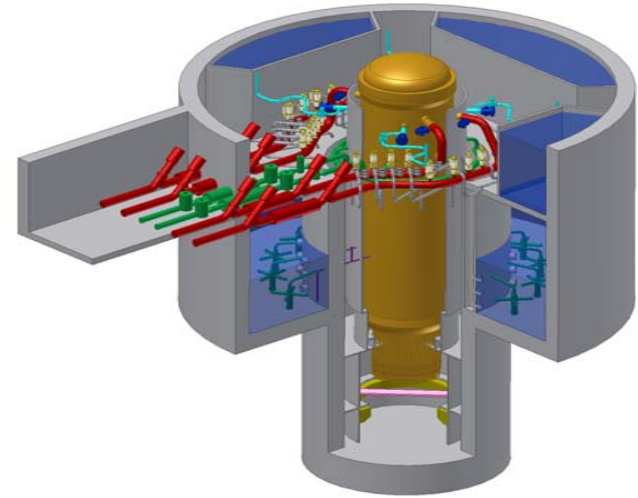


Presentation to
Nuclear Regulatory Commission



Summary

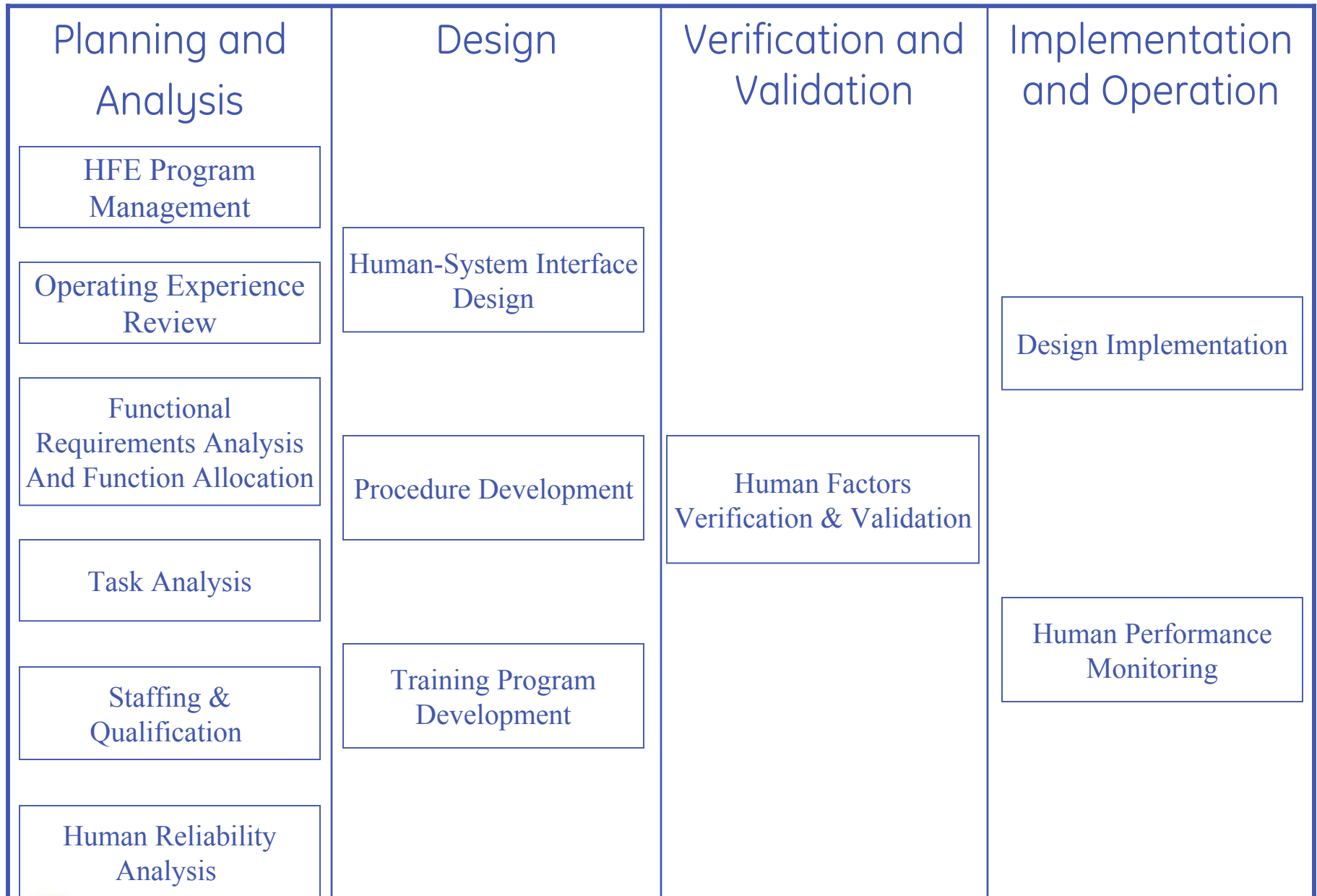
ESBWR Design Control Document, Tier 2

Chapter 18

Human Factors Engineering







Planning and Analysis

HFE Program Management

Operating Experience Review

Functional Requirements Analysis And Function Allocation

Task Analysis

Staffing & Qualification

Human Reliability Analysis*

Design

Human-System Interface Design

Procedure Development

Training Program Development

Verification and Validation

Human Factors Verification & Validation

Implementation and Operation

Design Implementation

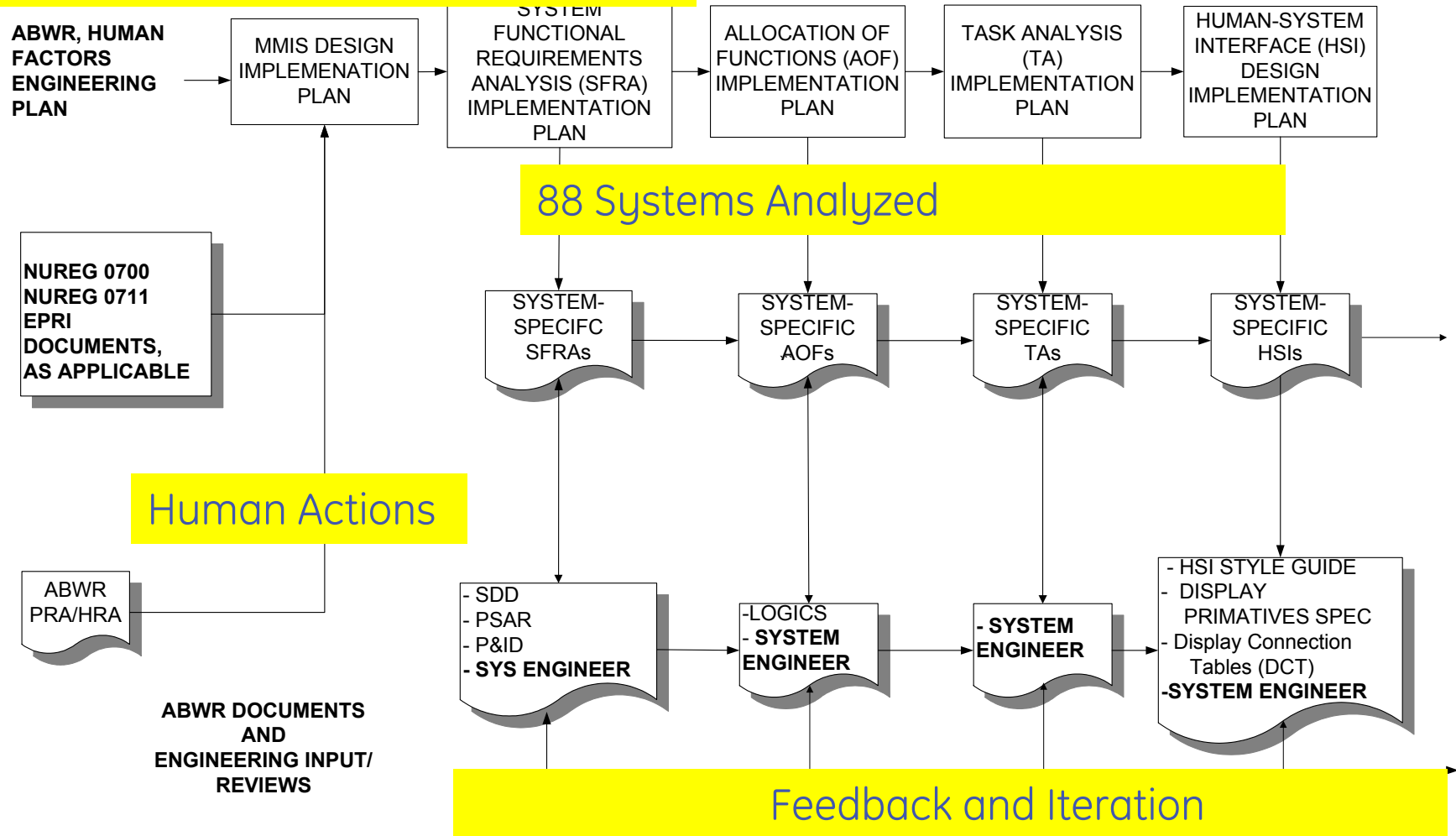
Human Performance Monitoring



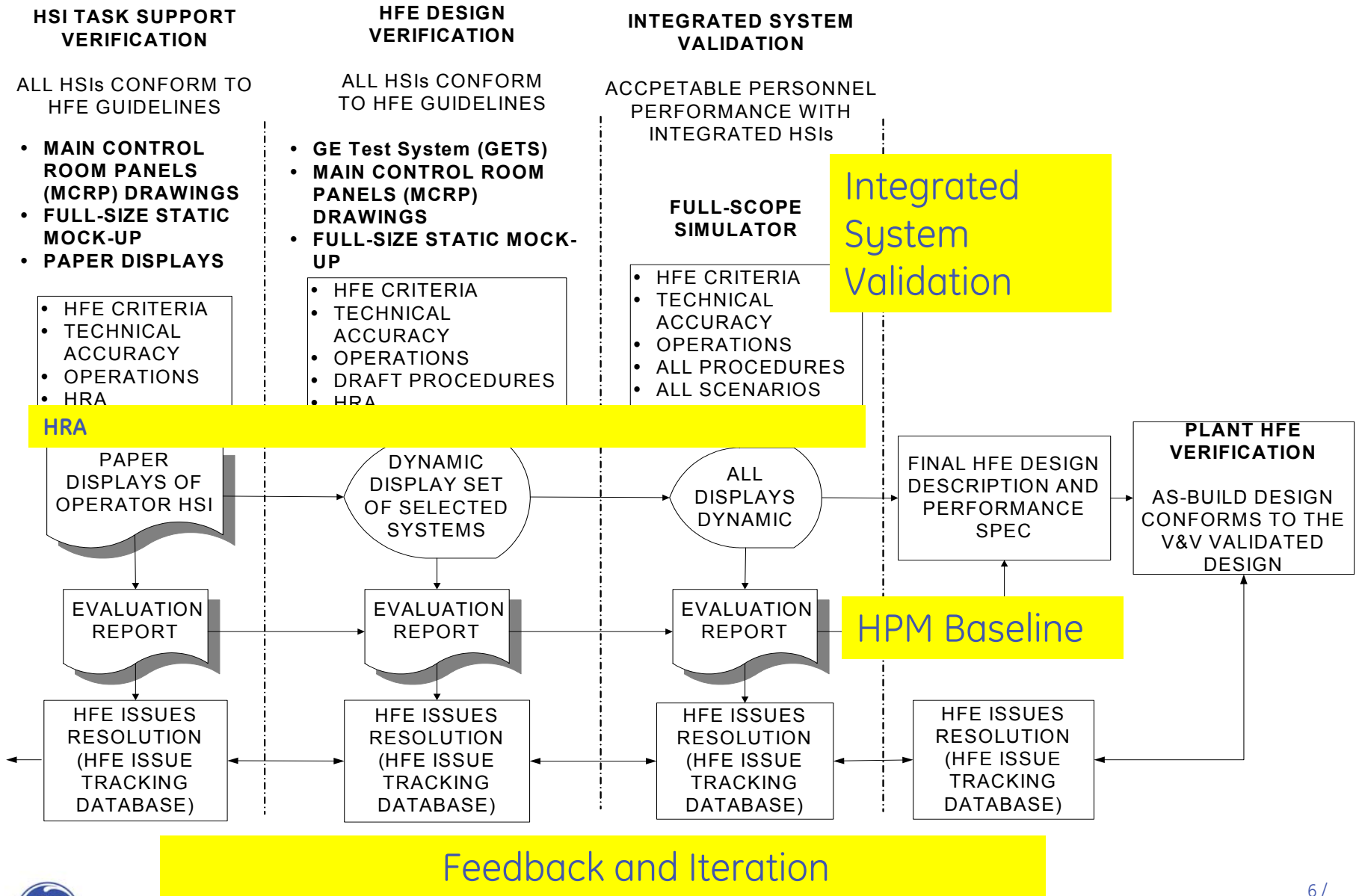
ABWR HFE Design Process

Team of 19 experts, eleven disciplines

PERFORMANCE AND PREPARATION OF HFE



ABWR HFE Design Process



ESBWR HFE Implementation



Next Actions

1. Submit Draft of ESBWR HFE Program Plan (October 15, 2005)
2. Rewrite Chapter 18 in SRP/NUREG 0711 Rev 2 form *with* added details (December 2nd 2005)
3. Prepare ESBWR draft plans (see next slide)
4. Complete ESBWR specific plans (March 2006)

HFE Action Plan Schedule

Plan Submittal	Draft	Final
HFE Plan	October 15, 2005	December 22, 2005
OER plan	December 22, 2005	January 31, 2006
Functional Requirements Analysis and Allocation Plans	December 22, 2005	January 31, 2006
Task Analysis Plan	December 22, 2005	January 31, 2006
Staffing and Qualifications Plan	January 31, 2006	February 28, 2006
HRA Plan	January 31, 2006	February 28, 2006
HSI Design plan	January 31, 2006	February 28, 2006
Design Implementation Plan	February 28, 2006	March 31, 2006
Procedures Development plan	February 28, 2006	March 31, 2006
Training Development plan	February 28, 2006	March 31, 2006
HFE V&V plan	February 28, 2006	March 31, 2006
HPM Plan	February 28, 2006	March 31, 2006