

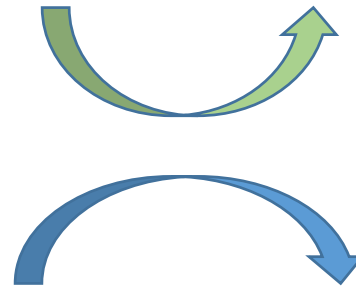
Budker Quality Management Service (BINP QMS), General information

Katja Petrowa
on behalf of BINP team

Budker PMO Primary goal

- PMO was created to work on BINP-FAIR Contracts
- PMO Primary goal is to facilitate technical and organizational interaction between BINP and FAIR

PMO-oriented content
QMS-oriented content



Budker PMO working in close cooperation and in some questions on behalf of a few BINP Departments

- Quality Management Service
- Commercial Management Department
- Environment, Safety and Health Department

PMO Statistics

- List of BINP-FAIR Collaboration Contracts and Co-operation Agreements
- BINP-FAIR PMO-PMO Collaboration
- Key people, key departments
- Steering Meeting (topics, committee)
- Proposal to join

List of BINP-FAIR Collaboration Contracts and Co-operation Agreements

N	Contract N BRIEF	Contract N FULL	Sub-Project Leader (SPL)/ Work Package Leader (WPL)	Description
1	no	Collaboration Contract for design, production and delivery of vacuum chambers for dipole magnets for Work Package PSP 2.3.7.1.2.2 for the FAIR High Energy Beam Transport (HEBT) System dated 23.01.2013	Alexander KRASNOV	design, production and delivery of vacuum chambers for dipole magnets for Work Package PSP 2.3.7.1.2.2 for the FAIR High Energy Beam Transport (HEBT) System
2	CC2.3.2-2	FAIR Contract No. CC2.3.2-2 (Magnets for HEBT System)	Ivan MOROZOV	Design, production, delivery, installation of magnets with resistive "warm" (nonsuperconducting) coils for the FAIR High Energy Beam Transport (HEBT) System (Batch 2 and 3)
3	no	FAIR Contract The design, production, delivery, assembly and testing of the Superconducting Solenoid Magnet of the PANDA Detector As Work Package PSP 1.4.1.15 dated 10.03.2017	Eugeny PYATA	Design, production, delivery, assembly and testing of the Superconducting Solenoid Magnet of the PANDA Detector
4	CC 2.5.2.1	FAIR Contract No. CC 2.5.2.1 (Dipole magnets)	Alexander STAROSTENKO	Design, production and delivery of Dipole Magnets for the FAIR Collector Ring (CR) System
5	CC 2.5.2.2.1	FAIR Contract No. CC 2.5.2.2.1 (CR Rest)	Ivan KOOP, Dmitry SHWARTZ	Design, production and delivery of Magnets, Power Supplies, Injection/Extraction, Beam Diagnostics, Vacuum for the FAIR Collector Ring (CR) System; installation; operation of CR as a whole without beam
6	CC CR.HOAI	FAIR Contract No. CC CR.HOAI	Dmitry SHWARTZ	Technical Coordination of the Construction of the Collector Ring to the Construction of the FAIR Facility
7	CC 2.4.2.1.1.2	FAIR Contract No. CC 2.4.2.1.1.2 on the in-kind Contribution (IKC) 2.4.2.1.1.2 Dipole 1 for Super-FRS	Konstantin ZOLOTAREV	Dipole 1 for Super-FRS
8	no	Accelerator co-operation agreement, Accelerator Implementing Agreement No. 1 to the ACCELERATOR CO-OPERATION Agreement	Konstantin ZOLOTAREV	Technological design of radiation-resistant multipole magnets for Super-FRS
9	no	Addendum 1 to the Collaboration Contract dated 12.12.2016 As part of the Work Package PSP 1.1.1.7 For the CBM experiment	Nikolay MEZENTSEV	Design, prototyping, production, delivery, assembly and testing of the Dipole Magnet As part of the Work Package PSP 1.1.1.7 For the CBM experiment
10	no	Co-operation agreement, Implementing Agreement Addendum No 1 to the CO-OPERATION Agreement	Eugeny ANTOKHIN	Technological design of dipole magnet for HESR-PANDA
11	AFAA1 to CC 2.4.2.1.1.2 for 2.4.7.1.12.1	Annex for additional Assignment (AFAA) To the Collaboration Contract CC 2.4.2.1.1.2 Hereinafter referred to as "the Main Contract"	Alexander KRASNOV	Vacuum chambers and supports for beam diagnostics at the focal planes of SFRS; Diagnostic chamber Support (different sizes)
12	CC 2.3.7.1.2.3.2 as AFAA2 to CC 2.4.2.1.1.2	Annex for additional Assignment (AFAA) To the Collaboration Contract CC 2.4.2.1.1.2 Hereinafter referred to as "the Main Contract"	Alexander KRASNOV	Vacuum chambers for the FAIR High Energy Beam Transport (HEBT) System (HEBT Batch 2-3 Vacuum chambers)
13	CC 2.4.7.1.2.2.1 as AFAA3 to CC 2.4.2.1.1.2	Annex for additional Assignment (AFAA) To the Collaboration Contract CC 2.4.2.1.1.2 Hereinafter referred to as "the Main Contract"	Alexander KRASNOV	Vacuum chambers inside SC dipoles (SFRS)
14	CC 2.3.7.1.2.1 as AFAA4 to CC 2.4.2.1.1.2	Annex for additional Assignment (AFAA) To the Collaboration Contract CC 2.4.2.1.1.2 Hereinafter referred to as "the Main Contract"	Alexander KRASNOV	Vacuum chambers HEBT Batch 4
15	CC 2.9.2.2.1.1.1 as AFAA6 to CC 2.4.2.1.1.2	Annex for additional Assignment (AFAA) To the Collaboration Contract CC 2.4.2.1.1.2 Hereinafter referred to as "the Main Contract"	Petr SHATUNOV, Dmitry SHWARTZ	2.9.2.2.1.1.1 p-Bar Quadrupoles, CR-type, NC, wide apert. 2.9.3.2.1.1.1 p-Bar Power Part, Cabinet, Construction (pulsed op) 2.9.7.1.2.3.1.1 p-Bar Quad Chamber wide 2.9.3.2.4 Modification of original CR Power Part, Cabinet 2.9.7.1.2.3.4 Modification of original CR Vacuum Chamber

BINP-FAIR Collaboration Contracts and Co-operation Agreements

16	AFFA5		Alexander KRASNOV	AFAA5 SFRS vacuum components (beam pipes and chambers) - Contract draft need acceptance.
17	AFFA7		Yury ROGOVSKY, Dmitry SHWARTZ	AFAA7 CR-like beam diagnostic BPMs, 100%-CR-like for HEBT and pbar. New big BPM for SFRS and pbar. Final technical clarification between BINP and FAIR. Contract preparation ongoing.
18	AFFA8			AFAA8 SFRS Local Cryogenic BINP's part of FAIR-WUST-BINP agreement. Waiting on GERMAN's finance agreement. Research Agreement till Nov 2020.
19	AFFA9		Alexander KRASNOV	AFAA9 SFRS branching dipole chamber contract – FAIR prepare contract. The price was misunderstood and costbook value is not enough. New negotiation necessary.
20	AFFA10			AFAA10 SFRS multipole magnets including vacuum chambers shall be tendered by FAIR. A consulting contract regarding BINPs radiation resistant multipole know-how shall be negotiated between FAIR and BINP.
21	AFFA11		Alexander STAROSTENKO	AFAA11 Dipole 3 (Connection box only difference to CR design) and Quadrupole 3 (100% CR-like) including vacuum – GSI provide draft of specification and FAIR IOP sent costbook8 info and price negotiations. Contract negotiation await CR-Dipole FAT in Nov 2020.
22	AFFA12		Alexander STAROSTENKO	AFAA12 pbar CR-identical lower yoke for dipole (radiation hard bending magnet). Contract negotiation await CR-Dipole FAT in Nov 2020.
23			Ivan KOOP, Dmitry SHWARTZ	Additional components at CR. The amendment to the CR rest contract will be prepared. The contract is under preparation.
24			Alexander STAROSTENKO	NMR (Nuclear magnet resonance) probe for magnetic field measurements in CR dipole magnet. The contract is under preparation.
25			Alexander STAROSTENKO	Decapole magnet for CR isochronous mode. The contract is under preparation.

BINP-FAIR PMO-PMO Collaboration



- Synchronization of close contracts;
- Planning;
- Document workflow;
- Reporting under the contracts;
- Implementation of Quality Assurance measures and requirements (procedures);
- Implementation of Safety measures and requirements (procedures)

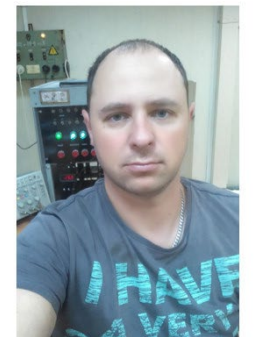
BINP PMO



Ekaterina
PETROVA



Anna
BELOVA



Eugene
SHTARKLEV

Key people

- Martin Marenich
- Harald Hagelskamp
- Natalya Winters
- Nico Oepen
- Klaus Hoehne
- Konstantin Istomin
- Herbert Schwarz
- Olga Ritscher

Key departments

- In-Kind Office and Procurement IOP
- Site & Buildings group
- Project Planning group
- Product Life Cycle Management group
- Quality Management group

Steering Meeting Topics

- Commercial Management Planning (examination and signing of contracts, procurements, etc)
- Finance (payments in accordance with milestones, payment terms, subcontractors, suppliers, financing, disputes)
- Planning (Supplier Status Report, MS Project Plan, Delivery Matrix, etc)
- Project Management (resources, interactions, communication, organization, processes)
- Workflow
- Current activities in accordance with the milestones
- Design alteration and/or performance below specification
- Quality Assurance implementation (awareness of requirements)
- Safety implementation (awareness of requirements)
- Integration of systems (mechanical integration, infrastructure integration, vacuum integration, etc)
- Commissioning
- Joint publications
- Patenting, certification of equipment
- Maintenance during the warranty period

Steering Meeting Committee

BINP members for the steering committee:

- E. Levichev
- D. Berkaev
- A. Steshov
- A. Krasnov
- E. Petrova

FAIR members for the steering committee:

- H. Hagelskamp
- O. Dolinsky
- N. Winters
- M. Marenich

Proposal to join

Regular BINP-FAIR QA and Planning Meetings are established

BINP-FAIR PMO-PMO QA

Martin Marenich
Herbert Schwarz
Olga Ritscher
Katja Petrowa

BINP-FAIR PMO-PMO Planning

Martin Marenich
Natalya Winters
Nico Oepen
Katja Petrowa

QMS-oriented content

- Auditor DQS
- Re-certification audit results
- Certification (**updated**)
- Audit Report (Strengths)
- Objectives in the field of Quality

Auditor DQS



- DQS Holding GmbH is one of the largest certification company in the world. Today the holding has branches in 87 countries and has issued more than 60,000 certificates according to ISO 9001, ISO 14001, BS OHSAS 18001, HACCP, IFS, ISO 22000, ISO / TS 16949, IRIS, ISO 13485 and other standards.
- DQS Holding GmbH was founded by three major companies in the field of standardization - the German Institute for Standardization DIN, the largest US product certification company UL and the German quality society DGQ to specialize in management systems and provide the highest level of services in this area.



Re-certification audit results

ISO 9001:2015

- The audit team confirms that BINP has implemented and maintains a management system in accordance with the applied standard ISO 9001.


- Dates:

From: 21.10.2020 to: 22.10.2020


- Certification recommendation:

Issuance of the certificate as soon as implementation of corrective actions has been demonstrated.

Certificate (updated)



CERTIFICATE



This is to certify that

**Budker Institute of Nuclear Physics
of Siberian Branch Russian Academy of Sciences
(BINP SB RAS)**

Lavrentiev av. 11,
630090, Novosibirsk,
Russian Federation



has implemented and maintains a **Quality Management System**.

Scope:
Scientific research, design, production, installation and maintenance of electromagetic, vacuum, cryogenic and other elements of electrophysical facilities for the scientific researches and applications


Through an audit, documented in a report, it was verified that the management system fulfills the requirements of the following standard:

ISO 9001 : 2015


Certificate registration no.	31101040 QM15
Valid from	2017-11-23
Valid until	2020-11-22
Date of certification	2017-11-23




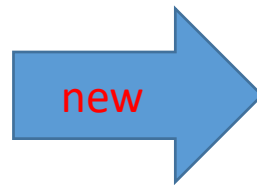
DQS GmbH




Frank Graichen
Managing Director



Accredited Body: DQS GmbH, August-Schanz-Straße 21, 60433 Frankfurt am Main, Germany
Administrative Office: OOO SSU DEKUES, Respublikanskaya str. 3, 150003 Yaroslavl, Russian Federation



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Certificate registration no.	31101040 QM15
Valid from	2020-11-23
Valid until	2023-11-22
Date of certification	2020-10-23



DQS GmbH



Markus Bleher
Managing Director



Accredited Body: DQS GmbH, August-Schanz-Straße 21, 60433 Frankfurt am Main, Germany
Administrative Office: OOO SSU DEKUES, Respublikanskaya str. 3, 150003 Yaroslavl, Russian Federation

Audit report (Strengths)

No.	Standard	Requirement	Process	Statement	Evaluation
1.	ISO 9001:2015	8.2, 8.3.3	Scientific research Development of technical specification	Interaction with the customer Rosatom “ITER-Center” has improved when agreeing on the requirements of the order and monitoring its implementation, which significantly improved the BINP's capabilities in drafting the technical specification and fulfilling the terms of the contract.	str*
2.	ISO 9001:2015	7.1, 8.2	Scientific research	The new installations SMOLA, GOL-NB and KOT will allow BINP to significantly accelerate research activities in the field of plasma physics and controlled thermonuclear fusion to achieve the world's best results.	str
3.	ISO 9001:2015	7.1.3, 7.1.4	Infrastructure management	Transfer of cranes to radio control in 2020 (3 pcs.) not only made possible to increase productivity and labor safety, guarantee the safety of products, but also it was recognized as optimal approach for other applications, further transfer to radio control of lifting equipment is planned.	str

str = conforming, all requirements are fully met and significant strength was identified, evident through excellent results

Audit report (Strengths)

No.	Standard	Requirement	Process	Statement	Evaluation
4.	ISO 9001:2015	5.1.2, 5.2	QMS management	Mobilization of all resources by the management for the implementation of the SKIF MEGA SCIENCE project to reduce the project implementation period by 2 times in comparison with analogs led to the recognition of BINP's capabilities by the Government of the Russian Federation as the only supplier for this very project. It has also improved the BINP's international image as a result of achieved level of management and scientific and technological capabilities of BINP.	str
5.	ISO 9001:2015	6.1, 8.5	Planning and organization of production process QMS management	The production processes for complex and demanding orders were implemented in full and in accordance with the requirements, despite the negative impact of the pandemic, sanctions, trends in the economy and in the labor market.	str

str = conforming, all requirements are fully met and significant strength was identified, evident through excellent results

Audit report (Other)

- Opportunities for improvement and non-conformities
- Evaluation of the management system
- Leadership
- Planning
- Support
- Operation
- Controlling operation
- Performance evaluation
- Improvement
- Next steps, etc

Objectives in the field of Quality

The main processes:	Quality objectives	Plans for implementing objectives
Scientific research	Provide the required number of points for the institute, calculated by the ministry on the basis of publications	<ol style="list-style-type: none"> 1) Increase the number of publications in scientific journals of the first quartile 2) Carry out explanatory work on the procedure for adding organizations affiliated with the staff of the institute and co-authors from other organizations
Scientific research	Ensure the employment of new engineering & technical specialists (at least 10 people per year)	<ol style="list-style-type: none"> 1) Maintain educational environment for training of highly qualified engineering personnel (undergraduates) for the institute's departments and offering a job for young university graduates (according to BINP training program) 2) Involvement of young researchers in student education process in the amount of at least 50%
Planning and organization of production process	Eliminate external and/or internal claims for welding operations	<ol style="list-style-type: none"> 1) Prepare a set of documents for qualifying welding processes 2) Purchase automatic welding systems for welding pipes in limited conditions 3) Demonstrate the possibility of checking complex welding seams by non-destructive testing methods

Objectives in the field of Quality

The main processes:	Quality objectives	Plans for implementing objectives
Infrastructure management	Reinforce the complex of clean rooms in the building 20G for the possibility of assembling and factory testing of large elements of electrophysical installations	1) Receive, test and put into operation tilters and lifting-mechanisms of port-plugs 2) Prepare a set of documents for obtaining a permit for storage, handling, production, cleaning and testing of ITER elements
	Eliminate elevator malfunction incidents, reduce elevator downtime	Develop technical specifications and schedule for the automation of elevators (by queues) Purchase, install and commission an elevator automation system
QMS management	Absence of recurring inconsistencies	1) Establish main causes of nonconformities and take corrective actions 2) Restructure the BINP Quality Management Service

Thank you