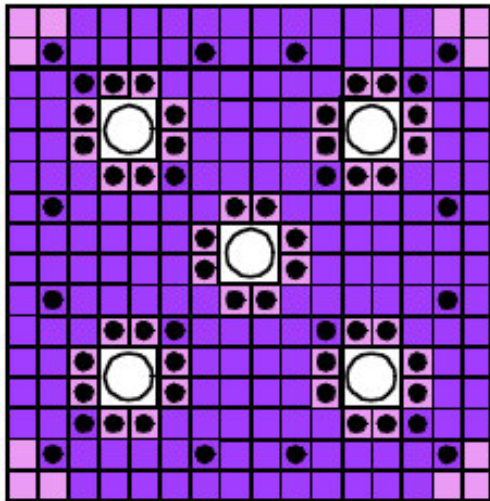
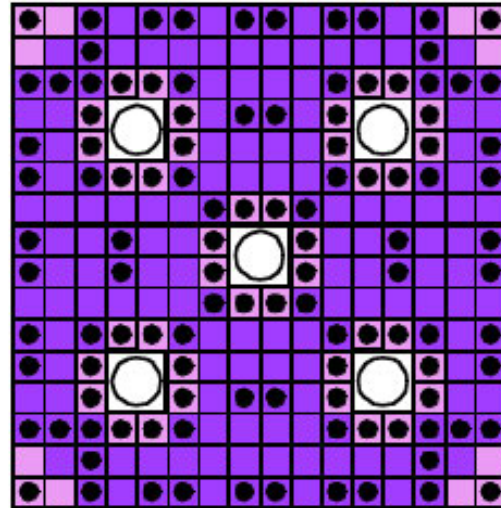


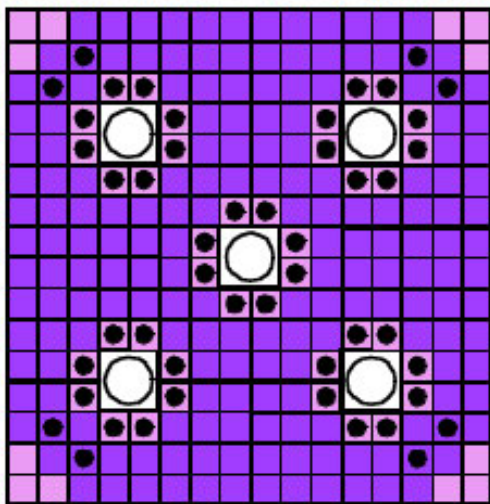
**Region EA**  
**PAT1633IFB 60 ZrB<sub>2</sub> Rods**



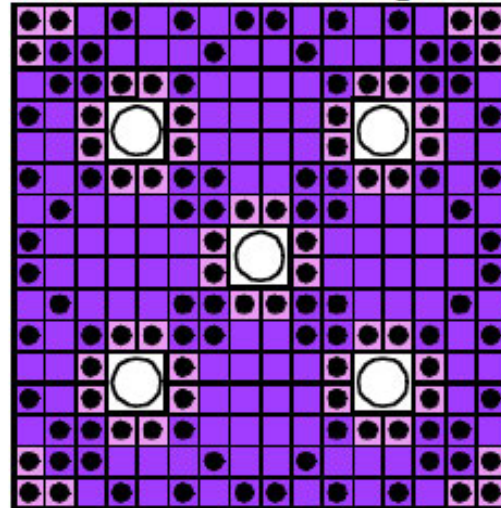
**Region EB and ED**  
**PAT1649IFB 112 ZrB<sub>2</sub> Rods**



**Region EC**  
**PAT1632IFB 48 ZrB<sub>2</sub> Rods**



**Region EE**  
**PAT1636IFB 124 ZrB<sub>2</sub> Rods**



Low Enriched Fuel Rod with ZrB<sub>2</sub>



Low Enriched Fuel Rod



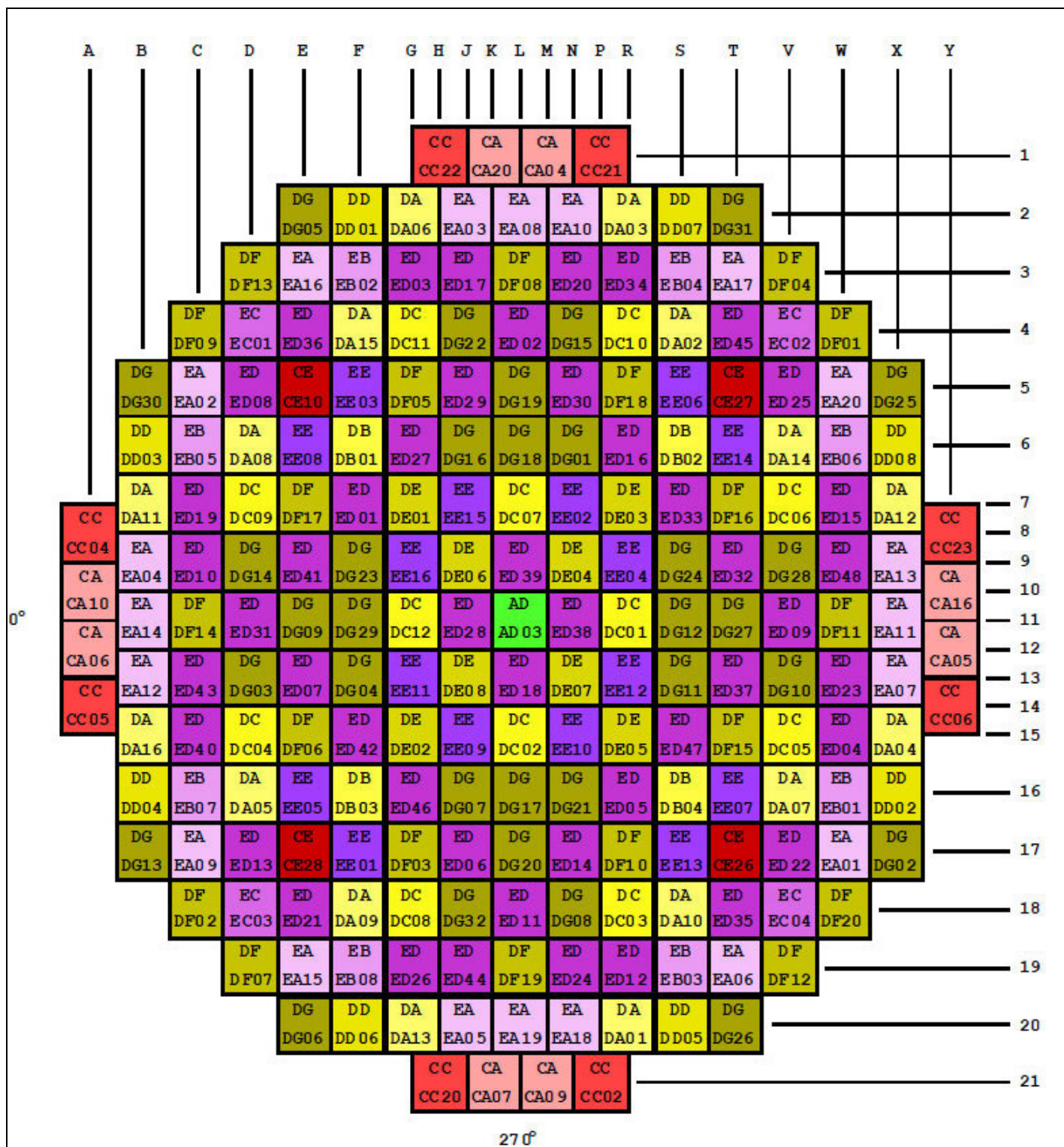
High Enriched Fuel Rod with ZrB<sub>2</sub>



High Enriched Fuel Rod



Revision 309 (06/16)



Revision 309 (06/16)

Waterford Steam  
Electric Station #3

WATERFORD-3 CYCLE 21  
FUEL MANAGEMENT SCHEME

Figure  
4.3A-2

→(EC-9533, R302)

Figure 4.3A-3 has been intentionally deleted.

←(EC-9533, R302)





AD 51313	ED 25512	DC 46117	DG 45027	DG 45689	ED 25127	DF 47549	EA 23092	CA 49832
ED 25512	DE 46849	EE 25048	DG 45815	ED 24548	DG 46566	ED 25629	EA 22141	CC 49568
DC 46117	EE 25046	DE 46968	ED 25746	DF 46503	DC 47013	ED 24877	DA 38291	
DG 45027	DG 45811	ED 25746	DB 46743	EE 25946	DA 45287	EB 24685	DD 38173	
DG 45689	ED 24553	DF 46511	EE 25951	CE 52730	ED 25515	EA 21598	DG 34233	
ED 25127	DG 46509	DC 46989	DA 45296	ED 25519	EC 21758	DF 36205		
DF 47549	ED 25619	ED 24852	EB 24668	EA 21597	DF 36147			
EA 23092	EA 22114	DA 38634	DD 38204	DG 34178				
CA 49752	CC 49540							

1A  
AB

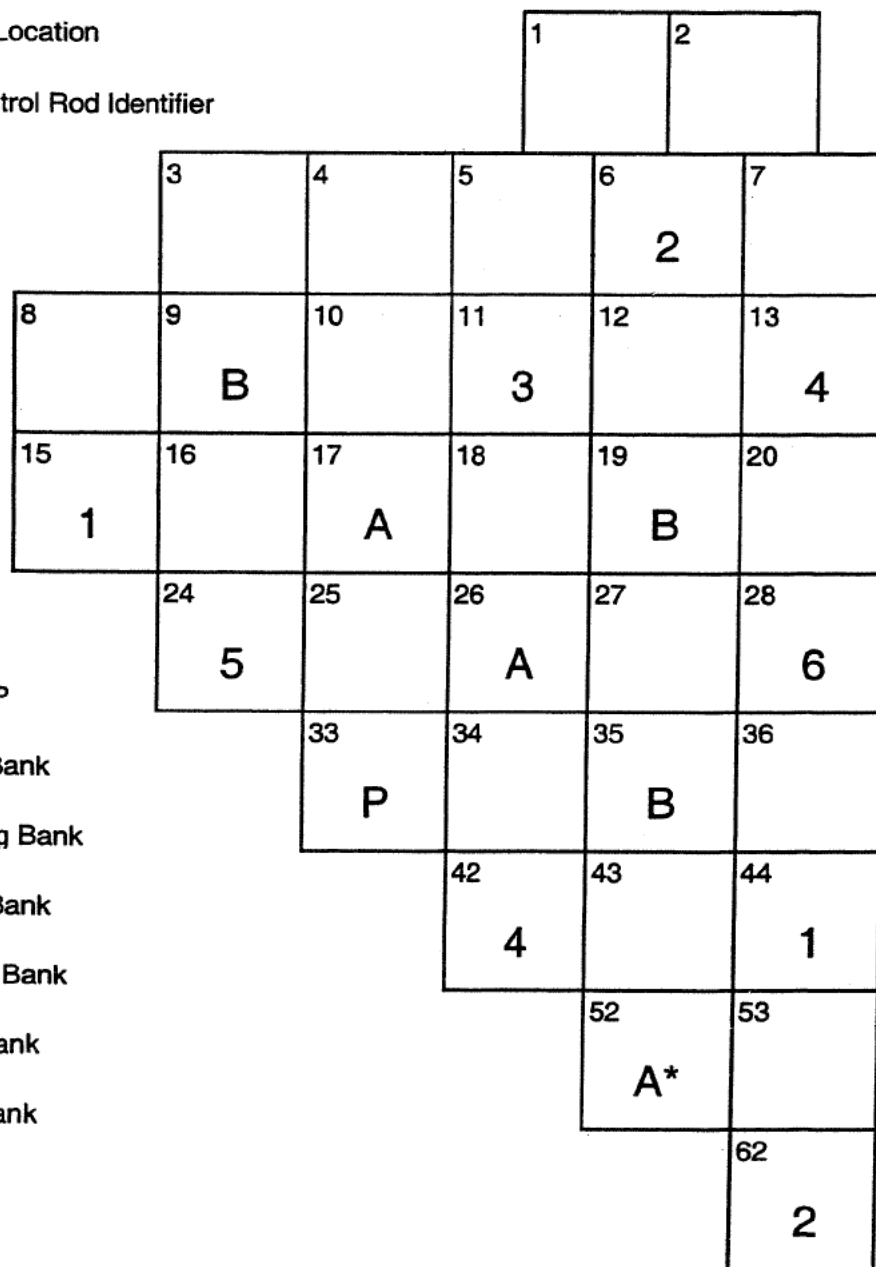
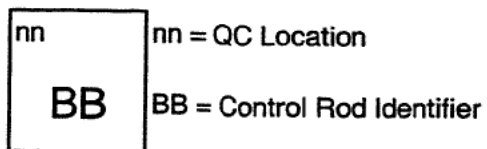
REGION  
ASSEMBLY BURNUP

Revision 309 (06/16)

Waterford Steam  
Electric Station #3

WATERFORD-3 CYCLE 21 END OF CYCLE FROM  
LONG ENDPOINT OF PREVIOUS CYCLE (EOCL)  
ASSEMBLY AVERAGE BURNUP

Figure  
4.3A-3b



- P - Regulating Bank P
- 6 - Lead Regulating Bank
- 5 - Second Regulating Bank
- 4 - Third Regulating Bank
- 3 - Fourth Regulating Bank
- 2 - Fifth Regulating Bank
- 1 - Last Regulating Bank
- B - Shutdown Bank B
- A - Shutdown Bank A

\* Shutdown rod in position 52 is available for only two diagonally opposite core quadrants.

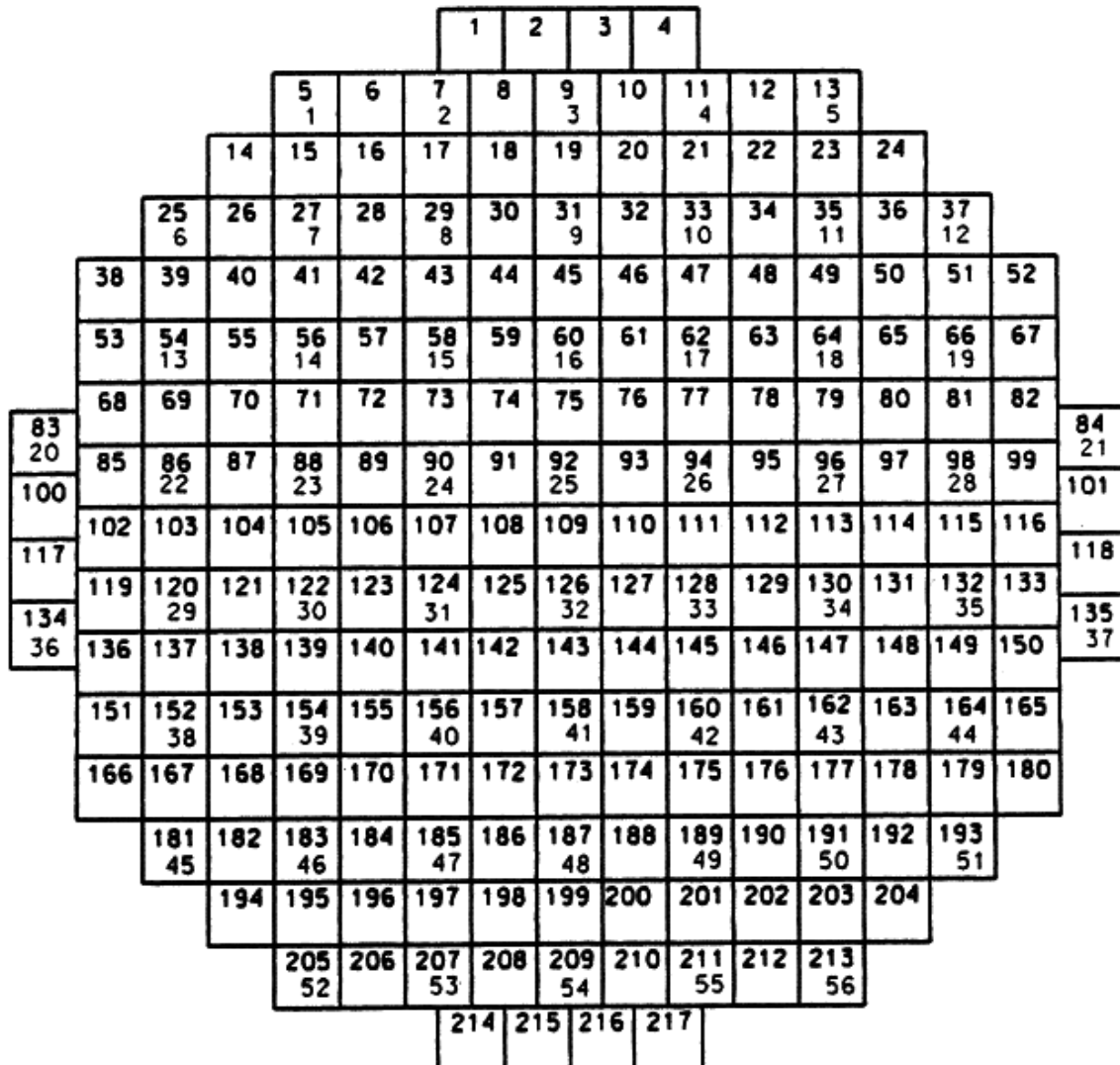
Revision 12 (10/02)

Waterford Steam Electric Station #3	Waterford 3 CEA Bank Identification	Figure 4.3A-4
--	--	------------------

# KEY TO MAP

XX
YY

XX = Full Core Assembly Location  
YY = Instrument Assembly Location



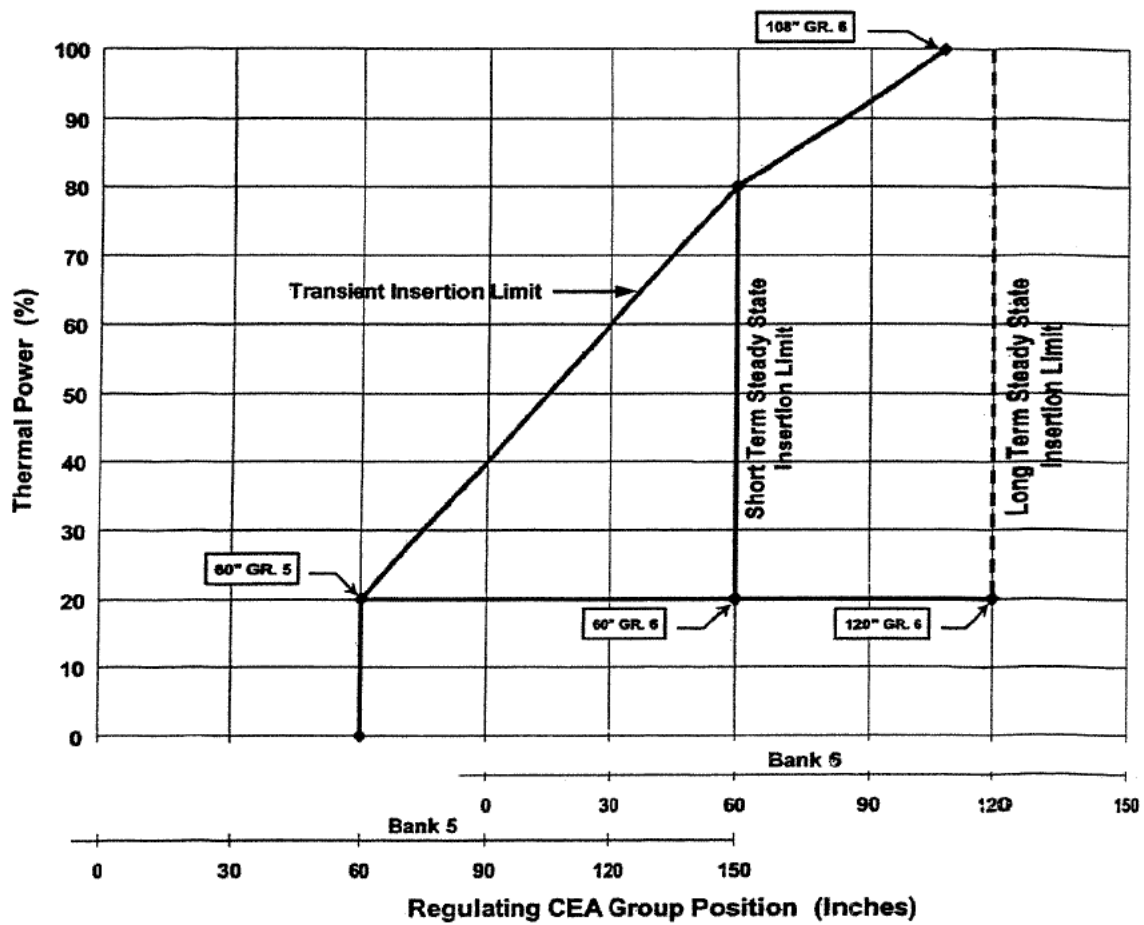
**NOTE :** THERE ARE NO INCORE INSTRUMENT ASSEMBLIES AT CORE LOCATIONS 9, 11, AND 30.

Revision 304 (06/10)

Waterford Steam  
Electric Station #3

WATERFORD 3  
IN-CORE INSTRUMENT ASSEMBLIES  
CORE LOCATIONS

Figure  
4.3A-5



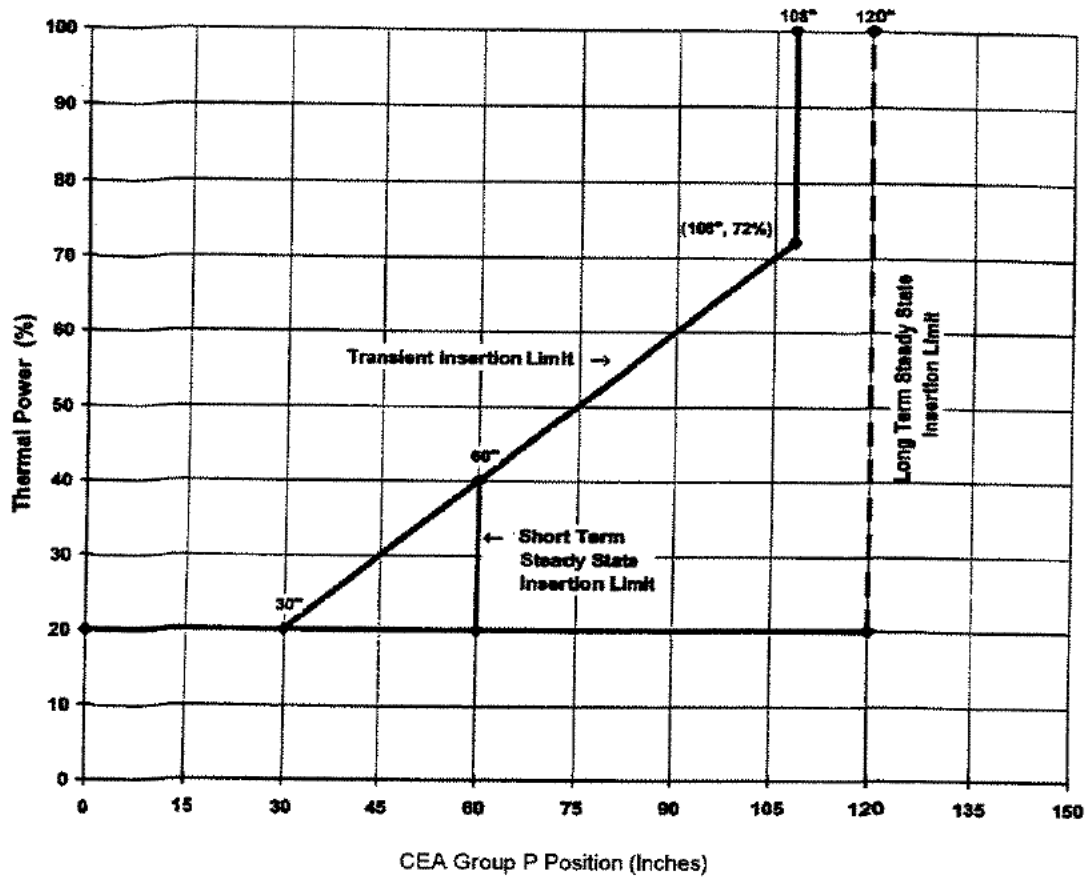
Revision 12 (10/02)

Waterford Steam  
Electric Station #3

WATERFORD 3  
PDIL FOR REGULATING GROUPS

Figure  
4.3A-6



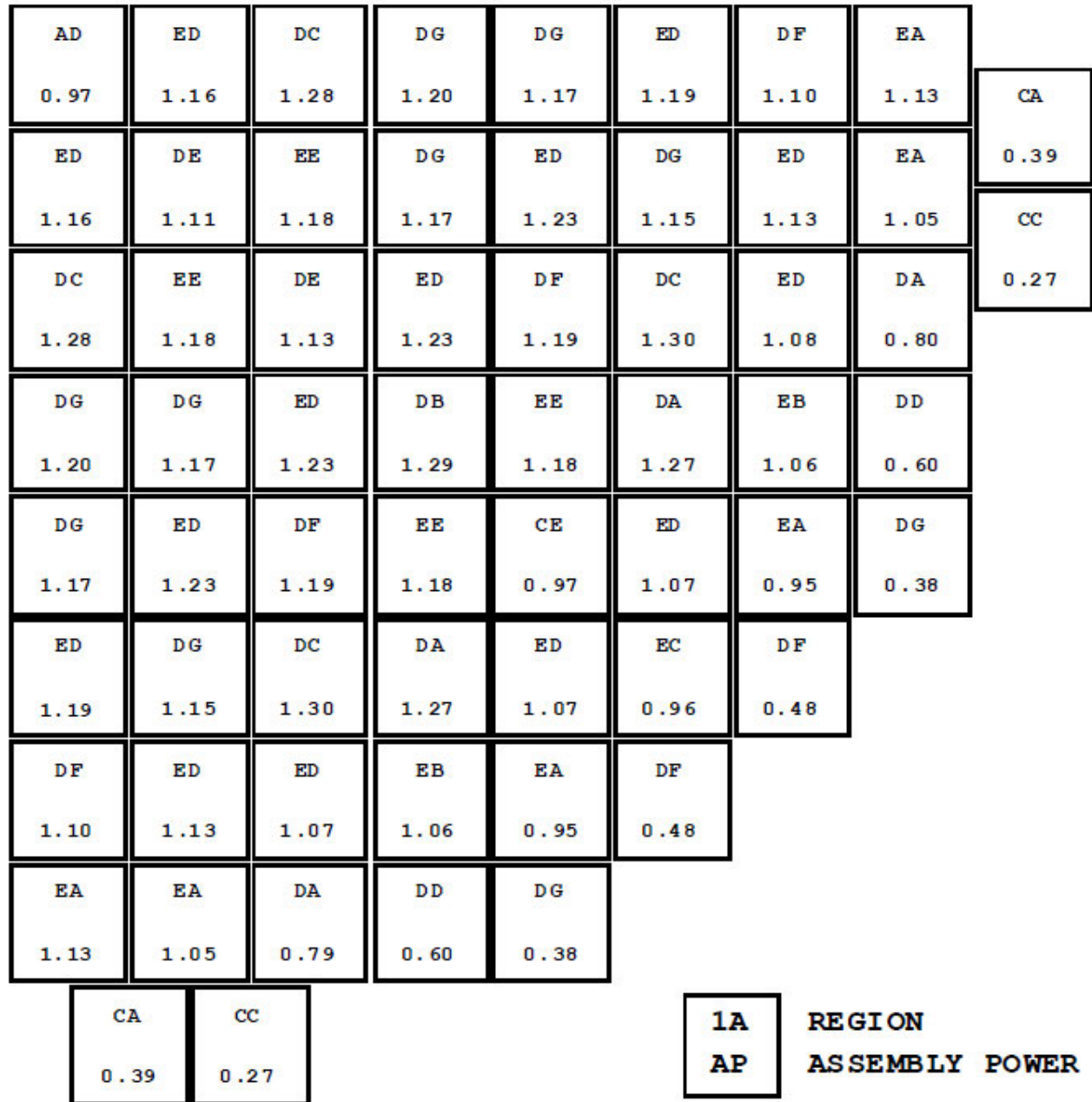


Revision 13 (04/04)

Waterford Steam  
Electric Station #3

WATERFORD 3  
CEA GROUP P INSERTION LIMIT  
VS  
THERMAL POWER

Figure  
4.3A-7



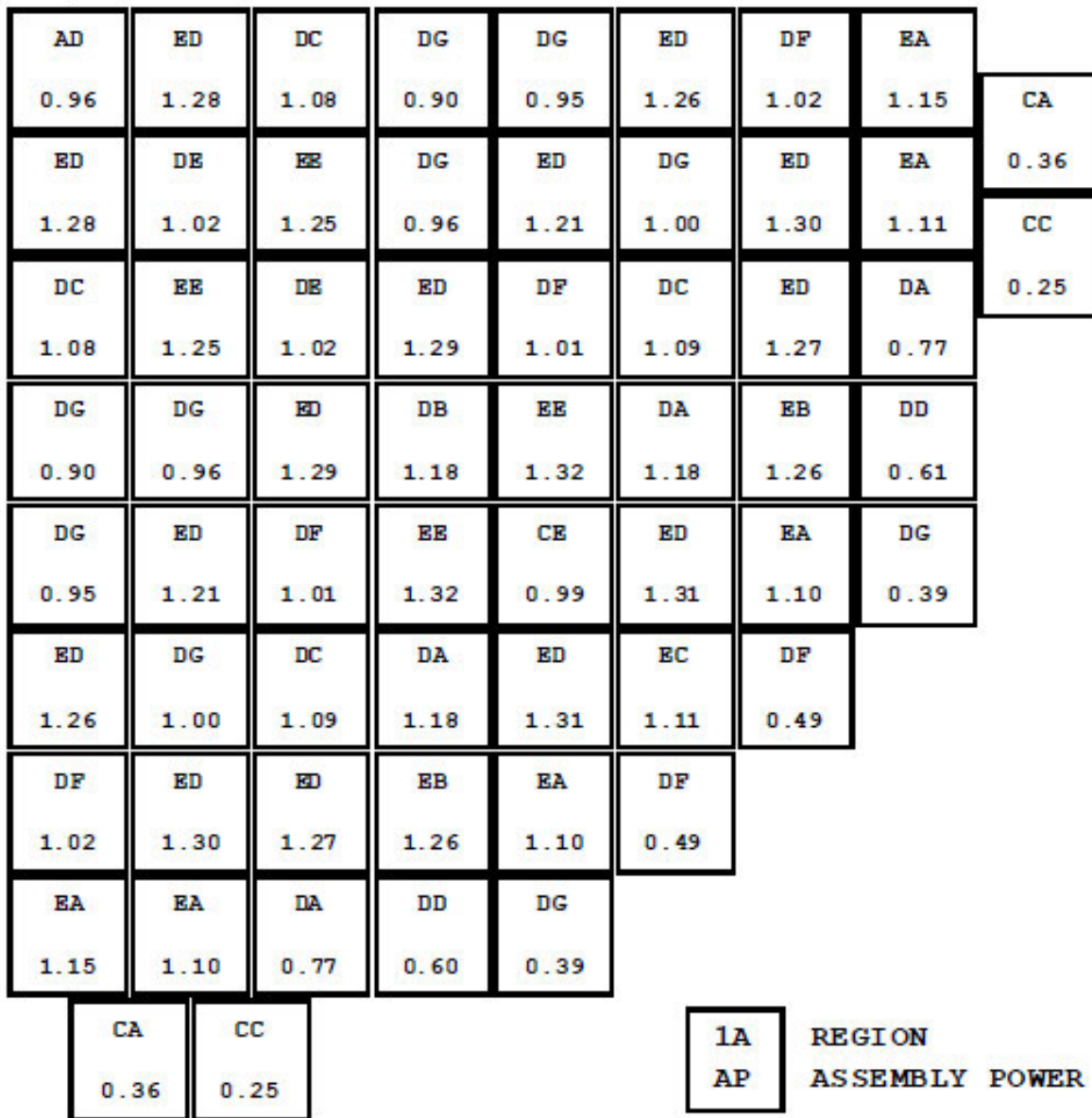
Maximum 1-Pin Peak (Fxy) = 1.426 in Full Core (FC) Assembly Number 189

Revision 309 (06/16)

Waterford Steam  
Electric Station #3

WATERFORD-3 CYCLE 21  
ASSEMBLY RELATIVE POWER DENSITY  
BOCS, HOT FULL POWER (HFP), EQUILIBRIUM  
XENON, ARO

Figure  
4.3A-8



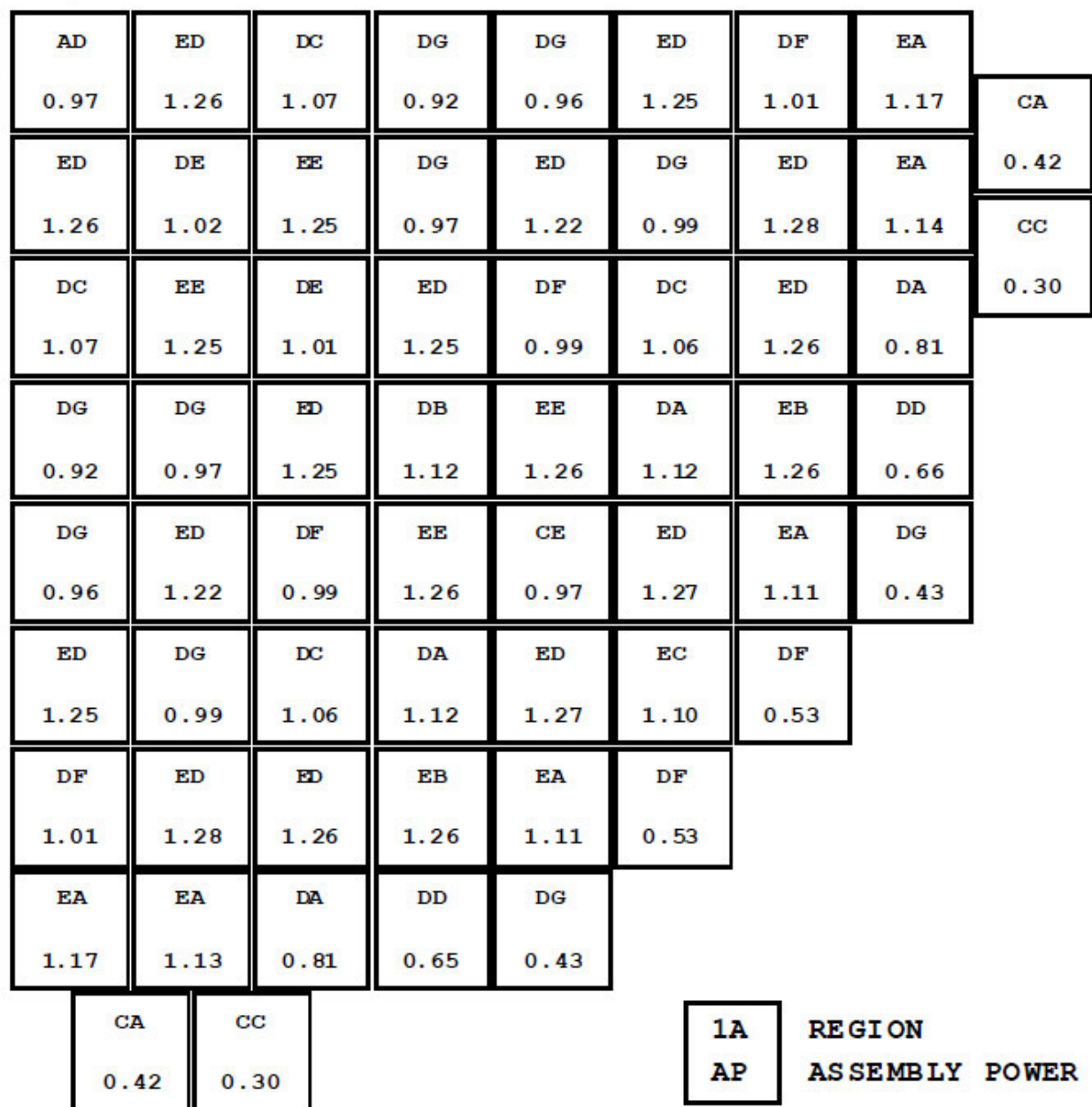
Maximum 1-Pin Peak (Fxy) = 1.455 in FC Assembly Number 164

Revision 309 (06/16)

Waterford Steam  
Electric Station #3

WATERFORD-3 CYCLE 21  
ASSEMBLY RELATIVE POWER DENSITY  
MIDDLE OF CYCLE FROM LONG ENDPOINT OF  
PREVIOUS CYCLE (MOCL), HFP, EQUILIBRIUM  
XENON, ARO

Figure  
4.3A-9



Maximum 1-Pin Peak (Fxy) = 1.381 in FC Assembly Number 202

Revision 309 (06/16)

Waterford Steam  
Electric Station #3

WATERFORD-3 CYCLE 21  
ASSEMBLY RELATIVE POWER DENSITY  
EOCL, HFP, EQUILIBRIUM XENON, ARO

Figure  
4.3A-10

**FIGURE 4.3A-11  
HAS BEEN INTENTIONALLY  
DELETED**

REVISION 6 (12/92)

Waterford Steam  
Electric Station •3

**WATERFORD 3 - CYCLE 6  
ASSEMBLY RELATIVE POWER DENSITY  
HFP AT BOC. EQUILIBRIUM XENON, PLCEAS**

Figure  
4.3A-11

FIGURE 4.3A-12  
HAS BEEN INTENTIONALLY  
DELETED

REVISION 6 (12/92)

Waterford Steam  
Electric Station •3

WATERFORD 3 - CYCLE 6  
ASSEMBLY RELATIVE POWER DENSITY  
HFP AT BOC, EQUILIBRIUM XENON, WITH BANK 6

Figure  
4.3A-12



FIGURE 4.3A-13  
HAS BEEN INTENTIONALLY  
DELETED

REVISION 6 (12/92)

Waterford Steam  
Electric Station •3

WATERFORD 3 - CYCLE 6  
ASSEMBLY RELATIVE POWER DENSITY  
HFP AT BOC. EQUILIBRIUM XENON, WITH  
BANK 6 AND PLCEAS

Figure  
4.3A-13

**FIGURE 4.3A-14  
HAS BEEN INTENTIONALLY  
DELETED**

REVISION 6 (12/92)

Waterford Steam  
Electric Station #3

WATERFORD 3 - CYCLE 6  
ASSEMBLY RELATIVE POWER DENSITY  
HFP AT EOC. EQUILIBRIUM XENON, WITH PLCEAS

Figure  
4.3A-14

FIGURE 4.3A-15  
HAS BEEN INTENTIONALLY  
DELETED

REVISION 6 (12/92)

Waterford Steam  
Electric Station ● 3

WATERFORD 3 - CYCLE 6  
ASSEMBLY RELATIVE POWER DENSITY  
HFP AT EOC, EQUILIBRIUM XENON WITH BANK 6

Figure  
4.3A-15

FIGURE 4.3A-16  
HAS BEEN INTENTIONALLY  
DELETED

REVISION 6 (12/92)

Waterford Steam  
Electric Station ● 3

WATERFORD 3 - CYCLE 6  
ASSEMBLY RELATIVE POWER DENSITY  
HFP AT EOC,EQUILIBRIUM XENON, WITH  
BANK 6 AND PLCEAS

Figure  
4.3A-16

Security Related Information  
Figure Withheld Under 10  
CFR 2.390

REVISION 6 (12/92)

Security Related Information  
Figure Withheld Under 10 CFR 2.390

COMPARISON OF FUEL ROD DESIGNS

REVISION 8 (5/96)



Security Related Information  
Figure Withheld Under 10 CFR 2.390

Revision 12 (10/02)

Waterford Steam  
Electric Station #3

Comparison of Urania Rod Assembly Features

Figure  
4.3A-18a

Security Related Information  
Figure Withheld Under 10 CFR 2.390

Revision 302 (12/08)

Waterford Steam  
Electric Station #3

Comparison of Urania Rod Assembly Features

Figure  
4.3A-18b

Security Related Information  
Figure Withheld Under 10 CFR 2.390

COMPARISON OF POISON ROD DESIGNS

REVISION 8 (5/96)

Security Related Information  
Figure Withheld Under 10 CFR 2.390

Revision 304 (06/10)

Waterford Steam  
Electric Station #3

Comparison of Burnable  
Absorber Rods

Figure  
4.3A-19b