

The Chernaya Gancha River has been «straightened» and broadened in some places but its old circuitous course has not been drained. The river flows into the Neman concurrently with the straight line of the Canal. The swampy areas around the Canal have been drained. This way there appeared islands and meadow parks in the midst of the Canal. Here and there water has been piped in to form lagoons, ponds, and basins. As a rule, piers have been built next to them. A ferry crossing is completely ready in the vicinity of the village of Lesnaya. The ferry was purchased from the Petrikov Shipbuilding Plant for 200 million roubles. It will be soon delivered to Grodno. Air-cushion vessels (they have been ordered in St. Petersburg) will cruise along the Canal.

#### **BELARUSIAN-POLISH COOPERATION**

The navigation lock of Kuzhinets is situated immediately on the border between Belarus and Poland. From the Belarusian side, a seasonal border crossing point of Novaya Rudovka is situated right next to the lock, so currently there is no access to the monument of hydraulic engineering. From the Polish side there is free access to the lock. Restoration of Kuzhinets and its surrounding maintenance area is performed by Polish builders. The work is expected to be completed by the beginning of navigation. The approximate cost of the work is EUR 0.5 million. The construction work is regulated by a Belarusian-Polish agreement. The issue of drafting an international Belarusian-Polish agreement on the use of the Augustow Canal has been discussed. When the Canal becomes a single water artery, there is a proposal to enter it on the UNESCO list. The draft is currently being coordinated between the two sides.

#### **PROJECT COST**

It is intended to spend 33 billion roubles on restoration of the Augustow Canal. The sources of financing include the State Inspectorate for Protection of Fauna and Flora under the President of Belarus (the main source), the Ministry of Natural Resources and Environmental Protection, the Grodno Oblast Committee for Natural Resources and Environmental Protection, and the Emergency Fund of the President of Belarus.

*Inna Maximchik. 19.12.05.*

## **IGNALINA PASSION**

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*The talks with the EU on extending operation of the Ignalina nuclear power plant may resume*

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Algirdas Brazauskas, Prime Minister of Lithuania, does not rule out the possible necessity to resume Lithuania's talks with the EU on the issue of extending the operating life of the Ignalina nuclear power plant (INPP) after 2009. «Anything can happen and we should be prepared for such variant. I also support the need for seeking arguments, and some arguments have already transpired. A lot has changed at the INPP itself since the beginning of our NPP

talks in 2001–2001. Its technical characteristics and control and security parameters have been noticeably improved,» Prime Minister reported in his interview to the Lithuanian radio.

The factor that may influence the decision to resume talks is the failure to reach an agreement with Poland on implementing the project of combining electric power systems of Lithuania and Poland, thus connecting them to the electrical systems of EU countries. According to Prime Minister, without this, under the conditions of growing prices for oil and gas Lithuania may find itself in a difficult situation. Touching upon the issue of constructing a new reactor, A. Brazauskas accentuated that «it is going to be a commercial facility, and it may be actuated if this region experiences a real need for electric power.» To quote the head of the Government, this issue should be negotiated with Latvia, Estonia, and probably Poland.

The issue of postponing a complete shutdown of the INPP was already discussed in the second half year of 2004, but the European Commission disapproved of it, following which Vilnius decided that Lithuania would meet its commitments to the European Union and shut down the INPP on the scheduled date.

#### **POTENTIAL REPOSITORY SITES**

One of the planned repository sites is in the settlement of Galilauke, which is only 700 m away from the Belarusian-Lithuanian border and 7 km away from the border with Latvia. After the information of the Ministry of Economics of Lithuania, no official resolution has been taken so far with regard to the repository for short-lived and medium-lived radioactive waste. The issue is still being studied. The IAEA experts have published a resolution acknowledging that the performed research conforms to the best international practical achievements and international standards. The prepared report on the environmental impact evaluation will need to be supplemented – not without pressure from Belarusian and Latvian neighbors. Latvia is the second country, which is concerned about the dangerous proximity to the repository. Ground water runs from Galilauke in the direction of its territory.

Public response was caused by the issue of a surface repository for low- and medium-activity waste, which has a relatively short life span of 300 years. It takes so much time for the substances and materials, encapsulated in containers and buried in reinforced concrete, will turn into regular waste. However, if the repository is built in Galilauke, near the border between Lithuania and Belarus, generations of people will have to live in immediate proximity to it.

At present, the list of potential sites for the repository has been supplemented with a new name of Sabatiske, a place situated 5 km away from the border with Belarus. Here geologists found another hill with a thick cap of clay, which can protect ground water from possible contamination with radioactive waste. Jonas Satkunas, Deputy Director of the Geological Survey of Lithuania, reported that at the moment additional research was underway in the area of Sabatiske. However, in his opinion, it will be difficult to make this hill as safe for the repository as the one in Galilauke.

**STORY OF IGNALINA**

Lithuania's Government adopted a resolution to shut down the Ignalina NPP (INPP) before 2009 as a condition of joining the European Union. Despite the attempts to keep the plant that covered 80% of national demand for electric power, by December 31st, 2004 the first block was removed from operation. Nowadays there is no doubt whatsoever that Lithuanians will accurately meet their EU commitments and in three years the second block will be shut down. Ignalina is basically a clone of Chernobyl and, in the opinion of EU experts, an additional risk factor (despite its recent upgrades).

According to Arturas Dainius, Secretary of the Ministry of Economy of the Republic of Lithuania (he deals with the issue of the INPP disassembly), several possible variants of action have already been worked out. «It is certainly possible to suspend the reactor and leave everything as it is for about 50 years, but who knows if this issue remains as topical then and if funds are available,» Mr. Dainius says.

One of the most expensive ways, which is full disassembly of the INPP, is regarded as the most likely. It is planned to finance the project from the EU budget. Ground disposal will reduce the cost of shutting down the plant and secure better safety of the waste, Arturas Dainius maintains. He does not deny that so far negotiations with Russia concerning the transfer of waste for keeping have not come to any results and Lithuanians will have to handle the problem of «what to do with the nuclear inheritance» on their own.

**REPOSITORY DESIGN**

So far all the waste that has accumulated since 1983, when the Ignalina NPP was commissioned, is contained in the plant zone in special storage facilities. Let us remind you that the Ignalina NPP is supposed to be shut down in 2010. After the shutdown of the reactor, it will take five years for the temperature to drop to 100 degrees, and then it will be possible to start disassembly work.

The long-lived waste, spent nuclear fuel in particular, will never leave this zone and remain in deep underground repositories in the territory of the plant. All that was not in the active zone (equipment, special-purpose uniforms, cooling water) will be placed in containers in the form of solid substances and then in the surface repository, the site for which has not been determined so far. In forty years a lawn will cover the area where there used to be two Ignalina's reactors, and there will be forest around the near-surface repository. Inside the mount-type structure, short-lived and medium-lived radioactive waste with a half-life period of 30 to 300 years will be «packed» in containers. The bottom of the repository should be at least two or three meters above the water level. Shown in section, its construction resembles a matrioshka doll, where containers are placed in sections of reinforced concrete inside cells of clay, dirt, sand, and gravel. The last layer is green grass. According to Saulius Kutas, head of VATESI (the State Inspectorate for Nuclear Power Engineering Safety), the sections will be filled seasonally, that is only in the summer time. In order to prevent soil percolation of radionuclides with water, tanks will be built under the basement, where any liquid is supposed to run down.

Belarusian experts believe that the planned capacity of the repository may be 100 thousand cubic meters. However, the Lithuanian side insists that Ignalina and its surrounding area

will accommodate only the waste resulting from the disassembly of the plant, and not brought from all over the world. Theoretically, the contents are not supposed to come out even if a jet crashes on the repository. In accordance with the existing international regulations, Belarus cannot veto construction of the waste disposal site, but is entitled to receive technical specifications of the designed facilities and invite independent experts to perform environmental expertise, considers First Deputy Minister of the Natural Resources and Environmental Protection Vassily Podolyako.

#### **VILNIUS' OPINION**

In Vilnius they are of the opinion that after the shutdown of the INPP Lithuania should remain a country having nuclear power; that is to say that a new modern Western-made reactor should be constructed. Experts and the Lithuanian Government believe that the Ignalina site is ideal for this construction, since it has all the required infrastructure and qualified specialist.

However, Prime Minister of Lithuania Algirdas Brazauskas has many times noted that Lithuania is unable to build a new nuclear power plant on its national budget. In saying that, he emphasized the need for attracting either private capital or investments from the neighboring Baltic States to implement this project. No concrete resolutions have been taken on this issue so far.

#### **SAFETY LEVEL**

In the late 2005 IAEA experts carried out examination of the methods of disassembling the plant and, in particular, of environmental impact assessments (EIA) for the repository for short-lived low- and medium-activity radioactive waste. The latest version of the EIA provides a prudent estimation of the annual external radiation dose to be received by local residents. It is lower than the natural background radiation. Lithuanian and Belarusian experts disagree on the assessment of the natural environment around the INPP. Lithuanian experts claim that this place is very scarcely inhabited and that there are neither valuable species of wood nor rare birds in the area. Belarusian ecologists name unique flora and fauna of the basin of the Braslav Lakes, which are situated in immediate proximity to the plant and make a single water system.

#### **PROJECT COST**

The Lithuanian side insists that it will be a modern safe repository, built with after the latest technology. The total cost of disassembly of the INPP is currently evaluated at over one billion euros. Construction of one section of the near-surface repository will cost approximately 1,200 euros, the total repository will cost up to 300 million euros, and the initial stage is estimated at 40 million euros.

Minister of Economy Kestutis Dauksis has announced that Lithuania should make a decision on constructing a new nuclear power plant in the near future. «No later than by the end of this year a decision should be taken on the fact of construction, the location and funding of the new nuclear power plant,» Minister said. In K. Dauksis' opinion, it is necessary to provide for investment to the amount of about 350 million euros for the initial stage of the project im-

plementation. The Government of Lithuania should own at least 34% of the shares of the new NPP. Other co-owners could be power companies of Estonia and Latvia, which have already announced their agreement, as well as other investors. The Minister considers that, if the decision on constructing a new power-generating unit is taken this year, its construction may start in 2008 and be completed in 2013.

K. Dauksis also mentioned that, along with solving the issue of constructing a new power-generating unit, it is necessary to negotiate the extension of the operating life of operational second nuclear unit of the INPP until the new power-generating unit is completed. But he evaluated the chance of reaching an agreement on this issue as slight.

There is another question to this: what is going to happen to the town of Visaginas, where almost all residents are employed at the INPP or somehow connected with it? The very shutdown of the plant is a big business. Well-known Lithuanian companies are currently competing for the right to perform disassembly work and its service. Disassembly of the plant is going to take approximately 35 years. Over this time the specialists of today will grow old and will not be able to work for age reasons. At the moment, a strategy is being developed in order to establish several smaller facilities on the basis of a single big one of the INPP. It is necessary to prioritize economic needs and get people interested in founding their small businesses. It is assumed that this will allow for solving the problem of employment in Visaginas.

*Inna Maximchik. 16.01.06.*

## **ANDREI STRATAN: «THE MOST IMPORTANT GOAL OF MOLDOVA IS CONSISTENT INTEGRATION INTO THE EUROPEAN UNION INSTITUTIONS»**

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*Exclusive interview of Andrei Stratan, Vice Prime Minister, Minister of Foreign Affairs and European Integration of the Republic of Moldova*

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*The European Union has recently opened its representation in Chisinau. What are the priority tasks of Moldova in the field of integration into the European Union?*

- **A. S.** First of all, I would like to note that currently Moldova has no a permanent representation of the European Union. At the same time, the EU Council, at the beginning of this year, appointed its Special Representative to Moldova Adriaan Jacobovits de Szeged, whose mission is to actively assist in peaceful solution of the Trans-Dniester problem and stability in the region.

During negotiations on the Plan of Actions, a political solution was made at the top level to open the Delegation of the European Commission in Chisinau, which will take place this September. In this context, I would like to note that on 1 January this year, Moldova opened its Permanent Representation in the European Union.

For the purpose of successful implementation of the Plan of Actions between the Republic of Moldova and the EU, the National Programme for introduction of the Plan of Actions was created, which represents a well-structured document in terms of strategy and tactics, with