

Frank Leslie

To: StLucieDSEIS@nrc.gov
Subject: Personal Comments on St. Lucie Relicensing Plant Specific GEIS, Supplement 11

Chief
Rules and Directives Branch
Mailstop T-6D 59
U.S. Nuclear Regulatory Commission
Washington DC 20555-0001

1/01/02
64 FR 66674
(7)

Dear Sir:

Following are my personal comments on Supplement 11:

Comments on St. Lucie Nuclear Power Plant Relicensing GEIS, Supplement 11
From Frank R. Leslie, 1017 Glenham Dr., NE, Palm Bay FL 32905, 321-768-6629
f.leslie@ieee.org on 12/02/2002

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Rules and Directives

General comments: Use of SMALL, MODERATE, and LARGE impact on the environment qualifiers is a good approach to focus on the effects rather than various quantities.

More emphasis upon the risk calculations is desirable to clarify the probability of possible events in the context of everyday risks such as driving to work. The public perceives risks to be far worse when they don't choose those risks. As examples, a mountain climber may rail against the risk of a city street air pollutant or second-hand smoke, or joggers may choose to run alone and unarmed in mountain-lion country.

Plant safety/security comments: Discuss and clarify recent USA Today stories about a SANDIA report discussing offsite radiation release plumes of 500 miles extent rather than the 50 mile limit used in the Supplement. The radiation levels at varying distances must have great meaning. While the St. Lucie plant has clearing of a potential plume release by westerly weather winds, it also has easterly to southeasterly sea breeze winds that could send a release plume across the state towards Orlando or Tampa.

Since much has been made by antinuclear activists of the potential for zirconium spent-fuel fires and release dispersion, a detailed study of possibilities of those fires (a fault tree analysis) should be made in a way as to fully inform the public as to how such risks are computed. Loss of pool coolant and terrorist actions should be considered.

Video surveillance systems using software intruder-path detection and alarming should be employed to supplement the security forces alertness. These cameras may be especially useful in detection of boats and swimmers approaching the Lagoon side of the plant. Electric-field detection fencing is a first level of defense. Ultrasonic sensors in the barge channels are necessary to detect underwater swimmers. Consultations with the Sandia Intrusion Detection Lab and Special Forces teams would help determine means of attack and defense. The plant security force members periodically should consider how they would attack the plant with their level of knowledge, and then help design the means to prevent such attacks. Do not downplay obscure or low-probability attacks.

The following comments primarily address the alternative energy aspects of relicensing considerations.

Section 8 Alternatives to Nuclear Relicensing

• Fossil fuel plants produce more air/water pollution than nuclear plants, but few are as concerned about non-nuclear pollution.

• Wind and solar-electric plants would require extensive land areas due to the low energy density of the sources. Neither appears to be a viable replacement for large base-load plants.

• Hydropower has limited resource in Florida and environmental blocking objections, while ocean wave and tide energy appears to be uneconomic and environmentally problematic

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within the next twenty years.

- Oil is too precious a resource to burn in fixed locations for heat. Transportation and chemical use must take priority.

- Biomass combustion produces pollution and CO₂, which many believe contributes to global warming (climate change). Municipal stream waste (MSW) contains heavy metals such as lead, mercury, and zinc that should not be incinerated.

- Catastrophic extremes (site failure core meltdowns) may have lower computed impact costs than meteor strikes or tsunamis; Should we take action to preclude those and similar events?

Summary of comments: Table 9-1 displays the SMALL impact of relicensing versus the other replacement power possibilities that range from MODERATE to LARGE impacts. License renewal thus appears to be the best action now, and in perhaps twenty years, other energy alternatives may be better suited and economic.

Frank R. Leslie

Disclaimer: These are personal comments and do not necessarily represent the positions of Florida Institute of Technology.

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