



The Amy H Remley Foundation, Incorporated

Restore the Waters

3 November, 2010

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U.S. Regulatory Commission
Washington, DC 20555-0001

Dear Mr Bruner,

Thank you for allowing time for this our additional submission following the review of the draft NUREG-1941 on 23 September, 2010, and our two previous e-mails.

History repeats itself. Decades ago U.S. utilities abandoned over 130 nuclear plant orders because of massive cost overruns and construction delays. The Energy Information Administration reports Progress Energy's rising costs to \$22.5 billion (a 5.625 times increase) and a five years delay to 2021 and 2023 for Levy nuclear plants 1 and 2 - see, www.eia.doe.gov/cneaf/nuclear/page/nuc_reactors/reactorcom.html.

Significantly, the Florida Public Services Commission in their Order No. PSC-08-0518-FOF-EI, issued on August 12, 2008, approving PEF's petition of need for 2,200 MW base load power by year 2016, also ordered an annual review of long term feasibility and costs. Albeit, the extended recession we suffer and the rising costs and delays have since negated the substance of the petition for determination of need by 2016, which had been adopted by both the NRC and USACE as a bounding target for assessing environmentally preferable alternatives (Section 9.2). The basic premise upon which PEF based their petition has been rendered unsafe and should be re-examined. Figures recited in Section 10, are out of date

However, we point to a systemic fallacy which encourages the taking of excessive business risks at the expense of consumers. Industry lobbying, providing for profit as a given percentage, has ensured that the bigger the cost burden of assumed fiscal risk the bigger the profit guaranteed by legislation - come what may. Utilities may pursue investments in the tens of billions of dollars immune to the consequences of any bad business decisions affecting the bottom line. This creates an unacceptable undisclosed conflict of interest: where shareholders, bondholders and executives benefit at the expense of their customers, running contrary to a reason quoted for the FPSC Order that, "...(*PEF*) will provide adequate electricity at a reasonable cost".

Note that the Ocala Star Banner, reported the FPSC's recent approval of Progress Energy's request for \$163.6 million surcharge on customers to contribute toward repair to its Crystal River nuclear power plant and their proposed new Levy County plant. "The 4-0 FPSC vote will mean an average \$5.53 per month cost increase to Progress Energy's more than 1.6 million Florida customers beginning in 2011". *Consumers have no prospect of any return on their investment (call it a tax).*

Note further the computations of Craig A. Severance, in Business Risks and Costs of New Nuclear Power, January, 2009, indicating costs of electricity from a similar installation to the Levy proposal to be \$0.30 per kWh (prior to any capital cost raise). This five fold increase over current rates - without the surcharge - is hardly a "reasonable cost" and a likely barrier to PEF in wholesale markets.

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Turning now to environmentally preferable alternatives.

We note that systemic inefficiencies exist when there is no way to store electricity generated in times of off peak or lower seasonal demand. Such "losses" of the Crystal River plants in 2008, for example, amounted to more than 800MW(e) (equivalence of a spare plant) - calculated from EIA maintained database information and data submitted by PEF as Final True-up data to the FPSC. Necessary energy storage as compressed hydrogen gas could be provided by an approach called Renewable Electrolysis (RE).

In RE, as previously indicated to you, electrical energy is captured and stored as compressed hydrogen gas (released by electrolysis) which can be re-converted into electricity using fuel cells, to meet up-turns in demand. Thereby allowing the operation of existing facilities at more efficient levels than those needed during periods of lower demand, supplemented by electricity from renewable wind or solar photo voltaic sources to enable real pollution free economies to be made.

Costs of RE systems are measured in millions not billions of dollars. Modular RE systems can be sited near concentrations of electricity users saving both \$ and environmental costs of additional transmission lines.

We find the consideration of alternatives to the proposed action demanded by NEPA Section 1023(2)(C) in the draft NUREG-1941 to be utterly inadequate (RE is completely ignored and omitted from the documents).

This RE approach was referred to in our first response to you sent by e-mail attachment on October 18, 2010, and is evaluated in Technical Report NREL/TP-560-46267; September 2009; Levelized cost; centralized hydrogen; distributed hydrogen; hydrogen production; H2A Production Model.

The NRC maxim **Protecting People and the Environment** requires that we reiterate our very serious concern with the siting of any nuclear plant in a region with poorly confined aquifer systems allowing aerial effluent fallout to penetrate into and accumulate in groundwater. This was also represented to you from the podium and by e-mail attachment on October 18, 2010. It is not adequately addressed in the draft NUREG-1941 documents despite some deliberations in Chapter 7 and Appendix J.

We repeat; before licensing any LNP plant, the public needs to be apprised of how, in what quantities and into which areas harmful radionuclides are to be released and accumulated in groundwater over the operating life of the plant for both gaseous and liquid effluent pathways. Together with the calculated dosages resulting therefrom, especially regarding infants fed on mother's milk. (The harm is done to us when beta radiating elements get inside us).

Groundwater accumulates harmful cancer causing agents over the decades of a nuclear plant's life where it remains radioactive for decades more. We drink it. We eat animal and vegetable products after they too assimilate the contamination. Also, the marine food web is poisoned by the toxic waste belched daily into offshore sea grass meadows which nurture our marine food web supplying food that we also eat.

In conclusion, we earnestly recommend that PEF be advocated to adopt plans which take account of the systemic deficiencies revealed, both as to business risks and their adverse impact both financial and health-wise upon their customers, and improve supply side generating efficiencies by embracing the environmentally preferable approach offered by Renewable Electrolysis. In our view continuing to use the excessive business risks as an excuse to surcharge customers must cease.

Sincerely,

(Norman Hopkins, Director)