FPL.

February 15, 2013
L-2013-060
10 CFR 50.54(f)

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555-0001

Turkey Point Units 3 and 4
Docket Nos. 50-250 and 50-251

Response to Follow-up Technical Issues on NRC 10 CFR 50.54(f) Request for Information Regarding Near-Term Task Force Recommendation 9.3, Emergency Preparedness

References:
1. NRC Letter, Request for Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) Regarding Recommendations 2.1, 2.3, and 9.3, of the Near-Term Task Force Review of Insights from the Fukushima Dai-Ichi Accident, Accession No. ML12073A348, dated March 12, 2012.
2. FPL Letter, Mike Kiley (FPL) to US NRC, "Response to NRC 10 CFR 50.54(f) Request for Information Regarding Near-Term Task Force Recommendation 9.3, Emergency Preparedness," L-2012-388, dated October 25, 2012.
3. NRC Letter, M.A. Mitchell (NRC) to All Power Reactor Licensees, et.al, "Follow-up Letter on Technical Issues for Resolution Regarding Licensee Communication Submittals Associated with Near-Term Task Force Recommendation 9.3 (TAC NO. ME7951)," Accession No. ML13016A111, dated January 23, 2013.

On March 12, 2012, the NRC staff issued the Reference 1 letter requesting information pursuant to Title 10 of the Code of Federal Regulations 50.54(f). Enclosure 5 of the letter contains specific Requested Actions and Requested Information associated with Recommendation 9.3 for Emergency Preparedness (EP) programs.

In the Reference 2 letter, Florida Power and Light Company (FPL) responded to Recommendation 9.3 of Reference 1, transmitting the results of the Communications Assessment performed for Turkey Point Units 3 and 4.

After their initial review of the industry responses to Reference 1, the NRC developed a generic set of "Technical Issues" that licensees needed to address as part of their Communications Assessments (Reference 3). As part of the development of the follow up letter, Reference 3, NRC Staff held a conference call with FPL Turkey Point personnel on January 17, 2013 to discuss those Technical Issues and to specify the supplemental information needed from FPL Turkey Point Units 3 and 4 to complete their review of Reference 2.

AX45
NRR

The Enclosure to the letter provides the requested supplemental information on the Turkey Point Communications Assessment.

This submittal contains no new commitments or changes to any previous commitments.

If you have any questions or require additional information, please contact Mr. Robert J. Tomonto, Licensing Manager at 305 246-7327.

I declare under penalty of perjury that the foregoing is true and correct.
Executed on February 15, 2013

Sincerely,

Michael Kiley
Site Vice President
Turkey Point Nuclear Plant

Enclosure

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

TIER 1 NEAR-TERM TASK FORCE RECOMMENDATION 9.3 COMMUNCIATIONS TECHNICAL ISSUES FOR RESOLUTION

Background

On March 12, 2012, the NRC staff issued a letter entitled, "Request for Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) Regarding Recommendations 2.1, 2.3, and 9.3, of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident." In part, the request for information asked that licensees assess their current communications systems and equipment during a large scale natural event and loss of all alternating current power. On October 25, 2012, FPL responded to the staff's request for information regarding communications. Upon the staff's initial review of the licensee's communications submittals, the staff had identified generic technical issues which need to be resolved in order for the staff to complete its review.

Generic Technical Issue 1

The staff identified that licensees need to discuss how the power for the equipment analyzed is expected to be available, and how the planned communications enhancements are expected to be maintained. The following areas were identified:

A. A detailed description of how power will be maintained for (1) planned or potential enhancements to the communication links and (2) existing equipment analyzed to be available.

1 The number of replacement batteries expected to be needed for a 24-hour duration, per the Nuclear Energy Institute (NEI) 12-01 "Guideline for Assessing Beyond Design Bass Accident Response Staffing and Communications Capabilities".
2 Generator availability to charge batteries without offsite equipment for a duration of 24 hours.
3 A description of how ancillary equipment supports operations for a 24-hour duration (e.g., adequacy of fuel supplies for the generators; and the minimum number of battery chargers expected to be necessary).

FPL Response

A detailed description of the site's handheld satellite telephone and radio systems was provided in Attachment B, pages 23-30 and Attachment C pages 24-30 of Reference 2.

A.1 There will be eleven dedicated emergency response satellite telephones with batteries and chargers stored on site for use in the Control Room, Technical Support Center (TSC), and Operations Support Center (OSC). This equipment may be used by on-site personnel to communicate with off-site personnel, including radiological field monitoring teams. The batteries for the individual satellite telephones are designed for approximately 8 hours of talk time. Sufficient charged batteries will be maintained on site to last 24 hours. The locations of the Turkey Point Emergency Operations Facility (EOF) and Emergency News Center (ENC) are outside the assumed 25 mile affected zone around the plant site. However, one satellite telephone with a charger and sufficient (4) charged batteries to last 24 hours will be maintained at the EOF.

Note: According to manufacturer's information, batteries for the satellite telephones can be recharged in approximately 3.5 hours. Accordingly, 40 existing 900 MHz radios, 80 spare batteries, 7 chargers, along with the above mentioned 11 handheld satellite telephones, 32 spare batteries, and 8 chargers will be relocated to dedicated storage in a Class I or robust structure (e.g., Control Room, Cable Spreading Room, or Central Alarm Station) in order to ensure reasonable protection from seismic, wind, and flood events.

A.2 Turkey Point will rely on the existing plant 900 MHz radio system repeaters that are located near site for normal communications. The repeaters are powered by an uninterruptible power supply (UPS) system consisting of normal system AC via the MacGregor Substation, backed up by an above ground propane fueled generator, and batteries. If the system experiences power losses, the system will revert first to the propane generator then to battery backup. This system is designed to withstand Category 5 hurricane force winds and is sufficiently elevated above any flooding associated with the expected storm surge. Additionally, portable diesel fueled generators procured for FLEX will be temporarily staged in selected Class I or robust (NEI 12-06) structures (e.g., Central Alarm Station and/or A/B 4KV Switchgear Rooms) in accordance with site procedure 0-ADM-503, Temporary Modifications, with instructions for use in charging radio batteries and portable satellite telephone batteries until the site's FLEX facility is completed.

A.3 Fuel for the portable generators will be obtained from the Unit 4 emergency diesel generator fuel oil storage tanks. These 2 tanks each contain 41,250 gallons of useable No. 2 fuel oil and are housed in seismic Category I structures that are also designed to withstand the site's design basis windstorm, wind-driven missiles, maximum hypothetical flood, and seismic events.

Generic Technical Issue 2

The use and function of the planned enhancements for the improvement of communications.

A. A description of the use of the planned enhancements.

1. A discussion of whether each planned enhancement identified is only to be used for maintaining the communication link identified, or if it is expected to be shared among other communication links.
2. A general description of the planned enhancement and how the equipment will be integrated.
3. The title and general description of the procedure that will be developed and used by plant personnel to describe protocols for shared usage of communication capabilities.

FPL Response

A.1 Turkey Point will not be implementing shared usage of communications equipment as defined in NEI 12-01.

A.2 A detailed description of the planned enhancements was provided in Section 5.0 on pages 16 and 17 of Reference 2.

A.3 Emergency Preparedness procedure 0-EPIP-20112, Communications Network, will be revised as necessary to integrate equipment related to the enhancements described in Section 5.0 of Reference 2. Additionally, any required new procedures will be developed in accordance with site procedure AD-AA-100-1004, Preparation, Revision, Review and Approval of Site Specific Procedures.

Generic Technical Issue 3

The protection of the new equipment purchased as a planned enhancement as well as the protection of existing communications equipment analyzed as being available.

A A discussion of how the existing equipment analyzed to be available and enhancements to these communication links as well as associated ancillary equipment will be stored in a manner that is protective from a large scale natural event.

1. A description of pre-identified areas that are considered protective for existing equipment and whether new equipment will be stored in a similar location. The title and brief description of a procedure for new communications equipment storage is acceptable, if this procedure is planned to be developed in the future; or a statement that this will be completed in alignment with NRC order EA-12-049.
2. Equipment stored offsite, should have an analysis of duration to set-up this equipment for use.
3. The analysis demonstrates that the existing equipment that is expected to be available will be functional.

FPL Response

A.1 A detailed description of the level of protection afforded to existing site communications equipment was provided in Attachments A through D on pages 20 through 26 of Reference 2.

For the purposes of the assessment, reasonably protected buildings were defined as: Constructed to meet the requirements of NEI 12-06, "Diverse and Flexible Coping Strategies (FLEX) Implementation Guide" or seismic Class 1 structures.

Forty existing 900 MHz radios, 80 spare batteries, 7 chargers, as well as 11 handheld satellite telephones, 32 spare batteries, and 8 chargers for use in the Control Room, TSC, and OSC will be relocated to dedicated storage in a Class I or robust structure

(e.g., Control Room, Cable Spreading Room, or Central Alarm Station) in order to ensure reasonable protection from seismic, wind, and flood events.

A.2 The locations of the Turkey Point EOF and ENC are outside the assumed 25 mile affected zone around the plant site. However, one satellite telephone with a charger and sufficient (4) charged batteries to last 24 hours will be maintained at the EOF. No specific set up process is required for this equipment.

A.3 The telephone PBX system at Turkey Point is located in the Nuclear Administration Building (NAB) and is supplied from three different power sources. The PBX is normally powered from system AC via the MacGregor Substation, it is equipped with a backup battery having a life of 4 hours, and it can be powered via the Security System diesel generator for use in the event of a loss of offsite power. Given the assumptions in NEI 12-01, the ability to have continued communication between the TSC, OSC, and Control Room depends on how quickly a dedicated portable generator can be placed into service. The PBX room has an external power connection for a 480v diesel fueled generator in the event of a loss of all AC power. The NAB is built to the South Florida Building Code[1] applicable in the mid-1980's and is elevated 18 feet above sea level (maximum hypothetical flood level is 18.3 feet) similar to the nuclear power block, but is not specifically protected from flooding. The NAB withstood the winds and storm surge produced by Hurricane Andrew in 1992, a 155 mph Category 5 storm with minimal damage; however it is not specifically designed to withstand the winds from a tornado or wind-driven missiles. Additionally, the NAB does not meet the seismic requirements for either a Class I or robust structure. Accordingly, the PBX system, which has a high probability of being available, is considered in the strategies. However, in the event the NAB is compromised, the PBX system is backed up by other systems (i.e., handheld radios and satellite telephones) that will be protected in Class I structures designed to withstand all of the design basis events.

[1]The South Florida Building Code states that buildings are designed to withstand 120 mph winds. Additionally, the South Florida Building Code contains no seismic design requirements due to the fact that the geology of the Florida peninsula presents an extremely low seismic risk; and that any potential lateral loads on buildings from a credible seismic event would be bounded by the lateral loading expected from thunderstorm, hurricane, or tornado winds.

Generic Technical Issue 4

The programmatic controls for the use of the new equipment purchased as a planned enhancement.

A, A description of planned proceduralization and training for the use of these planned enhancements. It is acceptable to provide the title and description of a new procedure for new communications equipment.

1. A description of any credited manual actions and their procedures.
2. A description of any maintenance for this equipment, including operability testing,
3. A description of any periodic inventory checks.
4. A description of planned staff training.

FPL Response

A.1 Currently there are no credited manual actions in Turkey Point's procedures regarding communications equipment. As the modification process for the enhancements described in Section 5.0 of Reference 2 is implemented, the need for the development of any credited manual actions will be evaluated.

A.2 Facility checks and inventories are currently performed in accordance with 0-ADM-118, Emergency Response Facilities and Equipment Surveillances. This procedure will be revised as necessary to ensure that manufacturer's recommended checks and maintenance for new equipment identified in the original assessment (e.g., long term conditioning of radio and satellite telephone batteries, frequency and methodology for periodic testing of portable generators, etc.) are performed. Any new procedures or revisions to other site procedures needed to perform the above tasks will be developed in accordance with site procedure AD-AA-100-1004, Preparation, Revision, Review and Approval of Site Specific Procedures.

A.3 0-ADM-118, Emergency Response Facilities and Equipment Surveillances will be revised to ensure the inventory checks are updated to include any additional equipment.

A.4 The development and implementation of any new required training (both initial and continuing) will be performed in accordance with site procedure 0-EPIP-20201, Maintaining Emergency Preparedness – Radiological Emergency Plan Training (e.g., location of dedicated radios and satellite telephones, location and use of portable generators, etc.).

Generic Technical Issue 5

A discussion on what assumptions are used as part of the Communications Assessment.

A. A description of the assumptions used for the submitted Communications Assessment Summary, and technical justification for any differences from the assumptions within NEI 12-01, Sections 2.2 "Assumptions Common To Both Assessments" and 2.4 "Assumptions For Communications Assessment".

FPL Response

A. Based upon the discussions with the NRC staff on January 17, 2012, FPL understands that sufficient information was provided in Reference 2 and that no supplemental information is needed from Turkey Point regarding this Generic Technical Issue.

Generic Technical Issue 6

How plant personnel will be notified in the event of a large scale natural event that causes a loss of all AC power.

A. A description and title of the procedure for emergency notification of essentially all plant staff within 30 minutes [If applicable to the licensee Emergency Plan].
B. A description and title of the procedure for notification of emergency response organization staff (i.e., self-activation) [If applicable].

FPL Response

A. A detailed description of the primary and alternate methods for notification/activation of Emergency Response Organization (ERO) personnel was provided in Attachment E on page 27 of Reference 2.

The method used to notify plant staff of an emergency condition is described in site procedure 0-EPIP-20101, Duties of the Emergency Coordinator. This is accomplished via a remotely located electronic call-out system/service that utilizes hard line phones, cell phones (voice and text), email, and pagers to alert staff. Announcements are also made from the Control Room via the site public address system.

B. The normal method of activating the ERO for staff augmentation is via the electronic call-out system described in part "A" above. Additionally site procedure 0-EPIP-20104, Emergency Response Organization Notifications/Staff Augmentation, describes the manual call-out process used as a backup to the electronic call-out system.

A memorandum is also issued to the site ERO from the Emergency Preparedness department on a quarterly basis specifically delineating the callout expectations for ERO personnel. The following specific guidance is included in the memorandum regarding large scale events resulting in a loss of AC power:

If it is your callout week and you become aware of a grid disturbance, take the following actions (SOER 99-1):

- **Monitor local radio communications for impact on the grid structure**
- **Should the situation appear to be a major grid disturbance to the grid structure, ensure you home and family are safe, then report to your emergency response facility.**

Generic Technical Issue 7

How communications will be maintained during the period of final implementation of the communication enhancements.

A. Identification and description of the interim actions that will be in place to bridge the gap until all final mitigation strategies being proceduralized are implemented. This also includes equipment protection.

FPL Response

A. Based upon the discussions with the NRC staff on January 17, 2012, FPL understands that sufficient information was provided in Reference 2 and that no supplemental information is needed from Turkey Point regarding this Generic Technical Issue.

Generic Technical Issue 8

Descriptions are needed regarding how communications will be maintained with the on-site and in-plant response teams and offsite response organizations if their communication links are not expected to be available.

A. A timeline for when the evaluation for site specific improvements for on-site and in-plant response teams will be completed.
B. A discussion of the enhancements that are planned for the offsite response organization communication links.

FPL Response

A. Based upon the discussions with the NRC staff on January 17, 2012, FPL understands that sufficient information was provided in Reference 2 and that no supplemental information is needed from Turkey Point regarding this Generic Technical Issue.

B. Based upon the discussions with the NRC staff on January 17, 2012, FPL understands that sufficient information was provided in Reference 2 and that no supplemental information is needed from Turkey Point regarding this Generic Technical Issue.