United States of America
Nuclear Regulatory Commission

Atomic Safety and Licensing Board

Before Administrative Judges:

Alex S. Karlin, Chair
Dr. Anthony J. Baratta
Dr. William M. Murphy

In the Matter of: PROGRESS ENERGY FLORIDA, INC. Combined License Application for Levy County Units 1 & 2	Dockets Numbers 52-029-COL and 52-030-COL September 16, 2011

INTERVENERS' ANSWER TO PROGRESS ENERGY FLORIDA'S MOTION FOR SUMMARY DISPOSITION OF CONTENTION 8A IN LIGHT OF REVISED EXTENDED LLRW PLAN

The Ecology Party of Florida, The Green Party of Florida and Nuclear Information and Resource Service (Interveners) in the above captioned proceeding here Answer the Motion by Progress Energy Florida (PEF) for Summary Disposition of Contention 8a on the safety of so-called "low-level" waste -- a matter which is not summary, and which requires in our view, a full hearing in order to settle the remaining material disputes. Summary disposition is only appropriate in situations where there is no material dispute and also where the employment of this truncation will, in fact, expedite the proceeding. This is not the case here.

August 27 seems to be a date of significance; In 2010 PEF filed a Motion for Summary Disposition on that date, on Contention 8A. In 2011 we find ourselves answering a similar challenge to the same contention which in short-form challenges on the sufficiency of PEF's plan for handling so-called "Low-Level" radioactive waste for an undetermined period of time beyond the AP1000 DCD defined temporary storage period and the regulatory requirement to show that the plan meets safety and protection regulations prior to the granting of a COL. Note

that the Contention has always pursued both the ability to determine compliance AND compliance with NRC regulations.

PEF has changed its plan for extended storage of so-called "Low-Level" waste, but not yet demonstrated that it has resolved the dispute that forms the heart of Contention 8A: meeting safety regulations.

In the solar year between this August and last, the world has witnessed one of the largest demonstrations to date of the hazards of radiation. So-called "Low-Level" radioactive waste entails (to a degree) this same radiological hazard, and we appreciate the opportunity to be heard on this matter.

History of the Case to Date

Levy County Florida does not currently have a nuclear power generating station. Progress Energy Florida selected a "Greenfield" site in Levy County adjacent to several bodies of surface water, on top of an area that is a recharge zone for freshwater springs, near many reserves, preserves, protected areas, and members of the three intervening organizations. The application for a combined operating license (COL) was submitted to the Nuclear Regulatory Commission (NRC) in 2008 and the NRC offered a public notice of the opportunity for a hearing and the opportunity to petition to intervene. In February of 2009 the present team of interveners filed a petition. Of 12 contentions offered in the February petition, on July 8, 2009 three contentions were admitted (in part) by this Board (LPB 09-10) and standing of the three intervening organizations was recognized.

Two of the admitted contentions (originally C 7 and C 8) focused on omissions in the application with respect to so-called “low-level” radioactive waste (so-called LLRW). One of these (C7) focused on environmental impacts of the storage of this waste stream; the second (C8) was the progenitor of this contention on the safety of the extended storage of so-called

LLRW that would be generated if NRC approves 2 COLs and reactors operate at the Levy County site.

In the process of fulfilling Requests for Additional Information (RAI's), the COL omission on safety of so-called "Low-level" waste storage (C8) was "mooted" by PEF articulating a plan. A settlement between the Applicant and the Interveners was reached which allowed for the timely submission of a new contention on the sufficiency of the 2010 plan. The interveners argued that the new plan was not sufficient to meet the concerns of our members living near the site and also the licensing requirements for a COL.

The language of C8A is:

> Progress Energy Florida's (PEF's) COL application is inadequate to satisfy 10 C.F.R. 52.79 because it assumes that class B and C radioactive waste[3] generated by proposed Levy Units 1 and 2 will be promptly (e.g., within two years) shipped offsite, while currently there is an absence of access to a licensed disposal facility or capability to isolate the radioactive waste from the environment. The proposed amendment to the Levy County COL also fails to offer sufficient information to demonstrate the adequacy of PEF's plans for storing Class B and C radioactive waste on the Levy site if offsite disposal capacity is not available within two years. PEF's plan to postpone most of its decisions regarding how and where to store the waste (including "minimizing" the volume of the waste) until sometime after issuance of the license for Levy violates Section 52.79 and also the Atomic Energy Act's requirement that safety findings must be made before the license is issued.

This Board agreed with us, admitting the present contention, 8A as written. Licensing Board Memorandum and Order (Ruling on Joint Intervenors' Motion to File and Admit New Contention 8A) at 1 (Aug. 9, 2010) (unpublished) ("Order Admitting C-8A").

The 2010 PEF plan for extended storage of so-called "Low-Level" waste boiled down to reliance on 1 -2 years of solid waste storage space (depending on rate of waste generation) and then existing procedures – a 50.59 internal analysis, and, if deemed necessary an application

to NRC (at that time) for a license amendment to subsequently expand the waste storage facilities. When this Board ruled in favor of admission of C8A for a hearing, the Board stated:

> Progress Energy Florida's (PEF's) COL application is inadequate to satisfy 10 C.F.R. 52.79 because it assumes that class B and C radioactive waste[3] generated by proposed Levy Units 1 and 2 will be promptly (e.g., within two years) shipped offsite, while currently there is an absence of access to a licensed disposal facility or capability to isolate the radioactive waste from the environment. The proposed amendment to the Levy County COL also fails to offer sufficient information to demonstrate the adequacy of PEF's plans for storing Class B and C radioactive waste on the Levy site if offsite disposal capacity is not available within two years. PEF's plan to postpone most of its decisions regarding how and where to store the waste (including "minimizing" the volume of the waste) until sometime after issuance of the license for Levy violates Section 52.79 and also the Atomic Energy Act's requirement that safety findings must be made before the license is issued.

In August, 2010, on the 27th day of the month, PEF filed a Motion for Summary Disposition on C8A. Interveners offered an extensive Answer, including new and re-submitted declarations from two experts, and other relevant documents on September 15, 2010. The Answer to the Motion for Summary Disposition established that there were material disputes still open in the case, and further that the plan offered by PEF would not allow NRC to make the safety findings required of the Regulator to meet its own regulations governing its authority to bestow a COL. Since many of these arguments are still relevant and were offered in a more expanded discussion last year, Attachment C is that pleading (without the original attachments, which are available in the hearing docket as part of the original filing of September 15, 2010).

On November 18, 2010 this Board ruled in favor of a full hearing of C8A, agreeing that there were still material disputes and so therefore a Summary action was not appropriate. The Board stated:

> For the reasons stated below, we conclude, as a matter of law, that PEF's LLRW plan does not satisfy 10 C.F.R.§ 52.79(a) because it does not provide a level of information sufficient to enable the Commission to reach a final conclusion, before the issuance of the proposed combined license, to resolve whether PEF's means for controlling and limiting radioactive effluents and radiation exposures (beyond the initial storage period specified in the AP1000 Design Control Documents) will be within the limits set forth in 10 C.F.R. Part 20.
> LBP-10-20, 72 NRC page 1.

NRC Staff disagreed strongly with the Board's admission of C8A and its ruling against Summary Disposition. Staff turned to the Commission with an appeal of the Board's November 18, 2010 decision filed in December 2010. This Staff Appeal is still pending before the Commission. Since that filing is not part of this proceeding, the Interveners will not complicate the current discussion by addressing the issues ventilated in that filing.

The cycle has repeated in 2011, where RAIs in March provided PEF the opportunity to respond with a new "plan" for extended storage of so-called "Low-Level" waste. NRC staff has embraced the new plan and have been quite busy moving ahead to establish it as part of the COL process.

In the applicant's own text from its September 27, 2011 Motion:

> On April 14, 2011, Progress submitted to the NRC Staff a "Voluntary Supplemental Response to NRC Request for Additional Information Letter No. 073 Related to Solid Waste Management System." (ADAM Accession No. ML11112A087) This voluntary Supplemental Response provided additional and revised information describing Progress's Revised Extended LLRW Plan. The April 14, 2011 cover letter commits to make changes in a future revision of the COLA. Attachment D to this Motion provides an advance copy of the revised Levy FSAR Chapter 11, which includes considerable additional information on the Revised Extended LLRW Plan.

NRC Staff has susequently offered a chapter (11 Radioactive Waste Management ML101050411) of its Advanced SER where it responds to the referenced revised Levy FSAR Chapter 11. The SER chapter identifies "Open Item 11.4-1"

> *In STD COL 11.4-1, the applicant states that "no additional onsite radwaste storage is required beyond that described in the DCD." The applicant should explain why this statement is included or should remove it. In section 11.4 of NUREG-1793, the staff stated that if a need for onsite storage of low-level waste has been identified beyond that provided in AP1000 Standard Design because of unavailability of offsite storage, the applicant should submit the details of any proposed onsite storage facility to the NRC. The applicant needs to provide any arrangements for offsite storage for low-level waste or to submit plans for onsite storage. This is identified as* ***Open Item 11.4-1****.*

and steps through the resolution of the "Open item" by the information PEF provides. This will be discussed further in the next session of this pleading on material disputes, however, the resolution of this "open item" for NRC does not resolve Contention 8A.

Unlike 2010 (C8), contention 8A is not a contention of omission. The new extended waste storage plan that PEF has proposed does not "moot" this contention. Contention 8A is a very broad concern about safety of extended storage of so-called "Low-Level" radioactive waste, expressed in broad language on the sufficiency of waste management at the proposed site -- not tied to a specific plan. The fundamental issue is whether the storage will meet the safety regulations, and whether NRC can make this finding before issuing the COL.

Interveners find it curious that in the provided revised FSAR chapter 11 continues to contain the exact same wording: "No additional onsite radwaste storage is required beyond that in the DCD." (PEF Motion Attachment D, page 11.4-1 of the document, page 76 of the .PDF) Since this is an "advance" copy of the FSAR, perhaps this is a "cut-o/paste-o" editing error as a rather large "typo" we used to call such errors in the past. If it is not an error, then clearly PEF had not, changed its plans in any substantial way.

There are clearly additions to Chapter 11, nonetheless as we will discuss, the current (2011) PEF plan is still not sufficient to show that relevant safety regulations will be met in the event that there is a truly extended period of storage of so-called "Low-Level" radioactive waste in Levy County. The dispute is still rooted in material facts. There has been no need to amend C8A, and therefore C8A should proceed to a full hearing.

Material Disputes

Attachment A is a declaration from Dr. Marvin Resnikoff (2011 Declaration) who, as an expert in the field of radioactive waste management disputes that the new PEF extended storage plan articulated in the documents attached to its Motion for Summary Disposition, including the advanced revisions to the FSAR (new FSAR) and “Voluntary Supplemental

Response to NRC Request for Additional Information Letter No. 073 Related to Solid Waste Management System" provide sufficient information and that the information that is provided will meet relevant safety regulations. Attachment B of this filing is a distilled Statement of Material Facts in Dispute.

This Board also stated in its admission of CA (August 8, 2010):

> …the Board rules that proposed C-8A provides sufficient information to show "that a genuine dispute exists . . . on a material issue of law or fact" as required by 10 C.F.R. § 2.309(f)(1)(vi). The proposed contention refers to specific provisions of the COLA (Section 11.4.6) as supposedly deficient. C-8A raises material issues and is supported by sufficient information. We find it satisfies 10 C.F.R. § 2.309(f)(1)(v).

We maintain that this is still the case; Sub-numbers to Section 11.4 have been added. More detail is offered, but C8A is not about omission, the dispute is on finding satisfaction of safety regulations.

Further, this plan, in its bare-bones is substantially the same as the 2010 version: hold waste B and C class radioactive waste in the AP1000 provided Auxiliary waste building until capacity is exceeded, then either send it for off-site storage (temporary, and on an as-available-basis that could result in the eventual return of the material to Florida) and then finally:

> **If** additional storage capacity were eventually needed, the plant **could** construct **or** expand waste storage facilities onsite **or** gain access to a storage facility at another licensed nuclear plant. (LNP COL 11.4-1 as provided in Attachment D of PEF's Motion - emphasis added)

This unchanged portion of the FSAR is still descriptive of the "plan" -- and reveals that the ultimate disposition of this waste that is a dedicated feature of the licensing action is not determined, and as implied by the language "could" there is no recognition, still, that the institution of a potential plan, at some point in the future, does not account for the continued generation of the waste beyond existing storage capacity and before additional capacity is provided. Dr. Resnikoff states: " In my opinion, the revised LLRW plan still does not meet the Board's requirements nor satisfy staff guidance in this matter; factual issues remain in dispute. " (2011 Declaration, point 3).

Unfolding Dr. Resnikoff's points:

1) Staff Guidance supports our concerns, Dr Resnikoff offers an excerpt from W. J. Dircks, and the citation: “Storage of Low-Level Radioactive Wastes at Power Reactor Sites” Nuclear Regulatory Commission, Generic Letter 1981-038, Enclosure “Radiological Safety Guidance for Onsite Contingency Storage Capacity”, November 10, 1981. ML031110064.

2) The requirements of 10 CFR Part 100, Reactor Site Criteria, must be met by the COL. Dr Resnikoff states: "Under accident-free conditions, the storage system must meet 10 CFR Part 20 conditions and under design basis events, such as fire, tornado, earthquake, tsunami, flood and hurricanes, the radiological consequences should not exceed a small fraction of 10 CFR Part 100. Neither Mr. Pilo, nor the Levy COL has made this factual showing." (2011 Declaration point 7, referring to the PEF expert declaration).

3) Storm surge has the potential to impact an outdoor concrete pad at the proposed site as is now offered as a potential element of extended storage included in the new FSAR sections. Dr. Resnikoff provides documentation from the Florida Department of Emergency Management, U.S. Geological Survey, and the Florida Geographic Data Library, showing the relevance of the concern of flooding for the proposed site. The longer waste is stored at the site, the greater the likelihood that an expanded storage capacity will be needed. The longer that Class B and C radioactive waste is stored on the site, the greater volume of it will be sitting in the extended storage area. The more waste, the greater the potential hazard posed within this zone that has a with potential

for inundation by a category 5 storm. The longer that the waste is sitting in Levy County, the greater the chances for a class 5 storm to occur. These are simple assertions.

The matter of severe storm impact is NOT a new issue in the C8 / C8A discussion: Interveners offer the following except from our pleading of September 15, 2010, in Answer to PEF's prior Motion for Summary Disposition:

> IV. Vogtle / Levy
> Interveners acknowledge that several other Boards have ruled and sometimes ruled repeatedly in other COLs (including Bellafonte 3 & 4, North Anna 3, Vogtle 5 and 6, Fermi 3, Calvert Cliffs 3…), and affirm that the lateral structure of the ASLB for site-specific hearings is appropriate, since the sites **are** specific. Part of what interveners would do in continuing to build a case on so called LLRW generation and extended storage at Levy 1 & 2 is examine the record on LLRW during extreme weather events, as required in 52.79(a)(1)(iii). The likelihood of hurricane impact is substantially lower at Vogtle than at Levy. We are continuing to look at the Levy-specific dimensions that extended storage of so called LLRW would have and believe that the full hearing process is the appropriate opportunity for all parties to do so.
>
> Another point of distinction between the two sites, which warrants a separate, Levy-specific consideration of these issues is that, unlike the Vogtle site, Levy is not yet contaminated with industrial radioactivity. Meeting the regulations for levels of "allowable" radioactivity on a reactor site under NRC regs is different than the Greenfield status that Levy now enjoys, in terms of health and safety as well as "environmental impact." In addition to the safety and security of our members, in Levy / Citrus, the Biome of this and all the communicating areas via air, water, food and DNA "sheds" deserve a site-specific reading and hearing of these issues. (page 14).

Hurricanes and severe weather have been referenced throughout the Intervener's pleadings on so-called "Low-Level" radioactive waste, including the initial petition to intervene of February, 2009 (see page 95).

4) The continued reliance on the goal of off-site disposal for Class B and C waste continues to be unsupported. The PEF filing invokes the WCS site in Texas in its argument (see Attachment B, point 12 in the Statement of Material Facts Not in Dispute). Even if the Waste Control Specialists based in Texas opens a radioactive waste disposal site and that site is opened to radioactive waste from outside the Inter-State Compact for

radioactive waste disposal that Texas is part of, the states within the Compact (Texas and Vermont) still have priority for access to disposal capacity. Dr. Resnikoff has direct knowledge of the Vermont Yankee reactor case and the likelihood of the waste from a major decommissioning depleting storage and disposal capacity in Texas long before the Levy waste will begin to be generated. Therefore, there is nothing in the new "extended storage plan" that actually changes Dr. Resnikoff's finding:

> (10) In my opinion, LLRW from the Levy plants may remain onsite for an indefinite time period. PEF should demonstrate at this licensing proceeding that its long term outdoor storage system can meet the requirements of 10 CFR Part 20, and under accident conditions, a small fraction of 10 CFR Part 100.

It is consistent with the passage of a solar year our expert, preparing for hearing has expanded the basis of concern and now is looking at Part 100 with respect to this contention. This regulation is very wide and includes a number of facets. The point is that extended storage of so-called "Low-Level" radioactive waste should be such that it does not contribute significantly to the limits in that regulation, for instance 10CFR100.11(a)(1):

> An exclusion area of such size that an individual located at any point on its boundary for two hours immediately following onset of the postulated fission product release would not receive a total radiation dose to the whole body in excess of 25 rem [2] or a total radiation dose in excess of 300 rem to the thyroid from iodine exposure.

The regulation proceeds with other requirements for limiting exposure to the population in the vicinity of the site, including Intervener's members.

Thus the material disputes remain:

The adequacy of a plan for the indefinite long-term storage of so-called "Low-Level" radioactive waste generated at a possible nuclear power reactor in Levy County

is that sufficient information is given prior to licensing to show that it will meet the safety regulations of the US Nuclear Regulatory Commission. Suffice it to say, it not only must be discernible that the regulations can be met, it must be discernible that they will be met. To make any other implication or assertion in this proceeding would be an attack on the safety regulations of the US NRC! The new PEF plan does not demonstrate that it will deliver safety compliance under reasonably foreseeable design-basis situations.

Conclusion:

These disputes are material, not only "legal" in nature. These disputes cannot be resolved in the manner of a Summary Disposition. Contention 8A should be fully heard with additional expert information developed and provided at hearing. For these reasons the PEF Motion for Summary Disposition should be denied.

Respectfully Submitted,

_____/s/_____

Mary Olson
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Asheville, North Carolina 28802
828-252-8409

on behalf of the Co-Interveners

September 15, 2011

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:
Alex S. Karlin, Chairman
Dr. Anthony J. Baratta
Dr. William M. Murphy

In the Matter of PROGRESS ENERGY FLORIDA, INC. (Combined License Application for Levy County Nuclear Power Plant, Units 1 and 2)	Docket No. 52-029-COL, 52-030-COL ASLBP No. 09-879-04-COL-BD01 September 16, 2011

Certificate of Service

I, Mary Olson, certify that on 09-13-2011 I served the following documents " INTERVENERS' ANSWER TO PROGRESS ENERGY FLORIDA'S MOTION FOR SUMMARY DISPOSITION OF CONTENTION 8A IN LIGHT OF REVISED EXTENDED LLRW PLAN by the The Ecology Party of Florida, Nuclear Information and Resource Service and the Green Party of Florida on the parties listed below:

Administrative Judge Alex S. Karlin, Chair Atomic Safety and Licensing Board Panel Mail Stop: T-3F23 U.S. Nuclear Regulatory Commission Washington, DC 20555-0001 E-mail: Alex.Karlin@nrc.gov	Office of Commission Appellate Adjudication Mail Stop O-16C1 U.S. Nuclear Regulatory Commission Washington, DC 20555-0001 E-mail: OCAAmail@nrc.gov
Administrative Judge Anthony J. Baratta Atomic Safety and Licensing Board Panel Mail Stop: T-3F23 U.S. Nuclear Regulatory Commission Washington, DC 20555-0001 E-mail: Anthony.Baratta@nrc.gov	Office of the Secretary ATTN: Docketing and Service Mail Stop: O-16C1 U.S. Nuclear Regulatory Commission Washington, DC 20555-0001 E-mail: HEARINGDOCKET@nrc.gov

Administrative Judge William M. Murphy Atomic Safety and Licensing Board Panel Mail Stop: T-3F23 U.S. Nuclear Regulatory Commission Washington, DC 20555-0001 E-mail: William.Murphy@nrc.gov	Megan Wright Law Clerk Mail Stop: T-3F23 U.S. Nuclear Regulatory Commission Washington, DC 20555-0001 E-mail: megan.wright@nrc.gov
Mary Olson NIRS Southeast PO Box 7586 Asheville, NC 28802 E-mail: maryo@nirs.org	Michael Mariotte Nuclear Information and Resource Service 6930 Carroll Ave Suite 340 Takoma Park, MD 20912 E-mail: nirsnet@nirs.org
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/Signed (electronically) by/
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September 16, 2011

Attachment A
Declaration of Dr. Marvin Resnikoff

UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
Progress Energy Florida	)	**Docket Nos. 52-029-COL**
	)	**52-030-COL**
(Combined License Application for Levy County Nuclear Plane, Units 1 & 2)	)	
	)	**ASLBP No. 09-879-04**

DECLARATION OF MARVIN RESNIKOFF, Ph.D.
IN SUPPORT OF INTERVENORS' CONTENTION 8a

Under penalty of perjury, Marvin Resnikoff does hereby state as follows:

1. I previously submitted declarations in this proceeding on September 15, 2010, and October 4, 2010 stating my qualifications and attaching my resume. I stated in that declaration that there is no offsite disposal for PEF available at present and that PEF must therefore plan for indefinite storage. The DCD does not describe how this will be done and cannot be relied upon by NRC staff for that purpose.
2. Amended Intervenors' contention 8a asserts that "the Levy County COL fails to offer sufficient information to demonstrate the adequacy of PEF's plans for storing Class B and C radioactive waste on the Levy site if offsite disposal capacity is not available within two years." The contention further states that "safety findings must be made before the license is issued."

3. On April 14, 2011, PEF submitted a response to NRC staff RAI that provided additional information including an advance copy of the revised FSAR Chapter 11 with additional information on the revised extended LLRW plan. In my opinion, the revised LLRW plan still does not meet the Board's requirements nor satisfy staff guidance in this matter; factual issues remain in dispute.
4. To prepare this declaration, I have read the summary disposition motion prepared by the applicant, and particularly the attachments, including the revised FSAR Chapter 11. I have also read Staff's Standard Review Plan, Section 11.4 dealing with solid waste management systems and staff guidance[1]. Finally I read the Hearing Board's decision denying PEF's original summary disposition motion.
5. The Board stated that PEF's motion was denied because it did not provide sufficient information to enable the Commission to reach a final conclusion to resolve whether PEF can limit radiation exposures set forth in 10 CFR Part 20 beyond the initial storage period. This decision by the Board, especially in relation to long-term storage, is in agreement with Staff guidance[2]:

"The duration of the intended storage, the type and form of waste, and the amount of radioactive material present will dictate the safeguards and the level of complexity required to assure public health and safety and minimal risk to

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[1] Dircks, W.J., "Storage of Low-Level Radioactive Wastes at Power Reactor Sites" Nuclear Regulatory Commission, Generic Letter 1981-038, Enclosure "Radiological Safety Guidance for Onsite Contingency Storage Capacity", November 10, 1981. ML031110064.
[2] *Ibid*

operating personnel. The longer the intended storage period, the greater the degree of controls that will be required for radiation protection and accident prevention."

6. Mr. Pilo asserts that there is sufficient time to prepare a storage pad and high integrity containers to meet the storage needs for class B and C waste. He estimates a time period of 6 months for the necessary construction. Since class B and C waste are primarily wet resins, and these are removed every 18 months, not till the 3rd removal, will an outdoor storage pad be necessary, assuming no problems, such as overloading the resins due to damaged fuel, arise.
7. However, simply constructing a pad, fencing and lighting within a 6 month period is not the primary issue. Under accident-free conditions, the storage system must meet 10 CFR Part 20 conditions and under design basis events, such as fire, tornado, earthquake, tsunami, flood and hurricanes, the radiological consequences should not exceed a small fraction of 10 CFR Part 100. Neither Mr. Pilo, nor the Levy COL has made this factual showing. I would be prepared to present testimony on this issue at a hearing.
8. As just one example, PEF should consider the environmental impact of a flood on the Levy storage site and show that radiation exposures do not exceed 10 CFR Part 29.. That this is possible is shown by the two attached figures. The location of the proposed Levy Nuclear Plant is shown on Fig. 1.1-1 (attached), PEF Environmental Report. A potential storm surge of the

Atlantic Ocean appears in the figure, Withlacoochee Region Stormtide Zones, produced by the Florida Department of Emergency Management, U.S. Geological Survey, and the Florida Geographic Data Library. It shows a Category 5 storm surge zone inundating the Levy site.

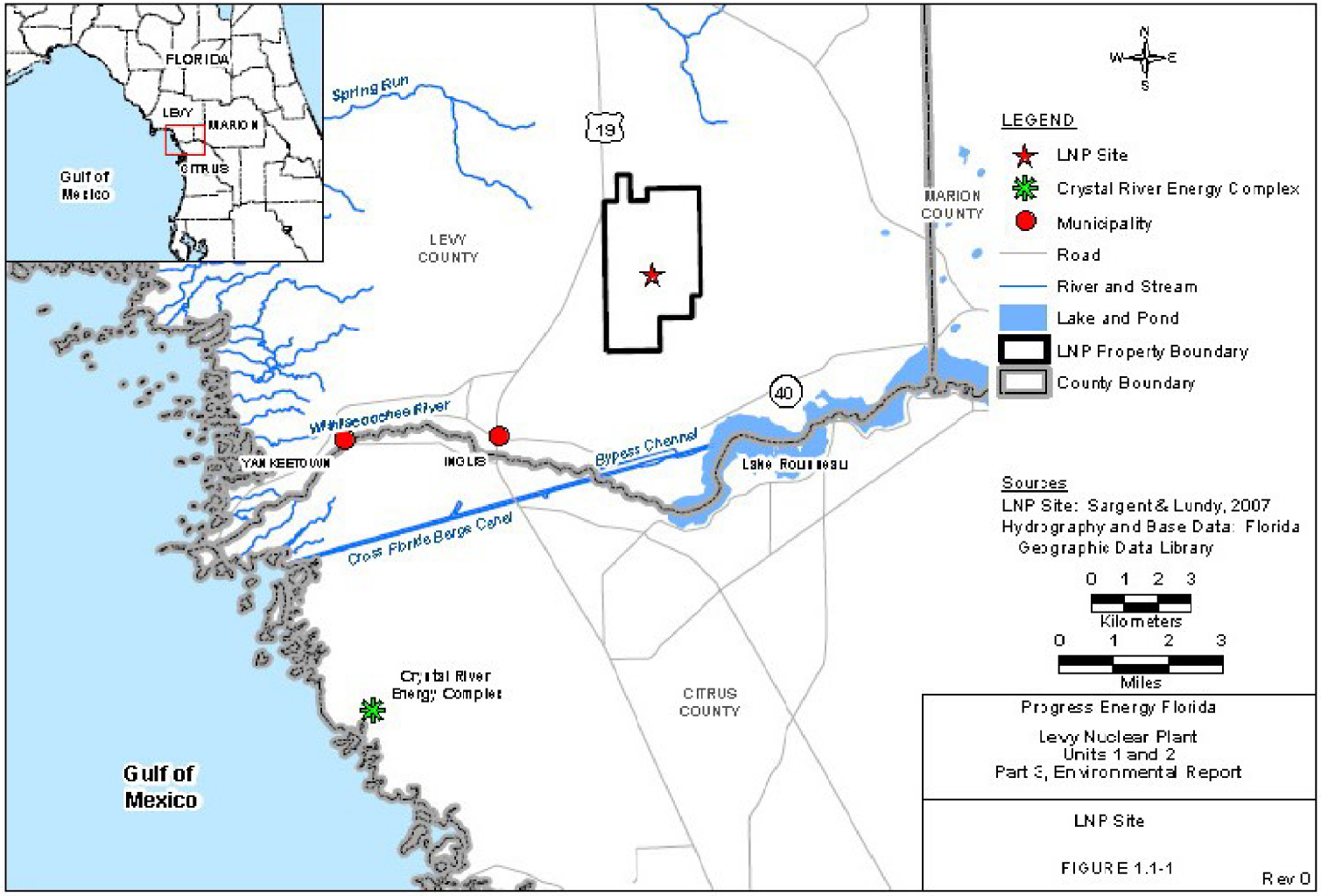
9. Regarding the time requirements for this outdoor storage system, I agree with the declaration proffered by Ms. Diane D'Arrigo and Dr. Arjin Makhijani in the Vogtle proceeding. They show that the Andrews County facility may not have sufficient capacity for LLRW from the Vogtle plants, and therefore, for the Levy plants as well. The proceedings for the Waste Control Specialists facility remains contested, and large number of out of state reactors wish to deposit LLRW there. The disposal capacity is presently limited. An issue not addressed by their declaration is the need for disposing of waste from the decommissioned Vermont Yankee reactor. The Andrews County facility is operated by the Vermont/Texas Compact and those States have favored status in disposing of LLRW. The State of Vermont has refused to issue a Certificate of Public Good to Entergy for a period following the 40-year operating license which expires March 21, 2012. This is a matter presently in the U.S. Court. Without this Certificate, a business cannot operate in Vermont. It is highly likely therefore that a large volume of LLRW will be generated when that reactor is decommissioned, which may begin in 2012.
10. In my opinion, LLRW from the Levy plants may remain onsite for an indefinite time period. PEF should demonstrate at this licensing proceeding that its long term outdoor storage system can meet the requirements of 10

CFR Part 20, and under accident conditions, a small fraction of 10 CFR Part 100.

I declare that the foregoing facts are true and correct to the best of my knowledge and that the statements of opinion are based on my best professional judgment.

/s/ September 16, 2011

Marvin Resnikoff
Radioactive Waste Management Associates


FLORIDA
LEVY
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Gulf of Mexico
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Withlacoochee River
YANKEETOWN
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Bypass Channel
Lake Rousseau
Cross Florida Barge Canel
Crystal River Energy Complex
CITRUS COUNTY
Gulf of Mexico
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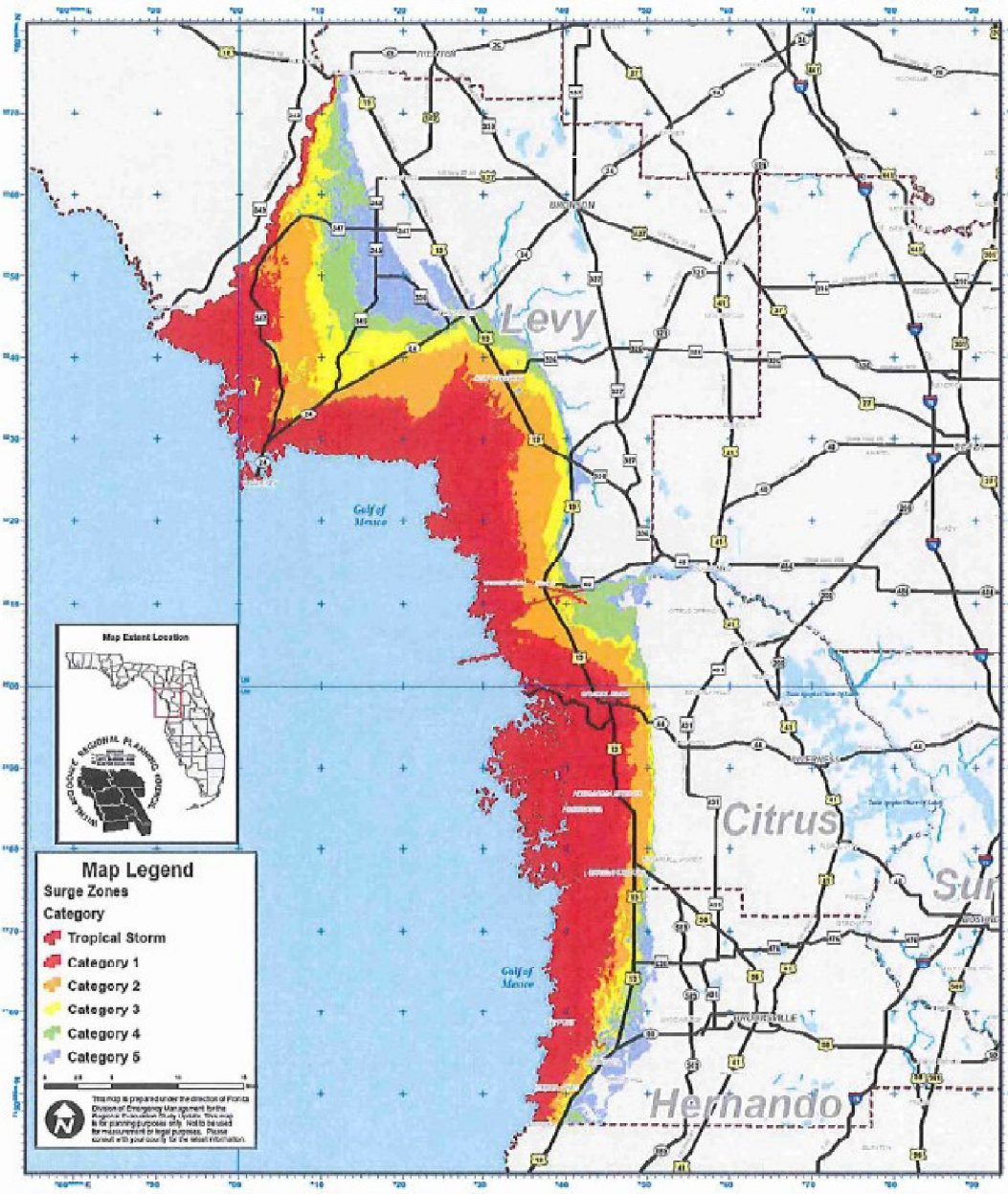
LNP Site
Crystal River Energy Complex
Municipality
Road
River and Stream
Lake and Pond
LNP Property Boundary
County Boundary
Sources
LNP Site: Sargent & Lundy, 2007
Hydrography and Base Data: Florida Geographic Data Library
0 1 2 3
Kilometers
0 1 2 3
Miles
Progress Energy Florida
Levy Nuclear Plant
Units 1 and 2
Part 3, Environmental Report
LNP Site
FIGURE 1.1-1
Rev 0

Withlacoochee Region Stormtide Zones



Sources: Florida Division of Emergency Management, U.S. Geological Survey, and Florida Geographic Data Library

Attachment B

Statement of Material Facts Forming the Basis for Material Dispute with Applicant's "plan" for so-called "low-level" radioactive waste.

September 15, 2011:
Statement of Material Facts In Dispute

Attorneys for Progress Energy Florida (PEF) state on page 1 of the Motion for Summary Disposition of Contention 8A in 2011:

> C-8A invokes the legal question of whether the means by which Progress intends to manage Class B and C low-level radioactive waste ("LLRW"), as set forth in Progress's Combined Construction Permit and Operating License Application ("COLA") for Progress's proposed Levy County Nuclear Plan ("Levy") is sufficient to satisfy the requirements set forth in 10 C.F.R. § 52.79(a)(3). Progress moves this Board to grant summary disposition of C-8A because Progress's revised plan for extended management of Class B and C LLRW ("Revised Extended LLRW Plan") provides information sufficient to enable the Commission to reach a final conclusion, before issuance of the proposed combined license, to resolve whether Progress's means for controlling and limiting radioactive effluents and radiation exposures (beyond the initial storage period specified in the AP 1000 Design Control Documents) will be within the limits set forth in 10 C.F.R. Part 20. Progress's Revised Extended LLRW Plan satisfies 10 C.F.R. § 52.79(a)(3) as a matter of law. No dispute on a material fact exists.

Counsel misconstrues the contention. The contention is not a contention of omission. Contention 8A is a contention on sufficiency -- and the issue of sufficiency has two dimensions:

1) is it POSSIBLE from the information provided for a safety finding to be made for the full period that waste is likely to be on the reactor site BEFORE the COL is granted, as required by NRC regulations and
2) does the plan in fact, meet those regulations.

Interveners contend that point number 1 above is far from clear:

The advanced copy of the new Chapter 11 still states that no onsite storage beyond what is provided in the AP1000 DCD is needed. Interveners offer previous declarations and filings as an ample record of material dispute of this assertion.

While PEF has expanded and added quite a bit of detail to its plan, Interveners do not agree that this plan is sufficient for the indeterminately long storage of Class B and C waste at the proposed Levy site.

Compliance with safety regulations according to our expert, Dr. Resnikoff must include 10CFR Part 100.

The declaration from Dr. Resnikoff and its attachments make the following points:

1) Staff Guidance supports our concerns, Dr Resnikoff offers an excerpt from W. J. Dircks, and

the citation: "Storage of Low-Level Radioactive Wastes at Power Reactor Sites" Nuclear

Regulatory Commission, Generic Letter 1981-038, Enclosure "Radiological Safety Guidance for Onsite Contingency Storage Capacity", November 10, 1981. ML031110064.

2) The requirements of 10 CFR Part 100, Reactor Site Criteria, must be met by the COL. Dr Resnikoff states: "Under accident-free conditions, the storage system must meet 10 CFR Part 20 conditions and under design basis events, such as fire, tornado, earthquake, tsunami, flood and hurricanes, the radiological consequences should not exceed a small fraction of 10 CFR Part 100. Neither Mr. Pilo, nor the Levy COL has made this factual showing." (2011 Declaration point 7, referring to the PEF expert declaration).

3) Storm surge has the potential to impact an outdoor concrete pad at the proposed site as is now offered as a potential element of extended storage included in the new FSAR sections. Dr. Resnikoff provides documentation from the Florida Department of Emergency Management, U.S. Geological Survey, and the Florida Geographic Data Library, showing the relevance of the concern of flooding for the proposed site. The longer waste is stored at the site, the greater the likelihood that an expanded storage capacity will be needed. The longer that Class B and C radioactive waste is stored on the site, the greater volume of it will be sitting in the extended storage area. The more waste, the greater the potential hazard posed within this zone that has a with potential for inundation by a category 5 storm. The longer that the waste is sitting in Levy County, the greater the chances for a class 5 storm to occur. These are simple assertions.

The matter of severe storm impact is NOT a new issue in the C8 / C8A discussion: Interveners raised it in pleading opposition to Summary Disposition in 2010 (filed on September 15, 2010), and nearly every filing on waste in this proceeding, beginning with the Petition to Intervene of February, 2009 (see page 95).

4) The continued reliance on the goal of off-site disposal for Class B and C waste continues to be unsupported. The PEF filing invokes the WCS site in Texas in its argument (see Attachment B, point 12 in the Statement of Material Facts Not in Dispute) Even if the Waste Control Specialists based in Texas opens a radioactive waste disposal site and that site is opened to radioactive waste from outside the Inter-State Compact for radioactive waste disposal that Texas is part of, the states within the Compact (Texas and Vermont) still have priority for access to disposal capacity. Dr. Resnikoff has direct knowledge of the Vermont Yankee reactor case and the likelihood of the waste from a major decommissioning depleting storage and disposal capacity in Texas long before the Levy waste will begin to be generated. Therefore, there is nothing in the new "extended storage plan" that actually changes Dr. Resnikoff's finding:

> (10) In my opinion, LLRW from the Levy plants may remain onsite for an indefinite time period. PEF should demonstrate at this licensing proceeding that its long term outdoor storage system can meet the requirements of 10 CFR Part 20, and under accident conditions, a small fraction of 10 CFR Part 100.

These material facts are in dispute.

From the 2010 Answer -- excerpts from the Statement of Material Facts Forming the Basis for Material Dispute with Applicant's new extended plan for so-called "low-level" radioactive waste -- those that still apply today.

1. In every filing on safety and low-level waste that would be generated at Levy County 1 & 2 if a COL were to be granted, the interveners have reflected our members' concerns for health, safety and security, both on the site and off.

2. It was the Commission itself (CLI-10-02 page) that inserted the first reference to 10CFR52.79(a)

   > (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…

3. In most filings we have referenced concerns about conditions which are specific to Levy County, including the possibility of hurricanes and other severe weather which are not specific to other sites, such as Vogtle.

4. In our filings we have consistently pointed to the persistent, often concentrated, dangerous nature of this material (declarations of Diane D'Arrigo) and in this filing offer the additional Declaration of Dr. Marvin Resnikoff (Attachment B) focusing specifically on the resin portion of the waste stream. This declaration at point 11 states: "From the DCD, it is not clear to me how NRC staff can conclude that workers and the public are protected." This is in reference to extended storage of resins.

5. The DCD in Chapter 11.4.2.1 lays out the minimum time ("more than 1 year") and the likely maximum time ("more than 2 years") that the temporary storage facility for solid waste will take to fill, however it fails to address the statement made in the opening of Chapter 11.4:

> 11.4 This system does not handle large, radioactive waste materials such as core components or radioactive process wastes from the plant's secondary cycle.

6. It further fails to take into account the increased probability that "start-up" – the first years of operation will generate waste at the maximum anticipated rate (or more). Known as the "bathtub curve" this phenomenon is described in the report *The Risk of a Lifetime* (Attachment D -- see pages 3 – 6 with the illustration of the curve on page 4). While we are not asserting that Levy Co will suffer a severe event, clearly the report shows the possibility that the start-up period can result in more waste, and PEF could attain, or even exceed the projected "maximum" rate of waste production in the first year.

7. A contingency plan for the interim between when the auxiliary building and any new "extended" storage facility becomes available will not allow the regulator to make the safety finding encompassing the rightful concerns of our members prior to licensing as required by 52.79(a).

8. As stated by Dr. Resnikoff in the 2010 declaration(s), the materials on which the safety finding must be made are complex. Further the accumulation of extended source term that may result from waste storage in excess of the anticipated 1 – 2 years must be factored in a spectrum of accident and non-normal conditions analyses.

9. We believe that these factors (and others argued above and in the declarations) combine to form the basis of NRC's assumption that generated so-called "low-level" radioactive waste should be shipped off-site as rapidly as possible. The applicant repeats this NRC view and the AP1000 DCD has fully embraced this preference and assumption which, however, is not rooted in the reality that there is no off site disposal available. All the reasons that the generator and the regulator do not want this waste at the reactor site, are the same reasons that local communities given the opportunity to live with a so-called "low-level" waste disposal site have said "no thank you."

10. The Levy site offers unique reasons for consideration of the "means of control" since it is the *only* Greenfield site under consideration for new reactors at this time, and one of only a small handful (including several sites canceled before ever going "hot") that have never had industrial radioactivity introduced.

Correction! Number 10 is not in dispute; see:

In the list of Pillsbury Law Firm's accomplishments:

- First new nuclear plant in the U.S. at a greenfield site—Progress Energy's Levy County project

See:

http://www.pillsburylaw.com/index.cfm?pageid=12&itemid=1787

Attachment C
2010 Answer to Motion for Summary Disposition

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Alex S. Karlin, Chairman
Dr. Anthony J. Baratta
Dr. William M. Murphy

In the Matter of PROGRESS ENERGY FLORIDA, INC. (Combined License Application for Levy County Nuclear Power Plant, Units 1 and 2)	Docket No. 52-029-COL, 52-030-COL ASLBP No. 09-879-04-COL September 15, 2010

INTERVENER'S RESPONSE TO APPLICANT'S MOTION FOR SUMMARY DISPOSITION OF CONTENTION 8A

This pleading is in response to the Applicant (Progress Energy of Florida or PEF) moving for Summary Disposition of recently admitted contention 8A which focuses on the need for a plan in the event of the accumulation of so-called "low-level" radioactive waste on the proposed Levy County nuclear reactor site. We find there are material disputes in this matter, and therefore reject in whole the notion of Summary Judgment on Contention 8A and ask that the proceeding proceed to a full hearing.

The package includes this document, a certification (Attachment A), a declaration from Dr. Marvin Resnikoff (Attachment B), a statement of material facts forming the basis for material dispute (Attachment C), a report cited herein "Risk of a Lifetime" from Union of Concerned Scientists (Attachment D),'NUREG BR-0216 (Attachment E) and provision of two previous declarations from Diane D'Arrigo (Attachments F and G) all offered by the co-interveners, Nuclear Information and Resource Service, The Ecology Party of Florida and The Green Party of Florida.

I. Introduction and Procedural Background (condensed version)

Progress Energy decided to consider building some new nuclear power plants. Progress Energy Florida selected a site in Levy County that currently has no industrial development, proximal to several bodies of surface water, on top of an area that is a recharge zone for freshwater springs, adjacent to many reserves, preserves, protected areas, and members of the three intervening organizations. The application for a combined operating license (COL) was submitted to the Nuclear Regulatory Commission (NRC) in 2008 and the NRC offered a public notice of the opportunity for a hearing and the opportunity to petition to intervene. In February of 2009 the present team of interveners filed a petition. Of 12 contentions offered in the petition on July 8, 2009, three contentions were admitted (in part) by this Board (LPB 09-10) and standing of the three intervening organizations was recognized. Two of the admitted contentions concerned omissions in the application with respect to so-called "low-level" radioactive waste (so-called LLRW), one focused on environmental impacts, the second on safety concerns (original Contentions 7 & 8) related to the extended storage of so-called LLRW that would be generated if Levy County Units 1 & 2 are constructed and operate subsequent to NRC granting a COL.

In the process of fulfilling Requests for Additional Information (RAI's), the COL omission on safety was "mooted" and a settlement was reached which allowed for the timely submission of a new contention. The plan offered by PEF in its RAIs and subsequently in the current Motion has been deemed by the interveners to be insufficient to meet the concerns of our members living near the site and also the licensing requirements for a COL. The plan in short states that Levy will have 1 -2 years of solid waste storage space (depending on rate of waste generation) and then there are procedures in place – a 50.59 internal analysis, and if deemed necessary according to the 50.59 – then an application to NRC (at that time) for a license amendment to subsequently expand the waste storage facilities. The Applicant offers NRC guidance

documents for the storage of so-called "low-level waste" but is not offering any definite details for the extended storage of so-called LLRW on the Levy site at this time.

The new contention 8 was timely offered on May 14, 2010 expressing the inadequacy of the PEF "plan" which was subsequently admitted (as written) by this Board on August 9 as "Contention 8A" :

> Progress Energy Florida's (PEF's) COL application is inadequate to satisfy 10 C.F.R. 52.79 because it assumes that class B and C radioactive wastes generated by proposed Levy Units 1 and 2 will be promptly (e.g., within two years) shipped offsite, while currently there is an absence of access to a licensed disposal facility or capability to isolate the radioactive waste from the environment. The proposed amendment to the Levy County COL also fails to offer sufficient information to demonstrate the adequacy of PEF's plans for storing Class B and C radioactive waste on the Levy site if offsite disposal capacity is not available within two years. PEF's plan to postpone most of its decisions regarding how and where to store the waste (including "minimizing" the volume of the waste) until sometime after issuance of the license for Levy violates Section 52.79 and also the Atomic Energy Act's requirement that safety findings must be made before the license is issued.

The Movant claims that it is acting "on the grounds that no genuine issue of material fact exists with respect to that Contention"(8A) (Motion, line 1). However, this Board, in admitting Contention 8A (August 8, 2010) stated:

> ...the Board rules that proposed C-8A provides sufficient information to show "that a genuine dispute exists . . . on a material issue of law or fact" as required by 10 C.F.R. § 2.309(f)(1)(vi). The proposed contention refers to specific provisions of the COLA (Section 11.4.6) as supposedly deficient. C-8A raises material issues and is supported by sufficient information. We find it satisfies 10 C.F.R. § 2.309(f)(1)(v).

While some of the analysis in that ruling rivets on the legal discussion offered by interveners in both the motion for the new contention and the reply brief offered on June 15, the contention was admitted as written – so we will defend all aspects of the contention here.

The applicant, on August 27 filed a Motion for Summary Disposition (Motion) of Contention 8A, which is the reason for this response. The attached Certification (Attachment A) offers some further insight as to why the interveners oppose this Motion but were also unable to engage in sincere settlement discussion. We emphasize here that we believe there are material

disputes (see Attachment C), and therefore reject in whole the notion of Summary Disposition of Contention 8A. Summary Disposition, as the Movant notes, is reserved for matters where there is no material dispute.

We dispute any assertions that question, or imply question about the credibility or expertise of Diane D'Arrigo who has offered declarations in support of the original contention (Petition of February 6, 2009) and also Contention 8A (May 14, 2010). Both of these Declarations are provided here as Attachments F and G. Ms D'Arrigo has a 25 year career of full-time engagement on radioactive waste policy, regulation, disposal licensing processes and concerns. There is no one in the United States with more institutional memory on these matters than Ms D'Arrigo. Since it is the habit of the NRC to employ people who do not all have doctorates, and many of whom have not yet clocked 25 years in their field, we trust that diplomas are not the only measure of expertise employed by this agency. The current pleading defending Contention 8A and Ms D'Arrigo's former Declarations are here supported by an additional declaration by Dr. Marvin Resnikoff (Attachment B). Dr. Resnikoff has been declared in this case already – provided as a disclosure on September 1, 2009 (Attachment H); the Certification offers additional information relevant to the offering of his declaration at this time.

We find that there are quite a few material issues – including some new ones developed for this pleading -- that form the basis for material dispute – and include Attachment C which supports the arguments offered here.

II. The Material Disputes

A. No place to send the waste.

The basis for contention 8A is the reality that today there is nowhere that PEF can send any radioactive waste generated at the proposed Levy County Units 1 & 2 if approved, save for Class A so-called LLRW, and the high likelihood that this situation may persist. While some options may exist for Class B & C with waste brokers or processors, none would guarantee a

permanent disposition for the material. Diane D'Arrigo has offered two declarations, one with the original petition, one with the submission of this contention (Attachments G and F), and Dr. Marvin Resnikoff offered a third a year ago (Attachment H) and brings an additional declaration here (Attachment B) – which affirms Ms D'Arrigo's declarations and expands upon the issues of concern. Here are points 2, 3 and 4 from Attachment B:

> 2. The purpose of this declaration is to provide technical support for joint intervenors contention 8 by outlining the details that are required in a plan that protects the health and safety of the public and workers for storing low-level waste for time periods greater than two years at the proposed PEF Levy County 1 & 2 nuclear site. I agree with many of the points made by Diane D'Arrigo in her declaration and will not repeat these points here.

Operational Status of LLRW Disposal Sites

> 3. As Ms. D'Arrigo has enumerated, only the US Ecology facility in Richland, Washington and the EnergySolutions facility in Barnwell, South Carolina can accept class A, B and C LLRW, and only from the Northwest, Rocky Mountain and Atlantic compacts. Waste Control Specialists (WCS) has a license to store a limited amount of waste from the Texas-Vermont compact. This may change by votes of the Compact Commission, but several lawsuits are pending that may affect the outcome.
>
> 4. Another uncertainty is whether the Vermont Yankee reactor is allowed to operate past the year 2012. Decommissioning would yield a large volume of class B and C waste to the WCS facility… (there is further affirmation of this view in items 5 and 13 of the declaration, Attachment B).

We rely upon these experts, nonetheless, much of the information D'Arrigo and Resnikoff offer is also reflected in NRC's own NUREG/BR-0216 Rev 2 Radioactive Waste: Generation, Storage, Disposal (Attachment E). For instance:

> "For low-level waste, three commercial land disposal facilities are available, but they accept waste only from certain states or accept only limited types of low-level wastes. The remainder of the low-level waste is stored primarily at the site where it was produced, such as at hospitals, research facilities, clinics and nuclear power plants." see pages 4-5 (pdf pages 8 -9).

All of these expert opinions support the view that it is likely that if PEF's Levy County reactors are licensed and generate this radioactive waste, there will not be able to do anything with class B and C wastes except store it on site for an extended period, perhaps well beyond

the 1 – 2 years that the Levy plan provides in terms of physical reality. Our members have expressed deep concern about Levy County becoming a waste dump – and are entitled to the provisions of both the NRC Code and the Atomic Energy Act for protection as stated in Contention 8A.

Dr. Resnikoff takes time and care to repeat many of the points made by D'Arrigo and expand upon them in terms of the low likelihood of off-site disposal (see Attachment B, items 3-5). Nonetheless this dispute is not only prognostication on the future; it is also about the practicality of the PEF plan in material terms.

B. Let's try their plan.

The applicant has done very little to alter their response to co-intervener's new contention in this Motion. Their "plan" is simple – assess the problem when it comes up, via an internal analysis (50.59) and if deemed necessary apply to the NRC for a license amendment (initially described in RAIs to NRC staff, elaborated in both the June 8th "Answer" to the new contention and thie current the Motion). So here is a hypothetical scenario – we are not asserting this WILL happen – merely that it could happen.

The DCD (Design Control Document) in Chapter 11.4.2.1 gives the projections for how quickly the temporary storage area for solid waste could fill – that estimate is that it would take "more than a year" – but the projected time frame at an average rate of waste generation is "more than 2 years." This projection fails however to take into account that there is strong basis to posit that it is more likely than not that the facilities will generate a lot more waste in the first year(s) than subsequently. Known as the "bathtub curve" (see report "The Risk of a Lifetime" from Union of Concerned Scientists offered as Attachment D) we are not asserting that there will be catastrophic accidents – merely that incidents that could result in more so-called LLRW being generated are more likely in the start-up phase of a new operation. (Again, we are

painting this hypothetical picture merely to point out that it is within the realm of possibility that PEF could need more than the maximum capacity in first year + of operation and require additional storage space rather urgently.)

The "plan" which PEF offers contains no "trigger" point for the 50.59 process, nor offer any timeline for obtaining a license amendment in order to expand waste storage. In searching for any document from the nuclear industry or its regulator on timelines for license amendment there seemed to be far too much variation to site a single source.

While the interveners fully support the public dimension of the license amendment process – it is the participation as well as NRC time, which dictate that this activity may not be quick (even if no one opposes!). Once the license amendment is granted, presumably there is construction time as well. The Applicant seems to be laboring under the illusion that it is possible to "pause" the production of this waste once it commences. If ever started up, until the reactor is fully decommissioned there will be so-called LLRW generated daily. This process will not "pause" for the procedures which PEF is to rely upon, which suggests that there is the possibility that there could be an un-reviewed contingency plan cobbled together as a stop-gap while PEF executes the proposed contingency plan. This does not provide for the safety review required by NRC regulations prior to the granting of the COL (10.cfr52.79(a) see legal discussion below.)

As Dr Resnikoff points out (declaration at 8) some of the waste generated in an ongoing way can cause radiation exposure that will exceed quarterly limits for workers in a matter of minutes. The provision for this sort of material must not be left to chance or improvisation.

Again, we merely point to a gap; interveners are not asserting that any of this would happen; simply stating that it could happen, and if it did, our members and the workers at Levy County 1 and 2 would not be protected to the level that simply embracing the current circumstance (no radioactive waste disposal) could provide.

Again revisiting NUREG/BR-0216 Rev 2 – we are not providing information on hazard that NRC does not tell us also. Here is an excerpt:

How hazardous is low-level waste?

> The danger of exposure to radiation in low-level radioactive waste varies widely according to the types and concentration of radioactive material contained in the waste. Low level waste containing some radioactive materials used in medical research, for example, is not particularly hazardous unless inhaled or consumed, and a person can stand near it without shielding. Low-level waste from processing water at a reactor, on the other hand, may be quite hazardous. For example, low-level waste could cause exposures that could lead to death or an increased risk of cancer. (NUREG/BR-0216 Rev 2 Page number 24, pdf page 28).

Under the offered "plan" we suggest that this is the appropriate moment for the 50.59 process to occur and that instead of supporting PEF kicking the can down the road (perhaps not very far at all) to a license amendment the NRC should instead support a full hearing of the issues of Contention 8A prior to granting the license in the first place.

C. Demonstration of Compliance.

The crux of Contention 8A is that PEF must give a level of detail sufficient for NRC staff to make a finding – as to whether or not "radioactive effluents and radiation exposures (will be) within the limits set forth in part 20 of this chapter" (52.79(a)(3)) and further that 52.79(a) requires that these issues be resolved "by the Commission before issuance of a combined license…" (Further discussion of these passages is offered in the legal dispute section below.) Our example above illustrates that it is not credible for the Applicant, or their Regulator to assert that the granting of the COL with the "plan" that PEF offers herein will allow the demonstration of compliance with the requirements of Part 20. In addition, as stated in the 2010 Declaration of Dr. Resnikoff some elements of the waste stream, specifically the resins generated from normal operations, pose specific problems not addressed:

> Safety and security for these materials are assured by the DCD for immediate disposal, but there is no discussion for indefinite storage. There is no discussion for the processing of these materials for indefinite storage in terms of containers, buildings, locations. From the DCD, it is not clear to me how NRC staff can conclude that workers and the public are protected. (Attachment B, from item 11)

In addition, (Attachment B item 14), the accumulation of radioactive waste on the site beyond the stated (possibly optimistic) storage capacity of 2 years will result in source term that must be included in all analyses of accidents or other non-normal operating conditions. There is no such consideration of these matters prior to the granting of the COL in the strictly procedural approach offered by PEF.

D. There are other options

It is within the scope of this proceeding for the Board to rule that it would be prudent to postpone approval of further waste generation until a satisfactory permanent waste disposition has been obtained. We mention this simply because this is the view of a majority of the members whom we humbly represent. This is, of course, a material dispute with the applicant and probably the NRC staff…and probably a majority of the appellate body. That does not make our position incorrect.

E. How likely is it that we are wrong?

The applicant strongly invokes NRC policy and preference that so-called LLRW be shipped off as rapidly as possible for disposal office (for instance Motion page 12, and footnote 16). In our view, the declarations of Diane D'Arrigo and Dr. Resnikoff and NUREG/BR-0216 Rev 2 underscore the difficulty of dealing with this complex and dangerous material. It is likely that these issues (and more) contribute to the NRC and applicant preference for rapid shipment of the waste off-site where possible. It is also the case however, that these very same concerns are shared by people in every community that has been given the opportunity to live with a waste disposal site. So far the answer has been "no thank you" to the siting of new disposal sites. The material dispute in this case is not on the advisability of not keeping this waste—but the ability of the applicant to recognize that it is not alone in this view. The Applicant alone, however, would make the waste in

question, and therefore must at the least meet the regulations of the NRC as upheld by the Board and the Commission in this case, and more thoroughly provide for the safety of its workers and neighbors than the concatenation of future paper work.

III. Lack of Legal Disputes

First: it was the Board itself and subsequently Commission that brought up 10 CFR 52.79 and specified (a)(3) in the initial ruling on contentions and then the ruling on the PEF appeal. The Commission upheld the Board's reading of 52.79(a)(3) and admission of contention 8 (in part) (see CLI-10-02, January 10, 2010, pages 22-25). Please note that when Contention 8A was admitted as written, it invokes 10 CFR 52.79 with no specification of subparts. Perhaps understated in the discussion, we find that elements of nearly every subsection of 52.79 make our case. It is however evidence of the need for the NRC "gap analysis" being conducted in the NMSS section of the Commission that the regs as written, for instance 52.79(a)(4) while relevant in part, for instance "The design of the facility including:" as invoked by Judge Barrata, is clearly about the reactor structure itself.

Another section of this regulation that has relevance is 52.79(16) (i) and (ii):

> (16)(i) The information with respect to the design of equipment to maintain control over radioactive materials in gaseous and liquid effluents produced during normal reactor operations, as described in § 50.34a(d) of this chapter;
> (ii) A description of the process and effluent monitoring and sampling program required by appendix WEto 10 CFR part 50 and its implementation.

Again, this is not exactly right – so we do rely primarily upon 52.79(a) and 52.79(a)(3) and reflect that the lack of regulation should nct be defended as if it were regulation. The goal of the regulation is clear: provide sufficient detail in order for the Regulator to resolve the safety issues prior to granting the COL (paraphrase of 52.79(a).

Second: The Commission itself has affirmed the reasonable nature of the intervener's concerns. The Commission states on page 24 of its CLI-10-02 ruling:

> **Absent a licensed LLRW disposal facility that will accept waste from the Levy County facility, it is reasonably foreseeable that LLRW generated by normal operations will be stored at the site for a longer term than is currently envisioned in Progress' COL application.** (emphasis added)

Third: "Means of control" is a straw man – the issue is demonstration of compliance with radiation protection standards.

The Applicant devotes a long discussion in the Motion to the question of "means of control" in response to 10 CFR 52.79(a)(3):

> (3)The kinds and quantities of radioactive materials expected to be produced in the operation and the means for controlling and limiting radioactive effluents and radiation exposures within the limits set forth in part 20 of this chapter;

The core of this regulation is demonstration that the limits can be met; it is a very long laundry list of "to do's" for what the applicant must include in the FSAR.

. The one illustration given above (there are other hypothetical scenarios that could be offered) shows that PEF's proposed plan does not deliver any certainty whatsoever about demonstration of compliance with Part 20, or any other regulation. Means is not the issue and the preface to this whole regulation 10 CFR 52.79(a) makes this clear:

> (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:

The Applicant is to provide design bases, limits on operation, safety analysis of the facility as a whole, information sufficient to enable the Commission to resolve safety matters… The Motion is devoid of a discussion of this section of 10CFR52.79.

As argued by Interveners recently in offering Contention 8A (May 14, 2010) and the first round of defense (June 15, 2010), it is incumbent upon NRC to make a finding as to whether 10CFR20 and ALARA have been met, for workers and the public prior to granting the COL. As cited above the Commission itself has state that the extended storage of so called LLRW is "reasonably foreseeable." As stated in Dr. Resnikoff' s current Declaration (item 11 as the conclusion of points 7 – 11) with regard to extended storage "From the DCD, it is not clear to me how NRC staff can conclude that workers and the public are protected." Dr Resnikoff adds:

> "If this issue moves towards a hearing before the Atomic Safety And Licensing Board, I will discuss this issue and issues concerning other radioactive waste forms, to show that the DCD does not provide assurance that the health and safety of workers and the general public will be protected."

It would not be consistent to approve a plan which contains obvious potential short falls in delivery of compliance with its own safety regulations.

Fourth: The Applicant alleges that it has no choice – and that may be so, but the Board and the Commission do. On page 13 of the Motion, the Applicant states that NRC guidance outlines a plan similar to that which it offers in lieu of a hearing on Contention 8A, and further states that it "must" follow these procedures.

Interveners concede that it would probably be bad form for a COL applicant to openly announce that it was not going to follow NRC Guidance. However, it is well established [NEED CITE] that Guidance does not have the force of regulation. We (all parties) find ourselves inconveniently in several transitions at once: first—the rejection of shallow-land burial as an

acceptable (let alone good) "neighbor" by dozens of communities in as many years; second the recognition by many policy analysts that on-site storage is a reality – and probably one with more future than many others; and third the realization by NRC that the shifts in national waste policy will require further regulation and elaboration of existing regulation.

We heard the Commission in CLI-09-03 (Tennessee Valley Authority February 2009) that a full hearing of the issues on so-called LLRW is appropriate given the state of flux on disposal of so-called LLRW caused by the closure of the Barnwell facility to all but the Atlantic Interstate Compact in 2008 (see Attachments B, F and G for more discussion of this closure). The Commission quotes the Director of Operations as stating: [waste disposal] "is not generally considered reliable (i.e., generators do not have good assurance that disposal will be available to them over the next 5 to 10 years)." (page 11)

…and goes on to state (pages 11-12):

> The questions of the safety and environmental impacts of onsite low-level waste *storage* are, in our view, largely site- and design-specific, and appropriately decided in an individual licensing proceeding, provided that litigants proffer properly framed and supported contentions.42 Indeed, a "low-level waste confidence" rule would not, if it followed the pattern set by the high-level waste confidence rule, alter any requirements to consider in the adjudicatory proceeding the environmental impacts of waste storage during the term of the license.

It is important to note the final words of this excerpt: "term of the license" not term of the DCD design.

We have demonstrated that there are material issues in dispute. And we are also concerned that a judgment on these issues at this juncture may not resolve the matters raised in Contention 8A during the pendency of the case. 10 C.F.R. § 2.710(d)(1) says that the presiding officer "need not consider a motion for summary disposition unless its resolution will serve to expedite the proceeding if the motion is granted." The issuance of the staffs' AFSER (which we presume is still in development), the ACRS reading of it and any possible rulemaking activity

that the Commission may engage in during calendar 2011 on these issues could all present new information with respect to the issues admitted as Contention 8A. It is premature to rule now.

IV. Vogtle / Levy

Interveners acknowledge that several other Boards have ruled and sometimes ruled repeatedly in other COLs (including Bellafonte 3 & 4, North Anna 3, Vogtle 5 and 6, Fermi 3, Calvert Cliffs 3…), and affirm that the lateral structure of the ASLB for site-specific hearings is appropriate, since the sites **are** specific. Part of what interveners would do in continuing to build a case on so called LLRW generation and extended storage at Levy 1 & 2 is examine the record on LLRW during extreme weather events, as required in 52.79(a)(1)(iii). The likelihood of hurricane impact is substantially lower at Vogtle than at Levy. We are continuing to look at the Levy-specific dimensions that extended storage of so called LLRW would have and believe that the full hearing process is the appropriate opportunity for all parties to do so.

Another point of distinction between the two sites, which warrants a separate, Levy-specific consideration of these issues is that, unlike the Vogtle site, Levy is not yet contaminated with industrial radioactivity. Meeting the regulations for levels of "allowable" radioactivity on a reactor site under NRC regs is different than the Greenfield status that Levy now enjoys, in terms of health and safety as well as "environmental impact." In addition to the safety and security of our members, in Levy / Citrus, the Biome of this and all the communicating areas via air, water, food and DNA "sheds" deserve a site-specific reading and hearing of these issues.

V. Applicants NRC and Interveners – the role of the outsider

The interveners would like to, for a brief moment, reflect that part of the argument made by the Movant reflects an almost cultural or "reflexive" attitude that seems to be endemic in the attempt to site and license the first new nuclear power reactors in three decades. There is a palpable assumption – presumption – that the new "one-step" COL process of Part 52

(advertised as simple and expedited) therefore exempts the applicant from providing detail and specificity in some information. This mindset is delivered in footnote 14 on page 12 of the motion, where regs under part 50 (the old two-step licensing) is contrasted with part 52 stating specifically:

" Accordingly, it follows that information regarding the "means" for onsite storage of solid waste under 10c.f.r52.79(a)(3) calls for something less than the "general description" of such facilities is required in the construction permit context."

Interveners have been encouraged by the repeated rulings of this Board in this case, and the Commission (in this case, and broadly across the COLs) that Low-Level Radioactive Waste is being treated as a substantial concern, and that regulations regarding it should not be given short shrift. We hope that this view will prevail and that our case can be fully developed in the Levy County hearing.

VI. Conclusion why this contention should he heard

For all of the reasons stated here, supported by Attachments A – H, we ask that the Board reject the Motion for Summary Disposition and give Contention 8A a full hearing.

Respectfully Submitted

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Mary Olson
Southeast Regional Coordinator,
on behalf of the Co-Interveners

Asheville, North Carolina
September 15, 2010

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:
Alex S. Karlin, Chairman
Dr. Anthony J. Baratta
Dr. William M. Murphy

In the Matter of PROGRESS ENERGY FLORIDA, INC. (Combined License Application for Levy County Nuclear Power Plant, Units 1 and 2)	Docket No. 52-029-COL, 52-030-COL ASLBP No. 09-879-04-COL-BD01 September 15, 2010

Certificate of Service

I hereby certify that copies of these "Response of Interveners to Applicant's Motion for Summary Disposition of Contention 8A" have been served on the following persons by Electronic Information Exchange on this 15th day of September 2010:

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/Signed (electronically) by/

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September 15, 2010