ПОСОЛЬСТВО
РОССИЙСКОЙ ФЕДЕРАЦИИ
В ЛАТВИЙСКОЙ РЕСПУБЛИКЕ

Исх. № 14

«10» 01 2013 г.

МИНИСТРУ ПО ОХРАНЕ ОКРУЖАЮЩЕЙ СРЕДЫ И ВОПРОСАМ РЕГИОНАЛЬНОГО РАЗВИТИЯ

Господину Э.СПРУДЖСУ

Уважаемый господин Спруджс,

Направляем полученные из Госкорпорации «Росатом» материалы оценки воздействия на окружающую среду и уведомление о планируемой деятельности по строительству пункта захоронения радиоактивных отходов в г. Сосновый Бор Ленинградской области. Материалы передаются в рамках добровольного выполнения Российской Федерацией положений Конвенции об оценке воздействия на окружающую среду в трансграничном контексте (Конвенция Экспоо), в частности, статьи 3.

Приложение: упомянутое, на 35 лл.

ПОСОЛ РОССИИ В ЛАТВИИ **А.ВЕШНЯКОВ**

"ROSATOM" STATE CORPORATION ENTERPRISE

Federal state unitary enterprise
"Enterprise for Radioactive Waste Management "RosRAO"

Environmental impact assessment
Brief information

Low- and medium-level radioactive waste disposal site in Leningrad Region

2012

Contents

1. General information on planned activities

Radioactive waste (RW) is generated during operation of the nuclear fuel cycle facilities, nuclear power plants, research reactors, critical test facilities and assemblies, strong ionizing radiation sources, civil fleet and navy sheep with nuclear propulsion systems and other radiation sources, and during the use of isotopic products in scientific organizations, national economy and medicine.

Significant part from total volume of RW in Russia was collected during the establishment of nuclear industry. At present basic amount of RW is generated as a result of spent nuclear fuel treatment. Thereby, there is a complex of nuclear power industry facilities in the Russian Federation, at which there have been accumulated and are still being accumulated different RW.

Leningrad region is the subject of the Russian Federation, concentrating large quantity of power industry enterprises, research organizations and medical establishments, generating radioactive waste during the operation. Basic amount of radioactive waste which have been accumulated and generated in Leningrad region represent low- and medium-level radioactive waste, containing radioactive nuclides with half life of not more than 30 years.

Several statements of the Federal law "On Nuclear Energy Utilization" reflect current trends in the Russian Federation to the approaches harmonization on safety provision during RW management with the safety principles and criteria, accepted by the international society. Such principles as "protection of future generations" and "burden for future generations" were legislatively established in the Russian Federation. The existing trend is also approved by the facts of our country joining to a large variety of different international conventions, especially joining the Joint Convention on Safety of Spent Fuel Management and Safety of Radioactive Waste Management by the Russian Federation in January 1999.

At the same time, the normative base in the field of RW management existing until quite recently was based on the legislation of the former USSR in accordance with the safety approaches of 50-th and 60-th. A difficulty of application these normative documents (ND) is determined by the following interrelated reasons:

the documents were developed by different departments and administrations independently, and often represent departmental regulations;

the documents often duplicate of contradict one another;

unreasonably large number of normative documents makes their application difficult by the user.

The majority of the documents are obsolete and shall be reviewed, because they do not comply with the existing legislation of the Russian Federation and with the wide range of the important safety principles, which have been recently accepted by the international society.

Thereby, alteration of the legal basis required creation of a modern system of safety regulatory control for RW management, i.e. creation of the aggregate of scientific, technical and organizational principles, criteria and safety requirements for RW management, complying with the existing legislation of the Russian Federation, modern science and technology and up-to-date safety ideology.

The modern international experience shows that the most optimal way of safety ensuring during RW management on the final stage of its life cycle is RW disposal.

The near-surface sites for low- and medium-level radioactive waste (RWDS) disposal, containing short-lived radioactive nuclides are used in Spain, France, Sweden, Finland and Germany. The RWDS projects are developed in Belgium, Lithuania and Switzerland.

Today Leningrad region has important and necessary conditions for construction of the radioactive waste disposal site:

the forecasted quantity of the accumulated and generated conditioned RW may reach 200–250 thous. m^3 in 2030;

concentration of main storage facilities for the accumulated and generated RW in Sosnovoborsky industrial zone;

planned decommissioning of the nuclear power industry facilities in the region;

availability of the blueprint projects of RW storage facilities, developed for this region with the participation of the international specialists.

1.1. Customer information

Federal State Unitary Enterprise "Enterprise for Radioactive Waste Management "RosRAO" (FSUE "RosRAO").

Legal address: 119017, Moscow, 24, Bolshaya Ordynka, bld. 24.

Tel./fax: +7(495)710-76-48

Deputy Director General: Timur Yuryevich Koptev

1.2. Nature of activity

The aims of planned RWDS construction are:

protection of the future generations: RW management shall be performed in the way, provided that predictable consequences for health of the future generations do not exceed the levels of the consequences, accepted today;

burden removal for the future generations: RW management shall me performed in the way, not to burden the future generations;

implementation of the national legal frame: RW management shall be performed within the existing national legal frame, providing clear allocation of duties and implementation of independent regulating functions;

management over creation and temporary storage of RW: production and temporary storage of RW is maintained on the minimal reasonably practical level;

reaching the balance of RW production and management correlation: correlation between all stages of RW production and management are reasonably considered.

Construction of the disposal site for low- and medium-level radioactive waste in the area of Leningrad division of "Northwest Territorial District" branch of FSUE "RosRAO" is planned to be executed in orders. The first order is catered to accept 50,000 m^3 of RW, arranged in 18,000 packages. Each following order has the similar capacity. Thereby, is assumed that total capacity of RWDS will be amounted to 250,000 m^3 of RW.

Expected construction time for the RWDS will be 2.5–3 years. Expected operating time (loading 50,000 m^3 of RW) of one RWDS order is 6–10 years, depending on RW inflow rate. Thereby, total operating time of the RWDS will be 30–50 years.

The post-operation period of the RWDS is at least 500 years and corresponds to the period of potential risk posed by disposed RW. During the post-operation period it is foreseen to implement various measures on the structures, protective barriers and environmental condition monitoring. Monitoring system will be developed during the design works.

Main suppliers of RW will be the enterprises of Leningrad region and Saint Petersburg, producing such RW.

RW that meet RWDS specific acceptability criteria developed for this type of RWDS in accordance with the applicable normative documents, are permitted for disposal. RW will be accepted for disposal in conditioned form, placed in the reinforced concrete and metal containers.

1.3. Construction site

Based on the analysis of fund materials and engineering surveys of the previous years, the following four sites were selected for the advanced research out of five alternative sites, applicable for construction on the territory of Leningrad region:

two for surface RWDS – the area of Lubanovo tract and Kastivskoe tract,

two for buried RWDS – the area of Kastivskoe tract and the area of Leningrad branch of FSUE "RosRAO".

The results of the following engineering surveys made in 2008–2010 by Saint Petersburg department of the Institute for Geosciences of the Russian Academy of Sciences allowed to make a conclusion on the priority of two sites for RWDS construction:

for surface RWDS – the area of Kastivskoe tract;

for buried RWDS – the area of Leningrad branch of FSUE "RosRAO".

The following benchmark analysis of the selected sites is performed considering the following criteria:

distance from the settlements,

occupied territory,

distance from the areas of production and storage of accumulated RW,

availability of the engineering infrastructure,

possible impact on the environment.

1.4. Description of the construction site

It is assumed to deploy buried RWDS within the territory of Leningrad branch of FSUE "RosRAO" and on the adjacent empty site. The existing site of Leningrad branch of FSUE "RosRAO" is located in Leningrad region, 5 km south-west from Sosnoviy Bor city and 1,1 km south-east from the existing LNPP-1 site, Fig. 9.

It is assumed to deploy the surface RWDS in the South-east part of Leningrad region territory, 6 km north-east from Koporie settlement and 12 km southward from the existing LNPP-1 site, Fig. 9.

Temperature mode

The average annual air temperature in the considered area is plus 4.0 °C.

The absolute minimum of air temperature was observed in December, 1978 on Staroye Garkolovo meteorological station and amounted to minus 41 °C.

The absolute maximum of air temperature was recorded in July at plus 33 °C.

Soil freezing temperature

Maximal depth of soil freezing is observed in February and amounts to 139 cm.

Air humidity

The annual mean absolute air humidity (partial pressure of water vapor) amounts to 7.8 hPa, relative humidity is 80 %.

Atmospheric precipitation

The average multiyear level of atmospheric precipitations amounts to 748 mm per year, where 461 mm fall during the warm period and 287 mm – during the cold period.

Wind conditions

The winds of S, S-W and W directions prevail in this region. Repeatability of these directions amounts to 54 %. The least percent of repeatability equal to 8 % belongs to the wind of the east direction.

Geological conditions

In the area of Leningrad division of "Northwest Territorial District" branch of FSUE "RosRAO" sedimentary rocks have total capacity up to 400–450 m, lie on the ancient *(archaean-proterozoic)* crystal base and hollow-bored to south-east.

Bottom part of the sedimentary cover is represented by *Kotlin Vendian level.* Nizhnekotlinskiy aquifer (Vkt^1) lays in the level base with the capacity of 10–20 m, made by malmrocks. The upper part of kotlin level is formed by clays and argillites, with the capacity up to 60 m. These clays are considered as background medium for RWDS.

Seismotectonic conditions

South-west part of the East European platform is specified by the reasonably active seismic activity, being mainly demonstrated by frequent but low-amplitude earthquakes.

Hydrographic and hydrologic conditions

Hydrographic network of the considered region is represented by Kovashii, Voronka rivers and their affluents. The rivers belong to the Baltic Sea basin and inflow into Koporye bay of the Gulf of Finland. There are several lakes on the territory: Lubenskoye, Teglitskoye, Radyshevskoye, Kalischenskoye, Zaozerskoye.

Tidal water level fluctuations in Koporye bay does not exceed 10 cm. The amplitude of surge/downward level oscillations reaches 530 cm. Maximal water levels in Koporye bay will not affect (will not cause submergence) of the considered sites. Height marks of the assumed sites are significantly higher that the estimated maximal water levels of Koporye bay.

Vegetation

Vegetation of the considered area is related to the southern taiga subzone or south-taiga woodland as per geobotanical subdivision. Shore of the Gulf of Finland is specified by the bench-like landscape and specific climatic conditions. Spruce and pine forests are specific for this region.

Wild animals

There are about 11 species of amphibias and reptilians, over 40 mammals and over 200 species of birds in the considered area. One representative of amphibias and reptilians, 5 species of mammals and 57 types of birds are included into the Red Book of Leningrad region nature from the considered territory.

Social and economical conditions

Sosnoviy Bor city is located in the most promising economic zone, it has convenient transportation communication with the existing and newly-built ports in Vyborg and Kingisepp regions.

Sosnoviy Bor is the largest town-planning complex of Leningrad region.

Demographic conditions of Sosnovoborsky Urban District are specified by high population density (914 pers./km^2) and high level of urbanization.

Demographic situation in Sosnovoborsky Urban District is specified by the process of natural decline in the population, related to low birth rate and ageing of population. Baby bust is related to reduction of the reproductive female population, including young reproductive age (20–29 years), on the reason of joining this age group by small female generations, born in the beginning of 90-th, that was specified by sharp baby bust.

The offsetting factor of the city demographic situation is the migration population gain, exceeding natural decline in the population. Within the period from 2000 to 2011 migration of the population was positive with a slight trend of decrease during some years.

At present labor potential is being increased. Number of workers in big and medium companies of Sosnoviy Bor in 2010 amounted to 22.4 thousand people and increased comparing to the corresponding period of 2009 by 2.9 %.

Monthly average salary of the payroll workers in big and medium companies in 2010 increased by 16.4 % to the level of 2009 and amounted to 33,509.5 rub.

Plant-growing and cattle breeding prevail in agriculture.

14 big and medium companies operate in the industrial complex of Sosnoviy Bor. Total level of their industrial production in 2010 amounted to 34.5 bill. rubles, or 120 % to the level of 2009.

The economical structure includes: production and distribution of electrical power, gas and water (65.3 %) (prevails), on the second place – construction (17.1 %), on the third – scientific research and developments (4,7 %), on the fourth – wholesale and retail trade (3.7 %) [39].

In general, social and economic situation in the Municipal district Sosnovoborsky Urban District is stable. Regional condition is favorable.

2. Engineering and process solutions for construction and operation of RWDS

"Zero" variant – refusal from construction

There is over 100 thousand m^3 of liquid and solid RW being stored on the territory of the industrial zone of Municipal district Sosnovoborsky Urban District. As per the forecast estimations (considering decommissioning of the power generating pants of LNPP-1) total amount of conditioned RW in 2030 can reach 200–250 thous. m^3.

Radioactive waste is stored in the surface storage facilities, provided that the service life of their majority expires soon. Two scenarios of this situation are possible:

prolongation of the storage facilities service life with the following construction of new facilities for RW storage, etc. = laying the load of responsibility on the future generations;

RW removal from the expired service life facilities and disposal in accordance with the existing legislation = safe RW isolation from population and environment.

I.e., refusal from the RWDS construction will directly contradict to the international principles and safety criteria.

Surface variant, construction solutions

Construction of the surface RWDS is based on the project solutions, developed by the Sweden company SKB IC for construction of the similar facility in Lithuania. These project solutions have already been implemented in RWDS, commissioned in France and Spain.

The surface RWDS is of a mound design and consists of three main components:

underlying screen,

modular concrete structure (disposal facility),

covering screen.

A sketch of RWDS is shown in Figure 1.

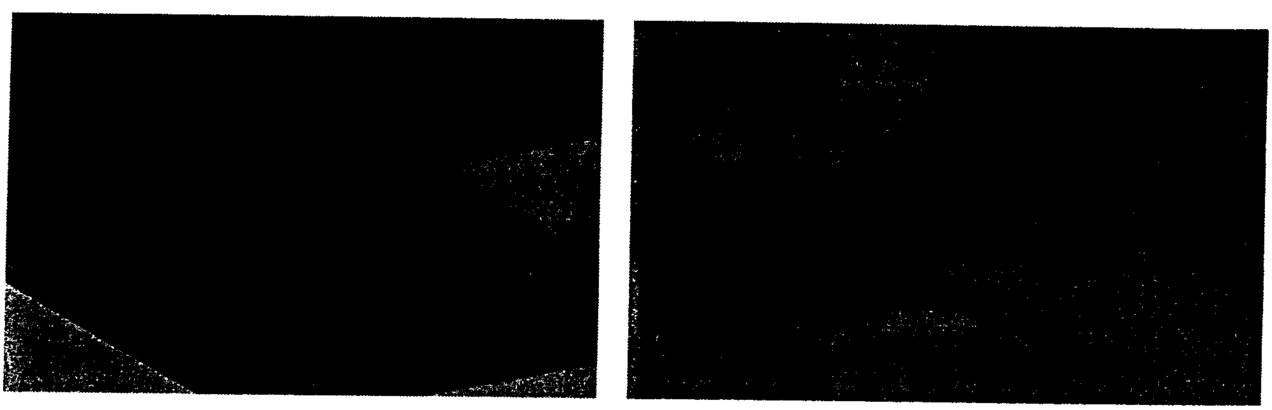


Figure 1 Surface RWDS

Buried variant, construction solutions

Buried RWDS represents a system of five tunnels with the diameter of 14.2 m and working part length of 1000 m each. The tunnels are divided into compartments to accommodate the RW packages.

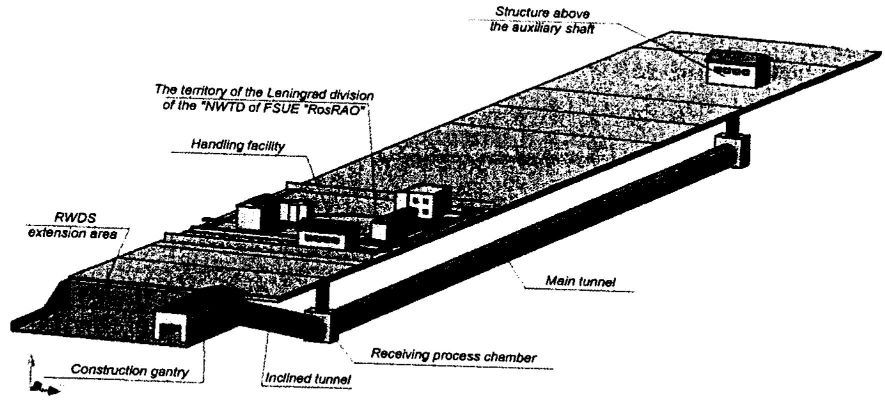


Figure 2 Buried RWDS facility

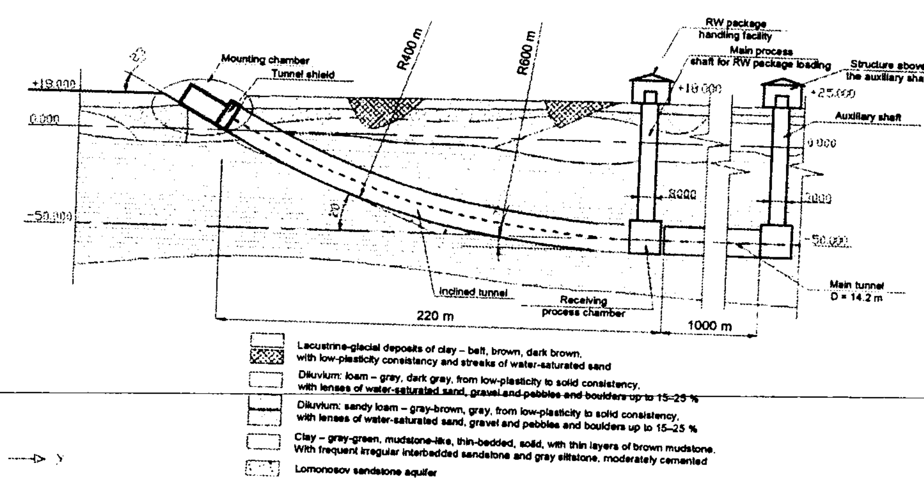


Figure 3 Profile section through the buried RWDS

Surface and buried variants, process solutions for RW management on sites

The process transport operations for RW management supplied for disposal are similar.

All operations are performed by the regulations and processes, approved in the established order.

Vehicles entry to the RWDS territory is performed by the relatively clean zone. Motor vehicles are being unloaded in the unloading hanger. Vehicles and packages with radioactive waste pass radiation monitoring. Decontamination is performed if necessary. Then packages with RW are supplied to buffer storage and motor vehicles to parking in the relatively clean zone.

From the buffer storage area the packages with RW are delivered to disposal level. Diagrams of process transport operations on RWDS site are given in Figures 4 and 5.

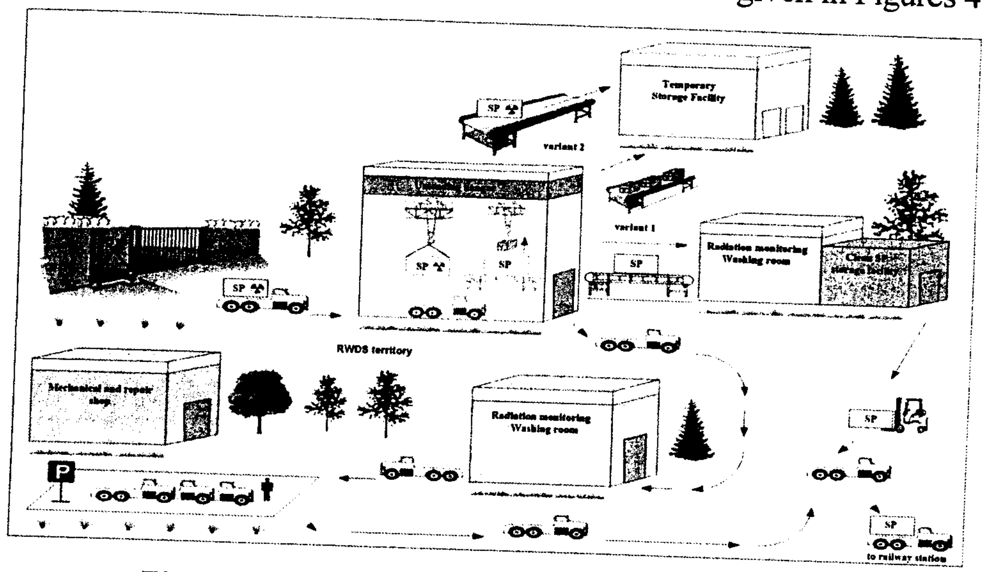


Figure 4 Diagram of process transport operations

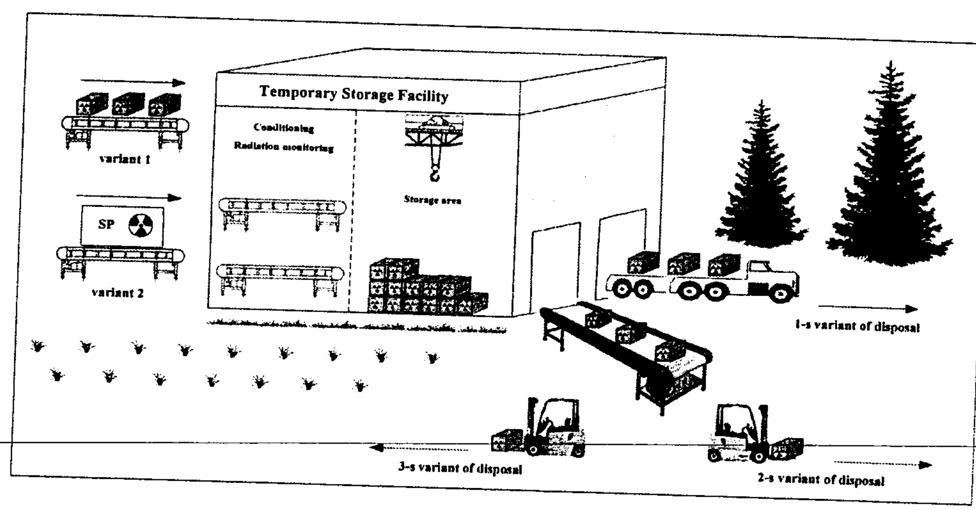


Figure 5 Delivery of RW packages to disposal level

Surface variant. Disposal of RW packages, RWDS closure

A motor vehicle with RW packages enters the protective facility, where RW packages are being unloaded by means of the overhead crane and placed into the cells. After filling the cells block, empty space between RW packages is filled with concrete and clay mixture. The reinforced concrete floor and covering shield are made above the block. Then protective facility is transported on the crane tracks and set above the next not-filled block of cells; the operations are repeated. The sketch of the block of cells and disposal facility are shown in Figure 6.

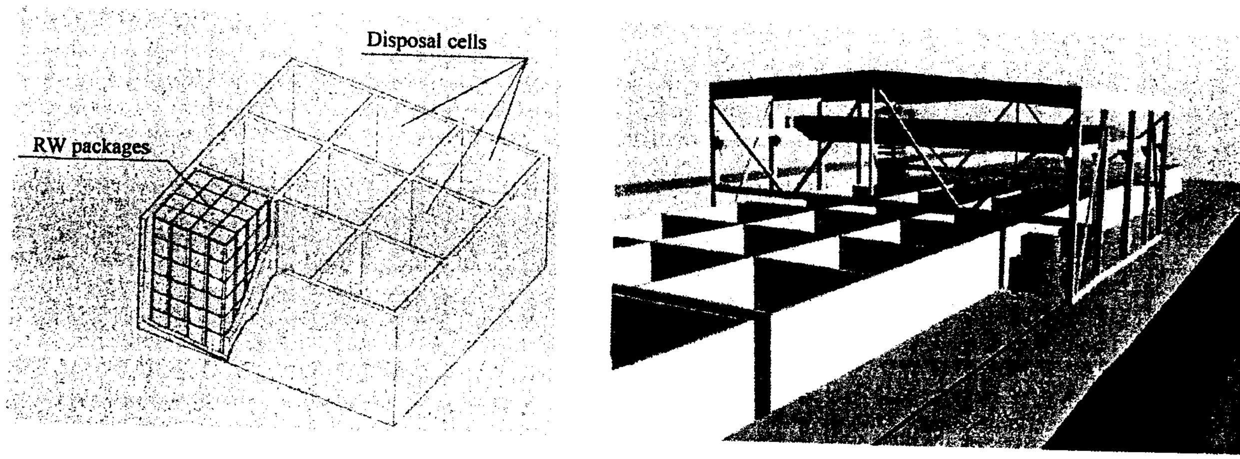


Figure 6 Block of cells and disposal facility for the surface RWDS

After filling the facility the process barrier of a mound design is erected above.

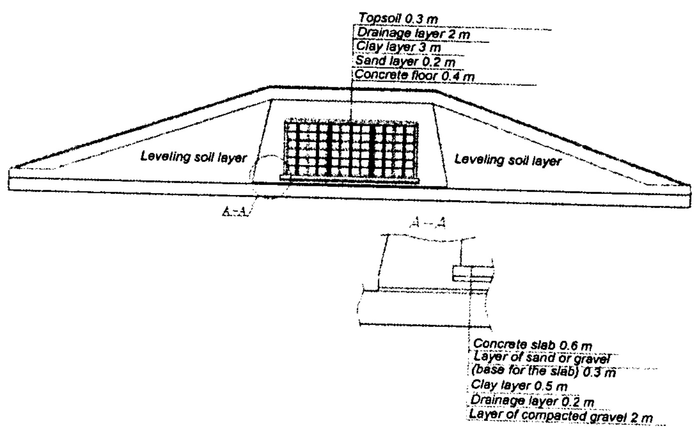


Figure 7 Process barriers of disposal facility for the surface RWDS

Buried variant. Disposal of RW packages, RWDS closure

A motor vehicle with RW packages enters the handling facility, where their unloading is performed. Using shaft-type mechanical handling equipment the packages with RW are supplied into the disposal facility, where they are being stored in the determined order by means of special devices. The sketch of RW packages supply to disposal level and module of disposal facility are shown in Figure 8.

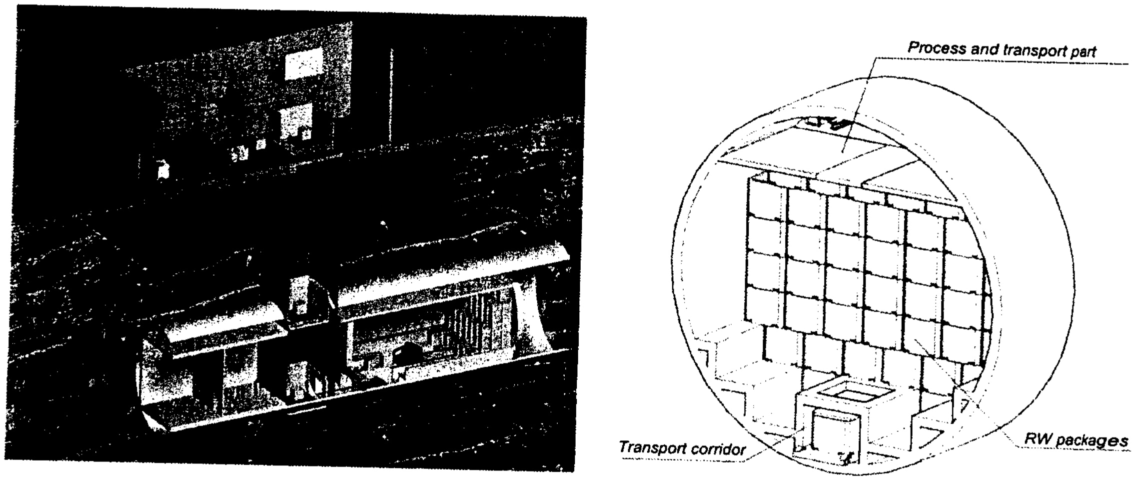
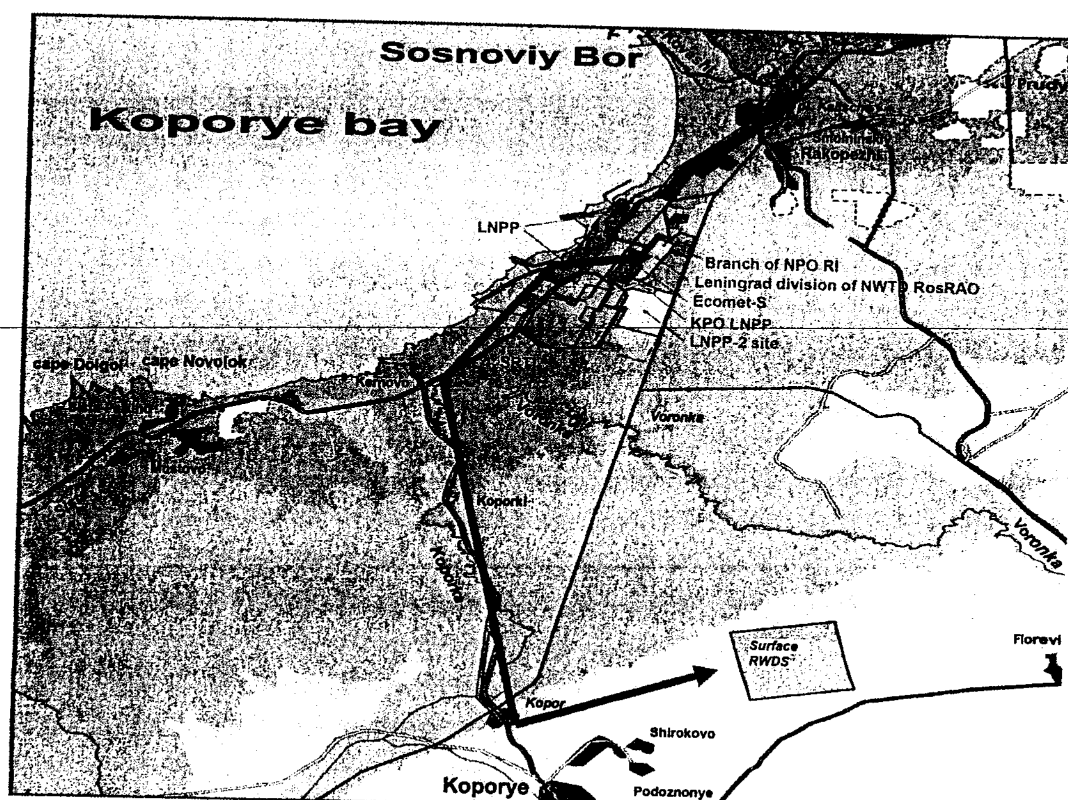


Figure 8 RW packages location in the buried RWDS module

After the module filling empty space between RW packages is filled with concrete and clay mixture, reinforced concrete floor is erected, etc.

RW transportation to the disposal site

Possible routes of RW transportation, depending on the type and place of disposal are shown in Figure 9.



Transportation route from LNPP to buried RWDS, 1 km

Transportation route from LNPP and RosRAO to surface RWDS, 15 km

Figure 9 RW transportation to the disposal site

Package for RW disposal, safety barriers

It is provided to ensure RWDS safety by means of the serial implementation of the deeply echeloned protection conception, based on:

using the system of physical barriers on the penetration way of ionization radiation and radioactive agents into the ambient environment;

using the technical and organizational measures system on physical barriers protection and maintenance of their efficiency;

using the system of staff, population and environmental protection.

The key principle of safety provision is the implementation of the multi-barrier protection concept:

the first safety level – process barriers: matrix containing RW + packing structure (concrete, metal) + process structures of RWDS;

the second safety level – natural barriers: geological environment;

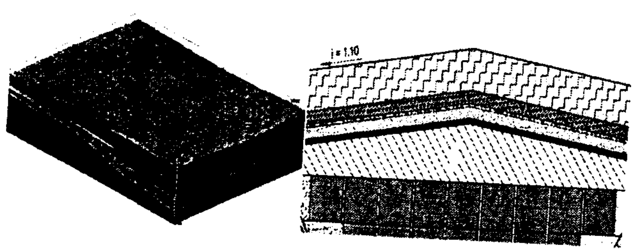
the third safety level – physical protection of the surface part of the object.

Concrete matrix containing RW

Primary package and container:
Reinforced concrete, NKZ type, for short-lives medium level RW

Metal, KMZ type for low-level RW

Building structures of the process facility



geological barriers – containing rock;

process barriers system, of the underlying and covering protective screens;

Figure 10 System of safety barriers

In this case during the entire life cycle of the RWDS the following conditions shall be ensured: absence of the recorded contribution into the existing natural radiation background;

discharges and emissions of radioactive substances into the atmosphere are completely prevented by the design calculations.

Package (container) design and construction materials of a container shall ensure its strength characteristics and tightness during the RW package handling. Construction materials of containers and materials for containers coating shall have minimal sorption capacity in relation to the radioactive nuclides, corrosion and radioactive resistance, thermal stability and shall be easily decontaminated. It is reasonable to use the unified container as per type and size, for instance, NZK and KMZ, Fig. 10.

Designing the second safety level – the clay barrier, showed that all assessments of possible radioactive pollution have the additional safety reserve of RW disposal facility.

It should be noted that the RWDS totally precludes accidental exposure, comparing to the other radiation-hazardous objects.

3. Assessment of possible types of impact of planned activities on the environment

The principle of the environmental impact assessment was based on the principle of presumption of a potential ecological hazard of any planned economical or any other activity.

Research of the environmental impact during the construction and operation of RWDS contains evaluation of all possible environmental impacts (atmosphere, territory, geological medium, surface and ground waters), considering the alternatives of such activities.

3.1 Environmental impact assessment during the RWDS construction

Cause and effect relationships of possible environmental impacts during the RWDS construction are given in Table 1.

Table 1

Main environmental impacts during the RWDS construction

Environmental impact object	Possible impact cause	Possible impact type
Atmospheric air	Combustion products of remained vegetation cover during deforestation	Chemical pollution
	Fuel combustion products of motor and other vehicles	
	Dust and emissions of handling units with balk construction materials and lubricants	
	Dust from the surface of created underground facilities and overburden storage areas	Pollution with mechanical impurities

Surface waters	Waste water discharge from the construction site. Sediments filtering through the depth of the overburden mine rock	Chemical pollution
	Change of the surface flow parameters due to construction and arrangement of dumps	Change of water bodies level and regimes of water facilities
Arrangement territory	Object construction and creating dumps	Change of landscape
	Roads building and communication lines	
Geological medium	Changes of landscape	Change of level and regime of ground waters
	Excavation	Change of stress and strain state of mine rock
	Change of stress and strain state of mine rock. Drainage of ground waters from mine openings	Intensification of potentially unsafe geological processes
Conditions of land use	Necessity of construction territory and location of temporary dumps	Alienation of lands
Soils and ground waters	Fuel combustion products of motor and other vehicles. Sediments filtering through the depth of the overburden mine rock	Chemical pollution
Oscillations	Operation of motor vehicles, cars and mechanisms	Sound and light impact
	Mining works	Vibration
Vegetation	Allocation of infrastructure objects and temporary dumps	Deforestation
	Pollution of atmospheric air, surface water flows, soils and ground waters	Chemical pollution
Inchthyoflora and fauna	Change of hydrological regime of water facilities and surface flow parameters	Damage
Wild animals	Noise, vibration and light impact	Change of habitats
	Change of flora composition, chemical pollution of water facilities and flora	Damage
Social factors and conditions	Alienation of lands, change of water facilities levels and levels of surface flow, chemical air pollution	Damage to agricultural activities
	Chemical pollution of surface and ground waters	Damage to water consumers
		Health damage

Pollution of atmospheric air

Atmospheric emissions during the preparation and construction works are related to operation of diesel engines of road-building machinery (bulldozers, front loaders, crane truck, asphalt compactor), motor vehicles, during welding, hydraulic insulation, asphalt covering. Dust issues are related to operation of bulldozers, front loaders and dump trucks unloading. Besides, the emissions are related to the motor vehicles fueling.

During the construction period the aggregate volume of atmospheric emissions amounts to 60.569 t, at maximal emission rate 9.182 g/s. Consolidated volumes of emissions are given in Table 2.

Table 2

List of polluting substances emitted into the atmosphere during the RWDS construction

Pollutant code	Name of pollutant	Pollutant danger class	Maximum permissible concentration mg/m³			SRLI	Emission values	
			working zone air	single maximum	mean daily	mg/m³	g/s	tones
1	2	3	4	5	6	7	8	9
0301	Nitrogen dioxide	2	2.0	0.20	0.04	-	1.058361	13.650999
0304	Nitrogen oxide	3	5.0	0.40	0.06	-	0.171983	2.218288
1401	Acetone	4	200	0.35	-	-	0.017840	0.014680
0703	Benzo(a)pyrene	1	1.5×10^{-4}	-	10^{-6}	-	0.16×10^{-6}	0.52×10^{-6}
0342	Hydrogen fluoride	2	0.5	0.02	0.005	-	0.000222	0.000240
0123	Iron oxide	3	4.0	-	0.04	-	0.005428	0.005862
0616	Xylol	3	50	0.20	-	-	0.158725	0.257840
0143	Manganese and its compounds	2	0.1	0.01	0.001	-	0.000961	0.001038
2909	Inorganic dust (SiO2 < 20 %)	3	6.0	0.5	0.15	-	1.361889	16.440363
2908	Inorganic dust (SiO2 20–70 %)	3	2.0	0.3	0.10	-	0.128000	0.074880
0328	Soot	3	4.0	0.15	0.05	-	0.161618	2.181652
0333	Hydrogen sulfide	2	10	0.008	-	-	0.000007	0.000078
0330	Sulfur dioxide	3	10	0.5	0.05	-	0.125937	1.520868
2752	White spirit	-	300	-	-	1.0	0.062196	0.167340
2704	Hydrocarbons (by benzene)	4	100	5.0	1.50	-	0.471777	0.818776
2732	Hydrocarbons (by kerosene)	-	300	-	-	1.2	0.696524	4.351116
2754	Hydrocarbons lim. C12-C19	4	300	1.0	-	-	0.027204	0.058154
0337	Carbon oxide	4	20	5.0	3.0	-	4.731368	18.800907
1325	Formaldehyde	2	0.50	0.035	0.003	-	0.001825	0.005700
	TOTAL during construction:						**9.181866**	**60.568775**

Impact of RWDS allocation territory

RWDS construction will be performed in two stages:

preparatory period (deforestation, grubbing, cleaning the territory from bushes);

construction of the object (digging and removal, land planning, construction of the surface and underground facilities).

Preparatory period includes: extraction of trees and stump removal, using diesel machinery: brush cutter D-514A and grubber-collector D-513A.

The object construction includes: soil removal, planning the industrial site land, making the access road to the construction site, excavation for RWDS facility, construction and mounting and damp-proof works, welding and painting works, equipment installation, communications laying, making permanent roadway, erection of enclosures.

Comparative quantitative indicators of construction territory impact and adjacent lands are given in Table 3.

Table 3

The volume of earth works during RWDS construction

Description of works	Measurement unit	Capacity	
		Near-surface RWDS	Surface
Territory preparation	hectares	3.5	40
Earth works, including: cutting vegetation level territory planning	cub. m sq. m	3500 3400	40,000 100,000
Arrangement of motor ways	sq. m	13,000	60,000
Arrangement of roadsides	cub. m	2220	150,000
Arrangement of concrete curb stones	r. m	350	5000
Arrangement of pavements	sq. m	50	5000
Landscaping	sq. m	3500	50,000

Management with extracted soil

Preliminary calculation of the extracted soil volume during construction of buried RWDS was based on the materials of geological surveys by the line of assessed RWDS location.

Position of vertical work stems and main tunnel in real geological conditions is given in Figure 11.

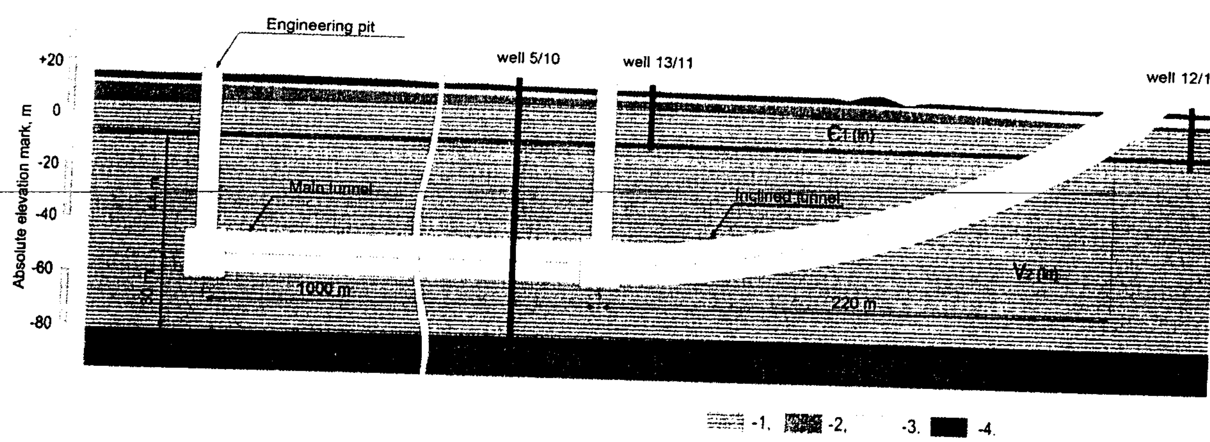


Figure 11 Location of RWDS tunnel

Volumes assessment was performed by the simplified method (by the cylinder volume formula). Calculation results are given in Table 4.

Table 4

Assessment of extracted rock volume during tunneling

Object type	Diameter, m	Volume, m^3	
Inclined tunnel	14.2	clay	37,989.0
		sand, sandstone	2374.0
Main tunnel (1000 m)	14.2	clay	158,287.4
		sand, sandstone	-
Technical shaft (2 pc.)	8.0	clay	6028.8
		sand, sandstone	603.0
Amount		**clay**	**202,305.2**
		sand, sandstone	**2977.0**

Preliminary calculations revealed that during RWDS construction (tunneling) 3500 m^3 of overburden and 202,000 m^3 of clay are produced.

Location of the extracted soil in the volume of 205,000 m^3 for temporary storage is provided into the barrow pit as per the reclamation project. The projected open pit for ground storage in the area of Shirokovo village of Koporskoye rural settlement can receive up to 3,000,000 m^3 of soil as per the reclamation project.

Final variant of the extracted soils management will be determined during the design documents development. The area of extracted soils location shall be agreed with all involved parties in the established order.

Migration of birds and wild animals

Migration of birds and wild animals from RWDS territory is expected during the period of RWDS construction to the adjacent territories, which is related to the operation and machines and mechanisms.

RWDS construction does not cause decrease in fauna population due to the impossibility of the species death during the RWDS construction.

3.2 Environmental impact assessment during the RWDS operation

Possible RWDS environmental impacts during the operation period are similar to the construction period and are given in Table 1.

Pollution of atmospheric air

During the object operation the atmospheric emissions will be related to the works of RW containers disposal: delivery of containers and their disposal into RWDS. The indicated works will be performed using motor vehicles, front loaders, crane truck and electro hydraulic loader.

Besides, atmospheric emissions are related to reception of diesel fuel and benzene to lubricants storage area, fueling machines, welding and engineering works, vehicles departure from the closed parking and transportation, ensuring cargo and materials delivery to RWDS industrial site.

Delivery of the workers and maintenance personnel shall be provided by buses of PAZ-32054 type.

Table 5

The list of polluting substances emitted into atmosphere during the RWDS operation

Pollutant code	Name of pollutant	Pollutant danger class	Maximum permissible concentration mg/m^3			SRLI mg/m^3	Emission values	
			working zone air	single maximum	mean daily		g/s	tones
1	2	3	4	5	6	7	8	9
0301	Nitrogen dioxide	2	2.0	0.20	0.04	-	0.374062	1.925398
0304	Nitrogen oxide	3	5.0	0.40	0.06	-	0.060785	0.312877
0501	Amylenes (isomer mixture)	4	-	1.50	-	-	0.076950	0.006255
0703	Benzo(a)pyrene	1	1.5×10^{-4}	-	10^{-6}	-	0.13×10^{-7}	0.12×10^{-6}
0602	Benzol	2	15	0.30	0.1	-	0.061560	0.005004
0342	Hydrogen fluoride	2	0.5	0.02	0.005	-	0.000222	0.000160
0123	Iron oxide	3	4.0	-	0.04	-	0.012928	0.008116
0616	Xylol	3	50	0.20	-	-	0.004618	0.000376
0143	Manganese and its compounds	2	0.1	0.01	0.001	-	0.000961	0.000692
2930	Abrasive dust	-	6.0	-	-	0.04	0.002920	0.004208
2909	Inorganic dust (SiO2<20%)	3	6.0	0.5	0.15	-	0.126308	0.523800
0328	Soot	3	4.0	0.15	0.05	-	0.031512	0.178012
0333	Hydrogen sulfide	2	10	0.008	-	-	0.000043	0.000037
0330	Sulfur dioxide	3	10	0.5	0.05	-	0.038982	0.199407
0621	Toluol	3	150	0.6	-	-	0.044632	0.003627
2704	Hydrocarbons (by benzene)	4	100	5.0	1.50	-	0.073143	0.319630
2732	Hydrocarbons (by kerosene)	-	300	-	-	1.2	0.395978	2.177591
0415	Hydrocarbons lim. C1-C5	-	-	-	-	50	2.322966	0.188827
2754	Hydrocarbons lim. C12-C19	4	300	1.0	-	-	0.015133	0.013522
0416	Hydrocarbons lim. C6-C10	-	-	-	-	30	0.565736	0.045988
0337	Carbon oxide	4	20	5.0	3.0	-	1.390239	6.932440
0627	Ethylbenzene	3	50	0.02	-	-	0.001540	0.000125
	TOTAL during operation:						5.601218	12.846091

Environmental impact during RW management

There was made a preliminary assessment of possible RWDS impacts on staff, ecosystem and population during the works performance on RW management during RWDS operation.

During RW management on the stage of RWDS operation main types of possible environmental impacts are the ones, listed in Table 6, correlated to their reasons.

Table 6

Main environmental impacts of projected RWDS during RW management on operation stage

Environmental impact object	Possible impact cause	Possible impact type
Radiation and ecological condition	Physical approach of staff to RW packages during management	Radiation doses

Migration of birds and wild animals

RWDS operation does not cause decrease in fauna population due to the impossibility of the species death during the RWDS operation.

3.3 Assessment of RWDS environmental impact during the post-operation period

Post-operation period is a period of RWDS existence from the moment of closure until expiry of a potential danger of RW located in it. During this period the facility contains potential radiation and ecological hazard. After the potential danger period expiry the facility is not dangerous.

Table 7

Possible environmental impacts during the post-operation period

Environmental impact object	Possible impact cause	Possible impact type
Soils, ground waters, surface waters	Water drainage from RWDS site	Change of chemical composition
	Change of surface flow parameters due to landscape change	Change of water bodies level and regimes of water facilities
Vegetation	Change of chemical composition of surface water flows, soils and ground waters	Chemical pollution
Inchthyoflora and fauna	Change of surface flow parameters	Damage
Wild animals	Pollution of water facilities and flora	Damage
Soils and ground waters	Radioactive nuclides migration*	Radiation doses
Radiation situation		
Vegetation		
Wild animals		
Social factors		

*Under normal conditions of RWDS evolution maximal distance of possible radioactive nuclides migration may reach (will not exceed): 1÷2 m from protective barriers of RWDS.

*In case of design basis and beyond design basis accidents maximal distance of possible radioactive nuclides migration shall not exceed 20 meters from the protective barriers of RWDS.

During the post-operation period (after RWDS closure, liquidation of the infrastructure elements and land reclamation), restoration of animals and birds population, which have migrated from the RWDS territory during the RWDS operation period is expected.

3.4 Possible emergencies and their consequences

Main causes of the emergencies are:
internal accidents;
external accidents;
beyond-design accidental impacts.

Internal accidents are determined by:
possible violation of RWDS construction and operation processes,
possible technical errors of the maintenance staff,
possible violations of fire regulations and safety rules.

External accidents are determined by:
possible deactivation of power supply, water supply and water drainage systems,
possible natural disasters, etc.

Beyond-design accidents are determined by:
possible external industrial accidents,
possible terroristic acts, etc.

Potential emergencies and their possible influence on RWDS environmental impact change are described in Tables 8–11.

Table 8

Potential internal emergencies and their possible influence on RWDS environmental impact change

Internal impact	**Possible adverse ecological consequences**
Separate RW packages falling during the process and transport operations.	Complete depressurization of packages, additional radiation of staff, radiation pollution of air within SPZ of RWDS. Radiation pollution of waste and ground waters is impossible due to the organization of the process and transport operations within the protected facilities.
Fault of stockpiling (container deformation).	Radiation and chemical pollution within SPZ of RWDS.
Process equipment and construction falling on RW packages.	Radiation and chemical pollution within SPZ of RWDS. Additional radiation of RWDS staff.

Table 9

Potential external emergencies and their possible influence on RWDS environmental impact change

External accident, event and factor	Possible adverse consequences
Flooding	Insignificant damage of separate RWDS structures, pollution of the surface waters with radioactive nuclides.
Spout	Damage of separate RWDS structures. RW packages, structures and equipment falling on RW packages stockpile.
Wind, hurricane	Equipment and structures falling on RW packages stockpile.
Earthquakes (of any origin)	RW packages, structures and equipment falling on RW packages stockpile.
Washaways of banks, slopes, beds	Negative ecological effects are not available.
Interruption of energy sources	Negative ecological effects are not available.
Penetration of animals and plant roots into RWDS facilities	Impossible.

Table 10

Potential beyond-design emergencies and their possible influence on RWDS environmental impact change

<table>
<tr><th>Beyond-design accident</th><th>Consequences</th><th>Possible impact on the environment</th></tr>
<tr><td>Falling of an aircraft of heavy meteorite</td><td rowspan="3">Explosion, fire, shock impact, resulting violation of containers integrity in the RW buffer storage area or handling unit of RW containers.</td><td rowspan="3">Radioactive nuclide and chemical pollution of the atmosphere, pollution of soils and ground waters on the territory of SPZ of RWDS and beyond, depending on the wind speed and direction.</td></tr>
<tr><td>Terroristic act (explosion)</td></tr>
<tr><td>Guns salvo (training or military actions)</td></tr>
<tr><td>Shock wave</td><td>RW containers, structures and equipment falling on RW packages stockpile. Partial containers depressurization</td><td>Radioactive nuclide and chemical pollution of on the territory of SPZ of RWDS</td></tr>
</table>

Table 11

Potential radioactive impact during the emergencies

Radioactive nuclide	Volume of possible emission, Bq		
	Design basis accident		Beyond-design accident
	Handling facility	Disposal facility	
^{90}Sr	1.75×10^{7}	1.05×10^{8}	2.3×10^{9}
^{137}Cs	3.25×10^{7}	1.95×10^{8}	3.2×10^{10}
^{239}Pu	2500	15,000	3.3×10^{5}
Amount	5×10^{7}	3×10^{8}	3.4×10^{10}

Expected individual maximal radiation doses of population during the first year after the accident upon the worst environmental conditions shall no exceed permissible norms and during the design basis accident will be less than 0.5 μSv, and during the beyond-design accident less than 40 μSv.

3.5 Compensation of the ecological consequences

Compensating measures on decreasing potential adverse consequences of the environmental impact from construction and operation of the RWDS are directed to create and implement monitoring systems on all stages of the RWDS life cycle. Timely registration of the adverse impacts allows to implement the forestall measures on the environmental damage minimization.

Monitoring system allows to solve the following tasks:

monitoring, identification and inventory of the environmental pollution sources on the territory of RWDS, monitoring over radioactive nuclides and harmful chemical substances (HCS) movement from these sources into the ambient environment;

operative identification and processing different pollution levels for various environmental objects; determination of pollutants radioactive nuclide composition on the basis of integral data processing, including physical, chemical and other analysis methods;

development of environmental forecast, determination of the ecological condition influence on the human safety level and natural habitat;

forecasting the emergencies development; recommendations provision by the operative control authority for taking decisions on liquidation the emergency and its consequences;

assessment of population and ecosystem load during the standard (normal) RWDS operation period and during the emergencies;

recording, making database on the environmental condition.

Final aim of creating and implementation of the monitoring system is realization of a package of organization and engineering measures, catered to provision of integrated safety for population living in the RWDS area, stabilization and improvement of the regional ecological situation and related improvement of human health and life safety level.

Table 12

Expected structural and organizational diagram of monitoring system

Monitored object	Project	Construction	Operation period	Post-operation period
Hydrogeological monitoring over ground waters	+	+	+	+
Geodetic monitoring over control point on the territory	+	+	+	
Geological and geophysical monitoring over rock mass condition	+	+	+	
Seismic vibrations	+	+	+	+
Mine deformation		+		
Tectonic disturbances		+		
Thermal mode of mine rock		+		
Cracks in rock mass		+	+	
Radiation situation			+	+
Radioactive nuclides migration			+	+

3.6 Public ecological monitoring

Public monitoring over environmental protection is expected to be performed as follows:

public information on the design and construction works progress via mass media;

strict public monitoring over RWDS design and construction compliance with the existing legislation and up-to-date safety requirements;

public discussing of planned activities, performing public consultations and ecological impact audit;

approval of the technical assignment for EIA materials development with the executive and legislative authorities;

implementation of public monitoring programs for RWDS construction and commissioning process, considering the approved ecological requirements and conditions.

3.7 Municipal ecological monitoring

Municipal ecological monitoring is the activity of Sosnoviy Bor administration on organization and implementation of monitoring catered for compliance with the requirements of nature management, environmental protection and ecological safety in the territory of the municipal district.

The objects of the municipal monitoring:

plans of the nature protective measures and their implementation,

domestic and industrial waste management,

implementation control of the announced ecological parameters for planned economical activities.

3.8 Social and economic aspects of the State Corporation Rosatom activities in Leningrad region

State Corporation Rosatom, Administration of Leningrad region and Administration of Sosnoviy Bor city have concluded the Cooperation Agreement.

Agreement development:

In 2012 the Administration of Leningrad region shall establish a legal mechanism to determine the order of usage the additional tax proceeds into the regional budget from the activities of the State Corporation Rosatom enterprises.

Social component of the Agreement:

joint actions of the parties, directed to increase tax proceeds into the budget of Leningrad region,

working on the issue of implementation a joint program of residential construction for the workers of the State Corporation Rosatom enterprises, operating on its territory,

construction of the Ice Arena in Sosnoviy Bor,

participation of the State Corporation Rosatom in the educational programs implementation for staff training of the field enterprises and organizations,

participation of State Corporation Rosatom in the educational programs implementation for the officials of local governmental bodies.

Starting from 2013 not less than 50 percent of the additional tax proceedings shall be directed to development of:

business in Sosnoviy Bor,

creating new vacancies in Sosnoviy Bor,

financing construction of social facilities in Sosnoviy Bor city and in the territories, located in the LNPP zone of influence.

3.9 Specification comparison of RWDS creation variants

Specification comparison or the RWDS creation variants by the assessment parameters are given in Table 13.

Table 13

Specification comparison or RWDS

Assessment parameter	Surface RWDS	Near-surface RWDS
Specification of wastes received for disposal	Short-lived ILW, LLW	Short-lived ILW, LLW
Specification of RW packages	Container represents one of the elements of a physical barrier	Requirements to the protective features of RW package as the process barrier may be decreased
Specification of the expected RWDS location site	Planning of land use – 60 ha	Mine allotment is required
Technical feasibility	Analogs: Spain, France.	Analogs: Sweden, Germany
Construction of the infrastructure facilities is required	All infrastructure	Partially new equipment, partial reconstruction, partially existing facilities
Disposal safety for population and environment	Disposal safety is provided only by the engineering barriers	Disposal safety is ensured by a package of engineering and natural barriers.
Sensitivity to natural and industrial impacts	More sensitive	Less sensitive
Social and economic effect	Favorable factors: reduction of radiation risk, creating new vacancies, tax proceeding into the local budget.	
Political influence	Compliance with the requirements of the Joint Convention on Safety of Spent Fuel Management and Safety of Radioactive Waste Management	

4. Conclusions

The results of the measures on preliminary assessment of RWDS environmental impact on all stages on the life cycle allow to make the following conclusions:

1. normal operating conditions of the RWDS ensure implementation of the following conditions:

discharge of radioactive waters into the open hydrographical network are excluded;

no negative impact on the surface and ground waters, on soils and geological environment, on flora, fauna, and population;

negative impact of the construction and erection works is kept to a minimum and has no significant effect on the environment;

calculated near-surface volume activities and radiation doses on the population resulting from the radioactive gas-aerosol emissions of the RWDS do not exceed the preset norms of public exposure;

the secondary RW treatment measures (accumulation, treatment, transportation, controlled storage) ensure the absence of the adverse impact on the environment and population;

non-radioactive wastes resulting from the construction and erection works as well as closing the disposal facility shall be removed to the solid waste landfills or recycled as appropriate.

2. main process solutions, organizational and technical measures considered for construction of the buried RWDS, secure increased technical and radiation safety of the facility to be erected and environmental safety for population and environmental objects.

To control the designed RWDS impact on the environment and population on all stages of its lifetime, a monitoring system is introduced, including mining monitoring.

Taking into account the design-based and beyond-design accidents, the multivariate safety analysis of the designed RWDS under normal operating conditions allows to make a conclusion that the RWDS will not have a registered (adverse) impact on the environment and population living in the vicinity of the facility.

Thus, construction the first final isolation facility in Russia in the long view allows to:

solve the problem of RW accumulating at temporary storage sites;

reduce the risks of the adverse radiation effect on staff, population, and environment during the nuclear-industrial enterprises operating;

avoid deferred radioactive waste management solutions to become a burden for future generations;

provide conditions to create regional safe radioactive waste management system, meeting the international safety standards.

The results of the aggregate assessment parameters evaluation (Table 13), and considering the factors of:

reducing the requirements to preliminary RW sorting in the condition of uncertainty on some RW composition, accumulated during the previous periods;

reducing the level of natural and industrial factors impact;

reducing degree of RWDS vulnerability in case of the unauthorized penetration (including terroristic acts) on the objects, containing RW,

allows to make preliminary conclusions on the preference of creating buried disposal site for low- and medium-level radioactive waste in the area of Leningrad division of "Northwest Territorial District" branch of FSUE "RosRAO".

5. Participation of the regulatory bodies and public (reference)

In accordance with the existing legislation of the Russian Federation and requirements of the normative documents there was provided a participation of the regulatory bodies and public in the investment project, including public information on the projected economical activity and its attracting to the process of environmental impact assessment.

Jointly with the local self-regulatory bodies of the municipal district "Sosnovoborsky Urban District", FSUE "RosRAO" organized public discussions of the plans on RWDS construction, technical assignment for EIA, and EIA materials for planned economical activity.

Short list of conducted events and measures is given in Table 14.

Table 14

Conducted measures and achieved results on pre-project works of RWDS construction

Event	Implementation period	Note
Notice on intent (NOI) of RWDS construction in the Northwest Federal District	2010	Performed within the State Contract D.4sh.21.20.10.1154 (Д.4ш.21.20.10.1154) dd. 17.09.2010
Preliminary approval (on NOI stage) of RWDS allocation scheme	2010	General layout plan is agreed
Development of the investments justification into RWDS construction, including the preliminary EIA materials	2010	Performed within the State Contract D.4sh.21.20.10.1154 (Д.4ш.21.20.10.1154) dd. 17.09.2010
Formation of the working group of MD Sosnoviy Bor administration on the public discussions for EIA materials during RWDS creation	1st quarter, 2011	Resolution of the MD Sosnoviy Bor administration Chief dd. 05.03.2011 No. 36-r
Public discussions of technical assignment for EIA construction and TA approval	1st quarter, 2011	Meeting protocol in the MD Sosnoviy Bor administration dd. 17.02.2011
Consent of the inter-departmental commission of Leningrad region for RWDS allocation in the area of Leningrad branch of FSUE "RosRAO"	1st quarter, 2011	Protocol of the inter-departmental commission meeting for placement of productive power in the Leningrad region dd. 26.01.2011
Engineering surveys on the territory of the Leningrad branch of FSUE "RosRAO"	2011	Performed within the State Contract D.4sh.21.24.11.1193 (Д.4ш.21.24.11.1193) dd. 04.07.2011
Integral ecological expert assessment of the industrial impact on population and environment of the nuclear power facilities, located on the territory of Sosnovoborsky Urban District.	2011	Performed as per request of MD Sosnoviy Bor administration Chief S.V.Kirienko (inc. No. SC "Rosatom" 1-1/39472 dd. 10.06.2011)
Correcting EIA materials by the results of public notes of MD Sosnoviy Bor and members of the working group	2011	72 % of public noted and offers accepted (50 of 69)
Public discussions of RWDS materials, including four public seminars for MD Sosnoviy Bor on RWDS construction issues	1–3d quarters, 2012	Topics of seminars: 1. Legislation on RW management, justification of the specifications, volumes and supply sources of RW into RWDS.

		2. Justification of the radioactive waste disposal site (RWDS), geological aspects, types of researches (including georadar) and their results. 3. Town planning aspects of RWDS arrangement: impact of the planned federal significance facility on social and economic development of the municipal district "Sosnovoborsky Urban District" (Cl.12 of the Urban Planning Code of the Russian Federation dd. 29.12.2004 No.190-FZ). 4. Integral environmental impact assessment (EIA) of all existing and constructed industrial facilities on the territory of MD Sosnovoborsky Urban District.
Readiness of MD Sosnovoborsky Urban District for public consultations on EIA during RWDS construction.	31.08.2012	Protocol No. 6 dd. 31.08.2012 of the working group meeting
Presentation of plans on RWDS construction during the meeting of the committees on ecology and nature management of Leningrad region and Saint Petersburg parliaments	25.09.2012	

Notification on the planned activities, forwarded to the involved Party in accordance with Article 3 of the Convention

1. INFORMATION ON PLANNED ACTIVITIES	
Information on the nature of planned activities	
Type of a planned activity	Construction and operation of the disposal site for low- and medium-level radioactive wastes in the area of the Leningrad division of "Northwest Territorial District" branch of FSUE "RosRAO".
Is the planned activity listed in Addendum I to the Convention?	Yes
Nature of the planned activity (for instance, main activity and any/all auxiliary types of activities, requiring assessment)	Radioactive waste management (hereinafter referred to as RW)
Scope of the planned activity (for instance, volume, production capacity, etc.)	Capacity of low- and medium-level radioactive wastes disposal site is assumed in the volume of 50 000 m^3 with the possibility of expanding to 250 000 m^3.
Description of the planned activity (for instance, applied technology)	It is planned to dispose low- and medium-level radioactive wastes in the underground tunnel with the diameter of 14.2 m, laid in clays formation at a depth of 60–70 m.
Description of the planned activity aim	Protection of the future generations: RW management shall be performed in the way, provided that predictable consequences for health of the future generations do not exceed the levels of the consequences, accepted today. Burden removal for the future generations: RW management shall me performed in the way, not to burden the future generations. Implementation of the national legal frame: RW management shall be performed within the existing national legal frame, providing clear allocation of duties and implementation of the independent regulating functions. Management over production and temporary storage of RW: production and temporary storage of RW is maintained on the minimal reasonably practical level. Reaching the balance of RW production and management correlation: correlations between all stages of RW production and management are reasonably considered.
Justification of the planned activity (for instance, social and economic, physical and geographical basis)	Large volume of the accumulated radioactive waste is located in the temporary storage facilities and service life of these facilities expires soon. Implementation of the requirements of the Joint Convention on Safety of Spent Fuel Management and Safety of Radioactive Waste Management.
Additional information/notes	None
Information on spatial and time borders for the planned activity	
Location	Leningrad region
Site description	It is assumed to locate the radioactive waste disposal site

(for instance, physical and geographical, social and economic specifications)	(hereinafter referred to as the RWDS) in the industrial zone of the Municipal district Sosnovoborsky Urban District of Leningrad region in the area of the Leningrad division of "Northwest Territorial District" branch of FSUE "RosRAO".
Justification of the site selection for the planned activity (for instance, social and economic basis, physical and geographical basis)	Geological acceptability, Distance from the settlements, Occupied territory, Proximity to the existing storage and production facilities of RW, Availability of the engineering infrastructure.
Terms of the planned activity implementation (for instance, commencement and duration of construction and operation)	Expected construction time for the RWDS will be 2.5–3 years. Expected operating time (loading 50 000 m^3 of RW) of one RWDS order is 6–10 years, depending on RW inflow rate. Thereby, total operating time of the RWDS will be 30–50 years. The post-operation period of the RWDS is at least 500 years and corresponds to the period of potential risk posed by disposed RW.
Maps and other pictographic documents, related to the information on the planned activity	Provided in the brief description of the environmental impact assessment materials
Additional information/notes	None
Information on the environmental impact assessment and assumed measures on the consequences mitigation	
Assessment scope (for instance, consideration of the aggregate impact, alternatives assessment, issued of stable development, impact of the auxiliary activity)	Variant of construction refusal, Variant of the surface radioactive waste disposal site, Variant of the buried radioactive waste disposal site, All stages of the life cycle of radioactive waste disposal.
Assumed environmental impact of the planned activity (for instance, types, regions, scope)	The risks of the adverse environmental impact of the planned activity are minimal.
Introduces resources (for instance, raw materials, utilities)	Construction is executed within the industrial site with the existing infrastructure.
Consequences (for instance, scope and types: emissions to atmosphere, emissions to water, solid waste)	Within the permissible concentrations in accordance with the regulatory framework of the Russian Federation.
Transboundary impact (for instance, types, regions, scope)	None
Assumed measures on the consequences mitigation (for instance, if available, mitigation measures to prevent, liquidate, minimize and compensate environmental impact)	Reclamation of the RWDS construction and operation site; The post-operation monitoring over environmental condition.
Additional information/notes	None
Author/designer	

Name, address, phone and fax numbers	State Atomic Energy Corporation Rosatom (Rosatom State Corporation) Address: 119017, Moscow, 24, Bolshaya Ordynka +7(499) 949 4535
EIA documents	
Are EIA documents included into the notification (for instance, EIA report or EIC)	Yes
If not/partially, please, describe provided additional documents and indicate (approximate) date(s) of documents entry	
Additional information/notes	None
2. COMMUNICATION CENTERS	
Communication centers for potentially involved Party or Parties	
Authority, responsible for coordination of the activity, related to EIA (ref. to resolution I/3, amendment) Name, address, phone and fax numbers	Mr. Georges KREMLIS European Commission Avenue de Beaulieu 5 B-1160 BRUSSELS Telephone: +32 2 29 66526 E-mail: georges.kremlis(at)ec.europa.eu
The list of Parties involved, which are forwarded the notification	Estonia, Latvia, Lithuania, Poland, Germany, Denmark, Sweden, Finland
Communication centers of the Party of origin	
Authority, responsible for coordination of the activities, related to EIS (name, address, phone and fax numbers)	State Atomic Energy Corporation Rosatom (Rosatom State Corporation) Address: 119017, Moscow, 24, Bolshaya Ordynka +7(499) 949 4535
Legislative authority (if not the Authority, responsible for coordination of the activities), related to EIA (Name, address, phone and fax numbers)	
3. INFORMATION OF THE EIA PROCESS IN THE COUNTRY, WHERE THE PLANNED ACTIVITY IS EXECUTED	
Information on EIA process, which shall be used in relation of the planned activity (EIA public consultations)	
Terms	December, 2012
A possibility of the involved Parties participation in the EIA discussion	Yes
A possibility of review and notes provision in relation of the EIA notifications and documentation for the involved Party of Parties	Yes
Nature and terms of a possible solution	December, 2012
The process of the planned activity approval	Public approval State expert evaluation Customer's approval Resolution of the Russian Federation Government
Additional information/notes	None
4. INFORMATION ON PUBLIC PARTICIPATION PROCESS IN THE COUNTRY OF ORIGIN	
The procedures of public participation	Public discussions Public consultations

Expected initial date and duration of public consultations	Initial date: October, 2012 Duration: 3 months.
Additional information/notes	None
5. DEADLINE REPLY DATE	
Date	14.12.2012