

# **GREMIKHA – CURRENT STATE, PROBLEMS, PROPOSALS**

***B.S. Stepenov***

*RRC "Kurchatov Institute"*



## **SNF Management**

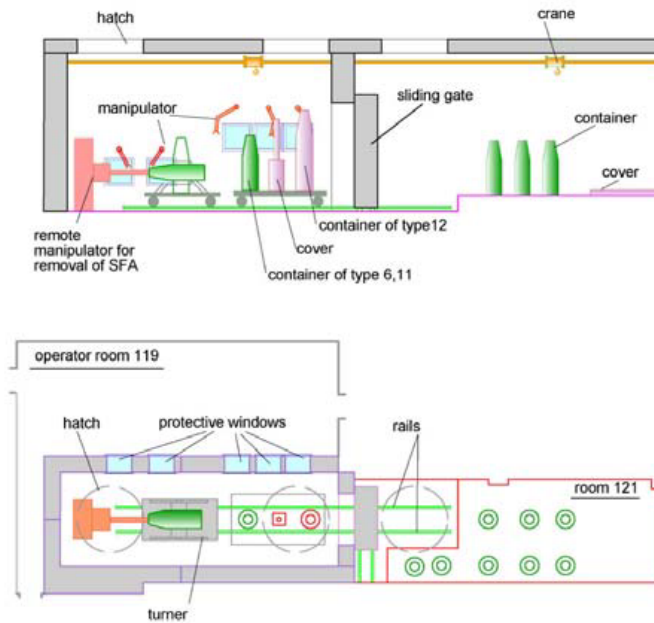
### **I. Storage of SFA without covers in containers TK-6, TK-11**

### **II. Defective SFA**

- bowing in length greater than allowable, cracking on attempts to correct the bowing;
- distortion of the structural form: swelling, bulging, etc.;
- breakage of part of the SFA;
- pouring out of fuel composition

### **III. Defective SFA reloading station**

- personnel radiation protection;
- radiation monitoring;
- special ventilation;
- special sewerage system;
- provision of visual observation;
- remote control (manipulators, robotics...);
- carrying, lifting and other equipment;
- special means for visual and instrumental control of SFA condition;
- etc.;
- summary: hot cell



**Specialized Hot Cell**

## Stages of Building the Reloading Station

1. Concept of building the reloading station in Gremikha
2. Survey of buildings and structures suitable for the reloading station
3. Technical requirements for the reloading station
4. Reloading station specification
5. Reloading station engineering design
6. Design documents for the reloading station equipment
7. Reloading station detailed design
8. Fabrication and purchase of the equipment
9. Construction, installation, start-up and adjustment operations
10. Operation of the reloading station

# SRW Management

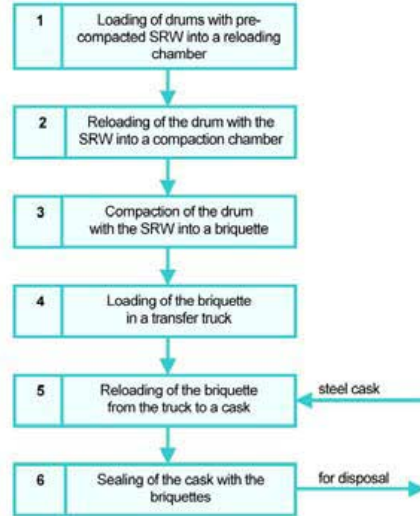
## I. SRW compacting and packing station (SRWCPS)

- special ventilation;
- decontamination;
- radiation monitoring;
- cutting of large pieces of SRW;
- compacting and packing equipment;
- carrying and lifting equipment;
- storage rooms

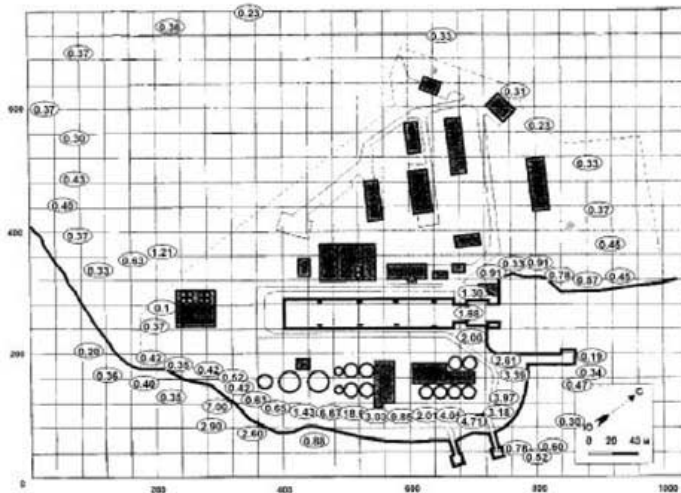
## II. Required

- rebuilding of berth No. 9;
- decontamination of the water area;
- technical requirements for the SRWCPS;
- feasibility study;
- SRWCPS specification;
- design

## Block Diagram of the Mobile Supercompacting Complex Operation



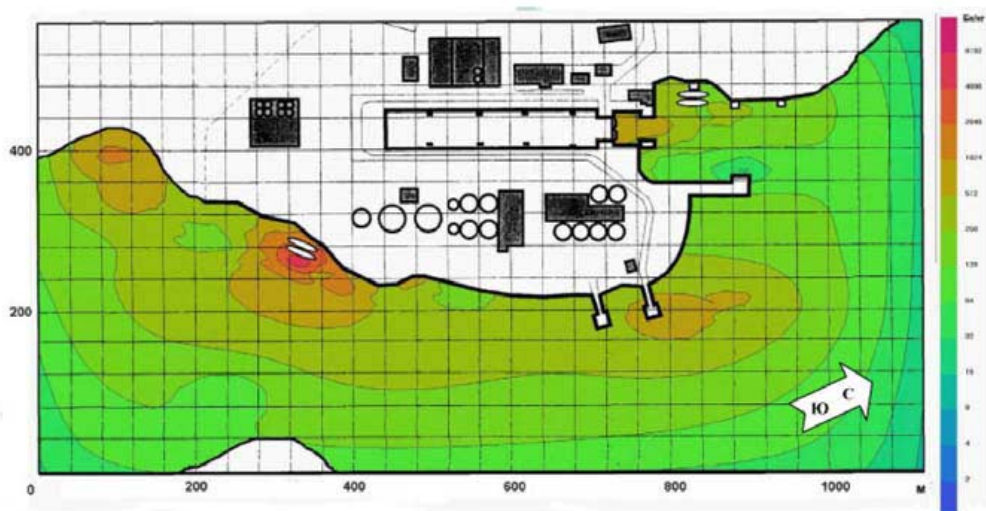
# Water Area Survey



Results of Dose Rate Measurements at the Height of 1m at the Coastline and along the Outer Perimeter of the Site

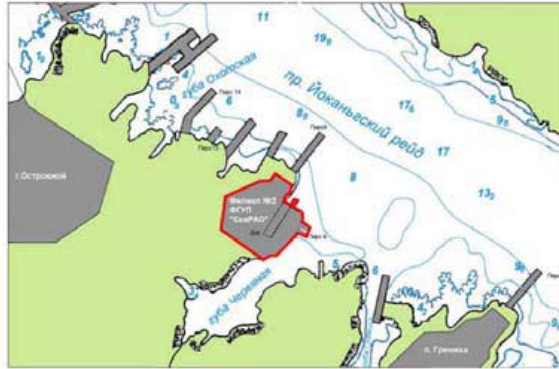


**Cartogram of the Dose Rate at the Height of 1 m at the Coastline and along the Site Outer Perimeter**



**Cartogram of the Bottom Deposit Surface Layer Contamination by Cs-137 in the Coastal Strip Adjoining the Site**

## Physical Protection System



*Schematic of the Water Area at Ostrovnoy town and SevRAO Branch No.2*

- alarm and access control system;
- perimeter alarm system (including passive fence);
- TV surveillance system;
- entry control point with a vehicle inspection area;
- outdoor lighting system