

aimed at helping you understand your business and the economy as a whole.

In short, the magazine will continue to publish articles that explain and exemplify, while adding features that help

illustrate and illuminate.

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And Happy New Year!



## Mailbag

### Plant Extinction Exaggerated

I am writing in response to Steven Maloney's article "PLEX: Nuclear Plant Life Extension or Extinction?" (Nov. 15, 1992, p. 15). While Mr. Maloney makes some sound points about the economics of nuclear power generation, his central premise that existing nuclear power plants are doomed to extinction is exaggerated. There are three points that I would like to make in response to Mr. Maloney's article.

First, there is a wide gap between the operating performance and costs of the best-performing nuclear plants and the worst. While it is clear that early retirement of the worst nuclear plants will create economic benefits for ratepayers, it is also clear that plant life extension, even if additional investment is required to meet license renewal conditions, can create economic benefits for ratepayers served by the best nuclear plants. Dooming the entire industry to extinction ignores the economic benefits arising from continued operation of all but the worst-performing nuclear plants.

Second, early retirement does not happen automatically. At Yankee Rowe, San Onofre Unit 1, and Trojan, early retirement decisions were reached only after a "triggering event" led to a closer examination of the economics of early retirement, even though early retirement may have been an economically beneficial option for many years. In the case of Yankee Rowe, the triggering event was extensive testing and potential repair or replacement of the reactor pressure vessel. The triggering event for both San Onofre Unit 1 and

Trojan was planning for steam generator replacement. Absent a state-level regulatory mechanism that will routinely examine early retirement, many candidates for early retirement will simply continue to operate.

Finally, several economic factors are changing in ways that favor continued operation of nuclear plants. These factors include higher decommissioning costs, environmental costs imposed on fossil plants, and improving performance of operating nuclear power plants.

Decommissioning cost estimates have increased, as evidenced by Yankee Rowe's filing for rate increases to recover planned decommissioning costs. Higher decommissioning costs reduce the net benefits from early retirement, since early retirement accelerates the start of decommissioning.

Environmental concerns are increasingly imposing additional costs on fossil power plants, even for plants fueled by currently cheap natural gas. The Clean Air Act, planned carbon taxes, the NIMBY syndrome, and other concerns will combine to increase the cost of building and operating replacement capacity of any type. Retired nuclear plants must be replaced, and, as the cost of building and operating replacement capacity increases, the benefits of early retirement decrease.

As nuclear plant performance and operating costs improve, the primary benefit of early retirement—operating cost savings—is reduced. Some of the worst-performing nuclear plants may "adapt" to the threat of early retirement by improving both performance and operating cost. Turkey Point, operated by Florida Power & Light, is an example of a nuclear plant that has

lowered costs and improved performance considerably over the last few years. The recent trend for U.S. nuclear power plants is toward increased performance and lower operating costs.

The threat of early retirement should provide a powerful stimulus for the management of high-cost, low-performance nuclear plants to improve. Nuclear plants with poor performance should consider the costs and likely results of implementing a cost and performance improvement program at the same time that early retirement is considered. Coupling such improvement programs with incentive ratemaking structures such as those in place at Diablo Canyon, operated by Pacific Gas & Electric, may result in significant improvements in plant performance and operating cost levels.

Nuclear power plants should be retired early only if thorough analysis indicates that ratepayer benefits will result. Early retirement of nuclear plants based on an incomplete analysis or on unrealistic expectations concerning available capacity or natural gas prices may be costly to ratepayers in the long run. Continued operation, and life extension, of the best nuclear power plants can provide significant economic and social benefits.

The nuclear power industry does not face extinction. Rather, there is a viable future for most operating nuclear plants in the United States. To doom the entire industry to extinction because some high-cost plants are retired early for sound economic reasons is shortsighted.

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