

РОСАТОМ

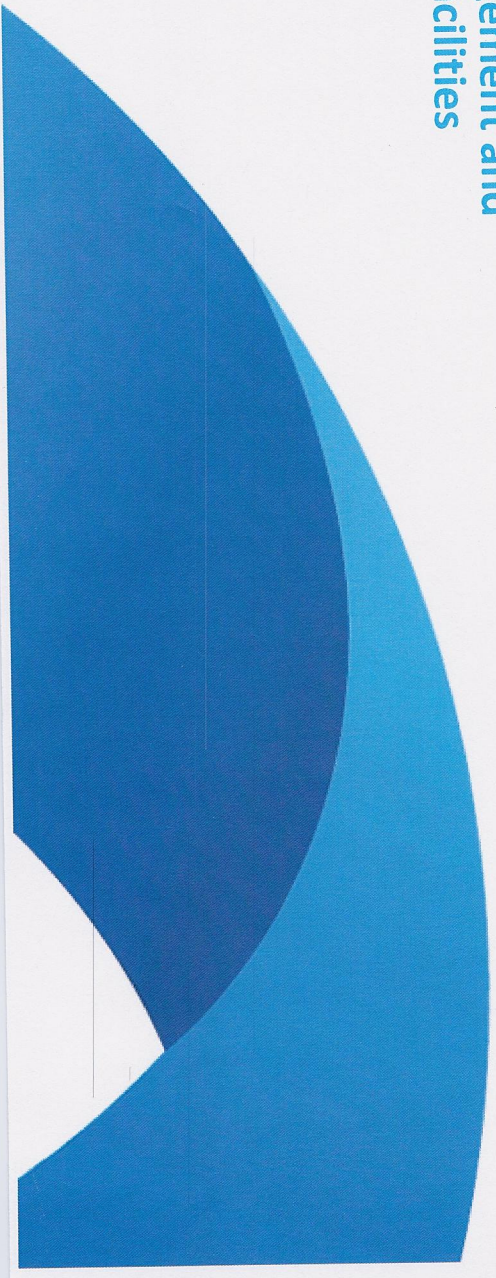
ГОСУДАРСТВЕННАЯ КОРПОРАЦИЯ ПО АТОМНОЙ ЭНЕРГИИ «РОСАТОМ»

ROSATOM STATE CORPORATION

Development of the System for Used Nuclear Fuel Management in the Russian Federation

**E.Kudryavtsev, A.Khaperskaya
Project Office for UNF management and
decommissioning of nuclear facilities**

Moscow, 18 February 2011



NPP FLEET IN RUSSIAN FEDERATION – 24,24 GWte

VVER-440 – 6 units in operation until 2030, 2 units under decommissioning

LWRs and FRs in operation:

VVER-1000 – 10 units in operation, 11 units under construction

RBMK-1000 – 11 units in operation, decom starts after 2015

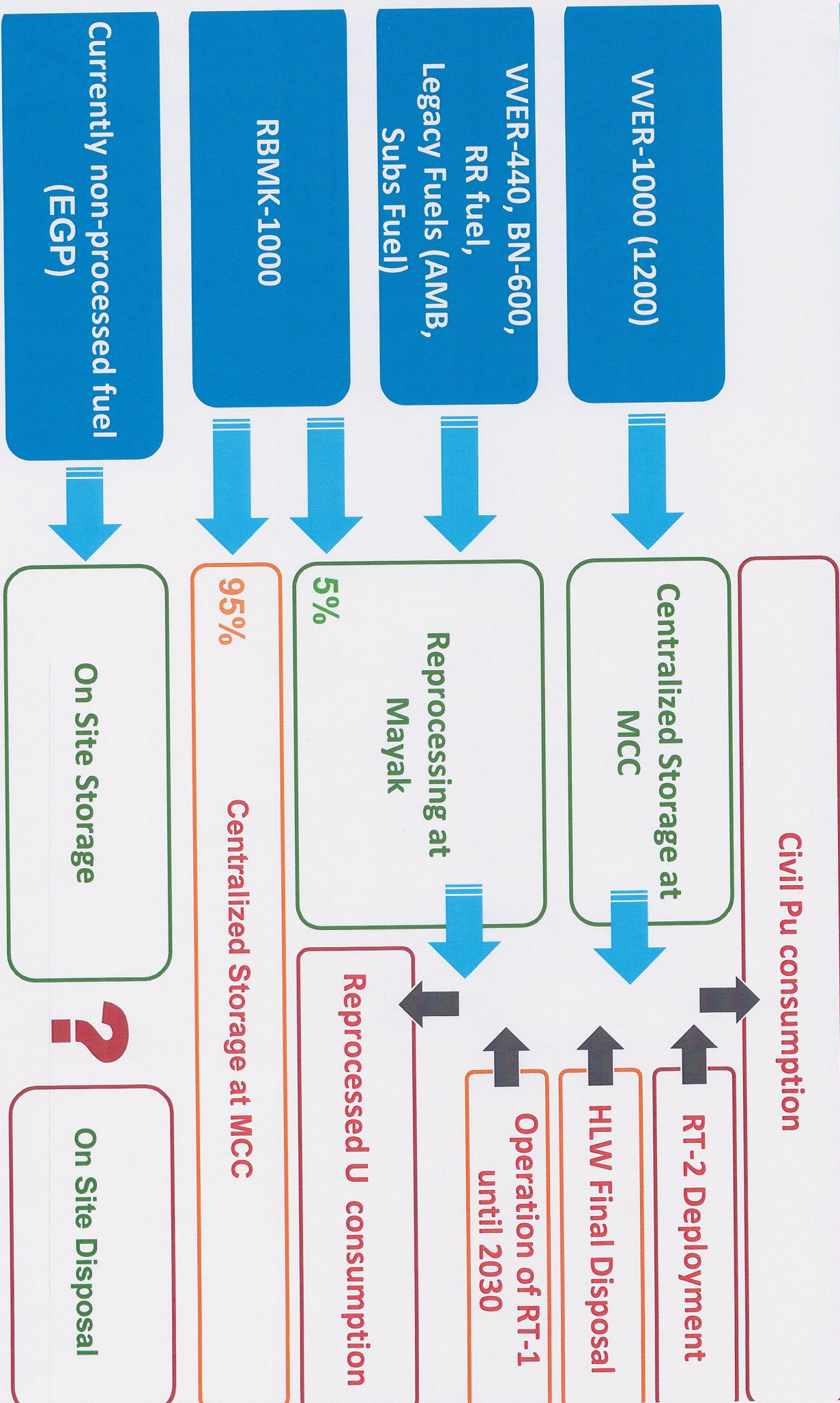
BN-600 – 1 unit in operation, BN-800 – one unit under construction

BN-1200 – deployment of 1-3 units is planned for 2020-2030

EGP-6 in Bilibino – 4 units in operation, decom is planned for 2018-2021.

Floating NPP is considered for replacement

TECHNOLOGICAL STRATEGIES FOR UNF MANAGEMENT





▪ COMMISSIONING of TESTING & DEMONSTRATION CENTRE (TDC)



▪ COMMISSIONING OF UNDERGROUND LAB



▪ TDC TEST OPERATION
▪ ASSESSMENT OF TECH&ECONOMIC PARAMETERS FOR THE INNOVATIVE TECHNOLOGY



▪ DESIGN OF LARGE SCALE REPROCESSING PLANT RT-2 (1-ST PHASE)



▪ START OF RT-2 CONSTRUCTION



▪ COMMISSIONING OF HLW DISPOSAL FACILITY



DESIGN OF LARGE SCALE REP PLANT RT-2 (II-D PHASE)



CONSTRUCTION OF RT-2 (II-D PHASE)

DECOMMISSIONING OF WET STORE AT MCC

▪ COMMISSIONING OF DRY STORE 1-ST PHASE

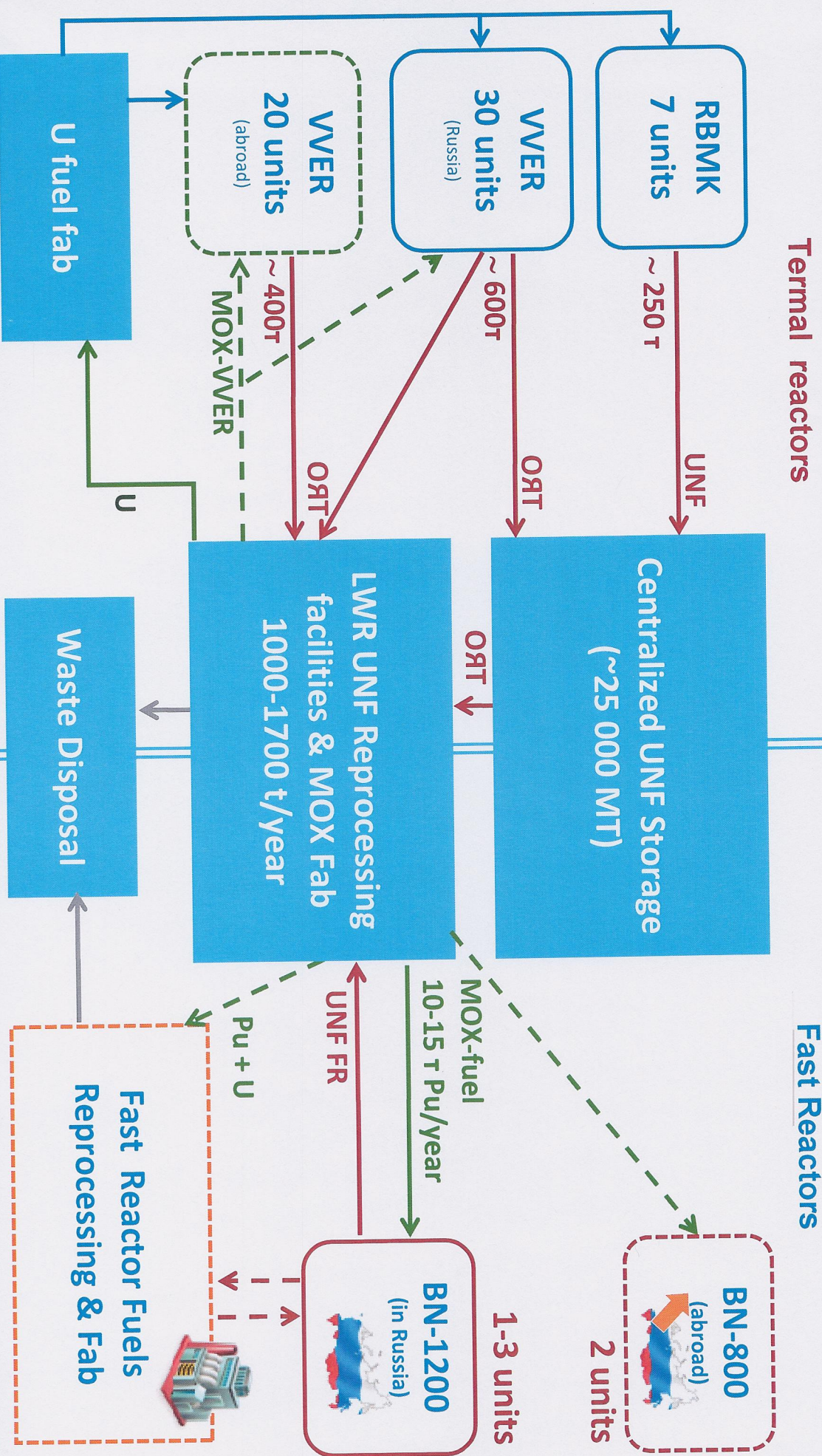
DECOMMISSIONING OF RT-1



1-ST STAGE OF DRY STORAGE FACILITY AT MCC SITE FOR 9200 MT (UO2)



INTERACTION OF TERMAL AND FAST REACTOR'S FUEL CYCLES



Model of Integrated UNF Management System for 2025-2030

PROGNOSYS for ACCUMULATED AMOUNT of USED FUEL IN STORE

