March 17, 2009

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY LICENSING BOARD

In the Matter of	)	
	)	
PROGRESS ENERGY FLORIDA	)	
	)	Docket Nos. 52-029 COL
	)	52-030 COL
(Levy County Nuclear Station	)	
Units 1 & 2)	)	
	)	

RESPONSE OF THE GREEN PARTY OF FLORIDA, THE ECOLOGY PARTY OF FLORIDA AND NUCLEAR INFORMATION AND RESOURCE SERVICE TO ANSWERS TO OUR PETITION TO INTERVENE FROM NRC STAFF ATTORNEYS AND PROGRESS ENERGY FLORIDA ATTORNEYS

The Petition to Intervene and Request for Hearing was filed February 6, 2009. Answer briefs from Progress Energy Florida (PEF) and Office of General Counsel staff at the US Nuclear Regulatory Commission (NRC Staff) were received on March 3, 2009. A request made for an extension of time (one week) due to illness and unavailability of a technical expert busy with a different legal hearing was granted, with the new date for filing a response of today, March 17, 2009.

On March 9, 2009 an additional contention (12) was filed based on new information not previously available, which is not reflected in the answer documents or the reply here.

The Petition to Intervene established the standing of the co-petitioners, based on our members who live and work near the Levy County Site. The co-petitioners appreciate both NRC Staff and PEF for acknowledging their representational standing.

In addition the Petition raised substantial issues that remain the basis for our contention that the COL application for Levy County units 1 and 2 is not complete and the licensing process should not go forward without a hearing of the issues raised.

In reply to answers from PEF and NRC Staff:

The Co-petitioners appreciate the pleading of PEF on the matter of Subpart G versus Subpart L, and hereby request that a hearing going forward in this proceeding be conducted under subpart G. Contentions 3, 4A-O, 7 – 11 would require the provisions of Subpart G in order to create an adequate record for this proceeding.

CONTRARY TO APPLICANT'S AND NRC STAFF'S BRIEFS, JOINT INTERVENORS' CONTENTIONS ARE ADMISSIBLE

In every case, both NRC staff and Applicant appear to argue the contentions themselves as much as their pertinence and admissibility. In itself, this confirms that all of our contentions represent material disputes that need to be resolved by an ASLB.

Contention 1

Contention 1

Contention 1 is not intended as an attack upon NRC regulation. NRC staff sometimes has difficulty discerning the difference between being critical of NRC regulations (noun) vs criticism of insufficient NRC regulation (verb) and enforcement. Co-Petitioners are asserting that it is premature to review a COL for a design that is not certified, and furthermore in the process of having that certification updated. NRC staff refer to 10CFR52.55(c) which states:

> An applicant for a construction permit or a combined license may, *at its own risk*, reference in its application a design for which a design certification application has been

> docketed but not granted. (Emphasis added)

The “risk” here becomes peril to the public when NRC does not implement its own regulations. The co-petitioners bring the fact that the licensing process is in a state of chaos, not as an attack on NRC regulations, but rather as a reflection of the lack of discipline in the agency in implementing the regulations as written. NRC staff acknowledges that even when referencing a design that is still in the certification process, the applicant must still provide the information required by: 10 C.F.R. §§ 52.77, 52.79, and 52.80. 10 CFR 52.79 (a):

> The application **must** contain a final safety analysis report that describes the facility, presents the design bases and the limits on its operation, and presents a safety analysis of the structures, systems, and components of the facility as a whole. The final safety analysis report **shall** include the following information, at a level of information sufficient to enable the Commission to reach a final conclusion on all safety matters that must be resolved by the Commission before issuance of a combined license…(emphasis added)

Contention 1 is the statement that the COL application, as filed, does not contain information that rises to this level of sufficiency. It is premature for NRC staff to have docketed this COL and premature for the review to go forward. This is not attacking NRC regulation, but rather the implementation of the regulations.

The various issues that are raised in the contention are not intended to challenge or to controvert the contents of either Rev 16 or Rev 17, nor do we raise NRC staff RAIs as contentions; rather these points are offered as illustrations to support the overall contention that the NRC regulations as written reflect a far greater level of determination of the actual design to be licensed, and higher level of certainty of information to meet that standard than is currently offered by the applicant. By not requiring this level of manifestation by the applicant, NRC places the public at peril by conducting a generic

hearing on an incomplete design that is continuing to change. The “risk” of the applicant on referencing a design that is not yet certified must not be handed off to the public, as NRC reminds itself in 10CFR52.97(v):

> Issuance of the license will not be inimical to the common defense and security or to the health and safety of the public;

The following section of 10CFR52.79(5)(c)(1) (below) is predicated on the introduction to part 52.79, cited above – that the application *must* contain (emphasis added)

> (1) The final safety analysis report need not contain information or analyses submitted to the Commission in connection with the design certification, *provided, however,* that the final safety analysis report must either include or incorporate by reference the standard design certification final safety analysis report and must contain, in addition to the information and analyses otherwise required, information sufficient to demonstrate that the site characteristics fall within the site parameters specified in the design certification. In addition, the plant-specific PRA information must use the PRA information for the design certification and must be updated to account for site-specific design information and any design changes or departures.
> (2) The final safety analysis report must demonstrate that the interface requirements established for the design under § 52.47 have been met.
> (3) The final safety analysis report must demonstrate that all requirements and restrictions set forth in the referenced design certification rule, other than those imposed under § 50.36b, must be satisfied by the date of issuance of the combined license. Any requirements and restrictions set forth in the referenced design certification rule that could not be satisfied by the time of issuance of the combined license, must be set forth as terms or conditions of the combined license.

Note that the reference under (3) to items being satisfied by the date of issuance of the COL pertains to restrictions and requirements. In a simple reading of 10CFR52.79 this should not refer to the overall design of the reactor and interface of generic and site-specific issues. These are, presumably included in the information that “*must*” be included in <u>the application</u>.

The alternative that NRC has structured is for an applicant to have a site-specific hearing. PEF incorporates Rev 16 by reference – which is not certified. PEF does not

reference Rev 17, but Rev 17 exists. NRC staff asserts that the rulemaking process running concurrent with the COL application will “resolve” these matters. It is hoped that the process will resolve the issues. It remains a contradiction to the regulations as presented in Part 52 that NRC would proceed with the PEF COL review with so many issues unresolved. Again, this is not an attack on the written regulations, rather a call upon NRC staff to regulate.

Contention 2

No further comment.

Contention 3

The Staff of the Nuclear Regulatory Commission ("Staff") correctly acknowledges in its Answer that Progress Energy of Florida ("PEF" or "Applicant") must, pursuant to 10 C.F.R. §50.33(f)(1), submit proof that it possesses, or has reasonable assurance of obtaining funds necessary to cover estimated costs and related fuel cycle costs. [emphasis added]. An essential element of this showing is a statement of the PEF's general financial plan for financing the cost of the facility, identifying the source or sources upon which the applicant relies for the necessary construction funds, e.g., internal sources such as undistributed earnings and depreciation accruals, or external sources such as borrowings.

Under this requirement, PEF was required to demonstrate the total production costs

for Levy Units 1 and 2, and the total transmission, distribution, and general plant costs. Petitioners in Contention 3 fundamentally and categorically take issue with PEF in three respects:

1. At the time of the filing of this application, there were no reasonable and legitimate projections of either the total production plant costs or the transmission costs for Levy Units 1 and 2. Petitioners offer proof of the pervasive acceleration in projected costs for building the proposed AP1000 that have transpired since Levy Units 1 and 2 were announced. Petitioners offered clear proof that in certifying the need for Levy Units 1 and 2, the Florida Public Service Commission acknowledged that final or total costs for these components of the costs of Levy Units 1 and 2 are elusive. Petitioners dispute that the projected costs proposed by PEF to build Levy Units 1 and 2 are effective estimates, and thereby assert that PEF has grossly under estimated its capital funding needs, and dispute that PEF "possesses, or has reasonable assurance of obtaining funds necessary to cover *estimated costs and related fuel cycle costs*." [emphasis added]

2. Even if the estimates of production costs and transmission costs were reasonable, PEF is caught in an economic spiral that poses fundamental questions to its ability to acquire capital in an unreceptive financial marketplace, in order to build an enormously expensive asset such as proposed here. Petitioners absolutely dispute that PEF possesses or has internal funding to build

Levy Units 1 and 2 without any infusion of capital. Petitioners acknowledge that PEF will use incentives and seek equity capital and debt to build these units. Petitioners in Contention 3 presented a panoply of risks; financial, regulatory, market and internal risks that fundamentally challenge PEF's ability to acquire outside funding. Petitioners presented in Contention 3 the words of the expert financial oversight agencies that regularly review the financial credentials of the entire electric industry, and particularly PEF. Petitioners presented the expert analysis of these experts in electric industry financials, which clearly and affirmatively concludes that ANY company looking to build a new nuclear plant will face deep financial uncertainty. However, the expert industry analysis is even more vital to this application, because it finds that a company looking to build a nuclear plant on an undeveloped site faces the harshest financial challenges of all, in view of the additional regulatory and financial requirements it must meet. Because of this expert analysis, Petitioners in Contention 3 dispute that PEF "possesses, or has *reasonable assurance of obtaining funds* necessary to cover estimated costs and related fuel cycle costs." [emphasis added].

3. Even if the financial markets were receptive to capitalizing a risky proposal as represented in Levy Units 1 and 2, PEF is facing challenges in its ability to qualify for financing due to the erosion in its core revenue stream, customer billings. Petitioners offered fundamental proof that PEF is experiencing declining

revenues due to a declining consumption by ratepayers. PEF responds by apparently acknowledging this trend but asserts that this is a temporary phenomenon that will not affect its demand projections supporting Levy Units 1 and 2. Petitioners in Contention 3 fundamentally disputed this assertion. Petitioners offered expert analysis, from varied sources demonstrating that the economic downturn in Florida is the result of erosion in the core economic drivers in the state. An economic recovery in Florida, and specifically in PEF's service territory will take time, and absolutely is not temporary. This view is buttressed by each new economic report from the state, and by a recent decision of PEF to drop plans to build a new natural gas generating plant. Petitioners also offered a number of additional risks facing PEF that affect its ability to acquire funding. However, the risk that consumers will reject the vastly more costly nuclear power option in favor of less costly, and accessible demand-side options is the most distinct risk of all. PEF's approach to the present financial market is in real jeopardy because Levy Units 1 and 2 represent more costly options for adding capacity to serve load than reasonable alternatives. The Staff of the NRC patently ignores another fundamental risk for PEF; the financial impact of licensing regulatory risk now being played out in the elusive approval of the AP1000 design. Contention 3 is squarely focused on, and takes issue with the multitude of risks and real market impediments to PEF's ability to obtain funding for Levy Units 1 and 2.

As a fundamental requirement for admission, a contention must specify and address

matters within the scope of the proceeding that are material to the findings the NRC must make. 10 C.F.R. §§ 2.309(f)(1)(iii) and (iv).

Marble Hill, ALAB-316, 3 N.R.C. at 170-71; see also *Commonwealth Edison Co. (Zion Station, Units 1 and 2)*, ALAB-616, 12 N.R.C. 419, 426-27 (1980); *Commonwealth Edison Co. (Carroll County Site)*, ALAB-601, 12 N.R.C. 18, 24 (1980).

More specifically, the contention must report

"[s]ufficient information to show that a genuine dispute exists with the applicant/licensee on a material issue of law or fact,"

In Part 1 of the COL Application, at Appendix B, PEF includes its Annual Report to the Securities and Exchange Commission, Form 10K. In Item 1A of the 10K, PEF addresses risk factors affecting the company, and specifically regarding the construction of new generation plants, PEF states:

> " We cannot provide certainty that adequate external financing will be available to support the construction. Additionally, borrowings incurred to finance construction may adversely impact our leverage, which could increase our cost of capital. We may pursue joint ventures or similar arrangements with third parties in order to share some of the financing and operational risks associated with new baseload generation facilities, but we cannot be certain we will be able to successfully negotiate any such arrangement. Furthermore, joint ventures or joint ownership arrangements also present risks and uncertainties, including those associated with sharing control over the construction and operation of a facility and reliance on the other party's financial or operational strength."

While oftentimes in the context of financial reports these are perfunctory statements, in the case of Levy Units 1 and 2, they reflect true facts. Contention 3 places these facts squarely before the NRC, and make clear the context in which they fundamentally shape

the circumstances under which these units are to be built. If the NRC is to assess the application of PEF as called for under 10 C.F.R. §50.33(f)(1), it must assess the core issues raised by PEF itself in its application, and by petitioners in Contention 3.

1. Does PEF Have Correct Estimates of the Costs It Must Fund
2. Does PEF possess the funds
3. Does PEF have a reasonable assurance of obtaining funds

Unfortunately, the Answers by the NRC Staff and PEF reject the clear, practical and obvious foundation of this application. The electric industry approached Congress and blatantly acknowledged that it did not have the funds to build new nuclear power plants, nor could it attract willing investors to fund these huge capital investments. Consequently, through the Energy Policy Act of 2005 ("EPACT"), the industry was granted subsidies and incentives in order to build a limited number of new nuclear power plants.

Again in the 10K (COL, Part 1, Appendix B), PEF states:

> "EPACT provides for an annual tax credit of 1.8 cents/kWh for nuclear facilities for the first eight years of operation. However, the credit is limited to the first 6,000 MW of new nuclear generation in the United States that have met the permitting, construction and placed-in-service milestones specified by EPACT and has an annual cap of $125 million per 1,000 MW of national MW capacity limitation allocated to the unit. The credit allocation process among new nuclear plants has not been determined. Other utilities have announced plans to pursue new nuclear plants. There is no guarantee that any nuclear plant constructed by us would qualify for these additional incentives. In addition, other COL applicants would be pursuing regulatory approval, permitting and construction at roughly the same time as we would. Consequently, there may be shortages of qualified individuals to design, construct and operate these proposed new nuclear facilities. "

The Answers by the NRC Staff and PEF reflect pervasive failures to recognize the

evident external realities of a deep and long term economic downturn in the context of how this application came to be. Given the pervasive uncertainty in the costs to build new nuclear plants, along with a sweeping reversal of risk tolerances towards the energy sector, away from risky and costly base- load nuclear or coal-fired power plants toward cost-effective investment in energy efficiency and renewable alternative sources of power production, it makes no logical sense that a discussion of debt financing by PEF of two new nuclear power units at an undeveloped site, would not entail a discussion of the risk profile faced by PEF. PEF correctly notes in its 10K, and Contention 3 makes clear that, to the extent the risk factors for PEF continue to increase, the terms of the debt become more and more onerous, and the risk is shifted to taxpayers and ratepayers, and away from PEF shareholders. It is absolutely in the public interest to review these risks. The requirements of 10 C.F.R. §50.33(f)(1) are deeply wedded to the issues raised in Contention 3, and inherent to the decision of NRC in this proceeding.

In this context, NRC Staff answers Contention 3 by stating:

> "The NRC financial qualifications review for an electric utility such as Progress Energy is limited to whether or not the applicant can demonstrate that it 'possesses or has reasonable assurance of obtaining the funds necessary to cover estimated construction costs and related fuel cycle costs.' 10 C.F.R. § 50.33(f)(1). .....Whether or not Progress Energy is making a wise financial choice in applying for a COL at the Levy site is outside the purview of the NRC, and thus is outside the scope of the proceeding."
> *Docket Nos. 52-029 and 52-030, Answer of NRC Staff to Petition to Intervene and Request for Hearing by Green Party, et. al, at pg. 29.*

Contention 3 makes clear that Petitioners fundamentally take issue with this proposition. Contention 3 references a report by the Congressional Budget Office, which

also addresses and takes issue with this contention. Since so much of the funding of these units is buttressed by federal and state subsidies, and because the ultimate costs of construction remain volatile, and, because construction delays remain important factors in those costs, it is fundamentally a matter of public policy, and an issue within the NRC's analysis under 10 C.F.R. § 50.33(f)(1).

To do otherwise is to ignore the NRC's duty to honestly and openly identify and assess these respective cost and benefit realities as required by NRC regulations and the National Environmental Policy Act.

Contentions 4.A – 4.O

Petitioners offer the following in rebuttal to PEF and NRC Staff Response to NRC and PEF's rebuttal to contentions 4A-4O.

The apparent efforts of both the NRC staff and PEF to discredit the Petitioners' ability to properly and fully understand the contents of the ER and to properly cite location of information within the ER are disingenuous and erroneous. The responses by both staffs do not include any additional data or discovery to refute Petitioners Contentions. The Petitioners fully understand the contents, do not misconstrue any statements, and raise genuine issues of contention based on expert opinion. Much of the responses from NRC and PEF are based upon semantics to mask the fact that the contentions hold merit. The issue at hand remains that watersheds in Florida are characterized by

sensitive ecosystems. Many or these ecosystems are or would be severely stressed by actions such as those of the proposed construction and operation of the Levy nuclear power plant. The issue is of major concern. Given that both NRC staff and PEF staff provide similar responses, rebuttals will address both parties to eliminate redundancy and follow format of NRC staff responses.

Response to PE comments on Proposed Contention 4A

PEF declares Contention 4A is “inadmissible for failure to show a genuine dispute because it does not directly controvert positions taken in the Application and does not explain why the Application is supposedly incomplete.”

The Levy ER fails to be specific regarding environmental impacts, preferring instead to state generalities without foundation, supporting documentation, or expert testimony. Dr. Bacchus has shown, through her own documentation that she is indeed an expert in hydroecology. Lacking specifics in the ER, her considered opinion is more valid than that of Progress Energy, and therefore deserves consideration by competent authority. CFR 51.45 (c) specifically states “The environmental report must also contain an analysis of the cumulative impacts of the activities to be authorized by the limited work authorization, construction permit, or combined license in light of the preconstruction impacts described in the environmental report.” Hence the Levy ER is incomplete and the Contention is valid.

PEF states that the CEQ guidance is not relevant, and then falls back on an argument that Progress isn't legally bound to follow the guidelines. If Progress Energy intends to disregard guidelines intended to improve the environmental quality of major projects, this should be stated up front, before any decisions are made to proceed. Governmental organizations and public citizens deserve to know that Progress Energy intends to follow only environmental standards for which it can be held criminally or financially liable.

NRC Staff declares, "Joint Petitioners have failed to provide any facts or expert opinion to dispute any specific impact in the table." On the contrary, Dr. Bacchus is an expert and has stated her opinion that the impacts described as "SMALL" in the Impact Table will be "LARGE." Therefore, NRC is incorrect. Dr. Bacchus' opinion is based on approximately 30 years of experience and two advanced degrees (See Bacchus Exhibit A).

NRC continues on page 32, "Joint Petitioners have failed to provide any facts or expert opinion to dispute any specific impact in the table. Simply stating a familiarity with the region does not provide any facts to demonstrate that there is a foundation for the contention sufficient to warrant further exploration in an adjudicatory hearing". Tables 4.1-4 and 4.1-5, howepver, as just one example, simply list the acreage expected to be impacted. Petitioners freely admit at LEAST this amount of area will be affected. What the tables fail to do is consistently, and with detail, describe the environmental impact,

and the expected remediation or mitigation.

Section 4.2 of the ER states:

> Proper mitigation and management methods implemented during construction will limit the potential water quantity and quality effects on surface water bodies (that is, Lake Rousseau, Withlacoochee River, Inglis Lock Bypass Channel, CREC discharge canal, and the CFBC) and groundwater.

What are these “proper mitigation and management methods?” And what, exactly is the expected quantity and quality effects that will be “limited”?

NRC Staff even admits, on Page 30, that “When the NEPA document does not contain sufficient information, the determination of potential, total project impacts may be based on other documents, information, or on-site surveys. In these situations, the reviewer should identify the source of information that is the basis for EPA comments including those related to cumulative impact analysis.”

It is our contention that the nature of the ecological area requires such individual consideration, and that the familiarity that Dr. Bacchus has with the local environment is sufficient to require in depth analysis of environmental impacts in Levy County and the surrounding area.

Additionally, NRC Staff states on Page 30 “Joint Petitioners have failed to provide any facts or expert opinion to dispute any specific impact in the table. Simply stating a

familiarity with the region does not provide any facts to demonstrate that there is a foundation for the contention sufficient to warrant further exploration in an adjudicatory hearing".

There is no indication in the ER that any site survey has been completed, and the ER actually appears to be an academic exercise rather than a well researched analysis of the area. Therefore, familiarity does allow Dr. Bacchus to make her own determination of the potential impacts of the Levy project as an expert (See Bacchus Exhibit A).

CFR 51.45 (c) makes it the responsibility of PEF and its representatives to adequately identify and explain the cumulative environmental impacts of this project. PEF does not have to guess about what constitutes an analysis of cumulative impacts. The U.S. Council on Environmental Quality provided a detailed report in 1997 describing precisely what cumulative impacts are and how to conduct such an analysis. Bacchus Exhibit B provides a synopsis of that report.

As stated above, merely listing the subject matter in the ER does NOT satisfy the requirement to analyze completely the impacts of construction and operation of the facility. Furthermore, the lack of detail in the documents supplied by Progress Energy in no way requires those opposing the project to provide this detail. For example, in the ER COL Application PART 3, Environmental Report Appendix 2.4-1 Important Wildlife Species Potentially Occurring within the Transmission Corridors, the document lists

many species impacted by the project, including some listed on the Endangered Species list, yet fails to address the “take” or anticipated loss of these creatures during construction or operation of the facility. Simply stating that there will be some limited impact on these species is insufficient to determine what the true environmental cost of the Levy County plants will be. As stated above, the ER repeatedly fails to address specifics. Where will silt flow during construction, or operation? If so, where is the “Silt Flow Study” citation? How will residual minerals from coolant seawater be handled?

The lack of detail in the ER suggests there will be no significant environmental damage. Dr. Bacchus, a well respected, experienced, expert in hydroecology with personal knowledge of the area, has concluded in her affidavit that the proposed facility will result in significant environmental damage if the project proceeds as planned. We have, therefore, submitted a valid contention that deserves admission.

Table 4.6-1 provides yet another example of the weakness in the ER. A laundry list of environmental problems is magically solved through a series of platitudes such as “minimize” and “conduct additional surveys.” Indeed, the Table cited as an example of the veracity of the ER fails to in any way describe the environmental issues that must be addressed.

2. Response to comments on Proposed Contention 4B

PEF on Page 65 states Levy will not use aggregate, “There is no basis in the Application for the claim that aggregate material (fill) will be used to raise the ground

elevation at the Levy site." Then it states, "In fact, the ground elevation at the Levy site will be primarily increased through the use of Roller Compacted Concrete ("RCC")". While it is correct that the Application omits the term "aggregate," a simple search for RCC on the internet reveals that the Portland Cement Association, the Industry organ, http://www.cement.org/pavements/pv_rcc.asp finds that "RCC has the same basic ingredient as conventional concrete: cement, water, and aggregates, such as gravel or crushed stone." It appears that Progress Energy is unsure of what it will be using to raise the ground elevation, and this is disturbing.

Since it has been shown that Levy intends to use significant amounts of RCC, which contains aggregate, it appears that Progress Energy is at best confused, and at worst, disingenuous in its assertions that the Petitioners are not fulfilling the requirements to submit a valid Contention. That "Contention 4B fails to show a genuine dispute with the Application," is incorrect. The point of Contention is based on the use of aggregate, in large amounts, either alone or in RCC. Progress Energy has failed to address where such aggregate will be obtained, or how the use of aggregate, either alone or in RCC will affect the local area. In fact, it appears that the ER is the document that "ignores or misstates the content of the application and supporting documents."

On Page 69-70, PEF states:

> It is not clear to what the phrase "special aquatic sites" refers, as that term is not defined in the Petition nor any of its accompanying Exhibits. The allegation that Levy will be constructed on waters fails to provide a statement of fact to be raised

or controverted, because a plan to construct Levy on waters would be outside the site-specific design characteristics enveloped in the AP1000 DCD and is not proposed in the Application. The allegation that Levy will be built on such sites thus does not provide with specificity a statement of fact to be raised.

Is PEF unconcerned with the location of ANY AP1000, and is their position that the siting process is irrelevant?

The term “special aquatic sites” is a common environmental term, thus defined:

Those sites identified in 40 CFR 230, Subpart E (i.e., sanctuaries and refuges, wetlands, mud flats, vegetated shallows, coral reefs, and riffle and pool complexes). They are geographic areas, large or small, possessing special ecological characteristics of productivity, habitat, wildlife protection, or other important and easily disrupted ecological values. These areas are generally recognized as significantly influencing or positively contributing to the general overall environmental health or vitality of the entire ecosystem of a region. Source: Environmental Protection Agency, 40 CFR § 230.3(q-1).

Apparently Progress Energy considers all sites and waters to be interchangeable.

Petitioners contend that the Levy site is indeed special, in that it has developed unique qualities of water flow, flora and fauna similar to, but unlike any other.

On Page 71, PEF goes on to say “The ER, in fact, extensively discusses the potential environmental impacts from the construction of Levy, including in Chapter 4. Contention 4B fails to dispute, or even to address, any of the analyses provided in the ER”. Chapter 4 consistently fails to provide the detail required to analyze adequately the environmental impacts of the Levy project. Simply providing lists of what will be affected, and not detailing what those effects will be does not meet the definition of analysis. CFR 51.45 (c) states:

The environmental report must include an analysis that considers and balances the

environmental effects of the proposed action, the environmental impacts of alternatives to the proposed action, and alternatives available for reducing or avoiding adverse environmental effects.

The ER fails to meet this definition, and merely lists potential impacts with no detail, and offers little remedy. It is the responsibility of Progress Energy to provide this data PRIOR to seeking approval for its project.

3. Response to PE comments on Proposed Contention 4C

The ER fails to be specific regarding environmental impact, preferring instead to state generalities without foundation, expert testimony, or observable data. Examples of the detail of environmental impacts considered under NEPA are provided in Bacchus Exhibit B. Dr. Bacchus has shown, through supporting documentation, that she is an expert in hydroecology (See Bacchus Exhibit A). Lacking specifics, the ER has less validity than her considered opinion and fails to meet NEPA requirements. The responses of PEF and NRC staff to our proffered contention do not include any additional data or discovery to refute Petitioners contentions. The Petitioners fully understand the contents, do not misconstrue any statements, and raise genuine issues of contention based on expert opinion. The contention has merit and should be admitted.

On Page 72, PEF states:

"The allegation that the "most logical sources for this mined raw material are the existing and proposed mines in Levy and Citrus Counties" is the type of bald assertion that is inadequate to support any contention, much less one with the deficiencies of Contention 4C. Petition at 39. See Private Fuel Storage, LBP-98-7, 47 N.R.C. at 180. In fact, technical and economic considerations, rather than abstract logic divorced from such factors, will determine the source of raw material for Levy.

PEF has failed to show that due to technical and economic considerations, a local source of materials will NOT be used. Indeed, common sense would indicate that such a source would be the first choice for a large project. Nor has PEF provided data on how such mining operations would affect the local area. We ask the board to review IN TOTAL the environmental impact of this project. It is imprudent to disregard the potential hazards of Levy because PEF has yet to make economic decisions. Once begun, it will be virtually impossible to stop, and Petitioners seek to minimize environmental impacts regardless of whether the project is rejected OR built. NRC Staff (Page 30) states "NEPA requires that information in the environmental impact statement be sufficiently accurate to inform both the acting agency and the public," so it is unclear why additional analysis is needed regarding the source of the mined raw materials. Considering the huge quantities of material required for the Levy project, it is reasonable to assume that the source of this material, especially if obtained locally, as would be logical, is essential to determining the true environmental impacts of construction and operation.

On Page 86, PEF states: In context, the Application states that water quality is one of five factors "that will be considered during the design of the excavation and dewatering

activities." ER § 4.2.1.4 at 4-34. The Application describes the best management practices that will be implemented to control water quality impacts. ER § 4.2.1.1 at 4-29 to 4-30.

"Consideration" of water quality and "best management practices" are not explanations of potential environmental problems, and rather describe mediation techniques. PEF has not provided an analysis of WHAT these techniques will correct, nor indeed whether best management practices can even solve the problems to be encountered during construction and operation of Levy.

4. Response to PE comments on Proposed Contention 4D

NRC Staff Response: Page 32- Proposed Contention 4.D is inadmissible because it fails to demonstrate a genuine dispute with the applicant and it fails to provide facts or expert opinion pursuant to 10 C.F.R. § 2.309(f)(1)(v) & (vi) and Petitioners fail to provide sufficient information to show that a genuine dispute exists with the application pursuant to 10 C.F.R. § 2.309(f)(1)(vi).

Petitioners contend that, in accordance with 10 C.F.R. §2.309(f)(1) we have raised a genuine dispute backed up by the expert opinion and citations of Dr. Bacchus. NRC staff does not supply additional data on the effects of the water vapor plume, nor the effects of salt drift, which is admittedly "unavoidable". Minimizing drift is not eliminating drift, and the cumulative effects should be addressed.

PEF does not provide any credible basis upon which to deny inclusion of this Contention.

5. Response to PE comments on Proposed Contention 4E

PEF and NRC Staff fail to provide new data concerning this issue. Since no site specific analysis has been concluded by PEF, the related work of Dr. Bacchus should be considered relevant, and this Contention should be admitted. PEF states (page 91), “In fact, the case study does not include any analysis concerning the environmental effects of constructing a nuclear plant on Floridan wetland or the aquifer system.” True. We are asking PEF, as the initiator of this project, to provide such a case study. It is the responsibility of PEF to show that the waters beneath the proposed site are self-contained, and that no sinkholes or interconnections exist CFR 51.45 (c).

NRC Staff, on Page 34 states: “Proposed Contention 4.E is inadmissible as it does not cite to sources or expert opinions which support the Joint Petitioners’ position.”

NRC staff fails to provide additional data disputing the expert opinions provided by Dr. Bacchus. Mitigation is mentioned, but no details are provided. This contention should be admitted.

6. Response to PE comments on Proposed Contention 4F

Page 97, PEF states:

> The Application does, in fact, discuss impacts on OFW. The Application describes the Withlacoochee and Waccasassa Rivers. ER §§ 2.3.1.1.1 and 2.3.1.1.2 at 2-82 to 2-85. The Application also provides analysis to show that the impacts to these waters is SMALL. ER§ 4.2.1.1 at 4-28 to 4-31. Because the Application addresses impacts on OFW, the Petitioners' allegation of omission fails to show that a genuine dispute exists with the Application on material issue of law or fact. 10 C.F.R. § 2.309(f)(1)(vi).

In fact, the ER merely lists surrounding waters, and fails to address environmental impacts, or remedies to such impacts. Listing and declaring impacts SMALL does not constitute due diligence. Indeed, considering the stress that all of Florida's waters are under, for multiple reasons, it is necessary to determine the cumulative impacts that this major project will have on the area. In fact, Dr. Bacchus stated her expert opinion in her affidavit that the impacts would be "LARGE." This Contention should stand.

ER Section 4.2 states:

> Construction erosion and stormwater control measures will also be implemented in areas used for material staging, parking, and/or other construction-related facilities. Site work associated with construction of these areas will temporarily or, in some cases, permanently alter the existing terrain and drainage. Therefore, comprehensive construction erosion control measures will be used to minimize the potential effects of the surface water runoff. Impacts on the disturbed areas used for material staging, parking, or other construction-related facilities, in terms of soil erosion, effluent, and waste management are expected to be SMALL."

This statement neither defines nor explains how surface water runoff will affect the area, or will be mitigated. Dr. Bacchus has provided her expert opinion based on approximately 30 years of experience and two advanced degrees, that the impacts will be "LARGE" (See Bacchus Exhibit A). This is a valid Contention.

NRC Staff, Page 37, contends, “In the instant case, Petitioners do not point to any facts or expert opinion to support their assertion that the LNP project would result in “LARGE” and irreversible impacts, rather than the “SMALL” impacts reported in the LNP ER.”

RESPONSE: NRC Staff fails to provide further data that would nullify this contention. Without further data supplied by PEF, Dr. Bacchus’ expert opinion in her Affidavit stated that OFWs would experience “LARGE” impacts. That expert opinion is at least as valid and should be admitted.

7. Response to PE comments on Proposed Contention 4G

The ER fails to be specific regarding nutrient concentrations, preferring instead to state generalities without foundation, expert testimony, or observable data. Dr. Bacchus has shown, through supporting documentation, that she is an expert in hydroecology. Lacking specifics, the ER has less validity than her considered opinion. The responses of PEF and NRC staff to our proffered contention do not include any additional data or discovery to refute Petitioners contentions. The Petitioners fully understand the contents, do not misconstrue any statements, and raise genuine issues of contention based on expert opinion. The contention has merit and should be admitted.

8. Response to PE comments on Proposed Contention 4H

The ER fails to address wildfires. Dr. Bacchus has shown, through supporting

documentation, that she is knowledgeable in hydroecology, particularly regarding impacts that result in destructive wildfires (See Bacchus Exhibit A). Lacking data, the ER has less validity than her considered opinion. The responses of PEF and NRC staff to our proffered contention do not include any additional data or discovery to refute Petitioners contentions. The Petitioners fully understand the contents, do not misconstrue any statements, and raise genuine issues of contention based on expert opinion. The contention has merit and should be admitted.

9. Response to PE comments on Proposed Contention 4I

The responses of PEF and NRC staff to our proffered contention do not include any additional data or discovery to refute Petitioners contentions. The Petitioners fully understand the contents, do not misconstrue any statements, and raise genuine issues of contention based on expert opinion. The contention has merit and should be admitted. This contention is within the scope of the Board, since saltwater drift and air quality standards will directly affect the surrounding environment. The pollutants in question will be directly produced by the Levy project.

NRC Staff states, Page 41: Since proposed contention 4I is premised on the evaporative loss of 43.8 MGD releasing saltwater, and Joint Petitioners have failed to support that premise, the entire contention is inadmissible for failure to provide sufficient information to show that a genuine dispute exists with the application pursuant to 10 C.F.R. § 2.309(f)(1)(vi).

This is a misunderstanding by Staff. PEF admits there WILL be considerable, if not huge saltwater drift, and this contention is based on that fact alone. The Levy site is inland, whereas most nuclear facilities using salt water for cooling are closer to the coast, where saltwater drift is perhaps not such a factor to organisms evolved to deal with salt. Barring new data, and considering the proposed site and environs of Levy, saltwater drift is a major issue. The contention should be admitted.

10. Response to PE comments on Proposed Contention 4J

The responses of PEF and NRC staff to our proffered contention do not include any additional data or discovery to refute Petitioners contentions. The ER admits to the loss of trees, and fails to address adverse cumulative impacts, as required by NEPA. For example, see Bacchus Exhibit B. ER 4-56 also states “Cleared material will either be processed for beneficial reuse or burned on-site.” It then ignores the potential environmental impacts of that action, again failing to meet NEPA requirements.

Dr. Bacchus’ affidavit and exhibits provide examples of impacts related to the loss of trees and the burning of trees (see also Bacchus Exhibit G). The Petitioners fully understand the contents, do not misconstrue any statements, and raise genuine issues of contention based on expert opinion. The contention has merit and should be admitted.

This contention is within the scope of the Board, since saltwater drift and air quality standards will directly affect the surrounding environment and residents. The pollutants

in question will be directly produced by the Levy project. The issue of global climate change is also relevant (See Bacchus Exhibit H). The Van Leer testimony of sea level rise within the next 50 years is absolutely critical to the Levy project, which is seeking a license for “no less than 40 years” (1.15). The ER, Page 5-1 goes on to say “The ER conservatively assumes that Florida Power Corporation doing business as Progress Energy Florida, Inc. (PEF) will apply for license renewal for LNP 1 and LNP 2, which would extend their 40-year operation by an additional 20 years or until 2076 and 2077, respectively. A genuine dispute exists in regard to a material issue of fact, we have provided opinion by an expert, hydroecologist Dr. Bacchus, and the contention should stand (10 CFR§2.309 (f)).

11. Response to PE comments on Proposed Contention 4K

The responses of PEF and NRC staff to our proffered contention do not include any additional data or discovery to refute Petitioners’ contentions. The Petitioners fully understand the contents, do not misconstrue any statements, and raise genuine issues of contention based on expert opinion. The contention has merit and should be admitted.

12. Response to PE comments on Proposed Contention 4L

PEF, on page 128 states:

> Contrary to Petitioners’ implication, the Application does address these areas, including impacts to those areas where applicable. These areas are described in ER § 2.2, Tables 2.2-3 and 2.2-22, and associated figures. As discussed further in Progress’s answer to Contention 4N1 below, the Application provides an exhaustive description of the affected environment.

What the ER actually does is LIST areas surrounding the Levy site. It certainly may provide an “exhaustive description” but it plainly fails to address environmental impacts AFTER construction, during operation or cumulative impacts (See Bacchus Exhibit 2). The water vapor plume, changes to the flow of surrounding wetlands, et al. are examples of the failure of the ER to address what the results of the Levy project will be. ER 5.2.2 says:

Withdrawal of groundwater from the Floridan aquifer could affect the potentiometric head in the aquifer over an area around the wellfield. Such a withdrawal could affect spring discharges, other well users, and cause upconing of brackish water into previously fresher portions of the Floridan aquifer. It could result in localized effects on water levels in surface water bodies and wetlands, possibly producing SMALL ecological impacts”.

Without knowing what the effect on the potentiometric head in the aquifer would be, how can it be determined that the effect is SMALL? In fact, Dr. Bacchus’ expertise includes precisely the environmental impacts that result from these types of groundwater alterations (See Bacchus Exhibit A). She has provided her expert opinion in her affidavit that these impacts will be “LARGE.” Additionally, the ER fails to address the cumulative effect to coastal areas when combining the Levy and CREC cooling water discharge into the Gulf of Mexico.

The responses of PEF and NRC staff to our proffered contention do not include any additional data or discovery to refute Petitioners' contentions. The Petitioners fully understand the contents, do not misconstrue any statements, and raise genuine issues of contention based on expert opinion. The contention has merit and should be admitted.

13. Response to PE comments on Proposed Contention 4M

PEF, on Page 132 states:

> The fact that Progress will need to identify the impacted area in order to obtain an Incidental Take Permit is irrelevant, however, to whether it is required in the Application. In its ER, an applicant is only required to "list all Federal permits, licenses, approvals and other entitlements which must be obtained in connection with the proposed action and shall describe the status of compliance with these requirements." 10 C.F.R. § 51.45(d). The ER is not required to include each and every piece of information that will be necessary to obtain the listed permits. For these reasons, the Contention's claim that the ER does not identify a zone of impact on federally listed species does not raise a genuine dispute with the Application.

After making the effort to list the species affected by the Levy project, the ER utterly fails to even estimate the impact of construction and operation on the creatures so listed, including several protected species. Dr. Bacchus has provided her expert opinion that the zone of impact – including cumulative impacts – will be far greater than the area described in the ER. The ER's failure to identify the entire zone of impacts means that it is impossible to determine all of the federally endangered and threatened species and how many individuals of each species will require an Incidental Take Permit.

Even assuming there is no requirement to obtain an Incidental Take Permit prior to the

application, it is common practice and completely relevant to determine the existing numbers, nesting sites, feeding areas, etc, so that an informed environmental cost will be available for decision makers. On Page 133, PEF states “Furthermore, the ER expressly states that “[c]onsultation with federal and state agencies including the USFWS [U.S. Fish and Wildlife Service]…concerning the potential presence of protected species is currently being conducted as part of federal and state permitting processes.” ER at 4-42. Without an accurate determination of the zone of impact, that consultation is meaningless.

Petitioners are required to review the Application in its entirety and cannot raise a dispute with the Application by misstating or ignoring any information contained therein.” We are thus admonished for having the temerity to raise a dispute over data for which PEF is “in consultation” and in fact, does not have.

The responses of PEF and NRC staff to our proffered contention do not include any additional data or discovery to refute Petitioners’ contentions. The Petitioners fully understand the contents, do not misconstrue any statements, and raise genuine issues of contention based on expert opinion. The contention has merit and should be admitted.

14. Response to PE comments on Proposed Contention 4N

PEF often cites mitigation, but fails to identify any details, locations or specific actions. Since the ER consistently avoids using specifics when identifying environmental impact,

it is impossible to conclude that the mitigation schemes proposed would be sufficient to compensate for the impacts from the proposed facility.

The responses of PEF and NRC staff to our proffered contention do not include any additional data or discovery to refute Petitioners' contentions. The Petitioners fully understand the contents, do not misconstrue any statements, and raise genuine issues of contention based on expert opinion. The contention has merit and should be admitted.

15 Response to PE comments on Proposed Contention 4O

PEF goes to great lengths to show that a concentrated solar power production facility would be inappropriate for Levy County. We concur. However, the ER fails to address individual based solar production, perhaps enhanced by Feed In Tariffs. Rooftops across Florida are perfect for the production of solar power. Additionally, the ER cost analysis fails to consider the advantages of solar power in cutting infrastructure costs such as transmission lines, and the advantages of solar power in producing electricity after major weather events. For example, see Bacchus Exhibits I-1 and I-2. See also Bacchus Exhibit J. Their analysis is designed to lead us to one conclusion only; that nuclear power is the only choice. We disagree, and ask for PEF to give a fair, detailed comparison between various power generating possibilities.

NRC Staff, Page 47 state "As discussed below, this contention is inadmissible because it is not material to a decision NRC must make, it is not adequately supported by fact or

expert opinion, and it fails to raise a genuine dispute with the applicant on a material issue of fact or law". It IS material to the decision the NRC must make, in that PEF in its Application, must show a need for constructing and operating the proposed Levy nuclear facility. Failing that, the point becomes moot.

The responses of PEF and NRC staff to our proffered contention do not include any additional data or discovery to refute Petitioners' contentions. The Petitioners fully understand the contents, do not misconstrue any statements, and raise genuine issues of contention based on expert opinion. The contention has merit and should be admitted.

Contention 5

Contention 6

Co-Petitioners make no further comment on Contention 6. Contention 12 (new) is a clarification and elaboration of the issues raised by contention 6, which co-petitioners have embraced.

Contentions 7 and 8

Contentions 7 and 8 are contentions of omission challenging the lack of planning for very long term storage and management of potentially all of the Class B, C and Greater than C "low-level" radioactive waste generated by Levy County Nuclear Plant

Units 1 and 2. In CLI-09-03, the Commission confirmed that contentions such as Contention 7 and 8, which challenge the environmental impacts of onsite storage of low level radioactive waste, are appropriate for consideration in licensing hearings. *Tennessee Valley Authority* (Bellefonte Nuclear Power Plants, Units 3 and 4), CLI-09-03, slip op. at 11 (February 6, 2009). While the NRC Staff and PEF make several arguments to the effect that the contentions are not admissible, these arguments lack merit.

First, PEF and the Staff argue that Contention 7 is inadmissible because it challenges Table S-3. PEF Response at 179, NRC Staff Response at 62. But Table S-3 is only relevant to a limited extent, *i.e,* to the extent that the Levy site becomes a *de facto* permanent low level radioactive disposal site. Table S-3 does not govern the storage issues raised by Contention 7. In any event, to the extent that the contention does challenge Table S-3, it should be admitted and held in abeyance pending the outcome of the Waste Confidence Rulemaking, in which Petitioners have challenged the adequacy of Table S-3 to support NRC licensing decisions.

The NRC Staff and PEF also claim that the Petitioners have not substantiated their contention that there could be no offsite disposal available for Class B, C and Greater-Than-C "low-level" radioactive waste. NRC Staff Response at 62, PEF Response at 178. But Petitoners' concern is well documented by numerous entities including the Government Accounting Office[1] and the NRC[2] itself. It is also common

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1 **GAO**: "If disposal conditions do not change, however, most states will not have a place to dispose of their class B and C wastes after 2008." GAO-04-604 June 2004 **LOW-LEVEL RADIOACTIVE WASTE Disposal Availability Adequate in the Short Term, but Oversight Needed to Identify Any Future Shortfalls**.

knowledge. It is now 2009, nearly 30 years since the passage of the 1980 Low Level Radioactive Waste Policy Act (Public Law 96-573) encouraging development of new “low-level” radioactive waste disposal facilities in the US. Not one new full service “low-level” radioactive waste disposal facility has opened in the US. Technical, economic and public policy concerns and problems have prevented both new waste disposal sites and other “creative” disposal “solutions” such as deregulating or redefining the waste as not radioactive so it can be sent to unlicensed facilities.

Neither the NRC nor the nuclear utilities can assume that new full service (including Class B and C) disposal or generic deregulation of radioactive waste will be available during the operating years of the Levy County Nuclear Units 1 and 2. Although the US Department of Energy has a process underway regarding Greater-than-C radioactive waste, it cannot be relied upon, as utilities have learned regarding high level radioactive waste.

NRC Staff argue that Petitioners did not read the application documents. NRC Staff Response at 61. In fact petitioners did cite specific sections including the applicant’s Environment Report Section 3.1.1.5 (page 87 of the Petition), 3.5.3 (page 88) as well as section 5.9 (page 93) discussing the omission of a long-term plan to isolate the so-called “low-level” radioactive waste. A review of all of the sections of the

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2 **NRC:** NRC REGULATORY ISSUE SUMMARY 2008-12 **CONSIDERATIONS FOR EXTENDED INTERIM STORAGE OF LOW-LEVEL RADIOACTIVE WASTE BY FUEL CYCLE AND MATERIALS LICENSEES**, May 9, 2008, page 2 : “After June 30, 2008, it is likely those LLRW generators and licensees in 36 States, the District of Columbia, the Commonwealth of Puerto Rico, and the U.S. Territories will lose access to the full-service LLRW (Classes A, B, and C LLRW as defined in section 61.55 of 10 CFR Part 61, “Licensing Requirements for Land Disposal of Radioactive Waste”) disposal facility in Barnwell, South Carolina. Consequently, many LLRW generators will likely need to store a portion of their LLRW for ***an indefinite period***.” (emphasis added)

COLA, ER (Sections 3.5 and 3.6) and FSAR (Chapter 11) for Levy County Units 1 and 2, as well as the DCD Design Control Documents for the AP 1000 (especially Section 11) reveal the clear assumption that offsite disposal will be regularly available, or that offsite processing will be available with eventual offsite disposal. Access to processing is not guaranteed. In fact the DCD[3] states at Revision 17 at 11.4.2.1 (p. 11.4-4): "The AP 1000 has no provisions for permanent storage of radwaste. Radwaste is stored ready for shipment."

The assumption is made that all dose limits in 10 CFR 20 and 50 will be met for public releases and worker exposures, but there is no indication that those dose calculations were done including the full inventory of Class B, C and Greater-than-C radioactive waste that we contend could be present onsite. The applicant's underlying assumption appears to be that all but about a year's worth or one refueling cycle's worth of waste will have been removed from the site. It is not clear that the calculations account for accumulated Class B, C and GTCC for all the years the reactors operate. This is an omission.

In opposing the admission of Contention 8, PEF relies on the NRC's Standard Review Plan for the proposition that "a facility need not be initially designed to store waste for its entire operating life." PEF Response at 176. Petitioners do not believe the Standard Review Plan contains such a broad exemption. In any event, NRC guidance documents do not constitute law, but are merely the Staff's opinion on how regulations

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3 Westinghouse AP1000 Design Control Document Rev. 17 - Tier 2 Chapter 11 – Radioactive Waste Management – Section 11.4 Solid Waste Management ML083230204 2008-09-22

may be satisfied. *Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), LBP-96-7, 43 NRC 142, 147 (1996). Therefore guidance documents may not be used as a basis for denying the admission of contentions.

Contentions 9, 10 and 11

NRC Staff and the applicant attack consideration of any project that is not directly equivalent to the production of 2000 megawatts of base load electric power. Co-petitioners find that if 2000 megawatts of electric consumption were averted, that this is directly equivalent. Equally, if a combination of averted consumption and distributed generation that also averts waste in distribution of energy can supply the energy needs of the Progress Energy service area, that is also directly equivalent.

The terms “reasonable alternative” imply that the proposal is reasonable. When the impact on water, both in terms of supply and consumptive use, as well as impact on the hydroecology (contentions 4 A—4 O) as well as the long-term liability of waste (contentions 7, 8 and 12) as well as the health, safety and security impacts for which our combined members have legitimate concerns, the proposed Levy units 1 and 2 are not reasonable. When the urgency of the Climate Crisis is factored in, the expenditures of capital that are not assured (contention 3) and the urgency for low carbon energy as fast as possible are factored in, the current proposal is not reasonable. When the thermal out-put of the project is considered as an additional heat sink into the already warming Gulf, the proposed Levy units 1 and 2 are not reasonable.

NRC Staff (at 66) cite:

> "'[A]n agency cannot redefine the goals of the proposal that arouses the call for action; it must evaluate the alternative ways of achieving its goals, shaped by the application at issue and by the function that the agency plays in the decisional process.'" [Exelon]

The purpose is to ensure that the electric power needs of the applicant's customers are served. To define as the goal of this project as the production of a specific amount of electricity is a perversion of this original purpose – and is a thin cloak over the underlying motive of a guaranteed rate-of-return on capital investment. The more that is spent, the higher the return – regardless of where the "capital" comes from – even the customer base itself. This major federal action is two fold -- insofar as it concerns meeting the needs of the customers, it also entails the spending of those customer's investment dollars.

Again, NRC Staff (at 66)

> The Commission agreed with the Licensing Board that the NRC did not have the "mission (or power) to implement a general societal interest in "'energy efficiency.'" *Clinton*
> *ESP*, CLI-05-29, 62 NRC at 806.

The Commission and NRC staff are mistaken in the belief that the petitioners are suggesting that energy efficiency simply "arise" as a social phenomena. The call is for PEF to deliver and install efficiency in the homes of its ratebase. Efficiency largely emerges from material investment in stopping the loss of heat or cooling, in reducing the consumption of power by lights and appliances. A small portion, more correctly labeled "conservation" asrises from changes in individual behavior, such as turning off

lights. PEF could invest in the delivery and installation of energy saving retrofits for its customers – just as it proposes to spend money on two new nuclear reactors. It is true that the NRC would not have jurisdiction over such a plan, but it is incumbent upon NRC to not simply dismiss this burgeoning (and profitable) field of development as if it were irrelevant to the consideration of whether the (true) costs of Levy 1 and 2 can be overcome and the alleged benefits outweigh the faster, cheaper, cleaner, lower-risk elements of an aggressive and comprehensive program by PEF to reduce consumption of power and therefore need to build the proposed reactors.

Contention 9

We dispute PE's supposition that contention 9 is inadmissible.

(1)Contention 9 does in fact raise a material dispute in that it points out a glaring omission in PE's review of viable energy generation alternatives to the Levy project. PE failed to consider an entire category of alternative energy options by limiting it's review strictly to a centralized approach to providing energy. While admittedly a low grade energy resource, solar thermal technology is, non-the-less, a form of power generation and the large scale application of small scale residential and light commercial solar thermal technology does have the potential to eliminate a significant portion of Florida's base load requirements. Offering consumers an insignificant financial incentive to disproportionately bear the burden of capitalizing new energy infrastructure is not the same as seriously considering the capitalization of that infrastructure and offering it to consumers as an alternative, therefore this contention is relevant to chapter 9 of the application, not chapter

8.

(2)It was not the petitioner's intent to limit the consideration of alternative energy options to just solar water heating but to a broad range of "Bottom Up" alternative energy production options. Our contention was that PE was only considering "Top down" strategies for supplying energy and failed to properly review alternative energy technology options that might actually provide a viable solution to meeting base load requirements, solar water heating only being the most obvious. In summary, PE only chose to give consideration to alternative energy technologies that we all agree will not meet the need to provide the necessary base load service requirements and therefore constitutes a valid omission objection.

Contention 10

Contention 10 – reduction of consumption IS a substitute for the production of base-load power. DSM that shifts consumption off of peak is admirable, but not comparable.

Contention 11

Again, at issue is the appropriateness of the alternative for consideration, and this depends on the definition of the goal. If the goal is defined as meeting the electric power needs of the applicants customers, then a consideration of how best to do that would be appropriate under the National Environmental Policy Act. If NRC staff are determined to ensure that nuclear reactors that are not cost-effective, or ancient-carbon coal and natural gas are the only alternatives to be considered, there is really no hope for a

sustainable future for energy in the United States under the care of this federal agency. The very fact that the economies of scale and mode of delivery that mediate in favor of renewable generation would be categorically excluded from consideration as alternatives here if NRC Staff and PEF rule is indicative of the very sad, and indeed frightening state of affairs in energy policy in the United States.

Conclusion

In summary, Joint Intervenors believe that all of our contentions should be admitted for hearing in this proceeding, under Subpart G.

Respectfully submitted this the 17th day of March 2009.

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