

Blue Ridge Environmental Defense League

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February 15, 2008

William B. Sansom, Chairman
Board of Directors
400 West Summit Hill Drive
Knoxville, Tennessee 37902

Dear Chairman Sansom:

On behalf of the Blue Ridge Environmental Defense League, I write to request that the Tennessee Valley Authority Board of Directors abandon its ongoing effort to open a new nuclear power station at the Bellefonte site in Jackson County, Alabama.

According to TVA's annual report, "the Tennessee Valley continued to experience drought conditions in 2007, which was the driest year in 118 years of record-keeping." ^a TVA was able to keep its operations afloat by implementing its 2004 Reservoir Operations Policy which provides "river flows to protect aquatic life, keep commercial navigation channels open, provide sufficient water supply, and support power operations." ^a However, this finger-in-the-dike approach will be undermined if TVA continues to build more nuclear powered electric generating plants.

Nuclear power plants are huge consumers of water. A single 1000 MWe nuclear power plant requires approximately 686 million gallons of water a day to cool its reactors. Nuclear power plants using either once-through or closed-loop cooling systems discharge large amounts of heated water into the lake or river, water which often contains radioactivity. Such releases are controlled and monitored; therefore, it is by design and not by accident. ^b

In 2007, reduced rainfall in the Southeast began to have a noticeable effect on electric power plants. Lakes are approaching the minimum levels required by the Nuclear Regulatory Commission in the drought-stricken southeastern states.

In North Carolina, Lake Norman dropped 4 ½ feet in one year and is now within a foot of the level required by the license for Duke Power's McGuire nuclear plant. Progress Energy officials are saying that the drought could force it to shut down its Harris nuclear station near Raleigh. Cooling water in the plant's reservoir is only 3 ½ above the minimum level specified in its license. If water levels fall too low, company officials admit that they would be forced to shut down the plant. ^c

Last year drought forced a partial shutdown of TVA's nuclear plant at Browns Ferry, Alabama because of overheated water in the Tennessee River. Unit 2 was shut down completely, and Units 1 and 3 were reduced to 75 percent capacity. Three years ago TVA itself predicted that operations at Browns Ferry would have to be scaled back and could be completely shut down because of overheated discharge water. ^d More drought-related shut downs are in the forecast for 2008.

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The economic impact of a widespread shut down could be devastating. “Currently, nuclear power costs between \$5 to \$7 to produce a megawatt hour,” said Daniele Seitz, an energy analyst with New York-based Dahlman Rose & Co. “It would cost 10 times that amount that if you had to buy replacement power—especially during the summer.”^c

Eight years ago California suffered an electric power debacle; brown-outs and blackouts and skyrocketing electric rates. Following years of economic growth, deregulation and above-average increases in power demand, the crisis was precipitated by a forced shut-down of 25% of its electric generating capacity.^e I ask you to contemplate a similar scenario here in the Tennessee Valley. What would be the economic impacts in rural and farming communities of Alabama and North Carolina or the fast-growing areas around Memphis and Nashville?

As you know, TVA submitted an application to the US Nuclear Regulatory Commission on October 30, 2007 pursuant to Subpart C of 10 CFR Part 52 for a combined operating license. On February 8th the NRC published in the Federal Register a “Notice of Hearing and Opportunity to Petition for Leave to Intervene on a license for Bellefonte Units 3 and 4.” However, it is not too late for TVA to learn the lesson of the Little Dutch Boy and stop this miscalculation before it becomes a mistake and the mistake a blunder and the blunder a calamity sweeping all before it.

Respectfully,



Louis A. Zeller

Cc: Tom Kilgore, President and CEO

References

- a) TVA Annual Report 2007, http://www.tva.gov/finance/reports/pdf/tva2007_annual_report.pdf
- b) *Got Water?* David Lochbaum, Union of Concerned Scientists Issue Brief, December 4, 2007
- c) *Drought could force nuclear plants to shut down*, Mitch Weiss, Associated Press, January 23, 2008
- d) *Hot Weather Forces Partial Shutdown of TVA Nuclear Plant*, Jay Reeves, Associated Press August 18, 2007
- e) *California Messes Up: How it became the most benighted state in the union*, The Wall Street Journal, December 28, 2000