Extent of RadWaste Building Plant South (S65W) Plant North (N65E) Extent of Nuclear Island - Basement Foundation at 221.5 Ft. msl Extent of Turbine Building BPA-5 BPA-45 BPA-10 BPA-41 BPA-12 BPA-16 BPA-1 GSE = 265.9 ft GSE = 265.9 ft BPA-19 GSE = 265.7 ft BPA-3 GSE = 264.6 ft Nominal Site Grade GSE = 263.9 ft GSE = 262.8 ft GSE = 261.3 ft GSE = 261.4 ft GSE = 260.6 ft Approx. Elev. 261 Ft. msl 260 260 Typical Soil Slope – Typical Soil Slope 240 240 220 220 - Typical Rock Slope Concrete Typical Rock Slope 1 Fill 200 200 Bottom of Excavation 6.0' Offset at Approximate Elev. 220 Ft. msl From Edge of Nuclear Island to Toe of Slope (Typ.) 180 180 Depth = 85.3 ft Depth = 82 ft . Depth = 82.7 ft Depth = 87 ft (Ism Depth = \$7 ft Elevation (Ft. 16( 160 140 14( 120 120 100 100 Depth = 159.2 ft Depth = 164.2 ft Depth = 163.3 ft 80 80 60 60 Depth = 207 ft 40 200 600 300 400 500 100 Distance (Ft.)

## LEGEND

## Extent of Excavation For Safety-Related Structures

----- Conceptual Excavation Extent

For Other Related Structures

- Planned Site Grade Approx, Elev. 261 Ft, msl
- - Concrete Fill
- Compacted Granular Compacted Cohesive, or Concrete Fill



Ground Water Level

# NOTES:

- 1. Clay seams or fracture zones with total clay thickness >0.1 ft. thick are shown at their approximate observed elevation.
- 2. See Table 2.5.4-201 for depths and descriptions of soil and top of sound rock.
- 3. See Figure 2.5.4-202 for Cross-Section locations.
- 4. Depth of excavation under non safety related structures shown as conceptual and subject to change during detailed design.
- 5. Excavation extents for nuclear island shown are typical and subject to change based on subsurface conditions encountered during construction. Soil excavation sideslope may range from 0.25H:1V to 0.5H:1V, and rock excavation sideslope may range from 0.25H:1V to 0.5H:1V.
- 6. See Figure 2.5.4-204A for lithology symbols and correlation lines between boreholes.

## DATA SOURCE:

- 1. CH2M HILL Borehole (Appendix 2BB)
- 2. Smith & Smith Surveyors, 2007

#### Progress Energy Carolinas **Shearon Harris Nuclear Power Plant** Units 2 and 3 Part 2, Final Safety Analysis Report New Hill, North Carolina

Structure Foundation and Excavation Extents -HAR 2 Plant South to North

FIGURE 2.5.4-211A

Rev. 0

(Ism Elevation (Ft.