects of non-standardized equipment (Production of concentrated nitrogen oxide (II) with capacity of 4 ths. nm3/hour consisting of two process branches)	2007	Design	ក
JSC Evdakovsky Oil and Fat Plant, Evdakovo	Compression and storage unit of technical grade hydrogen under pressure	Russia	Development of Design Documentation	2007	Design	Ammonia
JSC Severstal-Metiz, Cherepovets	Protective hydronitric atmosphere preparation unit	Russia	Development of Design Documentation	2007	Design	Am
JSC Procter & Gamble, Novomoskovsk	Compressed air system	Russia	Development of Detail Design Documentation (Capacity increase)	2007	Design	
JSC Procter & Gamble, Novomoskovsk	Inspection and utilization section of solid industrial wastes	Russia	Development of Design Documentation	2007	Design	cid.
JSC Rivneazot, Rivne	Production of succinic and glutaric acid from purified mixture of low molecular weight dicarboxylic acid	Ukraine	Basic design using proprietary technologies. Designer supervision and project technical support during construction	2006	Design, Scientific and Technical Support, Supervision	Nitric acid
JSC Minudobreniya, Rossosh	NPK storage	Russia	"Development of Design Documentation New storage for NPK fertilizers with 60000 t capacity "	2006	Design	
JSC Procter & Gamble, Novomoskovsk	Household chemical goods plant	Russia	"Development of Design Documentation Filling and packing synthetic detergent section revamp"	2006	Design	
PJSC KuibyshevAzot, Togliatti	"Hydroxylamine sulfate production unit "	Russia	Pre-feasibility study, feasibility study and justification of investments	2006	Design	Ammonia nitrate
JSC Minudobreniya, Rossosh	Automatic gas analyzers installation for control of oxygen content in air of operating areas of air separation unit	Russia	Development of Detail Design Documentation	2006	Design	Amr niti
JSC Severgal, Cherepovets	Nitrogen-hydrogen mixture deep purification system from ammonia and moisture. Pressure adjustment unit on compressor suction side	Russia	Development of Detail Design Documentation	2006	Design	0
JSC Procter & Gamble, Novomoskovsk	Liquid and washing agents plants	Russia	Development of detail design documentation (technical re- equipment)	2006	Design	Methanol
JSC Procter & Gamble, Novomoskovsk	Household chemical goods plant	Russia	Development of detail design documentation (capacity increasing from 360 ktpa to 500 ktpa	2006	Design	Σ
Fanavaran Petrochemical Co., Teheran	Acetic acid plant 150 ktpa	Iran	Acetic acid production process. Process license and know-ow transfer, Basic Design, operating manuals development, rendering of technical and training services	2006	Technology, Design, Scientific and Technical Support, Equipment, Supervision	er
JSC Nevinnomyssky Azot, Nevinnomyssk	Acetylene plant	Russia	Development of Detail Design Documentation (Reconstruction of reaction block of pyrolysis unit and acetylene cleaning unit)	2005	Design	Other
JSC Minudobreniya, Rossosh	Perfluorocarbon plant units No. 1 and No. 2	Russia	Development of Detail Design Documentation (System of output and receiving of ammonium nitrate solution from NPK and AC-72 for new NPK products)	2005	Design	
PJSC Metafrax, Gubacha	Polyamide unit	Russia	"Development of Design Documentation Polyamide unit expansion "	2005	Design	
JSC Minudobreniya, Rossosh	Perfluorocarbon plant units No. 1 and No. 2	Russia	Development of Detail Design Documentation (reconstruction of continuous handling system of finished product and recycle of unit No. 1,2)	2005	Design	
JSC Transammiak, Togliatti	Installation of additional electrically-actuated ball valves Du 300 (12)	Russia	Development of Design Documentation	2005	Design	

S	Customer	Name of project	Country	Description	Year	Service
Complexes	Oil refinery plant, Tula	"Loading rack "	Russia	"Development of Detail Design Documentation Truck terminal, rinse system of railcars"	2004	Design
	Oil refinery plant, Tula	"Loading rack "	Russia	"Development of Design Documentation Drainage tank of truck terminal, petrol station"	2004	Design
Ũ	JSC NIAP-Katalizator, Novomoskovsk	"Catalyst production unit "	Russia	"Development of Detail Design Documentation Gas content automatic checkout in operating area of operating tunnel type furnace"	2004	Design
	JSC Minudobreniya, Rossosh	AD-90-3 compressor	Russia	Development of Design Documentation (Replacement of two AD-90- 3 compressors for screw compressor package)	2004	Design
onia	JSC Minudobreniya, Rossosh	Red lead oxide receiving, storing and shipment storage	Russia	Development of Design Documentation	2004	Design
Ammonia	JSC Minudobreniya, Rossosh	Sulfuric acid and caustic coda storage	Russia	Development of Design Documentation (reconstruction of instrument and control system, telecommunication)	2004	Design
	JSC NAK-Azot, Novomoskovsk	Dimethyl ether plant	Russia	Development of Detail Design Documentation	2004	Design
acid	Oil refinery plant, Tula	Tank farm of masut with pumping house, truck-mounted loading of masut, room for operator, switchboard room	Russia	Development of Design Documentation	2004	Design
Nitric	Oil refinery plant, Tula	Loading/receiving railway facility with pumping house for discharge and drainage tank, FD, switchboard room with placing for operator	Russia	Development of Design Documentation	2004	Design
	JSC Evdakovsky Oil and Fat Plant, Evdakovo	Receiving and supply storage of sulfuric acid and alkali	Russia	Development of Design Documentation	2004	Design
e nia	JSC NIAP-Katalizator, Novomoskovsk	Processing plant of spent catalysts containing metal	Russia	Development of Design Documentation	2004	Design
Ammonia nitrate	JSC Nevinnomyssky Azot, Nevinnomyssk	Acetylene production unit	Russia	Development of Detail Design Documentation (acetylene process optimization through design and introduction of automated process control system)	2003	Design
A	State Enterprise SRC Plazmatech, Novomoskovsk	Ammonium molybdate production unit	Russia	Pre-feasibility study, feasibility study and justification of investments	2003	Design
	JSC NIAP-Katalizator, Novomoskovsk	"Catalyst production unit "	Russia	"Development of Design Documentation Catalysts sorting and loading section in buildings 726, 700"	2003	Design
lou	JSC Minudobreniya, Rossosh	Silo storage of talk with unloading system from railway carriages and supply to workshops	Russia	Development of Design Documentation	2003	Design
Methanol	JSC Minudobreniya, Rossosh	Air separation unit. Build. 606/1	Russia	Development of Detail Design Documentation	2003	Design
Σ	Oil refinery plant, Tula	Modular sewage disposal plants for domestic wastes and oily water	Russia	Development of Design Documentation	2003	Design
	Oil refinery plant, Tula	Nitrogen and compressed air production unit. Nitrogen air collector and receiver	Russia	Development of Design Documentation	2003	Design
er	JSC NIAP-Katalizator, Novomoskovsk	Upgrading of catalyst forming unit NTK on the base FP-025	Russia	Development of Design Documentation	2003	Design
Other	JSC NIAP-Katalizator, Novomoskovsk	Catalyst forming unit NTK on the base FP-025	Russia	Development of Detail Design Documentation (revamping)	2003	Design
	JSC Severstal, Moscow	Deep purification system of hydronitric mixture from ammonia and moisture	Russia	Development of Design Documentation	2003	Design
	LLC Evrogaz, Saint- Petersburg	Local LPG storage	Russia	Development of Design Documentation	2003	Design
	SC Novomoskovsk- bytchim, Novomoskovsk	Production unit for household chemical products.	Russia	"Development of Detail Design Documentation Transfer of automatic filling machine from COMET production unit to workshop No.14"	2002	Design
	AS Ventamonjaks, Ventspils	Storage of light-oil products	Latvia	Development of Design Documentation (reconstruction of former storage M-435 and construction of independent storage of light-oil products).	2002	Design

Customer	Name of project	Country	Description	Year	Service	Ľ
State Enterprise	Ammonium molybdate	Russia	"Development of Design Documentation	2002	Design	
SRC Plazmatech, Novomoskovsk	production unit	Russia	Pilot production unit for acid ammonium molybdate production from molybdate wastes"	2002	Design	
LLC VARS, Ventspils	Transshipment complex for non- concentrated nitric acid.	Latvia	"Development of Design Documentation (revamping) Gas treating system."	2002	Design	
SC Novomoskovsk- bytchim, Novomoskovsk	Fairy production capacity increase. Outdoor facility	Russia	Development of Detail Design Documentation (production capacity increase)	2002	Design	
SC Novomoskovsk- bytchim, Novomoskovsk	Production unit for liquid household cleaning products. Packing facility.	Russia	Development of Detail Design Documentation	2002	Design	
SC Novomoskovsk- bytchim, Novomoskovsk	Finished products storage area	Russia	Development of Detail Design Documentation(revamping)	2002	Design	-
SC Novomoskovsk- bytchim, Novomoskovsk	Additive insertion unit (ACE "Arctic ocean"	Russia	Development of Detail Design Documentation	2002	Design	
SC Novomoskovsk- bytchim, Novomoskovsk	Pump installation for suspension transfer to high pressure pump	Russia	Development of Detail Design Documentation	2002	Design	-
JSC Minudobreniya, Rossosh	Cold store of spent catalysts and elevated railway loading facility for unloading of bulk materials	Russia	Development of Detail Design Documentation	2002	Design	
JSC NAK-Azot, Novomoskovsk	Ammonium molybdate production plant	Russia	Development of Detail Design Documentation	2002	Design	_
JSC Ice-Fili, Moscow	Carbon dioxide dryer unit	Russia	Development of Design Documentation	2002	Design	
JSC NIAP-Katalizator, Novomoskovsk	Production unit of natural gas conversion catalyst NIAP-18	Russia	Development of Detail Design Documentation	2002	Design	
JSC NIAP-Katalizator, Novomoskovsk	Forming unit on the base of former FL-025	Russia	Development of Detail Design Documentation	2002	Design	
JSC NIAP-Katalizator, Novomoskovsk	Forming unit on the base of former FL-025	Russia	Development of Detail Design Documentation	2002	Design	- <u>-</u> <u>-</u>
JSC NIAP-Katalizator, Novomoskovsk	Nitrogen storage recycling facility	Russia	Development of Design Documentation	2002	Design	
AS Ventamonjaks, Ventspils	LPG storage and handling complex	Latvia	Pre-feasibility study, feasibility study and justification of investments. Development of Design Documentation	2001	Feasibility study, Design	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
JSC Minudobreniya, Rossosh	Ammonia pipeline	Russia	"Development of Detail Design Documentation Uninterruptible power system"	2001	Design	
JSC Minudobreniya, Rossosh	Petrol station	Russia	"Development of Detail Design Documentation Further equipping of petrol station inder construction"	2001	Design	
JSC NIAP-Katalizator, Novomoskovsk	Double salt production unit	Russia	"Development of Detail Design Documentation Capacity 500 tpa"	2001	Design	
SC Novomoskovsk- bytchim, Novomoskovsk	Fairy production unit	Russia	Development of Detail Design Documentation (capacity expansion)	2001	Design	_
SC Novomoskovsk- bytchim, Novomoskovsk	ACE plant	Russia	Development of Detail Design Documentation(technical re- equipment)	2001	Design	
SC Novomoskovsk- bytchim, Novomoskovsk	Additives injection units	Russia	Development of Detail Design Documentation	2001	Design	
AS Ventamonjaks, Ventspils	Fire-extinguishing system of ammonia transshipment storage	Latvia	Development of Detail Design Documentation in order to improve fire-extinguishing system in compressor house under fire extinguishing with water of oil console	2001	Design	
JSC Minudobreniya, Rossosh	Mineral wagon preparation facility	Russia	Development of Detail Design Documentation	2001	Design	
JSC Minudobreniya, Rossosh	Control instrument setup of carbon oxide in boiler houses	Russia	Development of Detail Design Documentation	2001	Design	
JSC NAK-Azot, Novomoskovsk	Melange plant	Russia	Development of Detail Design Documentation	2001	Design	
JSC NAK-Azot, Novomoskovsk	Power supply scheme for plants with switch to substation No. 4a	Russia	Development of Detail Design Documentation	2001	Design	
Baltic Transshipment	Liquid ammonia and methanol terminal on Vysotsky island west coast	Russia	Development of Design Documentation	2001	Design	
Complex, Saint- Petersburg						

S	Customer	Name of project	Country	Description	Year	Service
lexe	JSC NIAP-Katalizator, Novomoskovsk	Tunnel type furnace system in build. 43/2	Russia	Development of Detail Design Documentation	2001	Design
Complexes	JSC Cherepovetsky Azot, Cherepovets	ABC drying unit	Russia	Development of Detail Design Documentation	2001	Design
Ŭ	PJSC Dorogobuzh, Dorogobuzh	Carbon dioxide production unit and loading to cylinder	Russia	Development of Design Documentation (Tie-in of liquid carbon dioxide production unit)	2001	Design
	PJSC Dorogobuzh, Dorogobuzh	Partially demineralized water unit	Russia	Development of Design Documentation	2001	Design
ວ	Oil storage in Plavsk city	Automation system of storage tanks "Plavsk"	Russia	Development of Detail Design Documentation	2001	Design
inoni	PJSC Metafrax, Gubacha	Urea storage	Russia	Development of Design Documentation	2001	Design
Ammonia	💮 Other activitie	s				
∢	JSC GrodnoAzot	Revamping of Am- monia-4 Unit, second phase	Belarus	Equipment and materials procurement	In progress	Equipment
	JSC Volzhsky Org- sintez, Volzhsky	Potassium butyl xan- thate plant	Russia	Designer supervision over construction under the project "Expansion of potassium butyl xanthate plant"	In progress	Engineering
acid	PJSC Giprotyu- menneftegaz, Tyumen	Advanced petroleum processing complex	Russia	Scientific and technical support to project-specific design activities under the project "Advanced petroleum processing complex of LLC Slavyansk ECO" (Stage 2). Combined Hydro- treatment Unit (CHU) (204)"	In progress	Scientific and techni- cal support
Nitric acid	LLC DI Altair	Revamping of first lift pumping station	Russia	Scientific and technical support to project-specific design activ- ities "Revamping of first lift pumping station"	In progress	Scientific and techni- cal support
	CASALE SA	40,000 tpa Melamine Unit	Russia	Development of design documentation for melamine unit, design and detail design documentation for retaining walls, site preparation, design documentation for refurbishment and revamping for melamine plant interfacing with Ammonia-Urea-Melamine Complex	In progress	Engineering
	LLC Lengiproneft- echim, Saint Petersburg	LLC KINEF's Black Oil Processing Complex	Russia	Development of recommendations for assigning medium pressure shape factors taken into account in the design of load-bearing members for buildings and structures	In progress	Scientific and Technical Support
Ammonia nitrate	JSC NIPIGAS, Moscow	Amur Gas Chemical Complex	Russia	Preparation of reports on scientific and technical support of design documentation during design activities for projects: Amur Gas Chemical Complex (GCC). AGCC gas supply from main gas pipeline. Phase 1. Revamping of Power of Siberia main gas pipeline, KP 1970.45 to KP 1978.9. Branch pipeline and Tie-in No. 1 to Amur GCC, Amur Gas Chemical Complex (GCC). AGCC gas supply from main gas pipeline. Phase 2. Gas pipeline from tie-in, AGDS and distribution pipeline, Amur Gas Chemical Complex (GCC). Interconnecting process pipeline from AGPP to AGCC	In progress	Scientific and Technical Support
	JSC Apatit, Bala- kovo	Air chilling unit	Russia	Designer supervision over implementation of the Project "Re- furbishment of air chilling unit" for JSC BB Apatit	In progress	Supervision
Methanol	GazSurf LLC	Air separation unit of gaseous oxygen (with capacity of 18,5 thous. Nm3/h), gaseous nito- gen (20,0 thous.Nm3/h), liquid oxygen, nitrogen and argon production plant	Russia	Execution of R&D support	In progress	Scientific and techni- cal support
er	NN Development LLC	Revamping and techni- cal upgrade of Talnakh processing plant with capacity increase to 18 mln.tons /year for ores in total. Modification of the 3rd Start-up complex	Russia	R&D support during engineering surveys and during design of buildings and structures of higher criticality rating for a capital construction facilty	In progress	Scientific and techni- cal support
Other	LLC NSplav, Novotroitsk	Production of synthetic slags	Russia	Scientific and technical support to project-specific design activ- ities under the project "Synthetic slags production area"	2023	Scientific and techni- cal support
	DCC LLC	Chlorine and caustic soda production by membrane electrolysis and epichlorohydrin production by glycerol process	Russia	Development of Safety Justification and carrying out of HAZOP/SIL analysis	2023	Engineering
	JSC NAK Azot, Novomoskovsk	Carbon Dioxide Plant	Russia	Services for the development of provisional process regulations, occupation safety procedures and modifications to ERP of the Carbon Dioxide Section in Supplies and Shop Interconnections Shop, JSC NAK Azot	2022	Engineering

Customer	Name of project	Country	Description	Year	Service	S
JSC TECHNIP EN- ERGY RUS	Air separation unit	Russia	Scientific and technical support (STS) to the development of design documentation for the project "Air separation unit. Section No. 15"	2022	Scientific and Technical Support	Complexes
OJSC GrodnoAzot, Grodno	Industrial site	Belarus	Development of the growth concept for OJSC GrodnoAzot industrial site	2022	Engineering	Cor
LLC Lengiproneft- echim, Saint Petersburg	Cryogenic unit for deep conversion of dry stripped gas into new products	Russia	Development of recommendations for assigning medium pressure shape factors taken into account in the design of load-bearing members for buildings and structures under the project	2022	Scientific and Technical Support	
JSC NIPIGAS, Moscow	Gas Processing Com- plex as part of the Eth- ane-rich Gas Processing Complex near Ust-Luga	Russia	Scientific and technical support under the project of the Gas Processing Complex as part of the Ethane-rich Gas Processing Complex near Ust-Luga	2021	Scientific and Technical Support	Ammonia
JSC NAK-Azot, Novomoskovsk	Compound fertilizers workshop	Russia	Services for bringing of Compound Fertilizers Shop at JSC NAK Azot in compliance with the engineering documents	2021	Consulting Services	Am
PJSC Metafrax, Gubakha	Acetylene unit, Acetaldehide unit, Butanediol unit, THF, polytetramethylene ether glycol production complex	Russia	Services for the development of Investment Feasibility Study for Acetylene, Acetaldehyde, Butanediol, THF, Polytetramethylene Ether Glycol Complex	2020	Feasibility study	acid
SC "HEATPOWER COMPANY", Kursk	CHP plant with capacity 23,328 Mwatt	Russia	Scientific and technical support to the project	2020	Scientific and Technical Support	Nitric a
JSC "NIPIGAS", Moscow	Advanced oil refining complex	Russia	Scientific and technical support to Omsk Oil Refinery, Omsk	2020	Scientific and Technical Support	Z
JSC "Salavat- neftechimproject", Salavat	Sulphide-containing flow cleaning unit	Russia	Scientific and technical support to the project	2020	Scientific and Technical Support	
LLC Tomet, Togliatti	150000 tpa acetic acid production	Russia	Feasibility study for the Acetic Acid Plant project	2020	Feasibility study	eic a
JSC "VNIPIneft", Moscow	Maiskij Gas treatment plant in Nefteyugansk region Khanty-Mansiisk autonomous district - Yugra	Russia	Scientific and technical support to the project	2019	Scientific and Technical Support	Ammonia nitrate
JSC "UCC "URALCHEM", Azot Branch, Berezniki	Fertilizers production	Russia	Development of ESD lists	2019	Engineering	
JSC "NIPI ONGM", Ufa	Delayed coking unit of JSC "Gaspromneft - Omsk oil refinery"	Russia	Scientific and technical suport of a project	2019	Scientific and Technical Support	
JSC Procter & Gamble, Novomoskovsk	Household chemical goods plant	Russia	PSS for "Salt" project; PSS for "Maxon modernization" project; PSS for "Da Vinci" project. Process safety study with further translation into English	2019	PSS	Methanol
JSC Procter & Gamble, Novomoskovsk	Household chemical goods plant	Russia	PSS for "Distribution Center" project. Process safety study with further translation into English	2019	PSS	Meth
CJSC Technip RUS Saint Petersburg	Construction of storage unit of JSC Dau Izolan	Russia	Consulting and engineering services for development of technical documentation in scope of technical support and development of geotechnical monitoring program	2019	Consulting Services	
CJSC PIRS, Omsk	Oil storage park	Russia	Consulting and engineering services for development of technical documentation in scope of technical support for project designing Revamping of oil storage park on FSOE complex "Gorki" of Federal State Reserve Agency in Far Eastern Federal District	2019	Consulting Services	er
LLC UMEDO GROUP , urban-type settlement Makarov	Sterilization section (department) with ethylene oxide utilization	Ukraine	Development of main technical solutions and feasibility study on options for implementation of measures on ethylene oxide utilization during medical products sterilization	2019	FEED, Feasibility study	Other
LLC Anda M, Saint- Petersburg	Household article production	Russia	Development of Process Safety Study (PSS) for blade washing process. Process safety study with further translation into English	2019	PSS	
JSC Apatit, Cherepovets	Compound fertilizer production	Russia	Recalculation of process units' blast impact	2019	Engineering services	
LLC NSplav, No- votroitsk	Aluminum Powder Shop	Russia	Consulting and engineering services for the development of engineering documentation within scientific and technical support to project-specific design activities	2018	Consulting services	
LLC SPK, Sterlitamak	1,4-butandiol production complex	Russia	Development of construction investment justification	2018	Feasibility study	

	_					
S	Customer	Name of project	Country	Description	Year	Service
Complexes	LLC NPP Neftekhimia, Moscow	Propylene polymerization plant	Russia	Alternations review and approval for process regulation of propylene polymerization plant. Connection of standby cooler unit PK-60I/I to scheme of propylene polymerization plant existing process.	2018	Consulting Services
Com	JSC Nevinnomyssky Azot, Nevinnomyssk	Plant of production eating quality liquid carbon dioxide	Russia	Approval of temporary process regulation No. 12	2018	Consulting Services
	JSC DME Aerosol, Novomoskovsk	20 000 tpy dimethyl ether plant	Russia	"Development of temporary process regulations 20 000 tpy dimethyl ether plant"	2017	Consulting Services
a.	Cargill LLC, Efremov	Hydrochloric acid storage and caustic storage	Russia	"Development of Detail Design Documentation Technical re-equipment "	2017	FEED
Ammonia	Kirovo-Chepetsk Chemical Plant Branch of JSC UCC URALCHEM, r. Kirovo-Chepetsk	Sulfonitrate and calcium nitrogen sulphate production unit	Russia	Determination of safety operation conditions and allowable process parameters, influencing on process safety during period of transition for sulfanitrate and calcium nitrogen sulphate production in equipment, used for ammonium nitrate phosphate fertilizer production	2017	Consulting Services
	CJSC Caprolactam Kemerovo, Kemerovo	Caprolactam plant	Russia	Technical audit of CJSC Caprolactam Kemerovo, affiliate of SDS Azot, caprolactam process facilities	2017	Consulting Services
Nitric acid	JSC Apatit, Cherepovets	Granular drying device in fluidized bed pos. X-33	Russia	"Development of Detail Design Documentation Technical re-equipment "	2017	FEED
ž	JSC Minudobreniya, Rossosh	Calcium nitrate solution treatment system in unit No.1 of perfluorinated hydrocarbon plant	Russia	Construction supervision	2017	Supervision
	UCC Shchekinoazot, Shchekino	200 000 tpy sulfuric acid production plant	Russia	Organization and support during state expert review of design documentation	2017	Consulting Services
onia ite	PJSC KuibyshevAzot, Togliatti	Cyclohexanone plant	Russia	Technical support during state expert review (GlavGosExpertiza)	2015	Consulting Services
Ammonia nitrate	LLC Rustavi Azot, Rustavi	Caprolactam plant	Georgia	Preliminary survey	2014	FEED
A	JSC Nevinnomyssky Azot, Nevinnomyssk	Acetylene plant. Pyrolysis unit	Russia	Development of conceptual process design applicable to capacity expanding and increasing, energy efficiency and equipment replacement	2013	FEED
	PJSC Acron, Veliky Novgorod	1,4-butandiol complex	Russia	Pre-feasibility study, feasibility study and justification of investments	2013	Feasibility study
lone	JSC MFP of Kirovo- Chepetsk Chemical Plant, Kirovo- Chepetsk	Complex fertilizer plant	Russia	Industrial safety expert review support	2013	Safety Expert Review
Methanol	JSC GC Titan, Moscow	Gas chemical complex	Russia	Pre-feasibility study, feasibility study and justification of investments	2012	Feasibility study
Σ	JSC Nevinnomyssky Azot, Nevinnomyssk	Melamine plant	Russia	Industrial safety expert review support	2011	Safety Expert Review
	JSC Nevinnomyssky Azot, Nevinnomyssk	Urea plant (unit 2A)	Russia	Support during industrial safety expert review	2011	Safety Expert Review
	LLC Novomoskovskij Khlor, Novomoskovs	Production equipment	Russia	Industrial safety expert review support	2010	Safety Expert Review
Other	AB ACHEMA, Jonava	Acetic acid plant based on decommissioned ammonia plant	Lithuania	Pre-feasibility study, feasibility study and justification of investments	2008	Feasibility study
ō	JSC Angarsk Nitrogen Fertilizers Plant, Angarsk	Compound fertilizer production	Russia	"Pre-feasibility study, feasibility study and justification of investments Organization of compound fertilizers production"	2007	FEED
	JSC Cherepovetsky Azot, Cherepovets	Liquid ammonia pipeline. Liquid ammonia loading facilitiy	Russia	"Pre-feasibility study, feasibility study and justification of investments JSC Ammophos and JSC Cherepovetsky Azot ammonia supply. Liquid ammonia delivery by pipeline. Liquid ammonia delivery by pipeline by motor transport"	2005	FEED
	JSC Balakovo Mineral Fertilizers, Balakovo	Phosphate fertilizers production	Russia	"Pre-feasibility study, feasibility study and justification of investments Supply of liquid ammonia for phosphatic fertilizers unit"	2005	FEED
	JSC Polyplast, Novomoskovsk	12000 tpy technical-grade naphthalene production facility	Russia	Pre-feasibility study, feasibility study and justification of investments	2005	FEED



T.: +7 495 9166501 F.: +7 495 9166300 E.: info@giap.ru

14 M

N M

www.giap.ru

1

