

ENCLOSURE

JOSPEH M. FARLEY UNIT 2 CYCLE 10  
RADIAL PEAKING FACTOR LIMIT REPORT

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PDR ADDCK 05000364  
P PDR

TABLE 1  
RADIAL PEAKING FACTOR LIMIT REPORT

This Radial Peaking Factor Limit Report is provided in accordance with Paragraph 6.9.1.11 of the Joseph M. Farley Unit 2 Technical Specifications.

The  $F_{xy}$  limits for RATED THERMAL POWER within specified core planes for Cycle 10 shall be:

For VANTAGE 5 fuel:

1.  $F_{xy}^{RTP}$  less than or equal to 2.52 for all core planes containing Bank "D" control rods.
2. For all unrodded core planes:  
 $F_{xy}^{RTP}$  less than or equal to 1.87.

For Low-Parasitic (LOPAR) fuel:

1.  $F_{xy}^{RTP}$  less than or equal to 2.37 for all core planes containing Bank "D" control rods.
2. For all unrodded core planes:  
 $F_{xy}^{RTP}$  less than or equal to 1.75.

TABLE 1 (cont.)  
RADIAL PEAKING FACTOR LIMIT REPORT

These  $F_{xy}(z)$  limits are used to confirm that the heat flux hot channel factor  $F_q(z)$  will be limited to the Technical Specification values of:

VANTAGE 5 fuel:

$$F_q(z) \leq \left[ \frac{2.45}{P} \right] [K(z)] \text{ for } P > 0.5 \text{ and,}$$

$$F_q(z) \leq 4.90 [K(z)] \text{ for } P \leq 0.5$$

Low-Parasitic (LOPAR) fuel:

$$F_q(z) \leq \left[ \frac{2.32}{P} \right] [K(z)] \text{ for } P > 0.5 \text{ and,}$$

$$F_q(z) \leq 4.64 [K(z)] \text{ for } P \leq 0.5$$

assuming the most limiting axial power distributions expected to result from the insertion and removal of Control Banks C and D during operation, including the accompanying variations in the axial xenon and power distributions as described in the "Power Distribution Control and Load Following Procedures," WCAP-8385, September, 1974. Therefore, these  $F_{xy}$  limits provide assurance that the initial conditions assumed in the LOCA analysis are met and the ECCS acceptance criterion limit of 2200°F for peak clad temperature is not exceeded.

FIGURE 1

VANTAGE 5

MAXIMUM (FQT x P<sub>REL</sub>) VERSUS CORE HEIGHT  
DURING NORMAL OPERATION

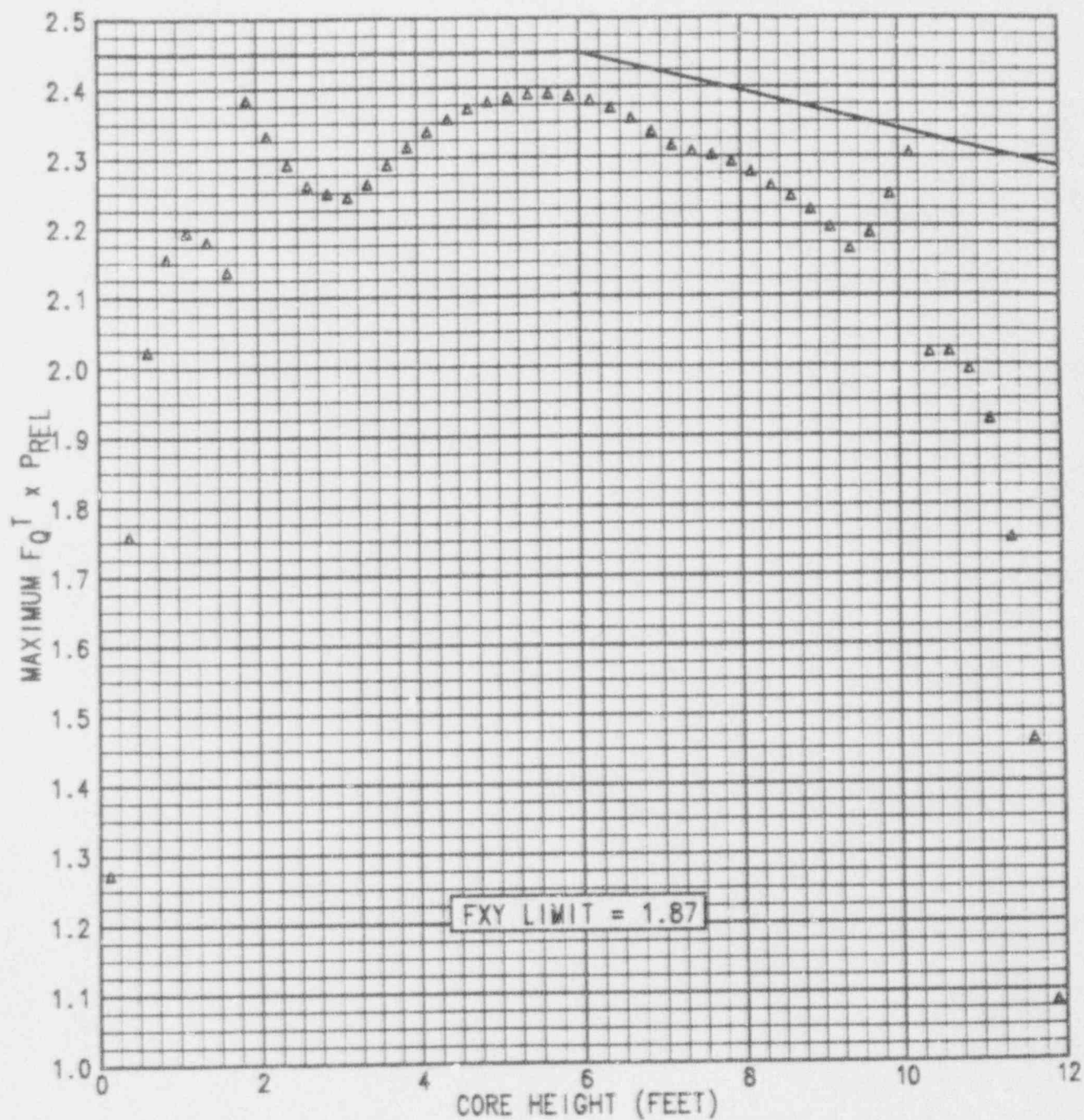


FIGURE 2

LOPAR

MAXIMUM (FQT x PREL) VERSUS CORE HEIGHT  
DURING NORMAL OPERATION

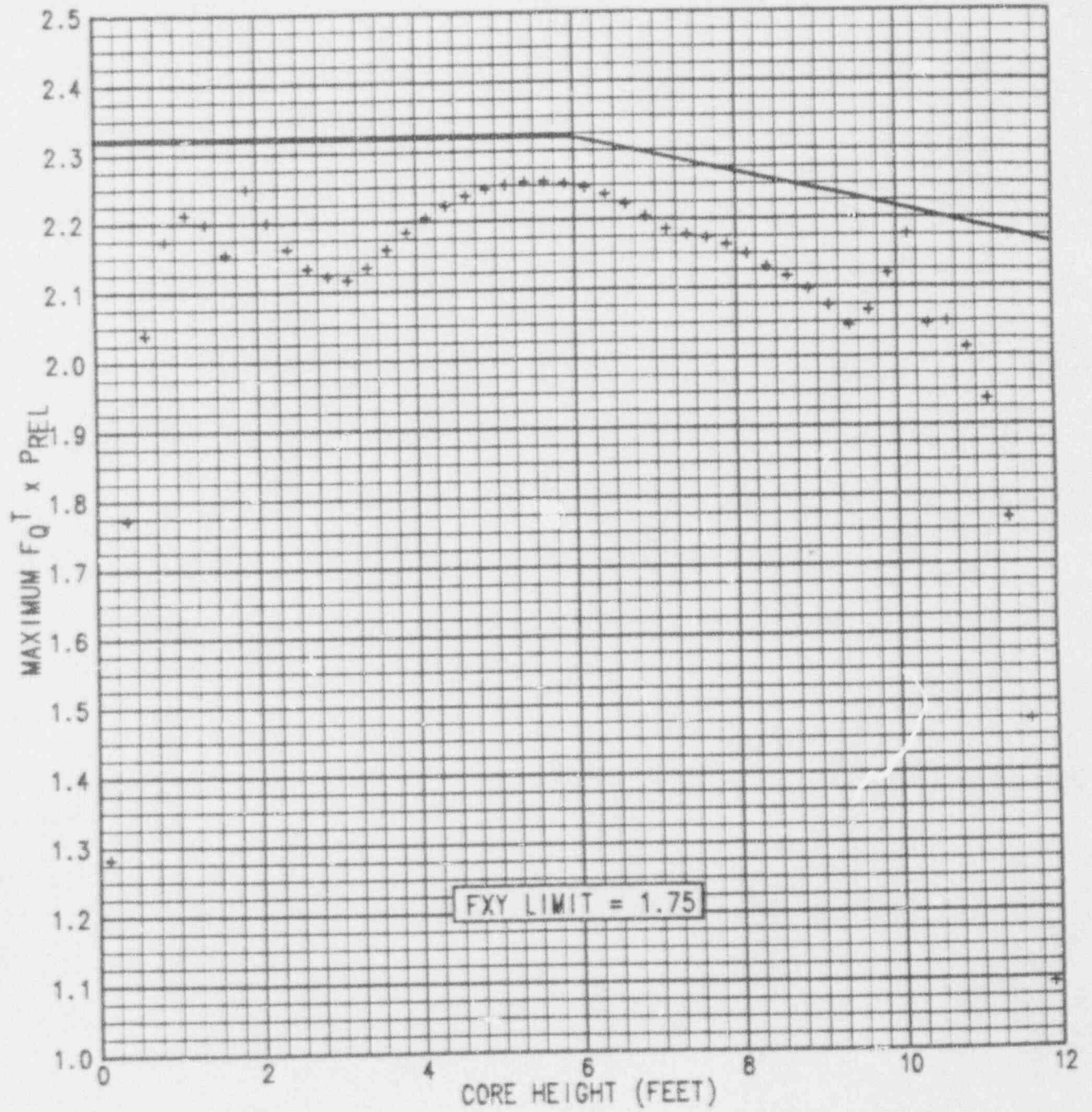
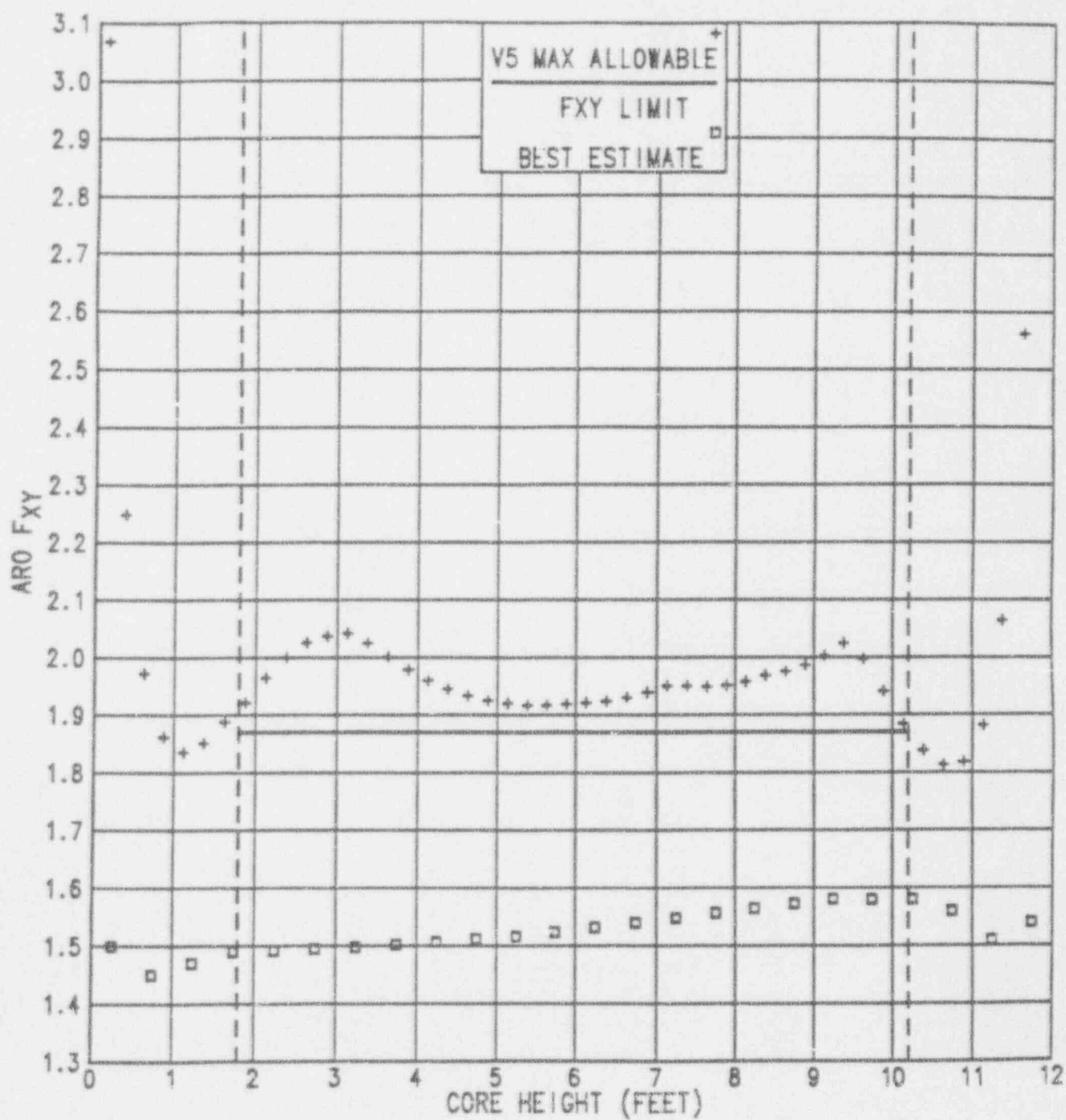


FIGURE 3

VANTAGE 5

ARO F<sub>XY</sub> VERSUS CORE HEIGHT

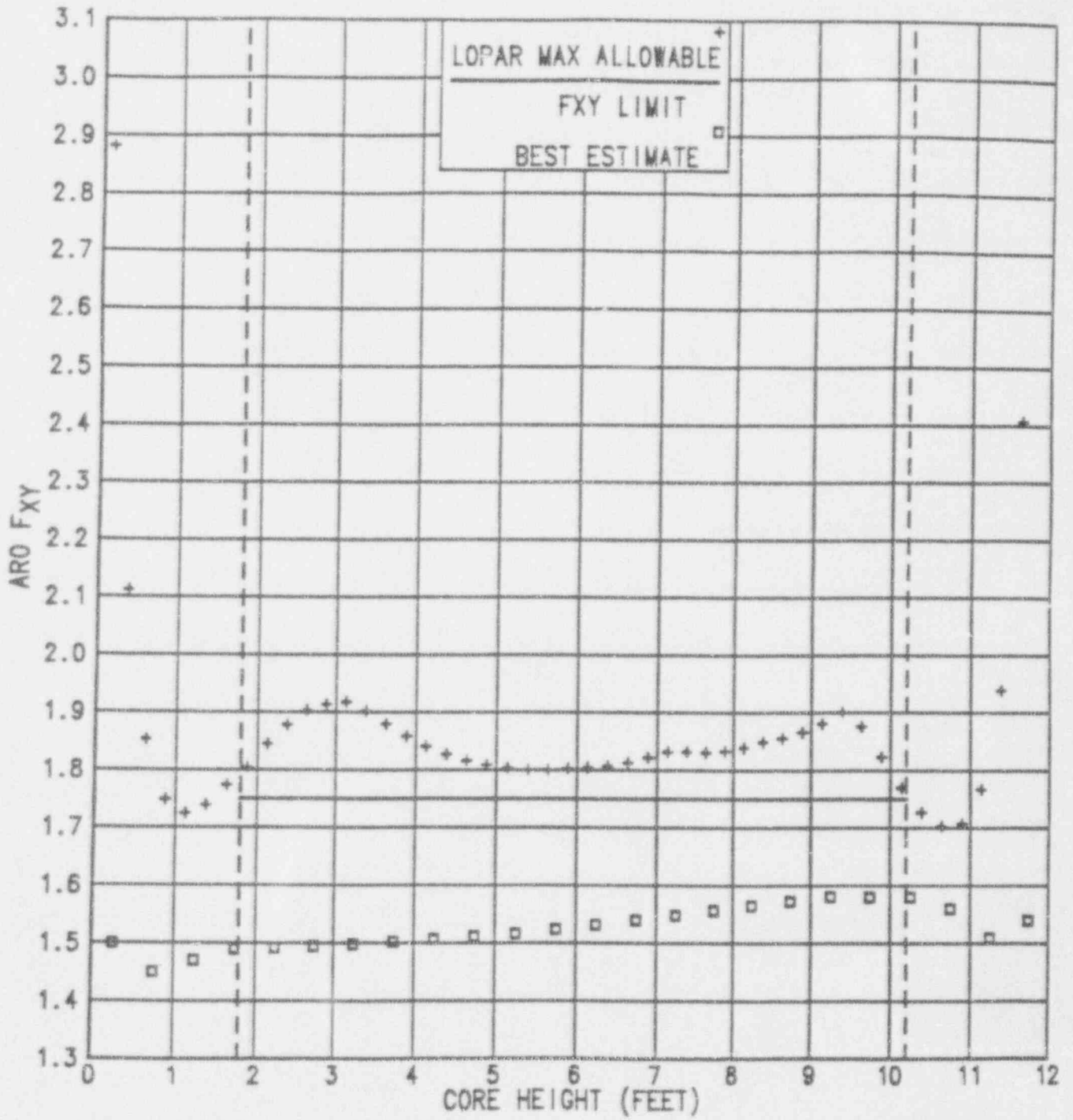


Note: Best Estimate values bound both the LOPAR and VANTAGE 5



FIGURE 4

LOPAR  
ARO Fxy VERSUS CORE HEIGHT



Note: Best Estimate values bound both the LOPAR and VANTAGE 5