Chairman US NRC

4-30-93

Mr. Selin,

Many questions remain regarding the reopening of the Brunswick II Nuclear Power Plant. NRC ranks them worst on their systematic assessment of licensee performance list for 1991 and 92. Public Citizen ranks Brunswick II worst of all 110 W3 reactors. Brunswick's reactors are ranked 7th and 15th lowest in lifetime capacity production and are not cost effective.

We have been told everything is repaired and CP&L has stopped harrasing employees. A whistle blower reported harrassment and a recent firing on Channel 3 last night. Seven others have reported harrassment for doing their job.

As you know, NRC depends upon power companies & their employees to report reactor problems. If CP&L is penalizing employees for reporting violations of NRC requirements, the NRC will be helpless finding problems and correcting them. IS CP&L fit to have licensee rights?

Many unresolved critical problems remain. Overpressurization of the dry well-which has no fix, vulnerability to over temperature accidents associated with early melt through, NRC's own estimate of a 90% chance of containment failure in a nuclear accident are some. Brunswick contains a "substantial" amount of Thermo Lag (a fire barrier material which is combustible, can be the inator of a fire and crumbles in seizmic activity). The NRC fix is hourly fire watches to watch the fire barrier. Serious water level indicator problems are unresolved as well as boiling water reactor level instrumention problems. Why are you allowing this reactor to restart?

Brunswick is the second reactor most vulnerable to hurricanes after Turkey Point. As you saw, reactors cannot withstand over class 4 hurricanes and many improvements need to be made to all 16 coastal reactors. NRC must do an independent risk apalysis of coastal reactors. The possibility of storm surges flooding out diesels remain a dire threat. If station blackout occurs--when both on & off site power is out--how can radiation releases be monitored and how will the nuclear waste be cooled? How can the public, who will be unable to evacuate, be protected?

Salt erosion, a problem at Turkey Point, was a big problem at the Brunswick reactors during the March storm. It was not even a hurricane! Three emergency--unusual events occurred...what would have happened if both reactors had been on full power? This storm scenario needs close analyzation. Will Brunswick's new hurricane safety systems be in place before June when hurricane season begins?

According to Bob Pollard of the Union of Concerned Scientist, Brunswick's new Torus Vent system relies on a suppression pool as a filter to remove some of the radioactive materials released into the air. However, if any vacuum breakers mistakenly stick open, the flow path would have NO filter because it would bypass the suppression pool. Considered the nation's 6th worst reactor for radioactive emissions into the air and water --don't let Brunswick become the next nuclear catastrophe.

Even the individual plant evaluation, which is said to be complete, has not yet been reviewed by NRC. Brunswick II was ranked worst reactor for safety systems activations by Public Citizen in 1991. With Brunswick's terrible record, shouldn't this evaluation have been completed before restart?

Major problems remain unanswered concerning Brunswick's radioactive emissions into the air and water. The nation's 6th worst reactor for emissions, there has been little discussion or information given the public on what has been done to solve this problem. When I asked NRC, I was told to check the Public Documents for improvements made.

Many recent studies indicate that at low doses releases are harmful. Stephen Wing of NC School of Public Health released findings from a 26 year Oak Ridge Worker Study. His conclusions are startling. Even

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I have NEVER received an answer to this letter Sadler 8/3/93
— 2/11/94

with a healthy worker population, a total dose of only 140 millirems resulted in increases of several types of cancer. Someone living near Brunswick can legally receive far more radiation in a lifetime than 140 millirems.

NRC and the utilities see small releases of radiation as minor discharges below limits for concern and no real problem. CP&L and NRC are permitting degradation of citizen's safety barrier and tolerating it.

I understand from the media that no public hearings were held regarding the reopening of the reactors. I called NRC to check and did not receive an answer back. Wasn't a public hearing required for the public to ask questions? If not, there should have been. If so, there must be a meeting now...

Why aging, dangerous, not cost effective reactors like Brunswick II are allowed to operate is beyond my understanding. As an investor owned utility, it is in <u>everyone's best interest</u> CP&L close Brunswick down now permantly and pursue a clean energy future.

Increasing electrical efficiency CP&L can save up to 7 times more than operating Brunswick or a coal plant, is 7-10 times more cost effective than nuclear power in reducing carbon dioxide emissions (global warming), and poses no danger to the public.

After over a year down, Brunswick is still on YOUR list of worst run reactors. Brunswick is a danger to us all. Financial Times 4-21-93 release on Chernobyl reported 8,000 deaths so far. Iuri Kostenko, the Ukraine's Reform Minister of Environment estimated in report that 2/3 of the Ukraine's 52 million citizen's health will be harmed from Chernobyl. Your time is running out...Don't let Brunswick become the next Chernobyl.

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'93 Public Citizen's Nuclear Lemons Assessments

RELEASED 7/8/93 20 WORST ☆ 19 TIMES 12 CATEGORIES

☆ Brunswick II Overall 3rd Worst Reactor

☆ " I " 5th " "

☆☆ Brunswick I + II Both Overall Worst (1) in NRC Systematic Assessment of Licensee Performance

☆ Brunswick II Overall Worst (1) Safety system actuations

" I 37th " " " "

☆ Brunswick II 6th worst capacity production

☆ " I 15th " " "

☆ Brunswick I 6th worst worker exposure

☆ " II " " " "

☆ Brunswick II 4th Significant (worst) events

☆ " I 10th worst " "

☆ Brunswick II 4th worst Scrams - Emergency Plant Shutdowns

" I 41st " " " " "

☆ Brunswick I 14th worst forced outage rate

☆ " II 18th " " " "

☆ Brunswick I 13th worst Licensee Event Reports

" II 44th " " "

Brunswick I 67th worst Operation + Maintenance Costs

" II " " " " "

☆ Brunswick I 19th worst Safety System Failures

☆ " II " " " " "

☆ Brunswick I 17th worst Violations

☆ II " " "

110 US Reactors were rated...

93' # PUBLIC CITIZEN'S NUCLEAR LEMONS

RELEASED 7/8/93 WORST 50 of 110 US REACTORS

REACTOR	LOCATION	MAKER	TYPE	CAPACITY (MW DER)	RANK
Washington Nuclear-2	Richland, WA	GE	BWR	1100	1
Trojan	Prescott, OR	W	PWR	1130	2
Brunswick-2	Southport, NC	GE	BWR	821	3
Dresden-2	Morris, IL	GE	BWR	794	4
Brunswick-1	Southport, NC	GE	BWR	821	5
Fitzpatrick (James A.)	Scriba, NY	GE	BWR	816	6
River Bend-1	St. Francisville, LA	GE	BWR	936	7
Palisades	South Haven, MI	CE	PWR	805	8
Fort Calhoun-1	Fort Calhoun, NE	CE	PWR	478	9
Hatch-1	Baxley, GA	GE	BWR	776	10
Sequoyah-1	Daisy, TN	W	PWR	1148	11
Nine Mile Point-1	Scriba, NY	GE	BWR	620	12
Zion-1	Zion, IL	W	PWR	1040	13
Nine Mile Point-2	Scriba, NY	GE	BWR	1091	14
Millstone-2	Waterford, CT	CE	PWR	870	15
Peach Bottom-2	Peach Bottom, PA	GE	BWR	1065	16
Perry-1	North Perry, OH	GE	BWR	1205	17
Oyster Creek-1	Toms River, NJ	GE	BWR	650	18
Duane Arnold	Palo, IA	GE	BWR	538	19
Quad Cities-1	Cordova, IL	GE	BWR	789	20
Millstone-1	Waterford, CT	GE	BWR	660	21
Millstone-3	Waterford, CT	W	PWR	1154	21
Catawba-1	Lake Wylie, SC	W	PWR	1145	23
Quad Cities-2	Cordova, IL	GE	BWR	789	24
Peach Bottom-3	Peach Bottom, PA	GE	BWR	1065	25
Robinson-2	Hartsville, SC	W	PWR	700	26
Crystal River-3	Red Level, FL	B&W	PWR	825	27
Zion-2	Zion, IL	W	PWR	1040	28
Dresden-3	Morris, IL	GE	BWR	794	29
Clinton-1	Clinton, IL	GE	BWR	933	30
McGuire-1	Cowans Ford Dam, NC	W	PWR	1180	31
Salem-2	Salem, NJ	W	PWR	1115	32
Browns Ferry-1	Decatur, AL	GE	BWR	1065	33
Salem-1	Salem, NJ	W	PWR	1115	34
Comanche Peak-1	Glen Rose, TX	W	PWR	1150	35
Wolf Creek-1	Burlington, KS	W	PWR	1170	35
Indian Point-2	Buchanan, NY	W	PWR	986	37
Browns Ferry-2	Decatur, AL	GE	BWR	1065	38
South Texas-1	Matagorda County, TX	W	PWR	1250	39
Turkey Point-3	Florida City, FL	W	PWR	693	40
Turkey Point-4	Florida City, FL	W	PWR	693	40
Hatch-2	Baxley, GA	GE	BWR	784	42
Pilgrim-1	Plymouth, MA	GE	BWR	655	43
LaSalle-2	Seneca, IL	GE	BWR	1078	44
Indian Point-3	Buchanan, NY	W	PWR	965	45
Palo Verde-1	Wintersburg, AZ	CE	PWR	1270	46
Sequoyah-2	Daisy, TN	W	PWR	1148	46
Grand Gulf-1	Port Gibson, MS	GE	BWR	1250	48
Maine Yankee	Wiscasset, ME	CE	PWR	825	48
Haddam Neck	Haddam Neck, CT	W	PWR	582	50

MAKER GE=General Electric W=Westinghouse CE=Combustion Engineering B&W=Babcock & Wilcox

TYPE BWR= Boiling Water Reactor PWR= Pressurized Water Reactor

GE manufactures 1/3 of US Reactors
GE comprises 70% of 20 worst US reactors out of 110

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This Earth Day do it for your children...

Too many second hand repairs to late, to a basically flawed reactor design, have made 20 year old Brunswick Nuclear Power Plant "a nuclear house of cards waiting to fall", according to Paul Gunther of the Nuclear Information & Resource Service on April 14, 1993.

The governments's own NRC has Brunswick on its watch list of 4 worst run reactors of 110 in U.S. Ralph Nader's Public Citizen rates Brunswick 4th worst overall, 4th worst in worker exposure, 4th worst in significant event occurrences, 5th in low level radioactive waste, 6th in radioactive exposure to your air and water, and 7th in *violations* of safety regulations. Yet bringing Brunswick's phone lines up to NRC standards is the main holdup for reopening it on April 26th, according to NRC team leader Peter Koltay.

Brunswick has a myriad of other unsolved structural and operational problems. Besides phone lines, mismanagement, communication, fake bolts, cracking walls, and back-up boiler problems, it is one of the two U.S. reactors most vulnerable to hurricanes. One of the most serious problems is vulnerability to over temperature accidents with associated early melt through. The NRC predicts a possible three and a half minute time-frame from melted fuel contact with drywell, to breach of containment, and subsequent release into the environment.

Because of basic structural problems identified by three G.E. engineers, there is no guarantee of structural integrity in Brunswick's torus and suppression pools. A top NRC official admitted that containment vessels on Brunswick's reactors have a 90% chance of early containment failure in nuclear accidents. If this core melt occurs (and it could take only 40 minutes for molten fuel to burn through concrete walls, releasing fission products into the environment), the new venting system would provide no benefit. ***There would be no time for evacuation.***

The NRC has no real experience with aging reactors, and how they will withstand containment aging. Only 12 of 110 U.S. reactors are over 20 years old.

Brunswick is dangerous and not cost effective. For the safety of your children, call or write to CP&L today and tell them to close it down *permanently*. According to the Safe Energy Communication Council, a combination of energy efficiency and conservation is 7 times more efficient than nuclear energy and presents no danger. These two along with use of appropriate renewable alternative energy sources must replace time bombs like Brunswick. The technologies are in place, and the savings are proven.

Anyone interested in working on this issue is asked to contact:
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or
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CLOSE BRUNSWICK NUCLEAR REACTORS PERMANENTLY...

After Chernobyl, Swedish and German Scientists estimated a 70% probability of another major nuclear catastrophe within 5.4 years. NRC probability for a major core meltdown in US within next 12 years is 45%. These chances increase with reactor aging.

According to Union of Concerned Scientist, Bob Pollard - 4/19/93, Brunswick's New Torus Vent system relies upon a suppression pool as a filter to remove some of the radioactive materials released into air. However, if any vacuum breakers mistakenly stick open - the flow path would have no filter because it would bypass the suppression pool. Already the nation's 6th worst in radioactive releases into air and water - don't let 20 year old Brunswick become the next nuclear catastrophe!

Demand the NRC's 3rd and 5th worst run reactors be closed permanently, NOW before hurricane season. Brunswick is one of the U.S. reactors most vulnerable to hurricanes.

Alternatives to nuclear power are ready, cheaper, safer and cleaner. They include improved energy efficiency, solar and other renewable energy technologies.

Over 50% of US electricity could be economically displaced through improved energy efficiency and conservation. Cost 1 - 4¢ per KWH compared to 10 - 15¢ per KWH for nuclear power. Increasing electrical efficiency can save up to 7 times more than operating Brunswick or a coal plant, 7 - 10 times more cost effective than nuclear power in reducing carbon dioxide emissions (global warming) and poses no danger.

Savings from energy efficiency and conservation provided 28.8% of US energy services in 1988 compared to nuclear power's 4.8%. Renewables saved 5.7% nationwide nuclear powered utilities generate: 34% of gases and chemicals linked to greenhouse effect and smog and over 90% of nations nuclear waste in terms of curie count. Utility construction takes 19%, out of our private capital. Most of these dollars leave our communities. Clearly, same or better services with less cost and danger would be a great benefit to everyone.

Utilities across US are implementing least cost energy programs shifting their focus from selling electricity to providing same services at lowest possible costs, lessening environmental impact and often providing additional local jobs. A recent NC Public Utility Commission report from 1982 to 1992 found NC ratepayers used 1/3 more KWH per year than the US average. ... Why ?

Write the NC Public Utility Commission and your state and federal representatives. Demand Brunswick's permanent shutdown now replacing it with renewable energy technologies that consider the safety, health and environmental costs of power produced. Demand mandatory least cost energy for North Carolina which requires utilities to invest first in those energy options, including electrical efficiency whose overall costs (defined on a life-cycle basis) are the lowest.

Do your part. Be more energy conscious. Turn off lights and appliances when not in use. Buy energy efficient appliances, compact fluorescent light bulbs, low-flow shower heads, water heater timers and insulate water heaters. Weatherize home, tune car. Sign up for your utility's time of use program or at least load management. Save resources, energy and dollars.

FOR MORE INFORMATION, CONTACT:

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