

# A-power plant shutdowns in the U.S.

## *NRC 'safety' measures jeopardize national energy grid*

On May 9 Rep. Morris Udall, chairman of the House Interior Committee, announced that the committee wants U.S. antinuclear forces to know that Congress is willing to do something about the "dangers" of nuclear power. Udall quickly followed through on his pledge. His committee voted 23-7 to force the Nuclear Regulatory Commission to impose a six month moratorium on the granting of new nuclear plant construction permits, time for some kind of "independent analysis," unspecified by the committee, to assure the safety of nuclear plants. Udall admitted that this concern was prompted by the march of 65,000 demonstrators against nuclear power in Washington May 6 which heard speakers call for immediate shutdown of all nuclear plants.

The backlash against nuclear power in the wake of the Three Mile Island hoax, now reaching up to the level of the U.S. Congress, is already beginning to have serious detrimental effects on the national power grid. Heeding the environmentalists' call to close down all nuclear energy generating capacity would result not simply in a gross loss of the 13 percent of U.S. power supplies dependent on nuclear plants. As the application of the economic model recently released in this review by Lyndon LaRouche could demonstrate, these shutdowns would result in serious and irreversible disruptions of the entire economy. Thirteen U.S. nuclear generating plants are now out of commission, in addition to regularly scheduled refueling and maintenance shutdowns. Five reactors, representing about 20 percent of the nation's nuclear-generated electric capacity, are down for safety checks by Babcock & Wilcox in response to the Three Mile Island "accident." Four others were ordered shut by the Nuclear Regulatory Commission in early March for seismic fault checks, the two Three Mile Island units are down indefinitely, and two other plants are out due to minor—and suspicious—problems.

It was announced on May 8 that the nuclear plant owned by Vepco in Richmond, Va. is under FBI investigation for sabotage because a white crystalline material was found on 62 of 64 fuel rods in storage at the plant. Shortages in the nation's electric supply are not immediately threatened by the loss of the approxi-

mately 12,000 megawatts represented by the 13 plants shut down through collusion of the antinuclear lobby and the NRC, but serious economic consequences could result. Extension of the nuclear shutdown into the peak-load summer period, or the extension of this policy to include additional plants will destabilize the highly complex national electric grid. Prolonged shutdowns can develop into irreversible power shortages as unused equipment cannot be brought back on line.

### **Meeting the national need**

The U.S. electric supply system has been until now the most reliable in the world. The nation's utilities are organized into nine regional reliability councils which monitor the capacity of the region and plan to meet the growth in demand of consumers and industry. On the average, about 20 percent of capacity is kept in reserve to meet any unexpected forced outages and to provide a margin which limits the probability of load failure to once in 10 years or more.

However, this 20 percent national reserve margin average is widely variable according to regional characteristics. For example, in the Midwest and New England there are peak power demands in both the winter and summer because of severe weather in both seasons. Utilities in those regions maintain a more than 30 percent reserve margin because they have a very brief four-month period in which to do all of their scheduled repair and maintenance, and have to be prepared for unscheduled outages at the same time. In the Southwest, in comparison, with only a summer peak, a 20 percent reserve margin is adequate.

Because about 70 percent of U.S. industry, which is highly energy-intensive, is located in the Midwest, higher year-round loads are typical. For utilities such as Commonwealth Edison in Chicago and Duke Power in South Carolina, which rely on nuclear power for more than 30 percent of their baseload capacity, any increased pressure for nuclear shutdowns would disrupt their entire systems. This would not only affect reserve margins but their very ability to meet baseload demand.

As an official from the National Electric Reliability Council commented, "We're just lucky that Commonwealth Edison doesn't have any Babcock and Wilcox

plants." Duke Power was not so lucky, but has obtained permission from the NRC to rotate the shutdowns of their three B&W units for safety checks so brownouts will not be necessary. Reliability Council officials, however, are worried that if the antinuclear mobs increase the pressure on the NRC and Congress to shut all the Duke Power units at once, the utility will not be able to meet demand.

Reliability Council and utility officials insist that both seismic and B&W safety checks can be done within the next month and that the closed plants should be back on line before the summer peaks. As the industry has yet to learn, however, these are politically-dictated decisions, and have little to do with the technical questions.

Immediately threatened are six reactors at four sites in Massachusetts, Texas, Oregon and Arizona. The fallout from Three Mile Island has also led to calls for the shutdown of additional reactors from all quarters of the antigrowth sector. On May 9 City Councilwoman Alters in New York City called for the closing of Con Edison's Indian Point II facility "until it is made safe." There are no safety violations at the plant that would justify such a move. Con Ed has categorically opposed such a measure, stating that Indian Point is its "most economical plant."

#### **The real economic consequences**

If the 13 inactive reactors stay down into the summer peak period, a time frame determined not by the calendar but by the weather, there will be serious economic

number of peaking units which are relatively small and usually burn the previously most available fuel—number two distillate oil. These highly expensive and inefficient units are generally only used in peak periods to augment baseload capacity.

In a typical case, during the summer peaks a utility may use this oil-burning capacity for about 5 percent of its generated power. If the currently down plants are not on line at peaking periods, up to 20 percent of the power may have to be provided by these units. The difference in cost of electricity from nuclear versus oil is staggering. Nuclear power costs about 5 mills per kilowatt hour to deliver and oil is an order of magnitude higher—or about 50 mills per kwhr.

It is not practical to substitute coal-fired capacity for nuclear during this summer's peak. This would cost about 20 mills per kwhr because virtually all coal-burning capacity is baseload and is already in use. This increased cost of electric power will have to be passed on to the consumer, and would amount to millions of dollars if extended for any period of time.

In the case of oil-burning facilities, this substitution

would also fuel Energy Secretary Schlesinger's claims of an impending oil crisis. Number two distillate oil is currently being refined at full throttle (at the expense of gasoline) to build up home heating supplies for next winter. Having to divert any significant amount for peaking power plants this summer would only feed the hysteria-mongering going on in the Department of Energy regarding oil supplies.

In the case of utilities where power lost through nuclear shutdowns would have to be realized immediately, like the replacement of the 1,700 MW lost from the two Three Mile Island units, the cost is prohibitive. General Public Utilities, the holder of the Three Mile Island plants, has estimated that it will cost about \$170 million to "wheel" power in from other utilities to make up for lost baseload capacity.

In addition to the economic impact from the substitution of higher-cost, less efficient fuels and generating units to replace lost nuclear capacity, the utilities themselves will be caught in a financial crunch which will immediately affect the thousands of highly skilled workers and engineers in the industry.

On May 9, General Public Utilities announced that it was laying off 600 of its 11,000 employees, and 5 percent of the total workforce of its subsidiary Jersey Central Power and Light because of the financial crisis it is suffering due to the Three Mile Island "accident." Congress is now debating who will pay for the costs incurred from that particular event.

At a congressional hearing held by the Senate Subcommittee on Nuclear Regulation in April, National Resources Defense Council lawyer Tony Roisman posed another alternative to either having nuclear power or incurring the increased costs without it. He suggested that the people in Pennsylvania who live in the area affected by the Three Mile Island shutdowns be forced, by federal mandate, to conserve the 1,700 MW of electricity rather than have GPU wheel the power in from other utilities.

Roisman, however, did not himself volunteer to live in the "affected area" without a refrigerator, lighting, employment, hospitals, or other amenities of modern life. The only possible effect of the current shutdowns will be soaring energy costs and the potential for putting in peril the reliability of continued service in regions of the country which rely on nuclear energy. Any acceleration of the nuclear shutdowns will lead to a threshold where the integrity of the national energy grid system cannot be maintained through safe reserve margins and where scheduled brownouts, or unscheduled blackouts, destroy the very basis of a modern industrial economy.

—Marsha Freeman