Interview: Lev M. Shtilman

Nuclear Power for Russia's Chukotka

Lev Shtilman, advisor to Gov. Roman Abramovich of the Chukotka Autonomous Region in eastern Russia, was interviewed on Oct. 16 at the Arctic Energy Summit Technology Conference in Anchorage, Alaska, by Marcia Merry Baker.

EIR: Would you describe some of the history of eastern Russia? Before the current economic development push, did your province lose population some years ago?
Shtilman: The number of population was reduced to about half of what it was.

EIR: So what is your population today?
Shtilman: Almost 60,000 people. We previously had around 100,000. People who actually were in the productive labor force were reduced in a lesser proportion. Now, they are bringing in temporary workers, so you can't say that there was a complete reduction in the productive forces of the economy.

The current governor adopted a policy for resettling pensioners to the central region of the country, where life is more comfortable, and that reduced the demand for social services in the region. They are working hard to implement the governor's resettlement policy, building housing. And while, in the 1990s, there was an exodus of working people, and the pensioners were just sitting around, because they couldn't leave, now, everything has fundamentally changed.

EIR: Regarding the commitment of Russia, as a nation, to nuclear power, and what Academician Yevgeni Velikhov was describing yesterday about this, is there something special to look forward to in Chukotka in the near or distant future?
Shtilman: Academician Velikhov, in his report, talked about floating atomic power plants. In Chukotka, there is a plan for a floating power station. It is planned for Chaun Bay in the north. I consider, as a power engineer and expert, that this is a wise and correct decision. In the areas where they plan these floating nuclear power plants, there is a real growth in demand for electrical energy, with the development of industry (mining, primarily). Moreover, there is some local industry. In terms of using oil or coal in these areas—these resources don't exist there. The transportation costs of coal or oil or diesel fuel would be very great. Not even to mention the environmental issues of dealing with carbon.

Currently, the electrical energy issue is being solved by the Bilibino nuclear power plant, which is providing the bulk of the electrical energy. But in 2020, the power plant will have used up its productive life. It is pretty clear that by 2012, if we don't put these floating plants in place, or some other power solution, this region will have an energy deficit, which will hold back development.

EIR: What are some particulars about the floating power plants intended for Chaun Bay?
Shtilman: They are 70 megawatts per station. They look like a medium-sized ship. Academician Velikhov showed a photo of an artist's conception of the floating nuclear power plant for Pevek. That is the engineering concept, developed in the Soviet Union for Chukotka. That was the original idea, from the 1980s.

Then, when there was a lot of turmoil in the economy of Russia, this project was transferred to Severodvinsk. And thus, the first floating station is going to be built within the next five years, there, in the European North.

The technology has already been worked on, on ice-breakers, so that it's pretty much developed. It is well known; it has existed for a long time.

Each barge has two units for redundancy. As you saw in the picture, they lie not far offshore. There's a special protection system against ice, and against freeze-up. There is an onshore facility that takes in the electricity. You can also get waste heat from the station to heat the town.

Once every five years, the barge is towed by tugboat, and taken to the firm that built it, and it is re-fueled. You get another plant that replaces it.

EIR: Where is the center of construction of the floating nuclear power plants?
Shtilman: Severodvinsk, in the Murmansk Region, in the factory where atomic submarines have been built since Soviet times, and it was one of the [defense industry] conversion projects. For this project to be less expensive, and more profitable, it is good to build a lot of them. You get the economy of scale.

EIR: How many are planned?
Shtilman: There are 12-15 that are planned for Russia: Yamal, Khanty-Mansiysk, Chukotka, and elsewhere. And they need a couple of spares, so that they can keep rotating.

EIR: When will Chukotka receive its new floating nuclear plant?
Shtilman: According to my plan, it's got to be operational no later than 2012, when the units of the Bilibino power plant begin to be taken out of commission. You can't slow down your energy use.

EIR: Will yours be the second floating power plant in all of Russia?
Shtilman: Correct. And the first one is promised for within four to five years, according to the Atomic Energy Agency.

EIR: Among the other circumpolar nations, do you find that

www.antiatom.ru, used by permission

An artist's conception of a Russian floating nuclear power plant.

there is also discussion of nuclear power, and floating nuclear plants for the Arctic? The political faction associated with such famous U.S. names as Al Gore, among the Democrats, and Arnold Schwarzenegger among the Republicans, opposes nuclear power and also opposes mega-projects. But despite that, do you know of discussion among the polar nations—in Scandinavia, or Canada or Alaska in the United States?

Shtilman: I don't happen to know of any.

The President of Russia was in Africa, and he signed some contracts there. There is great interest in developing floating nuclear power plants for African countries. There may have been discussion of contracts. But I don't know.

EIR: Today, President Putin happens to be in Tehran, where the issue of a national interest in nuclear power is central.

Shtilman: There are two sides to the same question: atoms for peace, and atoms for war. When you talk about military use, you have to exclude it as a class, because you can kill masses of people. But on the other hand, the peaceful use of the atom, with the proper use of rules and regulations for using nuclear energy—it's a good thing for humanity.

From my point of view, you need to distinguish between those two sides of atomic energy. We know that the poison of a snake can kill people, but it can also be used as a medication, for the health of people.

EIR: Like fire.

Shtilman: Yes.

EIR: Finally, would you speak about the economic development benefits of the rail corridor plans, and the Bering Strait Tunnel, especially for your province?

Shtilman: I just heard about it [the Tunnel project] two days ago. Up to now, I didn't even realize that there was such a project!

For people who believe in Darwin's theory of evolution: The first difficulty was when [the hominids] got down from the trees, from being a monkey. But today, no matter how hard it is to cross the road because of the cars, nobody wants to go back to the trees! So, the question is multi-faceted. If people, as *homo sapiens*, will think about the future, this project has good prospects for humanity, and for relations between these close neighbors, Russia and America. And it would give a positive impulse for the native people of the region.

And for the native peoples, like it or not, it is a question of being pulled out of a Stone Age economy, into the age of metals. In order to survive, they will have to adapt to the new environment. Not a single Chukchi wants to use an oil lamp, when he can use electricity. Electricity can kill you! But people understand that, without electricity, they don't have the life that a person deserves.

For example, I had a discussion with the governor. One native village was 100 km from a high-voltage electricity source, so it used to get its electricity from diesel power. We were talking about putting in a 100-km power transmission line, so that their life would be better, because centralized electricity is always better than local generation. I had to figure out the cost of that project.

I calculated that for each villager, you've got to lay out $5,000. I said to the governor, "It is so expensive!" He said very correctly and strongly, "People have the right to live there as human beings." And that line was built three years ago. Now they all use civilized benefits. And there is no protest from any of them.

I didn't invent that story; that is what I saw. Since then, that is the position that I have taken when I look at power issues, even though the governor is younger than I am!

Press Conference

Progess Is Made on World Rail Project

by Marcia Merry Baker

On Oct. 15, a news briefing was held at the site of the Arctic Energy Summit Technology Conference in Anchorage, Alaska, by representatives of the Interhemispheric Bering Strait Tunnel and Rail Group (IBSTRG) and RusHydro, the largest Russian hydropower company, on the Bering Strait Tunnel, reporting on "The Preliminary Results of Exploration of the Tunnel's Prospective Route." The four principal speakers, and translator, are shown in the photograph. IBSTRG president George Koumal led off the briefing, followed by Academician Yevgeni Velikhov, Alexander Sergeyev of RusHydro; Lev M. Shtilman, Energy Advisor to Gov. Roman Abramovich of the Chukotka Autonomous Region; and IBSTRG Treasurer Craig Burroughs.