



## V.C. Summer Geologic Mapping Program includes:

- “Target of opportunity” reconnaissance of exposures in various site excavations
- Mapping of trenches and test pits in residual soil and saprolite prior to start of Power Block (PB) excavations
- Detail mapping of PB excavation walls
- Mapping of rock (MWR) surface in the area of the Nuclear Island (NI) and CWS Pipes
- Detail mapping of excavation walls and final grade in “sound rock” beneath the NI and in area of CWS pipes entering the turbine building
- Mapping the remainder of final grade within the PB excavation (best efforts basis in PWR and MWR)
- Compilation of geologic maps and interpretative reports for the Unit 2 excavation, and later for the Unit 3 excavation

Goal: To document geology exposed in the excavations and compare to site geology as reported in the FSAR, Chapter 2.5



# Technical Staff



## Shaw Nuclear

- Ev Washer – Geotechnical Supervisor
- Nathan Cooke – Sr. Site Geologist
- Matt Cooke – Sr. Site Geologist
- Gina Ferrugia – Staff Scientist

## WLA – Fugro

- Frank Syms – Project Manager
- Scott Lindvall – Sr. Technical Advisor
- Randy Cumbest – Geologic Mapping Lead
- Will Huff, Justin Cox, Stephanie Briggs, Tim Glidden - Staff Geologists (mapping)



# Requirements, Plans and Procedures



Approach to excavation mapping is proactive - from the top down to final grade  
Shaw ESSOW – Consulting Services for Geologic Mapping - QA Category I

WLA Plans and Procedures:

Project Planning Document (PPD)

Project Instructions (PIs)

Geologic Mapping Data Collection Plan

Work Instructions (WIs):

Field Records

Survey Control

Field Mapping Standards

Sampling Protocol, Handling and Storage

Data Compilation and Verification

Excavation Wall Photography and Mapping

GPS Unit Accuracy Verification

Unit 2 NI and CWS Area Preliminary Geologic Mapping

Laboratory Testing Plan

Geoscience Evaluation and Analysis Plan

The mapping, data acquisition, and analysis activities shall have a “pedigree” equivalent to the site investigations performed for the COLA - FSAR Chapter 2.5

- Mapping and data evaluation are performed under WLA’s NQA-1 program
- Shaw audited the WLA program for contract award in September 2009
- Shaw performed an implementation audit earlier in August 2010
  - Report to be issued this week
    - Identified no technical deficiencies
    - Identified two program deficiencies related to:
      - 10CFR21 implementing procedure
      - Addressing 10CFR 50.55(e) requirements in the PPD

## Currently:

- Mapping exposed rock (MWR) in the Unit 2 NI area
- Finishing Unit 2 excavation and wall mapping

## Next Steps:

- Excavate NI area and CWS pipe trench to final grade in sound rock and map – estimated finish is late November 2010
- Excavate remainder of PB area to final grade and map
- Perform any geochronology lab work on select samples
- Prepare and review geologic maps and interpretative report for Unit 2 excavation – estimated finish is March 2011
- Repeat excavation and mapping for Unit 3 – estimated start of mapping is December 2010, estimated finish is January 2012