

DONALD C. COOK NUCLEAR PLANT UNIT 2 CYCLE 11

CORE OPERATING LIMITS REPORT (COLR)

Revision 5

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1.0 CORE OPERATING LIMITS REPORT

This Core Operating Limits Report for Donald C. Cook Nuclear Plant Unit 2 Cycle 11 has been prepared in accordance with the requirements of Technical Specification 6.9.1.9.

The Technical Specifications affected by this report are listed below:

3/4.1.1.4	Moderator Temperature Coefficient
3/4.1.3.1	Movable Control Assemblies Group Height
3/4.1.3.4	Rod Drop Time
3/4.1.3.5	Shutdown Rod Insertion Limits
3/4.1.3.6	Control Rod Insertion Limits
3/4.2.1	Axial Flux Difference – (AFD)
3/4.2.2	Heat Flux Hot Channel Factor – $F_Q(Z)$
3/4.2.3	Nuclear Enthalpy Hot Channel Factor – $F^N_{\Delta H}$
3/4.2.6	Allowable Power Level – (APL)

2.0 Operating Limits

The cycle-specific parameter limits for the specifications listed in Section 1.0 are presented in the following subsections. These limits have been developed using the NRC-approved methodologies specified in Technical Specification 6.9.1.9.

2.1 Moderator Temperature Coefficient (Specification 3/4.1.1.4)

2.1.1 The Moderator Temperature Coefficient (MTC) limits are:

The BOL/ARO-MTC shall be less positive than the value given in Figure 1.

The EOL/ARO/RTP-MTC shall be less negative than $-5.00E-4 \Delta k/k/^{\circ}F$.

This limit is based on a T_{avg} program with HFP vessel T_{avg} of 574 $^{\circ}F$

where: ARO stands for All Rods Out

BOL stands for Beginning of Cycle Life

EOL stands for End of Cycle Life

HFP stands for Hot Full Thermal Power

RTP stands for Rated Thermal Power

2.1.2 The MTC Surveillance limit is:

The 300 ppm/ARO/RTP-MTC should be less negative than or equal to $-4.15E-4 \Delta k/k/^{\circ}F$ at a vessel T_{avg} of 574 $^{\circ}F$.

FIGURE 2
ROD BANK INSERTION LIMITS VERSUS THERMAL POWER FOUR-LOOP OPERATION

