Path to Iran Nuke Warhead Two to Four Months

GEORGE JAHN, Associated Press

VIENNA (AP) — Iran could produce enough weapons-grade uranium to arm a nuclear bomb within two to four months, but would still face serious "engineering challenges" — and much longer delays — before it succeeds in making the other components needed for a functioning warhead, a respected U.S. think tank said Monday.

While Iran denies any interest in possessing nuclear arms, the international community fears it may turn its peaceful uranium enrichment program toward weapons making — a concern that is growing as Tehran expands the number of machines it uses to enrich its stockpile of enriched uranium. As those fears grow, so does concern that Israel could carry out its threats to attack Iran's nuclear facilities before that nation reaches the bomb-making threshold.

In a strident call for an internationally drawn "red line" on what he said is Iran's move toward nuclear arms, Israeli Prime Minister Benjamin Netanyahu said on Sept. 28 that the world has until next summer at the latest to stop Tehran before it can build an atomic bomb. Flashing a diagram of a cartoon-like bomb before the U.N. General Assembly, Netanyahu said Iran is ready to move to the "final stage" of making such a weapon by then.

For now, U.S. military and intelligence officials say they don't believe Iran's leadership has made the decision to build a bomb, while also warning that the country is moving closer to the ability to do so.

The Institute for Science and International Security did not make a judgment on whether Iran plans to turn its enrichment capabilities toward weapons making. But in its report made available to The Associated Press ahead of publication Monday, it drew a clear distinction between Tehran's ability to make the fissile core of a warhead by producing 25 kilograms (55 pounds) of weapons-grade uranium from its lower enriched stockpiles and the warhead itself.

"Despite work it may have done in the past," Iran would need "many additional months to manufacture a nuclear device suitable for underground testing and even longer to make a reliable warhead for a ballistic missile," the report said.

Beside its payload of weapons grade uranium, a nuclear warhead also needs to have a complicated trigger mechanism that sets off a chain reaction in the weapons grade uranium — the fissile core of such a weapon — resulting in the high-power blast and widespread radiation characteristic of such weapons. While the International Atomic Energy Agency says Iran may have worked secretly on testing such a nuclear trigger, Iran vehemently denies any nuclear weapons experiments.

Additionally, ISIS — which often advises Congress and other branches of U.S.

government on Iran's nuclear program — said any attempt to "break out" into weapons-grade uranium enrichment would be quickly detected by the United States and the IAEA, which monitors Tehran's known enrichment sites. With Washington likely to "respond forcefully to any "break-out" attempt, Iran is unlikely to take such a risk "during the next year or so," said the report.

Still, the report suggested a narrowing window as Iran positions itself to increase enrichment.

Iran now has more than 10,000 centrifuges enriching uranium at its main plant at Natanz, 225 kilometers (140 miles) southeast of Tehran, making low-level material. Additionally it has about 800 machines turning out 20 percent enriched uranium at Fordo, a bunkered structure fortified against an air attack near the holy city of Qom, as well as about 2,000 more installed but not yet running.

Uranium enriched to 20 percent can be turned into weapons-grade material much more quickly than low-enriched uranium. If the centrifuges at Fordo, which are now idle, also start operating and are used to make 20 percent material, Iran — using its total enrichment output of low and higher grade uranium — could produce enough weapons-grade uranium for a warhead within three or four weeks, said the summary.

Olli Heinonen, who stepped down as the IAEA's deputy director general in charge of the Iran file in 2010, said the Institute for Science and International Security report contains "good and technically sound estimates."

He said Fordo will nearly double its production capacity of 20 percent enriched uranium to up to 30 kilograms (more than 60 pounds) a month, if and when all the machines there are operating.

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