

Waiting for Bushehr – Foreign Policy

Ali Vaez

The ancient city of Bushehr, a steamy port in southwestern Iran, is bustling with foreign workers preparing to launch Iran's first nuclear reactor. The Middle East's only commercial nuclear power plant will soon become operational. Back in Washington, officials worry about Iran's emergence as an atomic power and all the many ways it will upset the region's delicate balance. The year is 1978.

Thirty-three years later, history is repeating itself. Today, it is Ayatollah Ali Khamenei instead of the pro-Western Shah Mohammed Reza Pahlavi, and Russian, not German, engineers building the nuclear power plant. But some things are nearly the same: The United States still worries; and the Middle East's only commercial nuclear power plant, we are told once again, is finally, really, at last about to become operational.

The story of Bushehr is one of ambition and folly, of a country whose nuclear dreams survived revolution, war, and religious fervor — and sometimes common sense itself. But it's not just Iran that is guilty of ambition and folly; so too are its enemies — among them the United States, Israel, and its Sunni neighbors — whose monumental opposition to a nuclear Iran has created a set of conditions that virtually requires Tehran now to make good on its goal of harnessing the atom, damn the consequences. And after more than 30 years of this tug of war, it's less a question of who will prevail than what's been lost and overlooked in the fight.

The Bushehr story, in fact, goes back decades, to a time long before President Mahmoud Ahmadinejad and the ayatollahs, when the megalomaniacal shah, endowed by the oil boom, decided virtually overnight that the country needed nuclear power to prepare for life after fossil fuels. He famously used to say, "Oil is a noble material and should not be wasted," and he advocated a greater part for nuclear power in Iran's energy portfolio. For him, nuclear technology was not only the sine qua non of modernity — it also symbolized Iran's newly attained power and prestige.

At the time, the United States, still reeling from India's first nuclear test, was suspicious of the shah's intentions. Washington refrained from entering Iran's lucrative nuclear bazaar, but Germany stepped in and Kraftwerk Union AG was contracted to build two 1,200-megawatt reactors in Bushehr, along the coast not far from the city of Shiraz, to which the plant would supply power. The turnkey contract was worth \$4.3 billion.

Construction began in 1975; the completion date was set for 1981. But fate

proved that estimate inaccurate by at least three decades. In 1978, when one reactor was 85 percent complete, the country began descending into revolutionary turmoil, which brought about the demise of both the monarchy and the nuclear program.

One of the first decisions of the revolutionary Jacobins who overthrew the shah was to halt the Bushehr project, deemed as a costly Western imposition on a self-sufficient, oil-rich nation. Ayatollah Ruhollah Khomeini, the founder of the Islamic Republic, famously suggested that it would be better to use the unfinished reactor buildings as grain silos. But as the wave of revolutionary fervor receded in the early 1980s, the tide turned in favor of reviving the nuclear program. By then, however, Iran was engaged in a bloody war with its neighbor Iraq, and efforts to resuscitate the atomic phoenix came to nothing.

The ill-fated reactor even became a target of that war. In retaliation for Iran's failed September 1980 raid on Iraq's Osirak reactor, Iraq attacked the Bushehr power plant seven times between 1984 and 1988. By the time the fighting stopped in August 1988, the uncompleted plant was in shambles. A European firm estimated that repairs would cost between \$2.9 billion and \$4.6 billion.

Iran knocked at many doors looking for a partner to complete the Bushehr project, until finally a cash-strapped Russia took on the task in 1992. Moscow's impetus for entering the Iranian market was above all to rescue its post-Soviet nuclear industry from insolvency. On the ruins of the crippled reactor, the Russians planned to build a sui generis nuclear plant — an amalgam of left-behind antiquated German equipment, Iranian jerry-rigs, and scrambled Russian technology.

But beset by mismanagement, financial difficulties, U.S. pressure, supply glitches, and technical problems, the project was to remain an unfulfilled dream for another decade. Then, just as things were looking up, in July 2010 the Bushehr reactor became collateral damage in a cyberattack by Stuxnet — a sophisticated malicious computer virus — that aimed at destroying centrifuges that enrich uranium at another Iranian nuclear facility in Natanz. Although the source of the virus has never been conclusively ascertained, suspicion has been placed squarely on the Israeli and U.S. intelligence community. More dark arts followed: This June, five Russian nuclear scientists who had assisted in the construction of Bushehr were killed in a mysterious plane crash. A month later, an Iranian nuclear scientist was assassinated in Tehran by unidentified men on a motorcycle.

The Bushehr reactor's troubled past could be a prologue to its future. Although the reactor itself does not help Iran obtain nuclear weapons — the Russians, according to a 2005 agreement, supply its fuel and remove its waste in order to minimize the weapons proliferation risk — it is plagued with many of the elements that have contributed to the world's major nuclear mishaps, from technical problems to political miscalculations to natural disasters.

Despite having no experience in operating nuclear reactors, Iran is insisting on taking over management of the reactor from Russia only one year after it goes online. The lack of independent nuclear regulators, the absence of highly experienced operators, and Iran's refusal to ratify international conventions on nuclear safety renders Bushehr highly vulnerable to a nuclear catastrophe.

And at Bushehr, despite Iranian claims to the contrary, politics is the priority. Will those politics, as in the Soviet Union's colossal missteps in Chernobyl, take precedence over safety? In August 2010, yearning to prove that delay is not defeat, the Iranian government orchestrated a premature launch of the nuclear plant. This proved to be a major failure: Operators were forced to shut down and remove fuel from the reactor after an antiquated emergency-cooling pump broke down.

More worrisome, perhaps, is that like Japan's doomed Fukushima nuclear power plant — crippled by this March's earthquake and tsunami — Bushehr is located in an earthquake-prone area, at the juncture of three tectonic plates. Lusting for the long overdue inauguration, decision makers in Tehran dismissed warnings from Iranian scientists in a May 2011 report about seismic threats. Iran's dim record in emergency preparedness is an ominous sign for the people of Bushehr and their neighbors in other Persian Gulf countries.

Yet last year, Ali Akbar Salehi, the current Iranian foreign minister who was then the country's nuclear chief, said, "Despite all pressure, sanctions, and hardships imposed by Western nations, we are now witnessing the start-up of the largest symbol of Iran's peaceful nuclear activities." What Salehi failed to mention was the tiny share of power this large symbol will provide Iran: Once up and running, the Bushehr reactor will generate 2 percent of Iran's electricity output, which pales in comparison with the 18 percent waste in the country's transmission lines.

After nearly 37 long years, with the inauguration on Sept. 12 and an official launch set for the end of this year, Iran's wait for its nuclear Godot is finally coming to an end. But given Bushehr's ill-fated history, it might be better off waiting indefinitely.