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10 CFR 72.7  
L-2010-256  
November 5, 2010

ATTN: Document Control Desk  
Director, Spent Fuel Project Office  
Office of Nuclear Material Safety and Safeguards  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

Re: Turkey Point Nuclear Plant  
Independent Spent Fuel Storage Installation  
Docket No. 72-62  
Request for Exemptions from 10 CFR 72.212(b)(2)(i)(A), and 10 CFR 72.212(b)(7)  
requiring compliance with NUHOMS® HD Certificate of Compliance No. 1030  
Amendment No. 0 for Spent Fuel Storage Casks, 10 CFR 72.48, 10 CFR 72.212(a)(2)  
and 10 CFR 72.214

Pursuant to the provisions of 10 CFR 72.7, Specific exemptions, Florida Power and Light Company (FPL) requests exemptions from the requirements specified in 10 CFR 72.212, Conditions of general license issued under 10 CFR 72.210. The exemptions would be from the requirements of 10 CFR 72.212(b)(2)(i)(A), and 10 CFR 72.212(b)(7), both of which require the licensee to comply with the terms and conditions of the NRC issued certificate of compliance (CoC). In connection with these requirements, FPL also requests an exemption from 10 CFR 72.48(c)(1)(ii)(B), which allows design or procedure changes if there are no changes to the terms, conditions, or specifications of the CoC. Additionally, 10 CFR 72.212(a)(2) and 10 CFR 72.214 are implicated by these exemption requests.

These exemptions are requested because FPL needs to use the proposed Amendment No. 1 to CoC No. 1030 in its entirety for the Turkey Point Units 3 and 4 independent spent fuel storage installation fuel loading campaigns. Amendment No. 1 to CoC No. 1030 is in NRC review and approval, but its issuance date may not accommodate FPL's scheduled initial spent fuel loading campaigns beginning in July 2011.

Attachment 1 contains the full details and justification for these exemption requests, and Attachment 2 provides the environmental impact assessment.

FPL requests that NRC grant these exemptions such that they become effective by January 21, 2011, to accommodate the preparations and planning for the Turkey Point Units 3 and 4 fuel loading campaigns.

Because of the timing of these exemption requests relative to the potential timing of the issuance of CoC Amendment No. 1, it is also requested that, should CoC No. 1030 Amendment No. 1 be issued in sufficient time to implement during the actual loading of fuel into a dry storage canister, then Amendment No. 1 shall govern and these exemption requests, if granted,

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shall be superseded by Amendment No. 1. In the event Amendment No. 1 is approved by the NRC after the fuel loading campaigns have commenced, the exemption shall be used throughout the campaign and reconciled with Amendment No. 1 thereafter.

FPL shall effect changes to procedures, processes, and evaluations pursuant to these conditions.

If you have any questions concerning this matter, please contact Mr. Robert Tomonto at 305-246-7327.

Very truly yours,



Michael Kiley  
Vice President  
Turkey Point Nuclear Plant

Attachments: 1) Certificate of Compliance No. 1030 Exemption Request  
2) Environmental Assessment

cc: Regional Administrator, USNRC Region II  
USNRC Senior Resident Inspector – Turkey Point Nuclear Plant

Attachment 1  
Turkey Point Independent Spent Fuel Storage Installation  
Request For Exemptions From 10 CFR 72.212(b)(2)(i)(A), 10 CFR 72.212(b)(7),  
10 CFR 72.48(c)(1)(ii)(B), 10 CFR 72.212(a)(2) and 10 CFR 72.214

I. Background

A request for Amendment No. 1 to Certificate of Compliance (CoC) No. 1030 was submitted by Transnuclear, Inc. (TN), to the NRC in an application dated November 1, 2007 (Section IV., References: Reference 1), as supplemented by letters dated December 15, 2008 through September 23, 2010 (References 4, 5, 7, 8, 9, 11 through 13, and 15). CoC 1030 Amendment 1 includes, for example, the following changes:

- reduction in the minimum ambient temperature from -20°F to -21°F;
- expansion of the authorized contents of the NUHOMS<sup>®</sup> HD System to include pressurized water reactor (PWR) fuel assemblies with control components (CCs);
- reduction of the minimum initial enrichment of fuel assemblies from 1.5 wt.% U-235 to 0.2 wt.% U-235;
- clarification of the requirements of reconstituted fuel assemblies;
- addition of requirements to qualify metal matrix composite (MMC) neutron absorbers with integral aluminum cladding; and
- deletion of the use of nitrogen for draining the water from the dry shielded canister (DSC), and allow only helium as a cover gas during DSC cavity water removal operations.

Thus, several changes and clarifications are proposed to the CoC, including the Technical Specifications (TS) and Bases, and revisions to the Updated Final Safety Analysis Report (UFSAR). Examples of these changes and clarifications include the revised definition of damaged fuel, a TS change to allow only helium as a cover gas during DSC cavity water removal operations and TS changes regarding hydrogen gas monitoring or mitigation measures. Because of Florida Power and Light Company's (FPL) fuel load schedule requirements for Turkey Point Units 3 and 4, FPL is requesting an exemption to CoC 1030 and thereby requests implementation of the TS, Bases and revised UFSAR presently contained in the proposed CoC 1030 Amendment 1, defined by the contents of References 1, 4, 5, 7, 8, 9, 11 through 13, and 15.

II. Exemption Requests

Pursuant to the provisions of 10 CFR 72.7, "Specific exemptions," FPL requests exemptions from requirements, specified in 10 CFR 72.212, "Conditions of general license issued under §72.210." The exemptions would be from the requirements of 10 CFR 72.212(b)(2)(i)(A), and 10 CFR 72.212(b)(7), both of which require the licensee to comply with the terms and conditions

of the NRC issued CoC. In connection with these requirements, FPL also requests an exemption from 10 CFR 72.48(c)(1)(ii)(B), which allows design or procedure changes if there are no changes to the terms, conditions, or specifications of the CoC. Additionally, 10 CFR 72.212(a)(2) and 10 CFR 72.214 are implicated by these exemption requests.

These exemptions are requested because FPL must use the proposed Amendment 1 to CoC 1030 in its entirety for the Turkey Point Units 3 and 4 independent spent fuel storage installation (ISFSI) fuel loading campaigns. Amendment 1 to CoC 1030 is in final NRC review and approval (Reference 14), but the timing of its issuance may not accommodate FPL's scheduled initial fuel loading campaigns beginning in July 2011.

One request is for exemption from the requirement of 10 CFR 72.212(b)(2)(i)(A) which states, "Perform written evaluations, prior to use, that establish that conditions set forth in the Certificate of Compliance have been met." This exemption would apply to compliance with specific requirements in CoC No. 1030 Amendment No. 0, issued to TN for the NUHOMS<sup>®</sup> HD System (HD-32PTH) which will be utilized at Turkey Point. An exemption is requested because CoC 1030, Amendment 0 TS do not include the necessary provisions and specific wording and clarifications required for this campaign, and Amendment 1 contains such provisions and clarifications as previously noted. Amendment 1 to CoC 1030 has not yet been issued by the NRC and FPL desires to use Amendment 1 in its entirety. Since FPL would then be using CoC Amendment 1 via these exemption requests, then 10 CFR 72.48(c)(1)(ii)(B) also requires an exemption because of the change to CoC Amendment 0. For example, FPL plans to base its 10 CFR 72.212 assessment and the accompanying 10 CFR 72.48 documentation on these exemption requests when granted.

Another request is for exemption from the stipulation in 10 CFR 72.212(b)(7) which states "The licensee shall comply with the terms and conditions of the certificate." This request is also made for the reason stated in the Background section above. FPL wishes to implement CoC 1030 Amendment 1 in its entirety for the planned Turkey Point fuel loading campaigns.

Because of the timing of these exemption requests versus the potential timing of the issuance of CoC Amendment 1, it is also requested that, should CoC 1030 Amendment 1 be issued in sufficient time to implement during the actual loading of fuel into a DSC, then Amendment 1 shall govern and these exemption requests, if granted, shall be superseded by Amendment 1. In the event Amendment 1 is approved by NRC after the fuel loading campaigns have commenced, the exemption shall be used throughout the campaign and reconciled with Amendment 1. FPL shall effect changes to procedures, processes, and evaluations pursuant to these conditions.

### III. Justification

These exemptions are required to prepare for, and to perform, the loading of irradiated nuclear fuel into the ISFSI at Turkey Point Units 3 and 4. Numerous plans, programs, procedures and processes must be prepared or modified, and instituted, which must be based on these exemptions considering that the CoC 1030 Amendment 1 is not yet a legal basis.

10 CFR 72.7 specifies that the Commission may grant exemptions from the requirements of 10 CFR Part 72 when the exemptions are authorized by law and will not endanger life or property or the common defense and security, and are otherwise in the public interest.

In the preliminary Safety Evaluation Report (SER) prepared by the NRC for Amendment 1 (Reference 14), the NRC staff found that the proposed changes do not reduce the safety margin for the NUHOMS<sup>®</sup> HD Horizontal Modular Storage System for Irradiated Nuclear Fuel. The NRC staff concluded that the proposed changes to the approved contents of the NUHOMS<sup>®</sup> HD System meet the requirements of 10 CFR Part 72.

The NRC has completed the review, and documented in the preliminary SER for the proposed CoC 1030 Amendment 1, the proposed TS that FPL will use. Therefore, the NRC staff has performed the technical review of CoC 1030 Amendment 1, as planned to be used by FPL.

The limitations established with the CoC 1030 Amendment 1 TS will ensure that the analyses forming the basis for the NRC conclusions in the preliminary SER are met. Therefore, FPL concludes that these exemptions will not endanger life or property or the common defense and security.

### IV. Precedent

FPL has previously requested and was granted an exemption (References 16 and 17) from the current CoC 1030, Revision 0 for St. Lucie Unit 1 and Unit 2 Summer 2010 ISFSI campaigns. FPL successfully implemented the TS presently contained in the proposed CoC 1030, Amendment 1 during the recently completed St. Lucie ISFSI campaigns.

### V. References

1. Letter E-25747 from R. Grubb (Transnuclear) to U. S. Nuclear Regulatory Commission, "Application for Amendment 1 of the NUHOMS<sup>®</sup> HD Certificate of Compliance No. 1030 for Spent Fuel Storage Casks, Revision 0", dated November 1, 2007

2. Letter from B. Jennifer Davis (NRC) to D. Shaw (Transnuclear), "Acknowledgment Review of the Transnuclear NUHOMS® Proposed Amendment No. 1 to the NUHOMS® HD System (TAC No. L24153)", dated June 6, 2008
3. Letter from B. Jennifer Davis (NRC) to D. Shaw (Transnuclear), "Request for Additional Information for Review of Amendment 1 to the NUHOMS® HD System (TAC No. L24153), Including Updated Review Schedule", dated November 14, 2008
4. Letter E-27377 from R. Grubb (Transnuclear) to U. S. Nuclear Regulatory Commission, "Revision 1 to Transnuclear, Inc. (TN) Application for Amendment 1 to the NUHOMS® HD System, Response to Request for Additional Information (Docket No. 72-1030; TAC No. L24153)", dated December 15, 2008
5. Letter E-27737 from J. Bondre (Transnuclear) to U. S. Nuclear Regulatory Commission, "Revision 2 to Transnuclear, Inc. (TN) Application for Amendment 1 to the NUHOMS® HD System (Docket No. 72-1030; TAC No. L24153)", dated February 19, 2009
6. Letter from B. Jennifer Davis (NRC) to D. Shaw (Transnuclear), "Second Request for Additional Information for Review of Amendment 1 to the NUHOMS® HD System (TAC No. L24153)", dated April 3, 2009
7. Letter E-28000 from J. Bondre (Transnuclear) to U. S. Nuclear Regulatory Commission, "Revision 3 to Transnuclear, Inc. (TN) Application for Amendment 1 to the NUHOMS® HD System, Response to Second Request for Additional Information (Docket No. 72-1030; TAC No. L24153)", dated April 30, 2009
8. Letter E-28168 from J. Bondre (Transnuclear) to U. S. Nuclear Regulatory Commission, "Revision 4 to Transnuclear, Inc. (TN) Application for Amendment 1 to the NUHOMS® HD System (Docket No. 72-1030; TAC No. L24153)", dated May 26, 2009
9. Letter E-28236 from J. Bondre (Transnuclear) to U. S. Nuclear Regulatory Commission, "Revision 5 to Transnuclear (TN) Application for Amendment 1 to the NUHOMS® HD System (Docket No. 72-1030; TAC No. L24153)", dated June 10, 2009
10. Letter from B. Jennifer Davis (NRC) to D. Shaw (Transnuclear), "Proposed Certificate of Compliance and Preliminary Safety Evaluation Report for the Transnuclear, Inc. NUHOMS® HD Horizontal Modular Storage System for Irradiated Nuclear Fuel, Amendment 1 (TAC No. L24153)", dated July 28, 2009
11. Letter E-28403 from D. Shaw (Transnuclear) to U. S. Nuclear Regulatory Commission, "Transnuclear, Inc. Comments on the Proposed Certificate of Compliance and Preliminary

Safety Evaluation Report for the Transnuclear, Inc. to the NUHOMS® HD Horizontal Modular Storage System for Irradiated Nuclear Fuel, Amendment 1 (Docket No. 72-1030; TAC No. L24153)", dated July 30, 2009

12. Letter E-28479 from J. Bondre (Transnuclear) to U. S. Nuclear Regulatory Commission, "Revision 6 to Transnuclear, Inc. (TN) Application for Amendment 1 to the NUHOMS® HD System (Docket No. 72-1030; TAC No. L24153)", dated September 17, 2009
13. Letter E-29703 from R. Grubb for Jayant Bondre (Transnuclear) to U. S. Nuclear Regulatory Commission, Revision 7 to Transnuclear, Inc. (TN) Application for Amendment 1 to the NUHOMS® HD System (Docket No. 72-1030; TAC No. L24153)", dated July 26, 2010
14. Letter from Kristina L. Banovac (NRC) to Don Shaw (Transnuclear), "Proposed Certificate of Compliance and Preliminary Safety Evaluation Report for the Transnuclear, Inc. NUHOMS® HD Horizontal Modular Storage System for Irradiated Nuclear Fuel, Amendment 1," dated September 15, 2010
15. Letter E-29934 from D. Shaw (Transnuclear) to U. S. Nuclear Regulatory Commission, "Transnuclear, Inc. Comments on the Proposed Certificate of Compliance and Preliminary Safety Evaluation Report for the Transnuclear, Inc. NUHOMS® HD Horizontal Modular Storage System for Irradiated Nuclear Fuel, Amendment 1 (Docket No. 72-1030; TAC No. L24153)", dated September 23, 2010
16. Letter L-2010-006 from Richard L. Anderson, (FPL) to U. S. Nuclear Regulatory Commission, "St. Lucie Units 1 and 2 Docket Nos. 50-335 and 50-389 Request for Exemptions from NUHOMS HD Certificate of Compliance No. 1030 Amendment 0 for Spent Fuel Storage Casks", dated January 12, 2010
17. Letter from Douglas W. Weaver (NRC), "Request for Approval to Use Amendment 1 to the NUHOMS HD System Prior to Final Approval (TAC No. L24416)", dated April 19, 2010

Attachment 2  
Turkey Point Independent Spent Fuel Storage Installation  
Request For Exemptions From 10 CFR 72.212(b)(2)(i)(A), 10 CFR 72.212(b)(7),  
10 CFR 72.48(c)(1)(ii)(B), 10 CFR 72.212(a)(2) and 10 CFR 72.214  
Environmental Assessment

Environmental Assessment Information

In accordance with 10 CFR 51.30, "Environmental Assessment," the following information is provided in support of an environmental assessment and finding of no significant impact for the proposed exemptions:

Identification of the Proposed Action

Pursuant to the provisions of 10 CFR 72.7, "Specific exemptions," Florida Power and Light Company (FPL) requests exemptions from requirements, specified in 10 CFR 72.212, "Conditions of general license issued under §72.210." The exemptions would be from the requirements of 10 CFR 72.212(b)(2)(i)(A), and 10 CFR 72.212(b)(7), both of which require the licensee to comply with the terms and conditions of the NRC issued certificate of compliance (CoC). In connection with these requirements, FPL also requests an exemption from 10 CFR 72.48(c)(1)(ii)(B), which allows design or procedure changes if there are no changes to the terms, conditions, or specifications of the CoC. Additionally, 10 CFR 72.212(a)(2) and 10 CFR 72.214 are implicated by these exemption requests.

These exemptions are submitted because FPL requests use of the proposed Amendment No. 1 to CoC No. 1030 in its entirety for the Turkey Point Units 3 and 4 independent spent fuel storage installation (ISFSI) fuel loading campaigns. Amendment 1 to CoC 1030 is in final NRC review and approval (References 1 through 14), but the timing of its issuance may not accommodate FPL's scheduled initial fuel loading campaigns beginning in July 2011.

One request is for exemption from the requirement of 10 CFR 72.212(b)(2)(i)(A) which states, "Perform written evaluations, prior to use, that establish that conditions set forth in the Certificate of Compliance have been met." This exemption would apply to compliance with specific requirements in CoC No. 1030 Amendment No. 0, issued to Transnuclear, Inc. (TN) for the NUHOMS<sup>®</sup> HD System (HD-32PTH) which will be utilized at Turkey Point. An exemption is requested because Amendment 0 of the Technical Specifications (TS) presently contained in CoC 1030 does not include the necessary provisions and specific wording clarifications required for this campaign, and Amendment 1 contains such provisions and clarifications. Amendment 1 to CoC 1030 has not yet been issued by the NRC and FPL desires to use Amendment 1 in its entirety. Since FPL would then be using CoC Amendment 1 via these exemption requests, then 72.48(c)(1)(ii)(B) also requires an exemption because of the change to CoC Amendment 0. For

example, FPL plans to base its 10 CFR 72.212 assessment and the accompanying 10 CFR 72.48 documentation on these exemption requests when granted.

Another request is for exemption from the stipulation in 10 CFR 72.212(b)(7) which states "The licensee shall comply with the terms and conditions of the certificate." This request is also made for the reason stated above. FPL requires implementation of CoC 1030 Amendment 1 in its entirety for the planned Turkey Point fuel loading campaigns.

Because of the timing of these exemption requests relative to the potential timing of the issuance of CoC Amendment 1, it is also requested that, should CoC 1030 Amendment 1 be issued in sufficient time to implement during the actual loading of fuel into a dry storage canister (DSC), then Amendment 1 shall govern and these exemption requests, if granted, shall be superseded by Amendment 1. In the event Amendment 1 is approved by the NRC after the fuel loading campaigns have commenced, the exemption shall be used throughout the campaign and reconciled with Amendment 1 thereafter. FPL shall effect changes to procedures, processes, and evaluations pursuant to these conditions.

#### The Need for the Proposed Action

These exemptions are required to prepare for, and to perform, the initial loading of irradiated nuclear fuel into the ISFSI at Turkey Point Units 3 and 4. Numerous planning, programs, procedures and processes need to be prepared, modified, or instituted, which must be based on these exemptions since the CoC 1030 Amendment 1 is not yet a legal basis.

Turkey Point Unit 3 is currently scheduled to begin a refueling outage (RFO) in January 2012. During the Turkey Point Unit 3 RFO approximately 72 fuel assemblies will be removed from the core for storage in the Turkey Point Unit 3 spent fuel pool (SFP). Due to the addition of these 72 assemblies to the SFP, upon restart from the Turkey Point Unit 3 RFO currently planned for May 2012, FPL would no longer have the ability to offload a full core of 157 fuel assemblies to the SFP. Further, if no fuel is transferred to the ISFSI prior to the start of the Unit 3 RFO, there would not be sufficient space in the SFP to pre-stage all 72 new fuel assemblies. This would complicate the fuel handling evolutions required for core reload during the Unit 3 RFO.

Turkey Point Unit 4 is currently scheduled to begin a RFO in October 2012. During the Turkey Point Unit 4 RFO approximately 72 irradiated fuel assemblies will be removed from the core for storage in the SFP. Due to the addition of these 72 assemblies to the Turkey Point Unit 4 SFP, upon restart from the Turkey Point Unit 4 RFO currently planned January 2013, FPL would no longer have the ability to offload a full core of 157 fuel assemblies to the SFP.

In order to avoid this potential impact, which could significantly affect the ability of FPL to provide reliable electric power to its customers, FPL plans to transfer 288 fuel assemblies per

unit, for a total of 576 spent fuel assemblies (18 dry storage casks with 32 assemblies each) from the current SFP inventories at Turkey Point Unit 3 and Unit 4 to the ISFSI prior to the Turkey Point Unit 3 RFO. The DSCs and horizontal storage modules (HSM), for the NUHOMS<sup>®</sup> HD System (HD-32PTH) are available for the fuel loading and transfer operations.

The planned transfer of the 288 fuel assemblies per unit prior to the Turkey Point Unit 3 RFO must be completed in 2011 to allow FPL's resources, including personnel and equipment, to be dedicated to the Turkey Point Unit 3 RFO preparations. These resources will not be available for ISFSI fuel transfer operations. In order to load and transfer 18 casks to the ISFSI, loading activities for the first cask must begin by July 2011. FPL requires these exemptions to allow loading in the NUHOMS<sup>®</sup> HD System (HD-32PTH) dry cask storage system prior to the Turkey Point Unit 3 RFO and requests approval of these exemptions by January 21, 2011 to allow sufficient time to load the 18 casks.

In addition to the potential impacts associated with full core offload capability, and reload fuel handling discussed above, there would also be a cost impact associated with a delay in any transfer operations until after the Units 3 and 4 RFOs. FPL has currently scheduled personnel, training, and planned for equipment to support a practice dry run during the June-July 2011 time period, to be followed directly by the planned DSC loading. If the loading and transfer of 18 casks cannot be accomplished, then FPL would have to reschedule and remobilize the personnel and equipment.

Transfer of fuel assemblies from the SFP to the ISFSI according to the planned 2011 schedule would also afford FPL flexibility for fuel storage options to address issues or recommendations resulting from security aspects of spent fuel storage.

10 CFR 72.7 specifies that the Commission may grant exemptions from the requirements of 10 CFR Part 72 when the exemptions are authorized by law and will not endanger life or property or the common defense and security, and are otherwise in the public interest. FPL has concluded that these conditions for granting an exemption are met and has provided the justification in this submission.

Further, there is no identifiable regulatory process that could be completed within the required timeframe that would preclude the need for these exemption requests.

#### Environmental Impacts of the Proposed Action

Since FPL will be implementing Amendment 1 as proposed, FPL concludes that the exemptions will have no significant environmental impact. The exemptions will not significantly increase the probability or consequences of accidents. There are no changes being made in the types or amounts of effluents that may be released offsite, and there is no significant increase in

occupational or public radiation exposure as a result of the proposed activities. Therefore, there are no significant radiological environmental impacts associated with the proposed exemptions. With regard to potential non-radiological environmental impacts, FPL has determined that the proposed exemptions have no potential to affect any historic sites. They do not affect non-radiological plant effluents and have no other environmental impact. Therefore, there are no significant non-radiological environmental impacts associated with these requested exemptions.

#### Environmental Impacts of the Alternatives to the Proposed Action

As an alternative to the requested exemptions, the Commission could consider denial (i.e., the “no-action” alternative). Denial of the exemptions would result in no change to the current environmental impacts. FPL considers the “no-action” alternative to potentially severely impact FPL’s ability to provide safe, affordable, competitive, and reliable electrical power generation.

#### Alternative Use of Resources

These requested exemptions do not involve the use of any different resources than those previously considered in the Final Environmental Statements for Turkey Point Units 3 and 4. Accordingly, the proposed action is not a major federal action significantly affecting the quality of the environment.