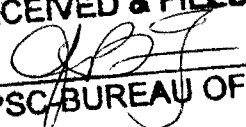**FPL**

March 24, 1999

By Hand Delivery

Blanca S. Bayó, Director
Records and Reporting
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida   32399-0850

Re: **Review of Regulated Utilities' Year 2000 Preparations and Readiness**

Dear Ms. Bayó:

Enclosed for filing on behalf of Florida Power & Light Company are our responses to the list of questions included in the Notice of Staff Workshop that was issued on March 5, 1999. The workshop is scheduled to be held on Monday, March 29, 1999.

If you or your Staff have any questions regarding this filing, please contact me at 305-552-2334.

RECEIVED & FILED

FPSC-BUREAU OF RECORDS

Very truly yours,

Kirk Gillen
Regulatory Issues Manager

an FPL Group company

YEAR 2000 READINESS WORKSHOP
Florida Public Service Commission
March 29, 1999

Florida Power and Light Company

The following information is provided in response to "Questions for all Electric Utilities and Natural Gas Utilities" in preparation for the Year 2000 Readiness Workshop to be held on March 29, 1999 in Tallahassee, Florida. The information set forth below constitutes a "Year 2000 Readiness Disclosure" as defined in the Year 2000 Information and Readiness Disclosure Act of 1998, 112 Stat.2386.

1. **Has your utility bifurcated its Year 2000 remediation efforts between "mission critical" and "important" systems?**

   Florida Power and Light has divided its systems into 3 categories:

   a) Mission Critical
   b) Important
   c) Not Important

2. **If your utility has bifurcated its remediation efforts, what functions (e.g., safety, generation, customer billing, accounting, payroll) make up the "mission critical category? What functions make up the "important" category? Please describe how you distinguish between "mission critical" and "important" systems.**

   At Florida Power and Light, the mission critical systems are identified as those affecting:

   a) Safety (of our customers and our employees)
   b) Reliable generation and delivery of electricity to our customers
   c) Customer service
   d) Financial integrity

   We have numerous mission critical systems, ranging from embedded systems used in areas such as plant process control, grid monitoring, and facilities management to business systems which support functions such as customer billing, payroll, and the general ledger.

   Important systems are systems which are used for efficient and productive processing, but do not impact our ability to ensure safety, reliable generation and delivery, customer service, or financial integrity. For example, the ability to answer the telephone and handle a call to our customer service center is mission critical. The voice response unit (VRU) which is used to handle certain types of calls automatically or to route calls to the appropriate phone representative is important. The voice response unit (VRU) allows us to operate more efficiently, but isn't critical to handling the call.

3. Has your utility prioritized its "mission critical" systems? If so, please provide the priority listing.

Florida Power and Light has not prioritized its mission critical systems. All mission critical systems are being addressed as part of the project.

4. What method are you using to test your mainframe computers? Please describe this method.

Florida Power and Light has established a test environment which mirrors our production mainframe systems environment. In this test environment, we follow these steps:

a) Baseline test – before any Year 2000 changes are made, we first test the system to generate a baseline set of results establishing how the system functions today.

b) 19xx test – we then apply the Year 2000 changes. Leaving the environment set to the current century (19xx), we rerun the same tests we ran in baseline to ensure we achieve the same results.

c) 20xx test – we then advance the clock on the system to simulate a next century (20xx) environment and again run the same tests we ran in baseline to ensure we achieve the same results. Once the system is certified as ready, it is then moved into production, replacing the previous version.

Additionally, changes made to our systems can be tested in several ways, usually progressively, although it varies by system:

a) Unit test – test changes made to an individual program.

b) String test – test a group of programs which perform one business function.

c) Integration test – test a family of programs which comprise an entire system.

d) Interface testing – test the interface points between one system and another.

e) Interfaces can be internal (one system to another) or external (FPL to a bank, a supplier, etc.)

5. What systems do you have running on mainframe computers?

The major systems which Florida Power and Light runs on its mainframe computers include customer billing, customer collections, employee time collection/payroll/benefits, general ledger, procurement, inventory, nuclear plant maintenance and work management, outage management, distribution materials management, and energy management.

6. What "mission critical" systems are not run on mainframe computers?

The major systems which Florida Power and Light does not run on its mainframe computers include meter reading collection, local procurement, fossil plant maintenance and work

management, load management, commercial/industrial customer billing, and electronic data interchange.

7. What systems have you found that contain date-sensitive embedded chips?

Florida Power and Light has a variety of systems that contain date-sensitive embedded chips. In some cases, these chips are replaced. In other cases, the chip is fine, but a new version of software is needed on the chip. Other times, the chip and software are fine, but a date may need to be reset in the software. Types of systems in which these date-sensitive chips exist include:

a) Plant process control systems (monitor/control temperatures, valves, flows, etc.)
b) Other plant systems (burner management, safety systems, etc.)
c) Some grid components including certain RTUs and relays
d) Certain solid state data recorders which do commercial/industrial account metering

8. Are embedded chips being tested both as a stand-alone device and as part of an integrated system? If not, why?

Embedded chips are tested in a similar fashion as the mainframe computer systems (applications) are tested (number 4 above). Testing is done at an individual device or component level, but string, integration, and interface testing are also done within and across systems, as appropriate.

9. Are all "mission critical" related mainframe computers, PC computers, and embedded chips being tested notwithstanding any vendor's or manufacturer's claim that the device is year 2000 compliant? If not, why?

Mission critical systems which are deemed Year 2000 compliant by either the vendor or manufacturer are still tested to confirm that this assessment is true.

10. Are you conducting sampling tests instead of testing all of your systems? If you are conducting sampling tests, please describe the methodology you are using and explain how and why you selected this methodology.

In some cases, we have large numbers of identical components. For example, we may have several thousands of the same kind of relay on the grid. Or, for example, we may have several hundred of a particular manufacturer/model of a personal computer. In these cases, we do not test every instance of the item. Instead, we do the following:

a) For items which require a Year 2000 fix, we apply and test the fix in a lab or a test environment. Once we ensure the fix works correctly, we then deploy that fix out to all instances of the device in the field or in the offices.
b) For items which are Year 2000 compliant (or ready), we confirm this through testing one or a small sample population. There is no fix to deploy to the field in this case.

11. What precautions are you taking to ensure that "mission critical" communications links are not interrupted? Will these precautions be detailed in your contingency plan?

We are using several methods to ensure readiness of our communications infrastructure:

a) For components we own (internal fiber network, switches, hubs, routers, etc.) we are following the same types of testing as identified in earlier questions. We put all these components through our readiness process including inventory, assess, fix, test, and implement.

b) For components we lease (long distance and local circuits, etc.) we are working with our critical suppliers to do joint assessment and testing. In the case of our largest telecommunications service provider, we have "traded walkthroughs" in which they review our readiness process in our power plants and we review their readiness process in their central office. This process allows us to ask questions and exchange information to increase confidence. In addition, we have assessed readiness of specific leased circuits that are critical to our operations and we are establishing additional alternatives, where appropriate.

c) In our contingency planning process, we are determining the key locations at which we will station personnel in event that a critical communications link fails.

d) In our contingency planning process, we are determining where one form of communication can "back up" another. Since it is unlikely that all forms of communications would fail simultaneously, it is possible that one form of communication could be the contingency for failure in another. For example, if our internal fiber network fails, we could still communicate with other locations through leased circuits. If leased circuits fail, we could use cellular or satellite phones. In addition, we are looking at situations in which we must establish alternate and/or additional sources or processes for communications.

12. What dates, in addition to the millennium rollover, are being tested? Why?

Dates being tested include:

April 9, 1999	99th day of the 99th year
August 22, 1999	Date that the week counter fills up in some GPS systems
September 9, 1999	9/9/99
January 1, 2000	First day of the year 2000
February 29, 2000	Leap day
January 1, 2001	Rollover to the next year

Other specific dates may be tested depending on the nature of the application. For example, applications which care about the day of the week or the day of the month may do additional testing for specific circumstances or scenarios tied to those dates.

13. Has your utility conducted or scheduled any contingency drills? If so, please indicate the purpose of each drill.

Florida Power and Light is participating in the following NERC drills:

a) April 9, 1999: test for loss of voice and data communications as well as positioning of key personnel
b) September 9, 1999: simulate full Year 2000 rollover designed to test multiple aspects of our contingency plans.

14. What "mission critical" systems and locations will be manned during the millennium rollover? Will these assignments be detailed in your contingency?

Florida Power and Light will have personnel stationed at our power plants, critical locations on our grid, customer care centers, key business offices, service centers, and emergency operations center. Yes, these assignments will be detailed as part of our contingency plans.

15. What is your company's internal deadline for testing and remediating the following:

a) mainframe computers?
b) PC computers?
c) Embedded chips on a system integration basis?

Florida Power and Light's plan is to complete all remediation and testing for all systems by June 30, 1999, with the following planned exceptions:

a) 1% of our business systems (applications) will continue to be acceptance tested into 3Q99 (remediation will have already been completed).
b) We will do confirmatory testing at our St. Lucie unit 1 nuclear power plant during its scheduled outage in October, 1999. No remediation is necessary.
c) Anything which surfaces as a result of either of the two NERC contingency drills.

16. What tests are you conducting to ensure that "non-mission critical" operations, which may not be Year 2000 compliant, will not inadvertently affect "mission critical" operations?

Florida Power and Light has divided its systems into three categories: mission critical, important, and not important. At our company, we have put both the "mission critical" and the "important" systems through our entire process (inventory, assess, fix, test, and implement). We believe this reduces our risk because the population of systems addressed is very high, thus significantly limiting the population of systems not addressed.

"Not important" systems will be addressed in 1999 on a case-by-case basis. Although we believe the risk from these systems is extremely low (primarily because they aren't essential to critical operations), our contingency plans (which include verification of results) should allow us to react quickly if a problem surfaces.

17. For Florida Power and Light and Florida Power Corporation:

Please describe the Nuclear Regulatory Commission's requirements to ensure nuclear power plants are Year 2000 compliant. What steps is your company taking to ensure its nuclear power plants will be Year 2000 compliant?

The process used by Florida Power and Light in developing its nuclear Year 2000 readiness program and test plans is based on the guidelines set forth by the Nuclear Energy Institute (NEI) and the Nuclear Utilities Software Management Group (NUSMG) in the NEI/NUSMG 97-07 document. The approach is endorsed by the Nuclear Regulatory Commission.

18. For natural gas distribution utilities:

Is your natural gas distribution system SCADA controlled? If so, can any embedded chip not Year 2000 compliant send an erroneous signal that can lead to an interruption in natural gas delivery?

Not applicable for Florida Power and Light.