

Nuclear Energy To Fulfill Early Promise

By GEORGE C. HARLAN
United Press International
New York - UPI - The peaceful atom experienced a notoriety as short-lived as a Miss America. Although eclipsed by space exploration, it is a good bet that nuclear energy will have fulfilled much of its early promise by the time man first touches down on the moon.

After years of frustrations and disenchantment, recent technological breakthroughs in harnessing the power of the atom have triggered renewed activity in the field. In some quarters a "go for broke" effort is being made to challenge coal by 1970 as the nation's main source of power for home and industry.

But it shapes up as tough battle against competing fuels and a large segment of the public which views with alarm crackling atoms as a close neighbor.

Proponents of atomic power concede that this new energy source will not in the foreseeable future replace conventional fuel sources - coal, water, oil and gas - but argue that it will be needed to supplement present fuels to meet the expected rapid expansion of power needs.

An official of the Atomic Energy commission (AEC) has estimated that conventional fuel resources would be exhausted within 75 to 100 years unless supplements are found.

Until very recently, producing electricity from an atomic reaction was too costly to compete with conventional means except in certain regions where coal or water are not readily available.

Over the past decade most atomic power plants were built as experiments with big injections of federal funds. The government is still underwriting a sizable portion of atomic research and development, but private industry, after years of cautious skepticism, today is gambling millions in the hope of someday reaping big profits from the venture.

Scientists at the sprawling Vallecitos, Calif., atomic laboratory of General Electric, which is one of several large industrial firms with a heavy stake in the future of the atom, already are looking beyond power generation from uranium to plutonium-burning machines. Dr. Lamar P. Bupp, manager of the laboratory, says plutonium promises "significantly cheaper" fuel within a decade.

But even in the present state of technology atomic energy could compete with new conventional installations in about 50 per cent of the nation's power markets. Progress in this area has outstripped some of the more optimistic timetables in the past six months.

The significance of all this has not been lost on the coal industry - the backbone of modern industrial society. One of the largest markets for coal is power production. This market accounts for nearly 50 per cent of all coal consumption.

The battle line between these two antagonists has been drawn. The price of coal had been rising roughly 2 per cent a year, but in the past year or so this trend has been halted and in some instances reversed. The potential threat from the atom is thought to have contributed to the downward pressure on coal prices. It is understood that negotiations or even rumors of a new atomic power plant contract has triggered a reaction in the price of coal in the area.

Moving Target
As a Westinghouse official put it: "We are shooting at a moving target" in the cost battle with coal.

The coal industry, which is slowly recuperating from years of financial ills, complains that atomic power is receiving preferential treatment from the government. Coal officials note that since its inception in 1946 the peaceful atom has been nourished by upwards of \$4.5 billion in government subsidies.

The industry lobby has bombarded Congress with demands that coal be given an equal shake with atomic power in future appropriations for research and development.

To date there are 25 atomic power plants either in operation or in varying stages of planning, development and construction in this country. Many are in the so-called high fuel cost areas of the Pacific Coast and New England. But three are in the heart of the Pennsylvania coal region.

Ten of these are now operating and eight are scheduled to be functioning by the end of 1963. All are expected to be working by 1970. The total investment will be about \$1.2 billion.

Powerful Ally
The coal industry has found in the railroads a powerful ally in its fight to retain its long dominant role as a fuel supplier. The fortunes of the two industries are bound up closely, particularly in the east and midwest where coal is a major freight commodity. As a result, they have joined forces to protect coal markets.

A sobering fact for railmen is that a single freight car can transport one atomic fuel core to operate a nuclear power plant for about a year.

Several eastern-based roads have succeeded in cutting the cost of hauling coal from the mine head to the power generating station by means of a shuttle service. Later this year, three railroads are scheduled to start shuttling coal to a big Cleveland utility at cut-rate prices. If successful, the scheme will mothball the nation's only coal pipeline.

Atomic enthusiasts reckon that even if coal transportation costs were slashed in half, nuclear power could still compete today in 30 per cent of the nation's energy markets.

But should atomic power make deep inroads on the market for coal, few responsible persons are writing off the future of the coal industry. Much of the ground coal forced to give up to competing fuels, is expected to be regained through expanding power needs and growing outlets in the chemical and petrochemical industries.

Each atomic plant permit will be judged on its own merits. Power from the atom must be competitive with power stations using other fuels. It is generally felt that on the issue of location hangs the future of nuclear power as a source of electricity in large metropolitan areas.

During the 20-year life of the atomic energy program the safety record has been remarkable by any industrial standard. AEC figures show that over this span only six deaths have resulted from overdoses of radiation and these facilities occurred at experimental installations.

Never Penetrates
Of even more significance is the fact that there has never been a case where radiation leakage above permissible limits has penetrated outside the housing of a reactor.

A showdown on the issue is shaping up in New York City where the Consolidated Edison Co. has proposed construction of an atomic power plant in the heart of the most densely populated area in the nation.

The plant would rise on a site along the East river opposite Manhattan island. It would generate enough electricity to furnish one-fifth of the city's present needs.

Although scientists are divided on the hazards attached to nuclear projects in heavily populated areas, atomic adherents say the record speaks for itself.

A notable dissenting voice is that of David E. Lillenthal, first chairman of the AEC. Long an outspoken critic of atomic energy development, Lillenthal recently said he would not want to live in the Borough of Queens if the proposed reactor is built.

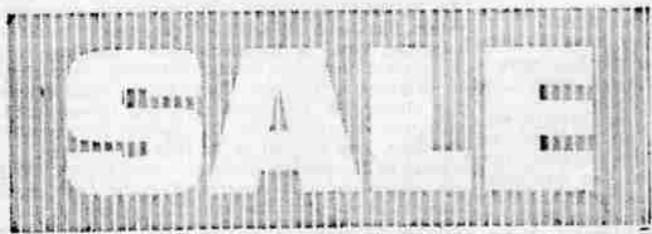
The dispute over atomic plant sites has cropped up in other parts of the country. A court suit to enjoin the operation of the completed Lagoona Beach reactor 30 miles from Detroit was upheld by a U.S. appeals court but overturned by the Supreme Court. Operation of the installation still awaits a new AEC review. The location of the Bodega Bay reactor, 50 miles north of San Francisco, is embroiled in the courts, but over a conservation issue.

The outcome of the struggle of atomic power to win acceptance is still unclear. But the stakes are said to be large. The AEC has forecast that if the way is opened half of the nation's electric power will be generated by the atom by the end of this century at annual savings of \$4 to \$5 billion over conventional methods.



WALL BOMBED—Spectators look at the rubble of a wall around the U.S. Military Assistance Advisory Group compound at Saigon after Viet Cong guerrillas placed three bombs around the wall. Ten Vietnamese, living in adjacent buildings, were killed by the blasts and 43 were injured, including five Americans. (UPI)

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Fear A Challenge
Perhaps the most formidable challenge to atomic power is posed by an enemy that is both invisible and unpredictable - fear.

As the offspring of the world's most awesomely destructive force atomic energy has inherited a legacy of dread.

Radiation is the only hazard associated with an atomic power station. The nature of the atomic reaction makes any bomb-like explosion impossible.

Under the present "guidelines" imposed by the AEC centers of dense population are off limits for any sizable atomic plant. However, the AEC insists that these guidelines are flexible and that

Grange News
Phoenix Grange
The visitation meeting of Phoenix Grange was held at the elementary school with 242 members present. There were eight visiting masters and State Overseer Roscoe Roberts. Upper Rogue Grange opened and closed the meeting.

Pomona Master Melvin Lattie reported on what the Oregon State Grange plans to do about the recent tax legislation.

The diminishing family farm was commented on by Roberts, and he urged an increase of interest on the problem.

Some of the visiting masters told of work accomplished at the State Grange convention this year.

Mrs. Bert Stencil described the process in making the ceramic items on the display table. The dishes were made by women of Phoenix Grange.

Acting in "Old MacDonald's Farm" were Mervin Hixson, Warren Loffer, and Fred Meadows with accordion accompaniment by Mrs. Fred Meadows.

Lecturer Mrs. Lester Carr and Mrs. Ralph Swingle did a second skit. Mrs. George Hartley played the piano while Vaughn Quackenbush led the singing and Mrs. Sol Cox enacted a tableau.

The Grange Council meeting will be July 17 at 8:30 p.m. at Phoenix Grange.

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