

**Southern Nuclear Operating Company**

**ND-19-0152**

**Enclosure 1**

**Vogtle Electric Generating Plant (VEGP) Units 3 and 4**

**Presentation Material:  
Functional Arrangement (FA) ITAAC – Open Meeting (Non-Proprietary)**

**(Enclosure 1 consist of 11 pages, including this cover page)**



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**Functional Arrangement (FA)  
ITAAC  
Open Meeting (Non-Proprietary)**

**February 14, 2019**

# Agenda

- NEI 08-01 Guidance for FA
- FA Development Procedures



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# NEI 08-01 Guidance for FA

## NEI 08-01 Section 10.5:

“Regulatory Guide 1.206 defines *Functional arrangement (for a system)* “as the **physical arrangement** of systems and components to provide the service for which the system is intended and that is described in the ITAAC design description and as shown in the figures.””



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# NEI 08-01 Guidance for FA

NEI 08-01, Section 10.5:

The purpose of Functional Arrangement is to verify and document that the as-built system components conform to the Tier 1 Design Description, that is:

- **Physically arranged** as shown in any referenced figure
- **Located** as identified in any referenced table
- System components identified in the Tier 1 Design Descriptions are **physically arranged** as specified by the design



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# NEI 08-01 Guidance for FA

## NEI 08-01, Section 10.5:

- The capability to perform required system safety functions is verified by other ITAAC.
- Detailed construction drawings (typically P&IDs) are used during **walkdown inspections** to verify the functional arrangement (arrangement and location) of specified as-built components.



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# “Detailed Drawings”

- SNC position: Detailed construction drawings (i.e. P&ID's) are necessary to confirm physical attributes as identified in Tier 1 design description, figures and tables. SNC does not use Tier 1 figures or tables to perform FA inspections.
- SNC position: Detailed construction drawings are not used to define the scope and detail of the functional arrangement for a system.



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# FA Development Procedures

## APP-GW-ITY-004 Functional Arrangement (FA) Guideline

- Developed collaboratively with Vogtle ITAAC Consortium (SNC, WEC, CB&I Field Engineering), VC Summer, and SCANA construction and discipline-specific engineers – Rev 1 Approved May 04, 2015.
- Provides guidance to develop the exact scope of inspection(s) required to meet AC and close each FA ITAAC:
  - How the system items and attributes are to be selected
  - How the details for the ITA walkdowns/inspections are to be developed
- Transitioned to Southern Nuclear Procedure ND-RA-001-012 “Functional Arrangement Scoping Process” – Summer 2017:



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# FA Development Procedures

## APP-GW-ITY-004 FA Guideline Implementation

- CB&I Field Engineering (FE)-ITAAC used the FA guideline to produce List Of Items (LOI) and figures/Field Sketches (FSKs) based upon system P&IDs
- SNC/SCANA System Engineering reviewed/comments on LOI and FSKs
- CBI FE-ITAAC resolved comments/produced final LOI/ FSKs
- CBI Field Engineering issues LOI and FSKs to WEC ITAAC IPT member for distribution



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# ND-RA-001-012 FA Scoping Process Implementation

- Utilized APP-GW-ITY-004 Guideline COL Interpretations + Incorporated SNC Administrative Processes
  - ITAAC Technical Report (ITR) is scoping/explanatory document that encompasses LOI/FSKs to become FA Principal Closure Document (PCD)
- ITAAC PM coordinates LOI/FSK review/ITR Development with FE-ITAAC
- ITAAC PM coordinates the FA ITR package approval by ITAAC Supervision, then archives in Document Control as Rev 0.
- As FA System complete approaches, FA ITR package reviewed/issued to System Operators (SO) for Walk Down.



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# Questions



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