

TAC NO MC1511

FROM:  
Mike Mulligan

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TICKET NO: 020030145  
DOC DT: 08/17/03  
NRR RCVD DATE: 08/27/03

TO:  
D. Lochbaum

FOR SIGNATURE OF :                      \*\* YEL \*\*

DESC:

Additional "Safety Concern-Nuclear plant's  
Emerging Electrical Power"

ROUTING:

Borchardt  
Craig  
Sheron  
Case  
NRR Mailroom

ASSIGNED TO:

DLPM

CONTACT:

Marsh

SPECIAL INSTRUCTIONS OR REMARKS:

*DLPM will decide on response and  
due date.*

**From:** "Mike Mulligan" <steamshovel@adelphia.net>  
**To:** <dlochbaum@ucsusa.org>, "Mindy Landau" <MSL@nrc.gov>, "Paul Blanch" <pmb Blanch@attbi.com>  
**Date:** 8/17/03 7:58PM  
**Subject:** Additional "Safety Concern -Nuclear plant's Emergency Electrical Power"

Mindy,

I don't hear any mention of the potential impending potential of a regional blackout in any of these NOED's and an accurate characterization of a "banana republic grid" that the grid experts talked about in any of the DG NRC'S NOED evaluations. It's concerning that the year 2000 we have no DG NOED'S and the rest have about a 33% yearly rate of NEOD'S. That trend bothers me. Would you include this with the 8/03/03 "Safety Concern -Nuclear plant's Emergency Electrical Power"?

#### More About Notices of Enforcement Discretion

#### What is a NOED?

From time to time, circumstances may arise where a power reactor licensee foresees that compliance with an NRC requirement would involve an unnecessary plant transient or startup delay, or performance of testing, inspection, or system realignment is inappropriate with the specific plant conditions.

In these circumstances, the NRC staff may choose not to enforce the applicable technical specification, technical safety requirement, or other license or certificate condition. This type of enforcement discretion is designated as a NOED. The staff may also issue NOEDs in cases involving severe weather or other natural phenomena, based upon balancing the public health and safety or common defense and security of not operating, against the potential radiological or other hazards associated with continued operation, and a determination that safety will not be impacted unacceptably by exercising this discretion.

NOED'S for emergency diesel generators.

2003 2+(2) events out of yearly total of 11 for 36% of NOED's-estimated you will get two more event before end of year.

2002 4 events out of a total 12 -for 33%-not counting Dresden equal NOED

2001 4 event out of 12 -for 33%

2000 0 events of 18 for 0%

**From:** "Mike Mulligan" <steamshovel@adelphia.net>  
**To:** <dlochbaum@ucsusa.org>, "Raymond Shadis" <shadis@prexar.com>, "Mindy Landau" <MSL@nrc.gov>  
**Date:** 8/17/03 12:31PM  
**Subject:** Safety Concern -Nuclear plant's Emergency Electrical Power!

Mindy,

We know that a loss of off site power is a huge component of risk of getting to a large nuclear plant accident. During the Blackout of 2003, we know that 22 nuclear plants in both the U.S.A. and Canada had no off site electricity -or most of them. I think this is outside any available prediction of the industry. I think the FERC or NERC CEO said in 2001 that the Northeast will have a huge blackout and you will be hearing of it in news reports in the afternoon one day.

So where was the NRC'S criticisms of the decline of reliability standards? Why weren't you protecting your plants from a Loss of grid reliability by complaining to the regulatory agencies? Why did you miss this "Warnings Long Ignored on Aging Electric System"? How come you did not alert the public and congress about this increase threat to your nuclear power plants? How come you were not proactive with an increasing threat to the power plants? How come you did not detect and report to the public, of the increasing indicators of grid incidences that questioned of an impending grid crisis.

Did you adjust the nuclear plant plant's emergency Diesel Generator surveillance and testing -minimize down and maintenance periods- to meet the increasing threats of a serious accident with our grid in a brittle condition as defined by industry experts? "The question is not whether, but when, the next major failure of the nation's power grid will occur." Did you have any emergency Diesel Generators in a non operational status when the Blackout occurred in the tripped plants? Nationwide, how many diesel generators were not operational or in a surveillance regime, as an example of a national problem?

Would you add this e-mail to Adams as a complaint?

Thanks

mike mulligan  
Hinsdale, NH

August 16, 2003

## THE GRID

### Warnings Long Ignored on Aging Electric System

By DAVID FIRESTONE and ANDREW C. REVKIN

WASHINGTON, Aug. 15 - For years, the nation's electrical engineers and planners have warned that the North American system of transmitting electricity was becoming the orphan of the digital era, approaching a serious failure if not significantly upgraded.

For the most part, however, their pleas to improve the system have been ignored, mired in political and regional disputes, or caught up in debates about regulating private industry. As a result, experts said today, improvements that might have prevented the largest blackout in American history have stalled.

"This outage will cost consumers millions of dollars, and it would have been far less expensive if we had just made the system robust enough to meet their needs," said Peggy Welsh, senior vice president of the Consumer Energy Council of America, a research group that represents residential and business consumers of power. "We have a system built 50 years ago for an analog society, and it can't handle the demands of a digital society."

It was five years ago that a federal task force of prominent experts warned the Department of Energy that the reliability of the electrical system was based on a mishmash of voluntary standards, and that Washington needed to impose mandatory rules on the electric industry.

"Failure to act," the task force wrote, "will leave substantial parts of North America at unacceptable risk." Its report was written at the Energy Department's request by prominent engineers and policy makers.

As recently as last month, however, the Energy Department was saying exactly the same thing. While electricity demand has shot up by 25 percent since 1990, construction of transmission systems has declined by 30 percent, the department said.

"The nation's aging electromechanical electric grid cannot keep pace with innovations in the digital information and telecommunications network," the department said in a report that called for massive investment by the industry and government in a new system by 2030. "Power outages and power quality disturbances cost the economy billions of dollars annually. America needs an electric superhighway to support our information superhighway."

Standards for a more reliable system were not opposed by the industry, and were included in an energy bill that came before Congress in 2001. The bill never passed because of disputes over matters like drilling in the Alaskan wilderness and efficiency standards for cars. Such disputes are holding up a similar bill that is pending in Congress.

The exact reason why a single failure in the Midwest on Thursday afternoon led to a disastrous cascade of blackouts has still not been determined. Industry officials said that an elaborate set of rules and procedures has been developed to allow one regional system to automatically cut itself off from others when a failure occurs. Those rules are voluntary, however, and are followed to different extents by different regions.

The 1998 task force on electricity reliability recommended that the Federal Energy Regulatory Commission be given legal authority to impose rules on the industry. It also said that several newly developed technologies were available to prevent single failures from expanding into widespread blackouts, if utilities could be persuaded to invest in them.

The commission, however, was never given the authority to impose rules on the industry by Congress, and few utilities have made significant investments in their transmission systems. Philip Sharp, a former Indiana congressman and Harvard lecturer on energy policy who headed the 1998 task force, said that deregulation had led to a patchwork of rules that gave some companies an incentive to improve their systems but discouraged others. "There's a crazy-quilt system of rules that govern markets in different parts of the country," he said. "It shapes what people invest in, and whether they will make upgrades in their transmission systems and get their power plants online. It's foolish not to have a system in place that could reduce our risk for these kinds of events."

Experts also said that energy deregulation, which has been at the heart of most disputes over the future of power in this country, has produced great strains on the system even at times when demand has not reached its peak by providing incentives to build more generating plants without encouraging the building of transmission systems. In the days of regulation, a company would recoup its investment in a generator through rates set by a state commission. Now, private companies make money on generators by selling power, giving them an incentive to produce more than transmission facilities can handle, some experts say.

"Since deregulation, people have been pushing the system too hard," said Dr. Richard Rosen, a utility planning expert at the Tellus Institute, a research group in Boston. "They tend to overload it to too great an

extent. Instead of loading lines to close to 100 percent, there needs to be some extra room allowed for problems."

The strain on transmission capacity is particularly acute in New York State, which is known in the industry for having far too few high-voltage power lines. A report issued this spring by the New York Independent System Operator, which manages the state's power grid, said the state's reliability rules were developed to respond to the blackouts of 1965 and 1977, and have not been changed since then. "New York has stayed just ahead of potential reliability problems for the past three years by utilizing some stopgap measures and by driving the existing electrical infrastructure harder and harder," the report said.

Among other factors, community resistance to new lines has been high and continues to prevent new lines from being built, particularly in high-density areas like the northeast. While the federal government can step in and insist on construction of natural gas pipelines, it has no such power related to electrical transmission lines. "People want more power, but they don't want those lines," said Stephen Floyd, a nuclear engineer and a vice president of the Nuclear Energy Institute, the Washington lobby for the nuclear-power industry. "Something's got to give sometime, because the system is really reaching its capacity in terms of what you'd like to have for a margin of safety."

One top power company executive in New York State said that some of the state's biggest power producers actually prefer an inadequate transmission system, because it gives them a captive market and the ability to charge more. At the same time, he said, state regulatory officials have no interest in taking the political heat from community residents for approving new lines. Other states, like Texas and Virginia, routinely approve new transmission systems to go with generators, he said.

Better conservation is another way to reduce the load on power systems, but when deregulation divided the power industry between generators and purveyors of electricity, it also reduced the incentive for utilities to entice customers to conserve, many energy experts said.

Now, in deregulated states, plant owners tend to focus on supplying the most profitable electricity - produced during periods of peak demand - while owners of distribution systems, experts say, have to pare costs and keep cables and other equipment running.

Other energy experts say there are many effective ways to insure stability, mostly involving either distributing the generation of power so that less needs to flow long distances or reducing electricity use, particularly in peak periods. "This event underscores the need to reduce the overload on the system, and there are other ways to do it besides building new transmission capacity," said Ralph Cavanagh, energy program director for the Natural Resources Defense Council, an environmental group. "There are elegant ways of doing it, such as electronic controls that allow the system to carry more power safely, or increasing standards for efficiency of air conditioners, which consume a third of the peak demand. The challenge is picking the best solution."

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Power failures Deregulation gaffes, ignored warnings blew up in  
Thursday's blackout.  
Source: Omaha World - Herald  
Publication date: 2003-08-16

The question is not whether, but when, the next major failure of the  
nation's power grid will occur.

That warning was issued to Congress two years ago by an electric  
reliability council formed after a 1965 blackout in the Northeast.

Some industry analysts warn that more disruptions like Thursday's are  
likely until government and the power industry figure out a plan to  
upgrade what former energy secretary Bill Richardson described as "a  
third-world electrical grid."

The power grid had piecemeal beginnings 70 years ago to allow  
neighboring power companies to exchange electricity in emergencies. Now,  
advanced computer systems allow trading from one region to another. But  
the lines, towers and transformers are aging and, in some locales, close  
to capacity.

The Bush administration and the congressional energy committees haven't  
been deaf to warnings. Proposals to expand the system have been in the  
works for two years - in an energy bill that still hasn't passed.

And Federal Energy Regulatory Commission attempts to encourage new  
multi-state grids have been resisted by Southeast and Northwest  
congressmen who fear their regions' cheap power will be drained off to  
other areas.

This week's blackout, coupled with a nation newly awake to terrorism  
threats, should change such impasses. But the North American Electric  
Reliability Council estimated last year that \$56 billion is needed to  
upgrade the grids.

The answer to who funds that cost - the industry, the states, the  
federal government, or some combination thereof - depends on the answer  
to some basic questions: Is deregulation worth pursuing? Who should own  
and manage the transmission lines? What boundaries does the federal  
government set on state regulations, given the grid's interstate nature?

Those answers must guide the rewriting of government policies that so badly mangled the marketplace in some parts of the country in the recent deregulation push. (The Midlands, thankfully, has escaped many of these power problems.)

Before deregulation, utility companies owned both the power plants and the network of towers, wires and transformers that transmitted that power. In places where deregulation took hold, new companies bought the power plants, but the old utilities maintained a highly regulated monopoly on the network.

Without promises of rate increases to pay for network improvements, there was no incentive for them to invest in upgrades. State regulators, hoping to capture rate decreases from deregulation, refused such deals. Nor was there any incentive for the new companies who bought the power plants to build new transmission networks.

Now the nation must play catch-up to years of neglect, even as electricity demands continue to grow. It's time to get on with making those improvements. Scrap the rash policies and turf battles that caused so much of the current problem.