1.0 INTRODUCTION AND GENERAL DESCRIPTION OF PLANT

1.1 INTRODUCTION

This Final Safety Analysis Report is submitted in support of an application by the Louisiana Power and Light Company for a license to operate a nuclear powered Electric generating unit designated Waterford Steam Electric Station Unit No. 3. The unit is located on the west (right descending) bank of the Mississippi River in St. Charles Parish, near the town of Taft, Louisiana.

The Nuclear Steam Supply System (NSSS) is a pressurized water reactor designed by Combustion Engineering Incorporated. The containment structure is comprised of a steel containment vessel surrounded by a reinforced concrete Shield Building and was designed by Ebasco Services Incorporated.

→(DRN 02-691, R12)
The Waterford 3 Facility Operating License was issued on March 16, 1985 for a reactor core power level not in excess of 3390 megawatts thermal (MWt). The rated NSSS thermal power level of 3410 MWt, included a 20 MWt contribution from the reactor coolant pumps. The design thermal power level is 3560 MWt, the maximum expected output of the core. This is the basis for the design of the balance of plant and related facilities, including the major systems and components, the engineered safety features, and for site evaluation calculation (see Chapter 15 for details). The corresponding net design electrical outputs are 1104 MWe and 1151 MWe for the 3410 MWt rated power level and 3560 MWt design power level respectively. The corresponding gross electrical outputs are 1153 MWe and 1200 MWe, respectively.

The Facility Operating License was amended on March 29, 2002 to increase the reactor core power level from 3390 MWt to 3441 MWt. The increase in design net electrical output due to the core power level increase is approximately 16 MWe.

→(DRN 03-2054, R14)
The Facility Operating License was amended starting with Operating Cycle 14 to increase the reactor core power level from 3441 MWt to 3716 MWt. The expected increase in design net electrical output due to the core power level increase is approximately 68 MWe.
←(DRN 02-691, R12)
→(DRN 04-1302, R13-A)
←(DRN 04-1302. R13-A; 03-2054, R14)

Regulatory Guide 1.70, Revision 2, September 1975 was used as a format guide for the Waterford 3 FSAR.