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The First Nuclear Power Plant of Earth: June 27, 1954

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The world's first nuclear power plant was commissioned on June 27, 1954 in Obninsk. With the Cold War heating up, the Soviet Union opens the world's first nuclear power plant outside Moscow. The Obninsk nuclear power plant featured one 5 mWt AM-1 (Atom Mirny or Peaceful Atom) reactor to generate electricity and facilitate experimental nuclear research. The history of the atomic energy had deep roots in the times before the World War 2, long before the June 1954, the day when the first workable plant has started working. They had called this project "The Peaceful Atom" and so was the called the reactor of the first nuclear power plant. This site was the joint effort of the thousands of prominent Russian scientists and engineers and was built in record short terms; it took only three years from scheming the projects to actual location fully constructed. The Obninsk nuclear power plant became the first NPP to be decommissioned in Russia. After operating without a hitch for 48 years, the reactor was shut down on April 29, 2002. Nuclear power is the use of sustained exothermic nuclear processes to generate heat and electricity.

The world's first commercial nuclear power station, Calder Hall at Wind scale, England, was opened in 1956 with an initial capacity of 50 MW (later 200 MW). The first commercial nuclear generator to become operational in the United States was the Shipping port Reactor (Pennsylvania, December 1957). One of the first organizations to develop nuclear power was the U.S. Navy, for the purpose of propelling submarines and aircraft carriers. The first nuclear-powered submarine, USS Nautilus (SSN-571), was put to sea in December 1954. Two U.S. nuclear submarines, USS Scorpion and USS Thresher, have been lost at sea. Several serious nuclear and radiation accidents have involved nuclear submarine mishaps. The Soviet submarine K-19 reactor accident in 1961 resulted in 8 deaths and more than 30 other people were over-exposed to radiation. The Soviet submarine K-27 reactor accident in 1968 resulted in 9 fatalities and 83 other injuries. The U.S. Army also had a nuclear power program, beginning in 1954. The SM-1 Nuclear Power Plant, at Fort Belvoir, Virginia, was the first power reactor in the U.S. to supply electrical energy to a commercial grid (VEPCO), in April 1957, before shipping port. The SL-1 was a U.S. Army experimental nuclear power reactor at the National Reactor Testing Station in eastern Idaho. It underwent a steam explosion and meltdown in January 1961, which killed its three operators.

Today, nuclear power has been embraced by the majority of westernized nations. The United States produces the largest amount nuclear energy in the world: currently about 19 percent of its annual needs. However, adoption is far from ubiquitous; in the European Union, Ireland, Austria, and Estonia have no nuclear power, while more than 80 percent of France's energy comes from nuclear generators.