

UNITED STATES OF AMERICA
BEFORE THE NUCLEAR REGULATORY COMMISSION

_____)	
In the Matter of:)	
<i>Florida Power & Light Co.</i>)	Docket No. 50-389
St. Lucie Plant, Unit 2)	May 23, 2014
_____)	

**SOUTHERN ALLIANCE FOR CLEAN ENERGY’S BRIEF
IN RESPONSE TO NUCLEAR ENERGY INSTITUTE AMICUS BRIEF**

I. INTRODUCTION

Pursuant to the May 13, 2014 Order by the Acting Secretary of the U.S. Nuclear Regulatory Commission (“NRC”), Southern Alliance for Clean Energy (“SACE”) hereby responds to the *Amicus Curiae* Brief of the Nuclear Energy Institute in Response to Southern Alliance for Clean Energy Hearing Request (April 28, 2014) (“NEI Brief”). The Nuclear Energy Institute (“NEI”) claims that SACE impermissibly seeks a hearing on an enforcement matter, and that a decision to grant a hearing in this case would “potentially subject every compliance review to a hearing opportunity.” NEI Brief at 9.

Contrary to NEI’s argument, this case does not involve the NRC’s failure to enforce Florida Power & Light Company’s (“FPL’s”) operating license. Rather, SACE seeks a hearing on the NRC Staff’s repeated affirmative acceptance of fundamental design changes to the St. Lucie Unit 2 steam generators, including changes that were explicitly forbidden in the first license. Thus, in no way would a ruling for SACE undermine the NRC’s processes for exercising enforcement discretion. Instead, a public hearing would bring much-needed accountability to this proceeding for amendment of the St. Lucie Unit 2 operating license, which has been conducted completely out of the public

eye and which may be the cause of the unprecedented degradation experienced by the Unit 2 steam generators.

II. DISCUSSION

A. **The Staff Approved the Re-Design of the Steam Generators in Two Previous License Amendment Proceedings and Continues the Approval Process in its Oversight of the Damaged Unit 2 Steam Generators.**

In its Hearing Request, SACE contends that the NRC Staff approved substantial changes to the design of the St. Lucie Unit 2 steam generators during two license amendment proceedings in 2007-08 and 2011-12, and that it has continued the license amendment process in the course of evaluating the safety of restarting Unit 2 after outages in spite of the steady and alarming rate of denting and deterioration found in the steam generators during those outages.¹ NEI argues that SACE is “tardy” in challenging the 2007-08 and 2011-12 license amendment proceedings (NEI Brief at 7), but it fails to account for the fact that the NRC gave absolutely no public notice that those proceedings would involve approval of the re-designed replacement steam generators (“RSGs”); nor was notice provided by FPL in its license amendment applications. *See* Southern Alliance for Clean Energy’s Reply to Oppositions to SACE’s Hearing Request Regarding *De Facto* Amendment of St. Lucie Unit 2 Operating License at 5-9 (May 5, 2014)

¹ As confirmed in a Design Basis Document (“DBD”) attached to FPL’s Answer Opposing Southern Alliance for Clean Energy’s Hearing Request (April 28, 2014), the RSG design changes (which have never been fully described in any public document) consist of the following: FPL removed the stay cylinder, substituted tube support plates with anti-vibration bars for the tube support lattice bars that were installed in the original steam generators (“OSGs”), and installed of steam outlet nozzle venturis. Declaration of William Cross, ¶ 10 and Exhibit A. Nevertheless, the DBD is not complete because it does not mention the addition of 588 tubes, the perforation of the tubesheet with 588 corresponding holes, or the location of the holes on the tubesheet. *See* Declaration of Arnold Gundersen, ¶ 31 (March 9, 2014) (“Gundersen Declaration”), attached to SACE’s Hearing Request.

("SACE Reply"). While the Staff indeed appears to have approved the RSG design changes in these license amendment proceedings, SACE had no way of knowing about it, and therefore the Staff's approval of the design changes was not valid.²

NEI also argues that as a general matter, no NRC approval is required for restart after an outage. NEI Brief at 8. But NEI disregards the unique circumstances of this case, where (a) substantial tube denting was revealed during outage inspections following installation of the steam generators and (b) the NRC conducted safety evaluations specifically addressing the safety implications of the steam generator tube denting in relation to the steam generator design. *See, e.g.*, Letter from Tracy J. Orf, NRC, to Mano Nazar, FPL, re: St. Lucie Plant Unit No. 2 – Summary of the Staff's Review of the 2011 Steam Generator Tube Inservice Inspections (TAC No. ME7163) and Enclosure (Aug. 13, 2012) (ML12219A126) ("NRC 8/12/12 Letter"). The Staff relied on these safety evaluations to make the finding that "no additional followup is required at this time." *Id.*, cover letter. Significantly, the RSG design reviewed by the Staff included tube support plates that FPL had intentionally excluded from the original St. Lucie design for the express purpose of avoiding susceptibility to tube denting. Original Final Safety

² NEI also contends that in 2008, when FPL submitted its 50.59 Summary, SACE could have lodged a 2.206 petition, *i.e.*, a petition requesting the NRC to exercise its discretion by ordering FPL to apply for a license amendment. NEI Brief at 9 note 15. But neither FPL nor the Staff gave NRC any notice of the substantial nature of the changes FPL had made to the RSGs, and thus SACE had no known reason to submit a 2.206 petition. *See* Hearing Request at 7-8, ¶ 6. By the time SACE learned of the significant nature of the modifications made by FPL to the St. Lucie Unit 2 RSGs – more than six years after they were installed -- the Staff had already begun the process of reviewing and approving them in an ongoing *de facto* license amendment proceeding. The Staff's actions thus entitle SACE to an adjudicatory hearing in which FPL and the Staff would bear the burden of proving that the Staff's *de facto* license amendment meets NRC safety and environmental standards.

Analysis Report (“OFSAR”) at 5.4-13 (1983).³ Presumably, the Staff was aware of this when it reviewed the RSG design in light of the severe tube denting and concluded that “no additional followup is required at this time.” NRC 8/12/12 Letter at 1.

Thus, the Staff approved the safety of restarting Unit 2 with an RSG steam generator re-design that had been explicitly rejected as vulnerable to denting in the OFSAR. In this way, the Staff gave FPL “greater operating authority” than it had under the OFSAR and effectively “alter[ed] the original terms of [FPL’s] license.” *Cleveland Electric Illumination Co.* (Perry Nuclear Power Plant, Unit 1), CLI-96-13, 44 NRC 315, 326 (1996). As the Court recognized in *Citizens Awareness Network v. NRC*, 59 F.3d 284, 295 (1st. Cir. 1995), “it is the substance of the NRC action that determines entitlement to a Section 189a hearing, not the particular label the NRC chooses to assign to its action.” *See also Southern California Edison Co.* (San Onofre Nuclear Generating Station, Units 2 and 3), LBP-13-07, 77 NRC 307, 326 (2013) (vacated, CLI-13-09, ___ NRC ___ (Dec. 5, 2013)).⁴

³ The OFSAR states:

The potential for tube denting has been reduced in the St. Lucie Unit 2 steam generators by the installation of an antivibration support system that does not use drilled support plates. Support of the same type, “egg crates”, have been utilized to some extent in all CE supplied steam generators within the United States.

OFSAR at 5.4-13.

⁴ NEI also devotes a significant portion of its brief to the argument that SACE is not entitled to a hearing on FPL’s action of replacing the Unit 2 steam generators. NEI Brief at 4-7. SACE does not seek a hearing on FPL’s actions, but rather the NRC Staff’s *de facto* amendment of FPL’s operating license.

B. Granting of SACE’s Hearing Request Would Not Set a Broad Precedent and Would Improve Rather Than Undermine the NRC’s Regulatory System.

NEI makes a number of very broad claims regarding the dire effect that granting SACE’s Hearing Request would have on the NRC’s regulatory system. NEI contends, for example, that granting SACE’s Hearing Request would “distort the NRC’s established processes and regulatory framework, create an unnecessary burden, and greatly increase regulatory uncertainty.” NEI Brief at 7. Similarly, NEI contends that “SACE’s proposed approach would increase regulatory uncertainty and frustrate the NRC’s ability to effectively and efficiently monitor licensees and enforce regulations by subjecting every compliance review to a hearing opportunity.” NEI Brief at 9. As the Atomic Safety and Licensing Board recognized in *San Onofre*, however, determining whether NRC Staff actions constitute a *de facto* license amendment proceeding is a “highly fact-specific question” and thus unlikely to have broad precedential effect. LBP-13-07, 77 NRC at 328, 332. As in the *San Onofre* case, this case concerns facts that are “exceptionally unusual.” 77 NRC at 328. For instance:

- In its 1983 OFSAR, FPL pledged to avoid steam generator tube denting by using lattice supports for steam generator tubes instead of plate supports. The OFSAR also specifically listed stay cylinders as safety components of the original steam generators. In 2003, the NRC Staff renewed the operating license for Unit 2, confirming that the lattice tube supports, tubesheet, and stay cylinder constituted safety equipment that was subject to FPL’s aging management program.
- In 2007, FPL installed RSGs that substituted tube support plates for lattice tube supports, in direct contravention of its previous commitment. FPL also removed

the stay cylinders. Finally, FPL perforated the tubesheet of each RSG with 588 additional holes and added 588 new tubes.

- In 2008, FPL submitted a 50.59 Analysis for the 2007 steam generator replacement that was so vague it was impossible to identify the substantial changes that FPL had made to its RSGs. *See* Hearing Request at 7-8. Thus, SACE and other members of the public had no way of knowing that FPL was operating so far out of compliance with its operating license.
- Subsequent to the installation of the RSGs, the NRC Staff apparently reviewed the RSG design changes in two separate license amendment proceedings in 2007-08 and 2011-12, but failed to notify the public that the RSG design changes were included in the subject matter of those license amendment proceedings. *See* SACE Reply at 5-9. Information about the substantial RSG design changes was not publicly disclosed until it was brought up by the NRC Staff in the *San Onofre* proceeding. *See* Gundersen Declaration, ¶ 29 n. 32, ¶ 31.
- Starting with the first refueling outage after FPL replaced the Unit 2 steam generators, the Unit 2 steam generator tubes began to show a substantial amount of denting. Denting, of course, was the very safety problem that FPL originally committed to avoid by eschewing the use of plate supports for steam generator tubes.
- After refueling outages in 2009, 2011, and 2012, the NRC Staff conducted safety reviews that included consideration of the RSG design and its relationship to the deterioration of the tubes.

As reflected in the summary above, three principal factors contribute to the highly unusual nature of the case: the blatant contradiction between the representations of the OFSAR regarding the avoidance of tube supports and the RSG re-design which replaces lattice supports with tube supports, the secrecy that has persistently shrouded both FPL's installation and the NRC's approval of the RSGs, and the fact that the steam generator tubes at St. Lucie Unit 2 are experiencing an unprecedented degree of denting, possibly related to the replacement of the tube supports.

The high and inappropriate level of secrecy is perhaps the most consistent and unusual factor leading to the existence of a *de facto* license amendment in this case. Had FPL employed or the NRC Staff insisted on some degree of openness in 2007 when FPL replaced its steam generators, SACE or some other member of the public might have brought to the NRC's attention the contradiction between the OFSAR and the design features of the RSGs. But the public was never given that opportunity. Instead, over the course of six-plus years, the NRC Staff steadily and secretly endorsed FPL's significant RSG design changes in one regulatory decision after another, even to the point of overlooking them as a possible source of an unprecedented degree of tube denting when it endorsed the safety of restarting the reactor after refueling outages. No parties other than FPL and the Staff knew about the extent of the RSG design changes at issue, and thus there was no opportunity to request a hearing or intervene. It is difficult to imagine that the Commission would characterize these as normal or run-of-the-mill circumstances. In fact, they appear to be an unusual aberration of the NRC's committed practice of openness in its regulatory processes.

Thus, NEI's predictions that this case will have broad precedential effect or lead to undue interference in normal NRC Staff enforcement activities are unfounded. Instead, granting a hearing should have the beneficial effect of restoring public confidence that the NRC will not conduct license amendment proceedings in secret, or give ongoing implicit approval to changes in safety equipment that the licensee previously identified as unsafe and that may in fact be the cause of unprecedented safety problems.

III. CONCLUSION

For the foregoing reasons, the Commission should reject NEI's arguments and grant SACE's Hearing Request.

Respectfully submitted,

(Electronically signed by)

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CERTIFICATE OF SERVICE

I certify that on May 23, 2014, I served copies of the foregoing Southern Alliance for Clean Energy's Brief in Response to Nuclear Energy Institute Amicus Brief on the parties to this proceeding by posting it on the NRC's Electronic Information Exchange.

(Electronically signed by)
Diane Curran