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## From Alamogordo to West Milton

On 16 July 1945 a little group in the desert dawn at Alamogordo witnessed the spectacular explosion that is commonly said to have ushered in the atomic age. Ten years and 2 days later another group, on a hot afternoon in West Milton, New York, watched the unspectacular closing of a switch that for the first time meant that American homes and industry were drawing electric current produced by an atomic reactor.

The power source was a turbine-generator driven by steam produced by a reactor designed as the prototype built for installation in the *Seawolf*, the second atomic-powered submarine to be constructed in this country.

Commercially, the event was of little importance. The Niagara Mohawk Power Company, which transmitted the power to its customers in north-eastern New York, has a total capacity of 2,500,000 kilowatts; the General Electric reactor will add no more than 10,000 kilowatts. Nor was this the first time that power derived from a reactor had been used for lighting and other usual electric uses. At Arco, Idaho, in 1951, and again at Oak Ridge National Laboratory in 1953, atomic energy had been converted into electricity to run machinery and provide lighting for some of the buildings of those AEC installations. And in 1954 the Soviet Union claimed to be producing power from an atomic source of some half the capacity of the reactor at West Milton.

The importance of the event was symbolic rather than commercial. Rightly, the symbolic aspects were emphasized. The date chosen was the opening day of the Big Four "summit" meeting in Geneva. It occurred just 3 weeks before the opening, also in Geneva, of the International Conference on the Peaceful Uses of Atomic Energy. One of the first visible effects of the new power source was the illumination of a giant light bulb 42 inches high and 20 inches in diameter that the General Electric Company had built to commemorate the Diamond Jubilee of Edison's first incandescent lamp.

Although the commercial importance must be minimized, it is nevertheless true that factories and residences of the region are now drawing part of their electric energy from an atomic source. Heat produced in a nuclear reactor is transferred to a heat exchanger by liquid sodium; water converted to steam by the liquid sodium drives a turbine; electric current from the turbine-generator is passed through ordinary commercial channels to home lights, television sets, factory motors, traffic signals, and all the other electric devices of the age. The small scale power production of 18 July will grow to a much larger scale. A plant designed for the purpose will be supplying 60,000 kilowatts to the Pittsburgh area in a couple of years. At the West Milton ceremonies Lewis L. Strauss announced that American companies are ready to complete within the next 5 years six commercial atomic power plants with a total capacity of 765,000 kilowatts.

The use of atomic energy for everyday, peaceful purposes will in time become commonplace. The significance of West Milton, New York, on 18 July is that the process has already started.—D.W.