

March 14, 1985

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of)
)
LOUISIANA POWER & LIGHT COMPANY) Docket No. 50-382 OL
)
(Waterford Steam Electric Station,)
Unit 3))

AFFIDAVIT OF ROSS P. BARKHURST

My name is Ross P. Barkhurst. I am employed by Louisiana Power & Light Company as Plant Manager-Nuclear of the Waterford Station.

I have a BS in Naval Science from the United States Naval Academy in 1967. I have worked in various supervisory and management positions associated with training and operating nuclear power plants for the ensuing 18 years. The past 12 of these years have been associated with large commercial pressurized water reactors. I have held key plant management positions, including Maintenance Superintendent, Operations Superintendent, Manager of Operations and Maintenance/Assistant Plant Manager, and Plant Manager. As Operations Superintendent, I held and utilized a Senior Reactor Operator license for over three years. I have worked for Louisiana Power & Light as Waterford 3 Plant Manager since 1982.

In my capacity as Plant Manager-Nuclear, I am responsible to the Senior Vice President-Nuclear for safe, reliable, efficient

start-up and operation of Waterford 3.

The purpose of my affidavit is to state the readiness of Waterford 3 for operation at power levels above 5% of rated power, to describe the power ascension testing sequence necessary to bring the plant into commercial operation, and to demonstrate that any delay in the authority to commence operation at levels above 5% will result in an equivalent, day-for-day delay in commercial operation.

Under authority of the current Waterford 3 operating license, which limits operation to power levels of 5% of rated power, we completed fuel loading on December 23, 1985, achieved criticality on March 4, 1985, and successfully completed the low power testing program on March 11. The low power operational testing demonstrated the readiness of the plant and the operating personnel for operation at higher power levels. The plant is now ready for operation above 5% of rated power.

Waterford 3 will commence its power ascension program immediately upon receiving an amendment to its operating license allowing operation above 5% power level. Power ascension involves certain prescribed tests at designated power levels up to and including full power. The power ascension tests are scheduled to take 104 days to complete before the plant reaches full-power operation. The basic sequence and schedule time durations are as follows:

5% Power Testing: 1 day of testing, consisting of the nuclear and thermal power calibrations based on RCS ΔT and flow. In addition, adjustments to the main feedwater system will be made.

15% Power Testing: 2 days of testing consisting of the nuclear and thermal power calibrations based on RCS ΔT and flow. Continue adjusting the main feedwater system. Verification of emergency feedwater flow capability to the steam generators. During the ascension to 15% power the turbine will be rolled and at 15% power the turbine will be loaded.

20% Power Testing: 9 days of testing, including verification of agreement between predicted and measured power distributions, peaking factors, and the COLSS and CPC calculations of DNBR and local power density. In addition, testing of the movable incore detector systems and other control systems (i.e. reactor regulating, steam bypass, feedwater, and the pressurizer level and pressure) will take place. This plateau will end with a reactor shutdown and cooldown conducted from outside the control room.

30% and 40% Power Testing: 8 hours at each plateau for fuel preconditioning and turbine-generator soaking. In addition, baseline data on various plant systems will be collected.

50% Power Testing: 21 days of testing, including further verification of core physics parameters (i.e., power distributions, peaking factors, and excore nuclear instrumentation calibration) and control systems.

60% and 70% Power Testing: 8 hours at each plateau for fuel preconditioning and turbine-generator soaking. In addition, baseline data on various plant systems will be collected.

80% Power Testing: 20 days of testing, including further verification of core physics parameters and control systems. A Total Loss of Flow/Natural Circulation Test will be conducted. In addition, a Loss of Offsite Power Test will be performed.

Post-80% Power Testing: 1 day of testing at 65% power to measure the capacity of the atmosphere dump valves and the steam bypass valves.

90% and 95% Power Testing: 8 hours at each plateau for fuel

preconditioning and turbine-generator soaking. Baseline data on various plant systems will be collected. In addition, a check of nuclear and thermal power calibrations based on a secondary calorimetric will be performed.

100% Power Testing: 20 days of testing, including final verification of core physics parameters and control systems. Transient testing of the plant (100% generator trip and a 100% turbine trip-reactor trip) will also be conducted.

Maintenance Outages: 28 days have been set aside for corrective actions and maintenance following major testing sequences.

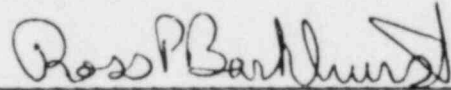
This schedule reflects our best estimate of the time necessary to allow us to safely, carefully and conscientiously complete the power ascension testing. The tests must be sequenced as described, and no progress in the program can be made without authorization to proceed above 5% of rated power. Thus, any delay in obtaining such authorization will result in a day-for-day delay in achieving commercial operation.

One of the purposes of the power ascension program is to correct equipment problems which cannot be detected during low power operation. Correction of any such problems encountered takes additional time and cannot be accomplished until after the power ascension program is allowed to begin. Thus, irrespective of any delays encountered during the program, a delay in obtaining power authorization above 5% will result in an equivalent delay in completion of the power ascension test program.

The Waterford 3 safety analysis shows that the plant meets the Commission's requirements under full-power operation and with full-term fission product inventories. As with the previously

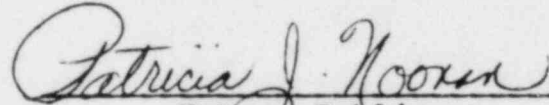
authorized 5% power operation, the fission product inventory developed during the first twelve days, when power does not exceed 20% of full power, is a very small fraction of the full-term, full-power inventory for which the plant has been successfully evaluated.

Waterford 3 and its operating staff are in an excellent state of readiness to proceed with power ascension. We await only the authority to proceed.



Ross P. Barkhurst

Subscribed and sworn to before me this 14th day of March, 1985.


Notary Public

My Commission Expires: July 1, 1986