#### VYNPS

# 5.0 DESIGN FEATURES

## 5.1 Site

The station is located on the property on the west bank of the Connecticut River in the Town of Vernon, Vermont, which the Vermont Yankee Nuclear Power Corporation either owns or to which it has perpetual rights and easements. The site plan showing the exclusion area boundary, boundary for gaseous effluents and boundary for liquid effluents is on Figure 2.2-5 in the FSAR. The minimum distance to the boundary of the exclusion area as defined in 10CFR100.3 is 910 feet.

No part of the site shall be sold or leased and no structure shall be located on the site except structures owned by the Vermont Yankee Nuclear Power Corporation or related utility companies and used in conjunction with normal utility operations.

#### 5.2 Reactor

- A. The core shall consist of not more than 368 fuel assemblies.
- B. The reactor core shall contain 89 cruciform-shaped control rods. The control material shall be boron carbide powder (B<sub>4</sub>C) or hafnium, or a combination of the two.

### 5.3 Reactor Vessel

The reactor vessel shall be as described in Table 4.2-3 of the FSAR. The applicable design codes shall be as described in subsection 4.2 of the FSAR.

### 5.4 Containment

- A. The principal design parameters and applicable design codes for the primary containment shall be as given in Table 5.2.1 of the FSAR.
- B. The secondary containment shall be as described in subsection 5.3 of the FSAR and the applicable codes shall be as described in Section 12.0 of the FSAR.
- C. Penetrations to the primary containment and piping passing through such penetrations shall be designed in accordance with standards set forth in subsection 5.2 of the FSAR.

## Amendment No. 83

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