



General Atomic

Construction booming: nuclear power reactor being built at Peach Bottom, Pa.

Permit process a bottleneck

As nuclear power reactors move into the main line, industry is worried about safety approval delays

by Carl Behrens

Safety is a delicate subject in nuclear power generation; both industry and the Atomic Energy Commission have gone out of their way to overcome the uneasiness the public inevitably feels about the subject.

But as the nuclear power moves out of its infancy and into the main stream of American industry, the pressures of meeting deadlines are eroding some of the delicacy with which industry spokesmen are treating the safety question.

"Everybody's aware of the need for making nuclear reactors safe," Harvey Brush of Bechtel Corp. told a panel at the recent Atomic Industrial Forum's Chicago meeting. "But nobody except industry is paying attention to delays in getting new plants into operation."

The delays, implies Brush, arise from red tape, born of the need to reassure the public on the safety question. This red tape causes applications for building permits to take an average of almost 11 months to process. With a vast increase in applications now foreseen, that waiting period could increase, and industry contract promises to the utilities will be harder and harder to keep.

Utility acceptance of nuclear power has been enthusiastic in the last two years. Nuclear plants currently produce only 3,000 megawatts of power; but current estimates are that by 1980 nuclear power will produce 150,000 megawatts

of electricity, more than half the present U.S. capacity. Some 165 new plants are expected to be built in the next 12 years.

Most of these plants are going into the main line of power production, Brush says. That means that utilities, which have to plan their output far in advance to supply their customers, will be depending on deadlines being met.

Brush's position was backed by Theodore Rockwell III, head of MPR Associates, Inc. Unless the permit bottleneck is broken, the industry is heading for a fall, he warns.

But Rockwell says the most serious danger is that industry and government could end up in a bitter battle over "how much safety to build in a reactor, with industry fighting for, say, 42 percent safety and the AEC insisting on 76 percent."

That, says Rockwell, is a dangerous concept: safety isn't a separate discipline, but has to be included in general engineering practice to prevent accidents without going too far in guarding against hypothetical, remote and unreal situations.

One reason licensing takes so long is that each application and design is considered separately—a procedure that made sense when each new reactor was a big advance over the last one, but less useful when more standardized designs are being produced.

A particular bottleneck is the Advisory Committee on Reactor Safeguards, a body of nuclear specialists appointed by the AEC. Each application has to be considered separately by the ACRS after the AEC has processed it, and since the committee meets only once a month, getting approval can be unexpectedly time-consuming. "It's the unexpected delays that create the problems," says Brush.

Peter A. Morris, director of the AEC's Division of Reactor Licensing, says the Commission will submit legislation soon to relieve the ACRS from having to examine applications that are identical to previously approved designs.

But, he says, even supposedly identical reactors can legitimately require time-consuming reviews. Every application, he says, has some 150 design parameters that affect the safety of the reactor. Applications for what are called the same design as previously approved ones can vary in as many as half those parameters.

Morris says that with a proper design and complete application, a license could ideally be issued within 28 weeks. But he blamed the industry for the major cause of delays: incomplete applications, each prepared hastily to "get it in the hopper and start processing." This only means later problems and delays, he said.