

# **RIC 2003**

## **New Reactors/Advanced Reactors**

### **Early Site Permit Panel**

#### **Session T8**

**Marilyn C. Kray**

**Vice President, Project Development**

**Exelon Nuclear**

**April 17, 2003**

# Philosophy behind ESP

- ✦ Separates the adequacy review of site from the adequacy review of plant
- ✦ Permit can be banked for 20 years
- ✦ Does not require the selection of a reactor design
- ✦ Maximizes finality and flexibility

# Challenges

- ✱ Departure from previous licensing activities
- ✱ Regulatory review guidance being developed in parallel with application preparation
- ✱ Plant design not selected
  - ✱ Plant description details
  - ✱ Environmental impacts of fuel cycle and transportation
  - ✱ Environmental impacts of severe accidents

# Plant Parameter Envelope Approach

- ✦ The set of postulated design parameters that bound the characteristics of a reactor or reactors that might later be built at the selected site
- ✦ Analogous to approach used in Design Certification to reference site characteristics

# Plant Parameter Envelope

- ✦ Identified over 200 specific parameters
- ✦ Selected technologies representative of designs that may be built
- ✦ Solicited detailed information from reactor vendors
- ✦ Identified bounding-composite value
- ✦ Prepared PPE worksheet and provided to NRC staff on February 7, 2003

# The PPE Approach

