



## **U.S. and Allies Should Hold out for Broad North Korean Declaration and Inspector Access**

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Some are stating fallaciously that shutting down the Yongbyon site, which includes a plutonium production reactor, will stop North Korea from being able to improve significantly its nuclear weapons. This is false for two reasons. Of course, dismantling Yongbyon will cap North Korea's stock of plutonium at its current level, and this has to be one of the initial goals of any denuclearization plan. However, even if Yongbyon is shut down, North Korea can continue to improve its nuclear weapons by recycling its existing inventory of plutonium from its reserve and older, less sophisticated weapons into new, more advanced ones. Recycling plutonium has been commonly done by nuclear weapon states, including the United States, and any plutonium losses can be kept to a minimum with care and well-known practices. With six underground nuclear tests and likely sophisticated nuclear weapon calculational and simulation capabilities, North Korea has many possibilities to qualitatively and significantly improve its nuclear arsenal. In addition, with its experience, North Korea can use weapon-grade uranium to make more advanced nuclear weapons, even in weapons without any plutonium. Putting forth false technical arguments for dismantlement decisions should be resisted.

Another problem with a Yongbyon-only approach is that North Korea likely has other enrichment plants. If the Yongbyon enrichment plant makes enough weapon-grade uranium for a few to several nuclear weapons per year, then other secret enrichment plants likely make enough weapon-grade uranium for that number of weapons as well, or according to some estimates, enough for up to 12 nuclear weapons a year. We do not believe that upper bound, but some in intelligence communities do. So, dismantling Yongbyon would not resolve the fundamental problem of capping how many nuclear weapons is North Korea making each year. What U.S. official would want to go to Congress and explain the merits of stopping North Korea from making up to four or five nuclear weapons a year at Yongbyon, while they likely make a larger number in secret at locations unknown and outside of any inspections? Unlike the days of the Six Party Talks, North Korea's uranium enrichment program can no longer be ignored.

Besides leaving key fuel cycle facilities and activities unknown, a Yongbyon-only approach leaves unsettled any sense of what the size of North Korea's nuclear arsenal is. Consider the recent South Korean public estimate that North Korea has 20-60 nuclear weapons. Our estimate largely is contained in this range, although we also allow for a smaller number. But if

one evaluates the 20-60 weapons range, only about ten to twelve of these weapons could be from plutonium; the rest would depend exclusively on weapon-grade uranium, e.g. North Korea today has anywhere from 10-50 nuclear weapons made of weapon-grade uranium. We find the width of that range unsettling. How can any agreement simply ignore such a large unknown and substitute hope that relations will improve, and tensions will be lower tomorrow?

Some also argue that if a declaration is sought early, then it will only lead to disagreements about whether it is complete, and this should be avoided as trust is built instead. This is odd logic, given that the Six Party Talks broke down over verifying the amount of plutonium produced at Yongbyon and North Korea's refusal to allow sampling of the two operating reactors there. This question would immediately arise in any dismantlement of Yongbyon facilities, but this time, it would also include enriched uranium inventories. The United States would certainly want to settle these inventory issues prior to dismantling the reactors and enrichment plants, after which the very evidence needed to verify a declaration would be destroyed. So, this approach could simply end as a freeze at Yongbyon, as both sides fight over partial declarations and access, e.g. a repeat of the very issues that stymied the Six Party Talks. Moreover, resolving the broader declaration and inspection issues is more likely to become more complicated with time, not less so.

With the current situation, it is best to hold out for an initial North Korean declaration of its entire fuel cycle and its nuclear weapons, supplemented with U.S., if not International Atomic Energy Agency (IAEA), access, established at North Korea's fuel cycle and nuclear weapons production facilities. North Korea may want to keep the locations of its nuclear weapons secret, but it cannot expect to also hide its fuel cycle and weapons production facilities. Those who argue for dismantling only Yongbyon are not only putting forth incorrect technical arguments for that case, but are also refusing to learn from the long history of failures to achieve denuclearization in North Korea. One of the key failures has been to settle for too little when it comes to both North Korean declarations and inspector access. Today, limiting one's goals to Yongbyon is only asking to make that same mistake again. It is critical to know the lay of the land in North Korea when it comes to its nuclear arsenal, and in particular, its uranium enrichment plants. A strategy based on trust – essentially without verification – is ill-advised.