



IBR-2 status report

FRANK LABORATORY OF NEUTRON PHYSICS

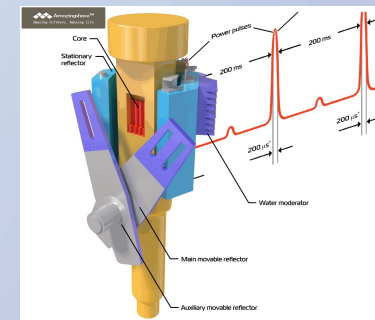
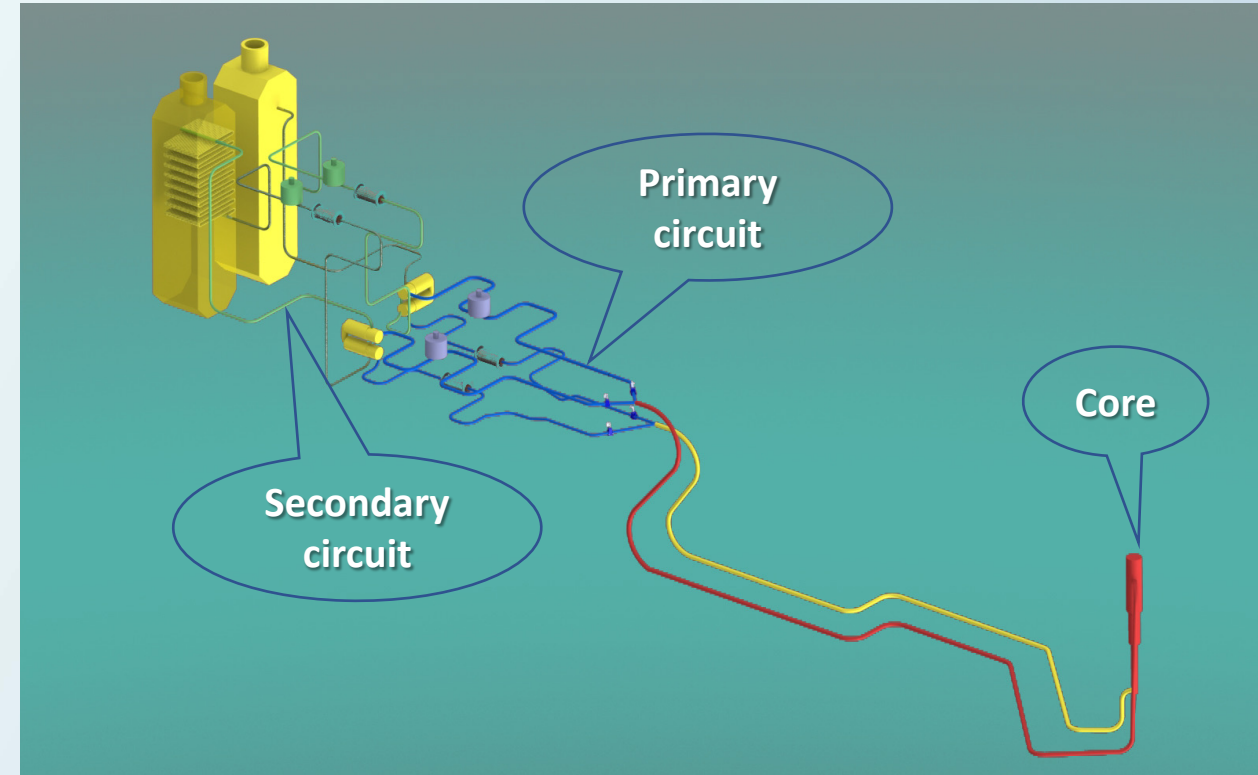
Joint Institute for Nuclear Research
an international intergovernmental organization



BAGDAULET MUKHAMETULY

October 16, 2021 – reactor **shutdown** due to leakage in the secondary cooling circuit of air heat exchanger (HE)

- Repair of the affected HE (safety regulations require 2 HE operating) has been done in April 2022;
- On April 25, 2024, a **license was received** from ROSTEKHNADZOR to operate the IBR-2 research nuclear facility for a period until **April 1, 2032**;
- Work has begun to replace the old HE with new ones. It should be performed by the end of July/September 2024;
- The documents were prepared for the purpose of amending the licenses that will allow the subsequent startup and operation of IBR-2;
- Reactor **startup** is planned for November 2024;
- Work is underway to resume the “**User Program**” for 2025;





Assembling of
a tower crane
on-site.



Removing the
insulation of air
heat exchanger.



Tower crane
near the
reactor.



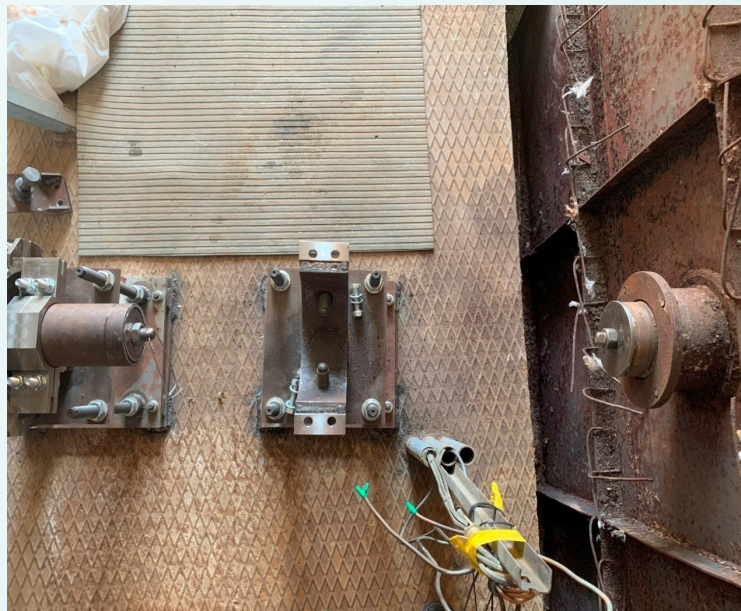
Preparing the air
heat exchanger
for dismantling.



The heat
exchanger drain
manifold is
prepared for
cutting.



The heat exchanger drain manifold is prepared for cutting.



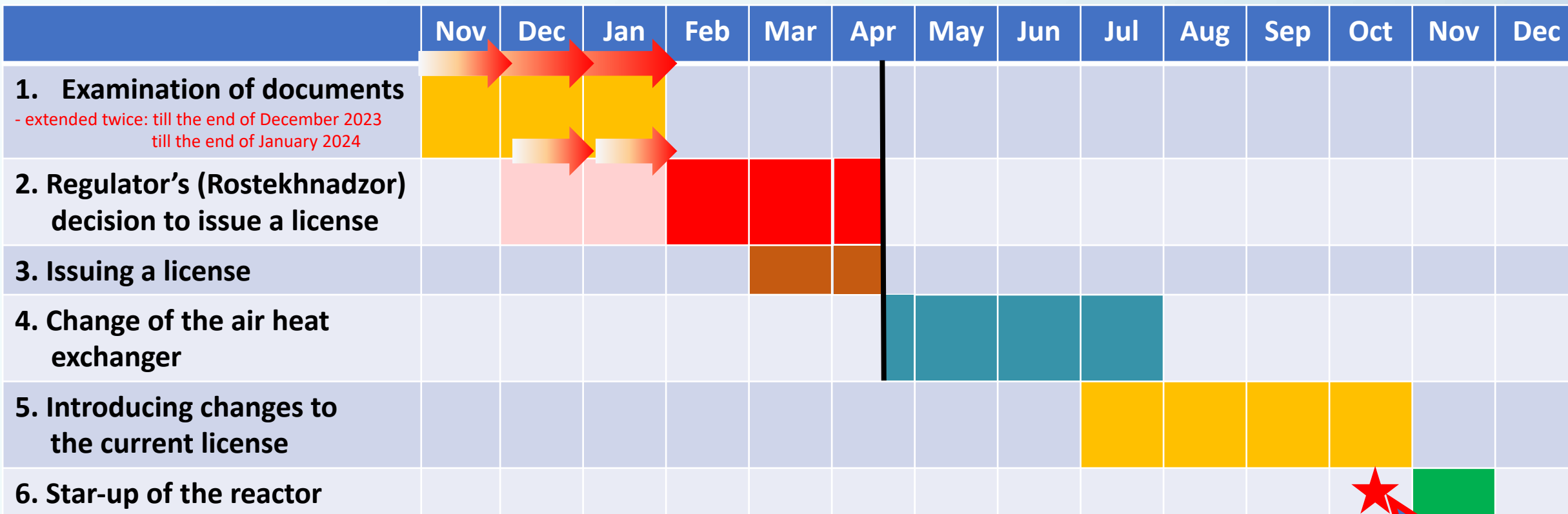
A section of the pressure pipeline of the 2nd circuit in front of the air heat exchanger was cut off.

Air heat exchanger drain manifold cut off.



The schedule of organizational and technical work for resuming the regular operation of the reactor

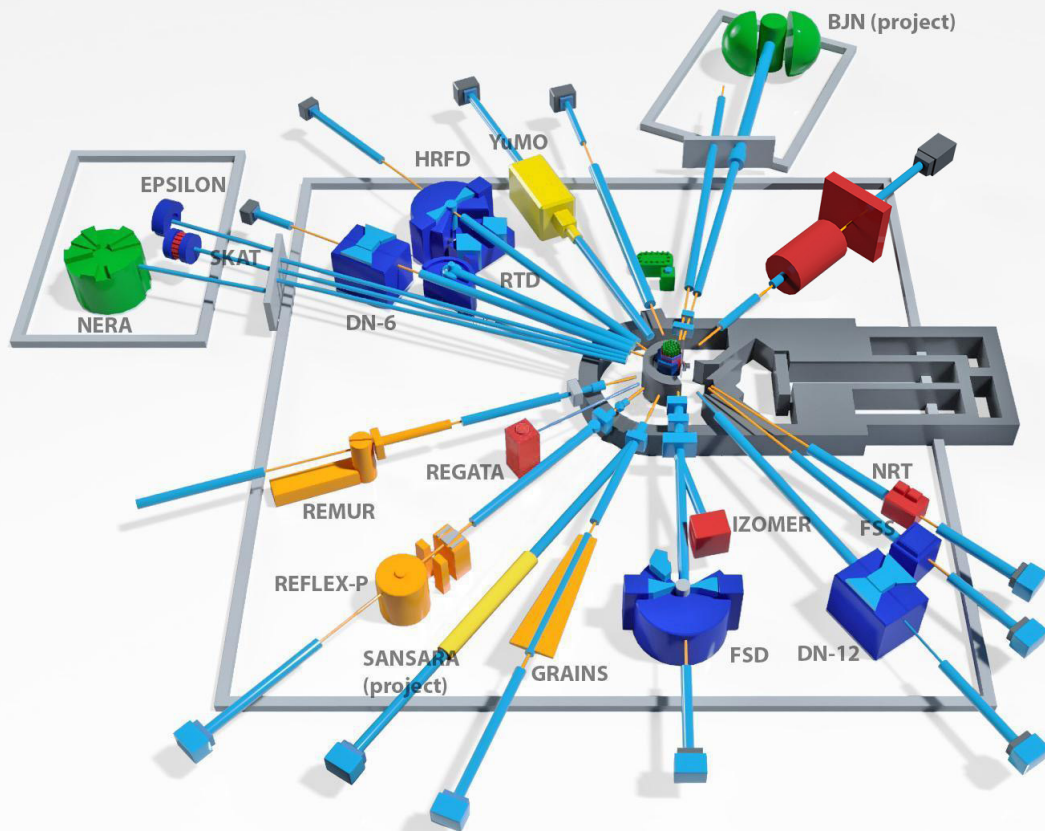
2023 | 2024



★
Opening the proposal call for the first half of 2025



<https://ibr-2.jinr.ru>



13 INSTRUMENTS

Diffraction:

HRFD
RTD
DN-6
EPSILON
SKAT
DN-12
FSD

Small-angle scattering:

YuMo
SANSARA(project)

Inelastic scattering:

NERA
BJN(project)

Reflectometry:

GRAINS
REMUR
REFLEX

NAA:
REGATA

Distribution of the beam time

In the FLNP JINR, the neutron beam time at the high flux pulsed IBR-2 reactor is distributed between **internal users** (FLNP) and **general science community** (GSC) in the ratio of

- 35% (internal proposals)
- 55% (external regular proposals)
- 10% (external urgent beam time requests)



<https://ibr-2.jinr.ru>

Regular access applications

	First round	Second round
Period for proposal submission	September 1 - October 15	March 1 - April 15
Beam time	1st half-year	2nd half-year

The proposals are evaluated by Experts Committee (**technical and scientific**) and beam time for experiments is granted upon possibility of technical implementation and scientific merit of the proposal.

Fast access applications

- ▶ NO DEADLINE
- ▶ Submission – via facility responsible

- ▶ Nanosystems and Soft Matter (YuMO, GRAINS, REFLEX, REMUR)
- ▶ Atomic and Magnetic Structure (RTD, DN-6, DN-12, SKAT, EPSILON, FSD, HRFD)
- ▶ Lattice and Molecular Dynamics (NERA)
- ▶ Neutron Activation Analysis (REGATA)



Preparing to resume the user program

No	Expert group	Number of experts in 2021	Number of new experts needed
1	Nanosystems and Soft Matter (YuMO, GRAINS, REFLEX, REMUR)	16	~ 9
2	Atomic and Magnetic Structure (RTD, DN-6, DN-12, SKAT, EPSILON, FSD, HRFD)	9	~ 6
3	Lattice and Molecular Dynamics (NERA)	3	~ 1
4	Neutron Activation Analysis (REGATA)	6	~ 3

We ask the PAC members for assistance in seeking the candidates for our expert groups.



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FLNP User Program

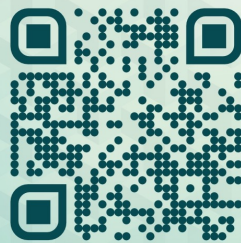


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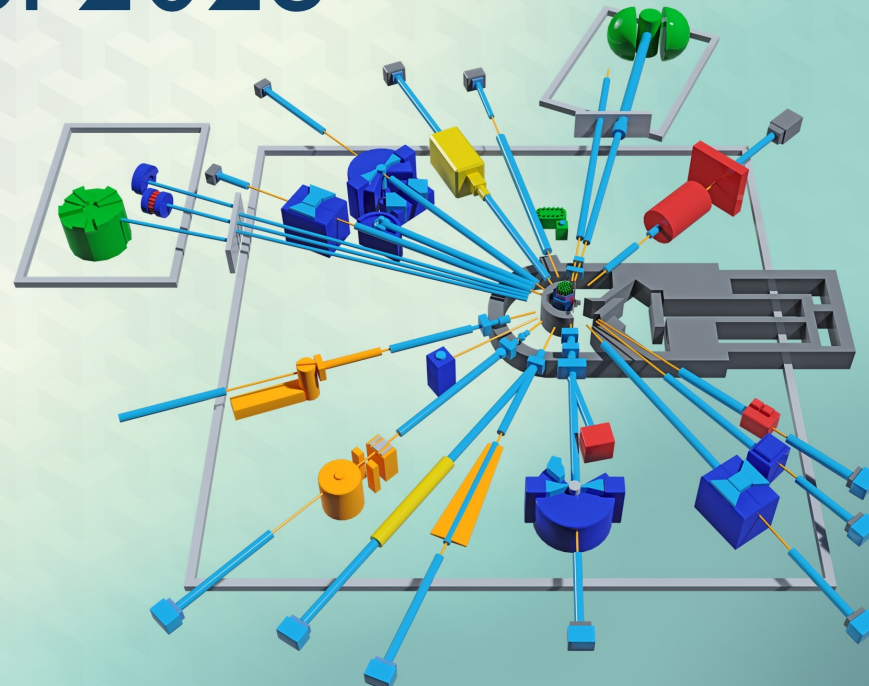


USER MEETING

First quarter of 2025



more information here





Thank you for attention