











Figure 2.5-118—{OCR Interpretation from CPT Results}







Figure 2.5-120—{Undrained Shear Strength Interpreted from CPT Data}







Figure 2.5-122—{Geophysical Model of the Site for Units 1 and 2 from UFSAR}











# Figure 2.5-125—{Average V<sub>s</sub> Measurements from Suspension P-S Velocity Logging}







# Figure 2.5-127—{Average Poisson's Ratio from Suspension P-S Velocity Logging}









200

400

400

600

600

1 000

1 200

1,200

1,000

DISTANCE, FT

1,400

1 600

FILL

1,600

1 400

1.800

-I. TERRACE SAND

140

120

100

40

20

Ŀ

-20 ELEVATION, -

-40

-60

-80

-100

-120

-140

-160

1,800

FSAR: Section 2.5

- I. TERRACE SAND B-413 EXISTING SITE GRADE 2000 24 18 FINAL SITE GRADE 28 26\_5 B-411 IIO. CHESAPEAKE S. ₿-404(DH) EXCAVATION RETENTION SYSTEM 12 B-440 B-419 \_ U0/24 WOH 11\_5 26\_55 50\_56 <sub>⊽</sub> gw 50/3\* m 50/3",# 50/5",# WOH\_52 50 8 57 8 50/5\* -32 50/5-50/3\* -2 29 61/11"8 61 S 60\_8 7\_8 . 33 50/5\* 16 38 UD/18 8 30 19 58 10 58 12 41 12 18 7 10 100/18 27 18 22 UD/24 UD/0" IIb. CHESAPEAKE CEMENTED SAND 14 55 20 53 UD/0" -53 8 34 8 19 8 35 8 40 - 8 17 - 8 78 81 11 52 16 52 16 53 UD/17" -25\_\_8 16\_8 19\_8 16\_8 14\_88 16\_8 14 SS 14 SS 16 SS 20 SS 24 SS 15 SS 37 E 19 58 19 58 21 58 19 58 24 58 16 58 16 58 14 58 27 8 16 8 17 8 IIC. CHESAPEAKE CLAY/SILT 18\_\_\_\_8 12\_\_\_\_8 12 58 14 58 15 8 1411 19 14 17 20 20 <u>18</u> 19 17 
 34
 58

 25
 58

 21
 58

 21
 58

 14
 58
34 25 200 FT 100

800

-160

1,800

FILL

100

1,600

200 FT

1,800

140

120

100

80

60

40

20

-20

-40

-60

-80

-80 , -100 -120 -120

140

160

-180

-200

-220

-240

-260

-280

-300

-320

-340

E

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CCNPP Unit 3



600

400

200

800

DISTANCE, FT

1,200

1,000

# Figure 2.5-131—{Excavation Profile NS-2}



# Figure 2.5-132—{Excavation Profile NS-3}



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# Figure 2.5-133—{Excavation Profile NS-4}

ELEVATION, FT

-20

-40

-80

-140

-160

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# Figure 2.5-134—{Excavation Profile IDP1}





# Figure 2.5-135—{Elevation Contours of Top of Stratum IIb Cemented Sand}

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## Figure 2.5-136—{Proximity of Chester and Lexington Park Sites to CCNPP}









# Figure 2.5-139—{Smoothed and Averaged $V_s$ Log for Chester and Lexington Park Measurements}



# Figure 2.5-140—{Comparison of Average V<sub>s</sub> for Chester, Lexington Park, Maryland and Deep measurements in Coastal Plain Soils}





# Figure 2.5-141—{Recommended V<sub>s</sub> Soil Profile at CCNPP Site}



Figure 2.5-142—{Bedrock V<sub>s</sub> Log for Chester (Kent Island), Maryland}



Figure 2.5-143—{Bedrock V<sub>s</sub> Log for Lexington Park, Maryland}



















#### Figure 2.5-148—{Measured SPT N-Values (Uncorrected)}



#### Figure 2.5-149—{Calculated FOS Based on SPT N-Values}



#### Figure 2.5-150—{Calculated FOS <1.1 Based on SPT N-Values}











#### Figure 2.5-153—{Measured CPT Tip Resistance Values}



# Figure 2.5-154—{Measured CPT Tip Resistance Values}







#### Figure 2.5-156—{Calculated FOS <1.1 Based on CPT Tip Resistance Data}



Figure 2.5-157—{Sample Active Lateral Earth Pressure Diagrams}





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120-110-

100 90 80

E

SECTION

191.55 73.00



186.14 79.00

171.14 74.00

Figure 2.5-160—{Cross-Sections in Powerblock Area}

SECTION F LEGEND

----- EXISTING GRADE

FINISHED GRADE

CCNPP3 PLANT NORTH

CONSTRUCTION LAYDOWN AREA # 2

COOLING

-

CONSTRUCT LAYDOW AREA# 1

VERTICAL EXAGGERATION 2:1 (N.T.S.)

ALL DISTANCES AND ELEVATIONS ARE SHOWN IN FEET.





- 120 - 110 - 90 - 80 - 70 - 60 - 50 - 40 - 30 - 20 - 10 - 0 - -10 - -20 - -30

9+00



# **LEGEND**

- ----- EXISTING GRADE
- \_\_\_\_\_ FINISHED GRADE
- VERTICAL EXAGGERATION 2:1 (N.T.S.)

ALL DISTANCES AND ELEVATIONS ARE SHOWN IN FEET.













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# Figure 2.5-166—{Static and Pseudo-Static Stability Analyses of Slope Section B}



# Figure 2.5-167—{Static and Pseudo-Static Stability Analyses of Slope Section C}



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#### Figure 2.5-171—{Static and Pseudo-Static Stability Analyses of Slope Section G}

0





Figure 2.5-172—{Static and Pseudo-Static Stability Analyses of Slope Section A (Forced Deeper Surface)}

340

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CCNPP Unit 3





Distance (ft)

Figure 2.5-174—{Static and Pseudo-Static Stability Analyses of Slope Section D (Forced Deeper Surface)}



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# Figure 2.5-177—{Stability Analysis of Slope Section H}

