Response to “Light Water Reactors at the Six Party Talks: The Barrier that Makes the Water Flow”


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By Georgy Bullychev

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I. Introduction

The following are comments on the essay "Light Water Reactors at the Six Party Talks" by Georgy Bullychev, the penname of a senior Russian researcher affiliated with the Center for Contemporary Korean Studies, Russian Institute of Global Economy and International Relations (IMEMO), Moscow, which appeared as Policy Forum Online 05-78: September 21st, 2005.

II. Comments by Georgy Bullychev on Light Water Reactors at the Six Party Talks

Why do North Koreans cling so fiercely to their demand of having a nuclear-power generating capacity? From the common sense point of view they could as well have agreed to a less controversial and easier-to-implement alternative - like a gas-powered thermal station, or supply of electricity from South Korea or China. Peter Hayes and his colleagues (see the PFO here) provided a very timely and well founded analysis of some versions for this adamancy. But there could be others as well.

Is this demand just a pretext to prolong the 6-party talks? In the meantime North Korea would, in relative security, continue to increase their nuclear "deterrent force", which would let them raise the price to be paid by international community to discard it.

Or are they just pulling Uncle Sam's leg - having no intention whatsoever to ever quit the status as a self-declared nuclear club member? They could be procrastinating - waiting, maybe, for a less hostile US administration, or an unexpected international development - like a crisis in US-China relations which could make their military capabilities very relevant.

These guesses may be right or wrong but either way, the North Korean demand is just a part of the picture. In the DPRK, the truth lies with Juche - which means the supreme motivation for any policy is to keep the country independent and self-reliant - that has kept the regime in power for so long.

Russia has been confronted by these issues longer than the United States. When Kim Il Sung started to press Moscow to provide the DPRK with a nuclear power plant, we were at first amazed. Why would they need it - for prestige, or for a sinister plot of nuclear armament? Would it be really wise to let the North Koreans, with their rather lax safety record, run such a complicated set of equipment and devices, which even Russian specialists (who built the first ever commercial power plant in Beloyarsk) found an extremely challenging task to operate (and that was before Chernobyl)? How would they repay the credit - and is such a huge expenditure in the DPRK politically unavoidable and well motivated?

But finally we Russians approved it - although Kim Il Sung had to come to the Kremlin himself to explain it and get the deal. The most compelling reason was Juche - to have a source of power independent from external sources and using the local raw materials. This was a core strategic choice for the country's survival.

The agreement for the construction of two VVER type LWR between Moscow and Pyongyang was

signed in 1985. Russian geologists and specialists carried out a geological survey of the DPRK - and found out that there were not many places where you could built a LWR in North Korea - Sinpo being the best (although not an ideal) spot. Indeed, Russia was never paid for this job, (it was on credit terms) and the results were later used by KEDO. But the 1985 agreement was never renounced - meaning it is still binding and Russia could restart the work at any time and hope to eventually receive its money. Of course, one would need to revoke the 1993 Presidential Decree, prohibiting nuclear cooperation with DPRK before the solution of nuclear issue, but under the current circumstances, that is not impossible.

That is why Alexander Rumyantsev, the head of the Russian Atomic Energy Agency was quick to assert on September 21st that Russia is ready to construct an "Atomic Power Plant' in the DPRK. In fact, the issue is not a totally new one - North Korea has wanted to address it for some years after the thaw in Russia-North Korean political relations in the mid-nineties.

It would be wise for everybody - not only to try to find out the motives behind North Korean insistence and arguments about explanations - but to try to accommodate their demand, however defeatist and cynical this might seem. In the end, North Korea will get what they want so desperately, as past experience shows - but only after a new crises and further brinkmanship, or, if we play our cards right, with nuclear dismantlement along the way.

So let us assume for the sake of argument that the LWR construction issue is really on the agenda. As Chaim Braun has convincingly explained (see this discussion) neither US, French, Canadian, British or Japanese models are viable because of the current US strong opposition to the very idea of transferring embodied and licensed US nuclear technology to North Korea. That leaves us with Chinese or Russian models. Chaim Braun argues that the Russian one is an unlikely choice because:

- Russia cannot afford to finance the construction;
- Russian VVER model is outdated from the point of view of safety features;
- North Koreans would not want it.

In response, I would like to comment and put forward some additional arguments in support of considering the "Russian option."

1. Russia would not be ready to pay for construction alone, or to pay for anything at all should its model be discarded. It is worth recalling that Russia has the 1985 agreement in place with all the preparatory legal and administrative as well as design work already done - all one needs to do is to restart the project. That means a shorter construction term and therefore, a quid pro quo for demands that the North Koreans implement their part of the deal with a short timeline.
2. It is not impossible that some revenues from Russia's high-priced oil exports from its 'stabilization fund' could be recycled into a future-oriented investment in a LWR on government credit terms, especially if other countries would also bear their share of the financing and if Russian credit could be cross-guaranteed by an international framework.
3. Construction of the Russian LWR would cost much less than that of its rivals. Companies from all participating countries could get supply contracts as well including non-nuclear components that might be obtained from US companies. Should the project be carried out in the still-existing KEDO framework, then the United States could keep tight political control as well.
4. Russian VVER-type reactors are under construction in several countries, including China. Why would the North Koreans want a more complicated and difficult to manage model, especially if

the price tag would be much dearer? In fact, North Koreans prefer buying rather primitive Russian-made trucks and tractors rather then sophisticated and modern Western ones which are more comfortable and have lots of electronic gadgets. Russian models are simpler in operation, less demanding to maintain and to operate, and thus more reliable

5. Another technical hurdle- the inadequate North Korean power grid - could be easily solved by hooking a DPRK LWR to the Russian grid - and then to South Korean system. Negotiations for a tieline between Russia and South Korea are already underway.

And the most important -I dare say radical - idea is to construct the LWR across the border in Russia itself. It would be owned and managed by North Koreans (assisted by Russian technicians). It would automatically be connected to Russian grid and maybe to the Chinese one, enabling the DPRK to export surplus energy from the reactor, which given the technical difficulties of operating any LWR on the DPRK grid, would be most of it. All the issues of technical maintenance, IAEA safeguards, verification, spent fuel will be solved. United Stated would have no reason to protest against construction of a nuclear reactor on the territory of a nuclear weapons state. When construction is negotiated or begins, the DPRK would have no reason to postpone implementation of its dismantlement and non proliferation obligations. In the view of Russians, the problem of 'physical confidence building measures' between the United States and the DPRK will be solved through further confidence building in diplomatic, political, and cultural realms, not by a concrete edifice in Sinpo painted in stars and stripes.

As for a Chinese reactor, I tend to believe North Koreans would not prefer it to a Russian one, they are not particularly happy with the idea of being tied to China even stronger than they are now. This is not what Juche teaches.

III. Nautilus Invites Your Responses

The Northeast Asia Peace and Security Network invites your responses to this essay. Please send responses to: napsnet-reply@nautilus.org . Responses will be considered for redistribution to the network only if they include the author's name, affiliation, and explicit consent.

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