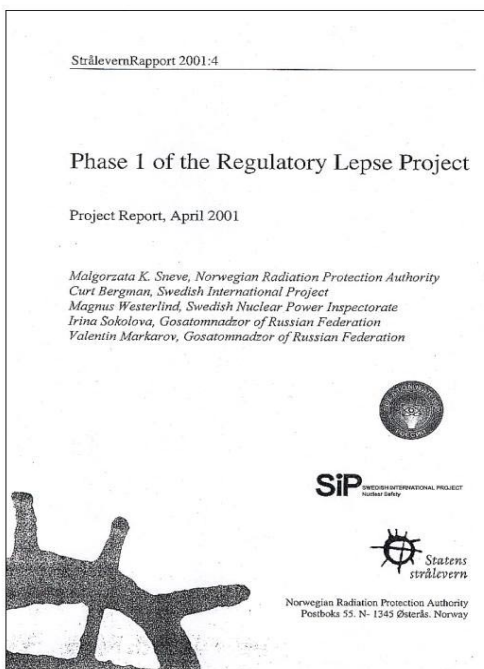


The regulatory guidance documents for the Lapse project will be put into force in Russia from 5 June 2001

Phase 1 of the Regulatory Lapse Project (RLP) has resulted in the preparation of a set of three regulatory documents providing guidance on the material to be submitted to RF Gosatomnadzor in order to obtain a licence for unloading spent fuel from the Lapse storage vessel, i.e. the Industrial Lapse Project (ILP). The regulatory documents come into force from 5 June 2001. The project report from Phase 1 of the RLP has been published with an unofficial English translation of all three documents. This report and the set of guidance documents will be of great help to the organisations responsible for the implementation of the ILP. The work has also established a fruitful and efficient form of co-operation between RF Gosatomnadzor and Swedish and Norwegian authorities, which will be of great help in the implementation of future regulatory projects.

The Regulatory Lapse Project (RLP)

This **StrålevernRapport 2001:4** is available from the Norwegian Radiation Protection Authority.



Overall objective and work plan

The primary objective of the RLP is to ensure that the comprehensive management of the spent nuclear fuel and radioactive waste on board the Lapse storage vessel is done in conformity with the current Russian nuclear and radiation safety regulations and licensing procedures and in accordance with corresponding

accepted international practice. A supplementary objective is to increase the mutual understanding of the work done by the Russian and Western safety authorities. The main steps in the RLP work plan to be implemented are:

- Gathering and analysis of the current legal and regulatory basis for the Lapse project implementation.
- Development of the regulatory guidance documents needed for implementation of the ILP.
- Review of the licence application and assessment of the documents on nuclear safety and radiation protection, including peer review with participation of independent experts.
- Preparation, manning and carrying out of inspections with participation of representatives of the authorities from the countries concerned.

Objective and scope of RLP Phase 1

The full implementation of the RLP can only be done in parallel with the full implementation of the ILP. Due to the lack of a liability agreement between Russia and one of the funding parties, the main activities of the ILP have not yet been launched (as of May 2001), although it has seriously been discussed for a long time and a feasibility study demonstrating a technical solution was completed in 1997. Awaiting the initiation of the main ILP, the working group for the RLP agreed on the implementation of a preparatory project RLP Phase 1, which has the following objective:

to support the RF Gosatomnadzor to develop and justify a set of documents to guide those responsible for the implementation of the Industrial Lapse Project in the procedure and sequence of activities necessary for obtaining licence(s) for the activities included in the Industry Project. The set of documents shall also give guidance in the types and content of the documentation supporting an application to the RF Gosatomnadzor.

Within the Phase 1, three Guidance Documents were developed.

- **“REQUIREMENTS FOR THE COMPOSITION OF A SET AND CONTENT OF DOCUMENTS SUBSTANTIATING NUCLEAR AND RADIATION SAFETY ASSURANCE TO BE SUBMITTED BY THE OPERATOR AND ORGANISATIONS CARRYING OUT AND RENDERING THEIR SERVICES TO HIM WITH THE PURPOSE TO GET A LICENCE FROM GOSATOMNADZOR OF RUSSIA IN IMPLEMENTATION OF THE INDUSTRIAL LEPSE PROJECT.”**

The main text in the Guide gives the general provisions and six annexes give details on what documents should be included and what information the documents should contain, as follows:

- Design of spent fuel assembly (SFA) unloading installations.
- Manufacturing of the SFA unloading installations.
- Construction of the interim store facility.
- Operation of the interim store and management of nuclear material.
- Management of the SFA during removal from the Lapse.
- Management of radioactive waste.

- **“REQUIREMENTS FOR QUALITY ASSURANCE PROGRAM FOR CARRYING OUT OF ACTIVITIES FOR UNLOADING OF SPENT FUEL ASSEMBLIES IN IMPLEMENTATION OF THE INDUSTRIAL LEPSE PROJECT.”**

The objective of this guide is to set out the requirements for a quality assurance program (QAP) for unloading SFAs during the implementation of the ILP and handling the radioactive waste generated during that operation. The Guide covers the Operator for the ILP (Murmansk Shipping Company) and also the organisations implementing works and rendering service to the Operator. According to the guide, the

following areas must be covered in the quality assurance program:

- Design of equipment to be used for unloading the SFAs.
 - Design of equipment to be used for managing the resulting radioactive waste.
 - Manufacturing the equipment to be used for unloading the SFAs.
 - Manufacturing the equipment to be used for managing the resulting radioactive waste.
 - Installation and commissioning of the equipment to be used for unloading the SFAs.
 - Installation and commissioning of the equipment to be used for managing the resulting radioactive waste.
 - Management of the SFAs during unloading.
 - Management of the resulting radioactive waste.
- **“REQUIREMENTS FOR QUALITY ASSURANCE PROGRAM FOR CARRYING OUT OF ACTIVITIES FOR UNLOADING OF SPENT FUEL ASSEMBLIES IN IMPLEMENTATION OF THE INDUSTRIAL LEPSE PROJECT.”**

Safety analysis is the single most important tool for assessing nuclear and radiation safety for any nuclear activity. In most countries the Safety Analysis Report, SAR, is together with the Environmental Impact Assessment (EIA) the foundation for the operator’s licence application and thus also for the regulatory review and licensing. Consequently it is of great importance that the RF Gosatomnadzor promulgate relevant and clear guidance for the SAR needed for SFA-removal from Lapse. The document consists of the following ten main sections:

- General provisions.
- General description of the Lapse storage vessel.
- Nuclear and radiation safety.
- Safety systems (components).
- Installation for SFA unloading.
- Safety analysis of SFA unloading.
- Limits and conditions for safe SFA unloading, operational limits of systems (components) of the SFA storage.
- Training of personnel, operation and maintenance of systems (components).
- Quality assurance.
- Arrangement of activities for SFA unloading from the depot ship storage and emergency preparedness.