



Test Beam Line (TBL)

Configuration Management Status

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2025-10-10

Agenda



1 Introduction

2 ESS Baseline Status for TBL

3 TBL iSRR Scope



1 Introduction

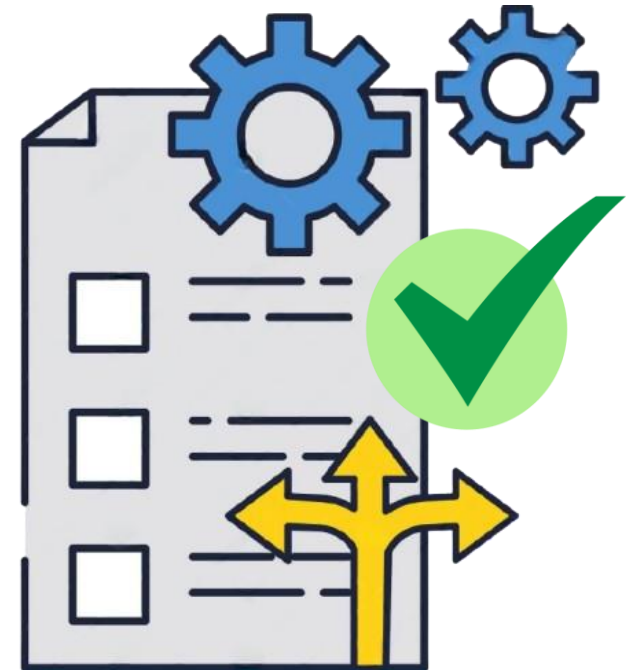
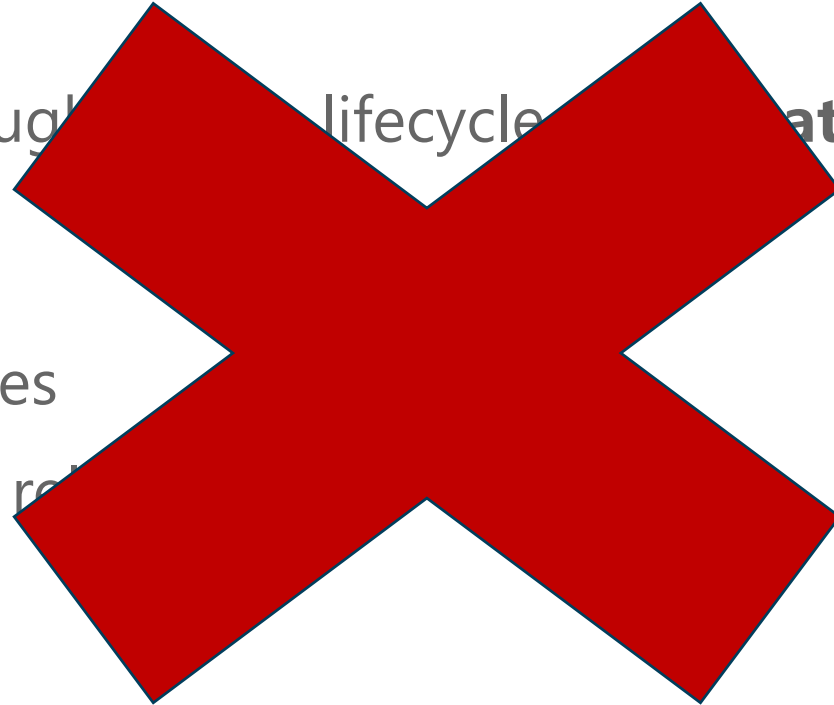
Configuration Management

In a Nutshell

1. Purpose

To ensure that, through the lifecycle, **configuration and configuration status** are:

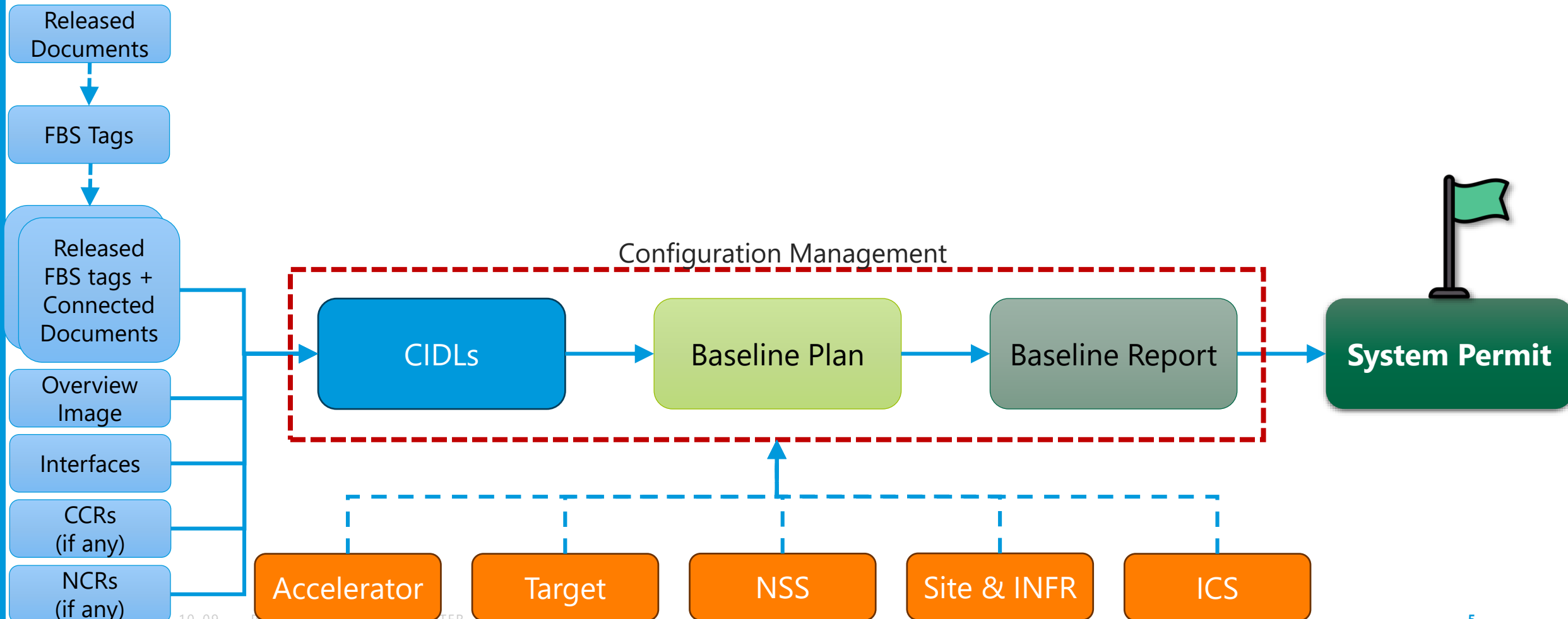
- ✓ known at all times
- ✓ agreed upon by relevant parties
- ✓ complete
- ✓ correct
- ✓ consistent



Introduction

Configuration Management In a Nutshell

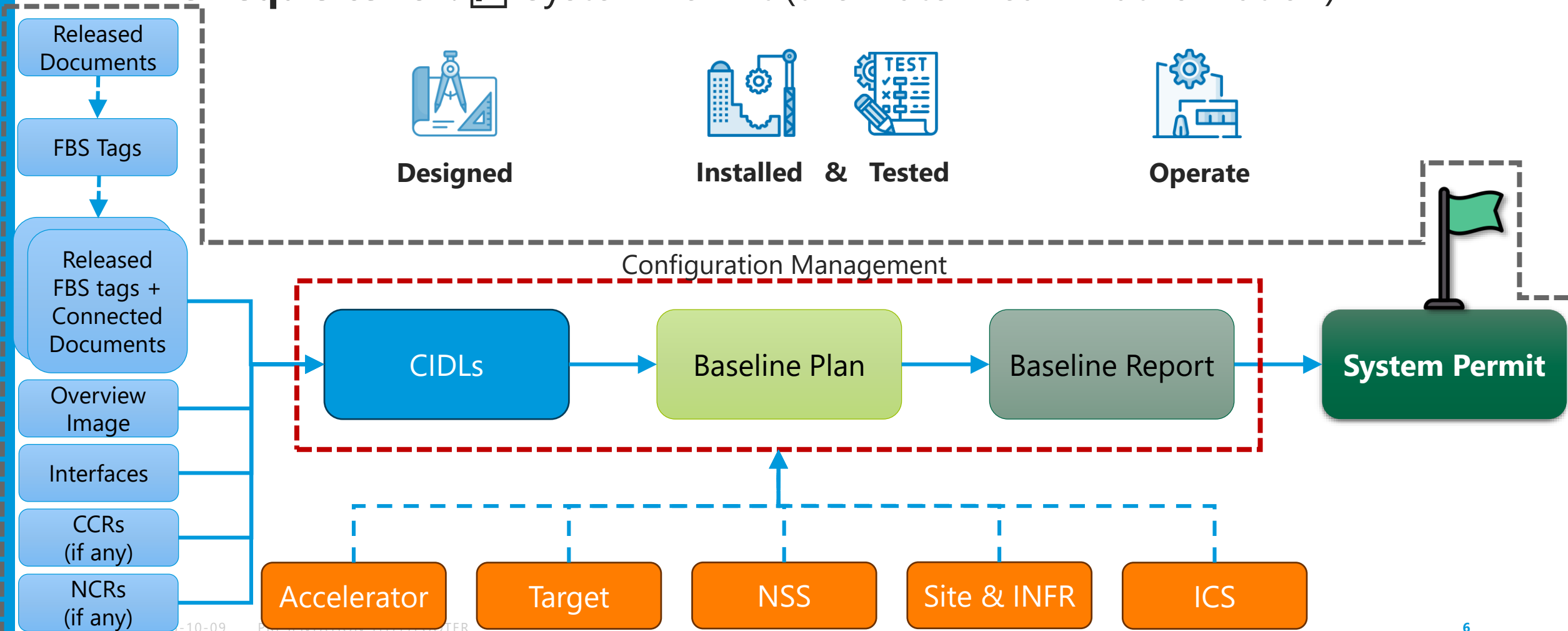
Pre-requisite for:  System Permit (then later Beam Authorization)



Introduction

Configuration Management In a Nutshell

Pre-requisite for:  System Permit (then later Beam Authorization)





2 ESS Baseline Status for TBL

ESS Baseline Status for TBL

Facility Baseline Plan



BaselineScope	FIRST SCIENCE											Routine Operation
	NSS Baselines									ACC + TS NF + NSS (ESS RBOT)	ACC + TS + NSS (RFS)	
	TBL	Shielding & Safety Systems	BIFROST	LOKI	ODIN	NSS RBOT	DREAM	NMX	ESTIA			
Facility Baseline												
As-Designed*	4AN-1/2	4AN-2/2	4AN-3/2	4AN-4/2	4AN-5/2	4AN/2	4AN-6/2	4AN-7/2	4AN-8/2			
As-Verified**										4A/2		
As-Operated***											4A	5A



ESS Baseline Status for TBL

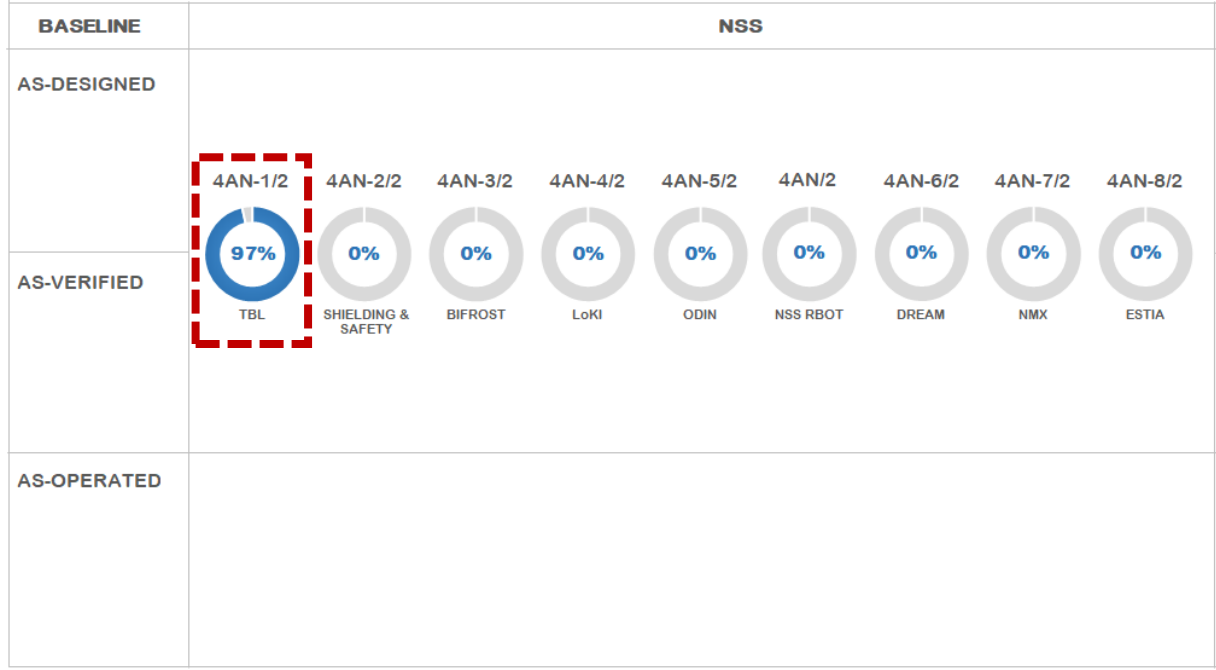
Baseline Conditions

Not in a released and correct state:

- **ESS CIDL** – Work ongoing; will be done before global SAR5

Not in the correct state:

- **TBL PSS CIDL ([OS-0000146](#))** – As-Verified state will be baselined after the global integrated tests are performed.
- **NBEX CIDL ([OS-0000081](#))** – As-Verified state is planned before 16th October, but might slip further.
- **NSS CIDL ([OS-0000061](#))** – Not currently baselined. A CIDL in Revision 1 exists, but it will be baselined at 4AN/2.
- **NSS Shielding and Safety System ([OS-0000122](#))** – Not currently baselined. A CIDL in Revision 1 exists, but it will be baselined in November at 4AN-2/2.



Baseline	Description
4AN-1/2	TBL (As-Designed + As-Verified)



ESS Baseline Status for TBL

Configuration Management Deliverables

[ESS-0482562](#) **ESS Facility Configuration Baseline Plan** Rev.14 *Released*

- Defines scope, relevant CIs, and corresponding configuration

[ESS-5693980](#) **NSS TBL Baseline Release Report** Rev.1 *Review (as of 9th October)*

- baseline scope
- any changes, and
- corresponding quality assurance records;
- comments and observations as pre/post-start items;



Status of NCRs / CCRs for TBL

NCRs / CCRs with unclear status or pending closure that may impact TBL

- **10493** – Absence of CE marking, or related documentation (Heavy Shutter System)
- **The following NITs have been raised that should be completed before iSRR, but are not yet resolved:**
 - [NIT-123](#), TBL Fire suppression test in-cave (*In Progress*)
 - [NIT-152](#), TBL - CUP Complete Piping Installation Report (*To Do*)



A Configuration Change Request (CCR) must:

- be **raised** prior to implementing any configuration change
- be **registered** in the Facility Change Log
- be **communicated to** and **analysed** by the relevant parties
- be **incorporated** into all affected deliverables
- be **formally closed** upon successful implementation

Changes to a system





Reflection on Documentation

- Stakeholder engagement and collaboration to support the completion of our documentation continue to strengthen over time.
- The relevant document types appear to be largely covered in the current documentation:

- ✓ **Scope and Requirements**

- Requirements, Interface documentation are in place

- ✓ **Specification and Design**

- System design description, P&ID, Mechanical design attached but LoM is in A, electrical schematics, etc. are in place

- ✓ **Verification and Validation**

- V&V Plans and reports are in place with exceptions as follows:
 - ESS-5690182 Integrated Test Report for the TBL TimePix3 Detector System (*Released in Rev 1 but Rev 2 is needed*)

- ✓ **Operation and Maintenance**

- Operation and maintenance manuals are in place



3 TBL iSRR Scope

AS-OPERATED

AS-VERIFIED

TBL

AS-DESIGNED

TBL PSS

NOT BASELINED

Data
Management &
Experiment
Control System

NSS

NSS Shielding
and Safety
System

AS-OPERATED

****ESS Facility****

Site and INFR

Electrical

Control &
Monitoring

HVAC

Instrument Air

LVPD H&F Bldgs

Fire Safety
(except F01)

Physical
Protection

LVPD D&E Bldgs
(Site & INFR)

ICS Computing
Infrastructure

Electrical
Grounding

Transport

AS-VERIFIED

Process

Technical
Network

Timing
Distribution
System

LVPD D&E Bldgs
(Target & NSS)

AS-DESIGNED

REMS

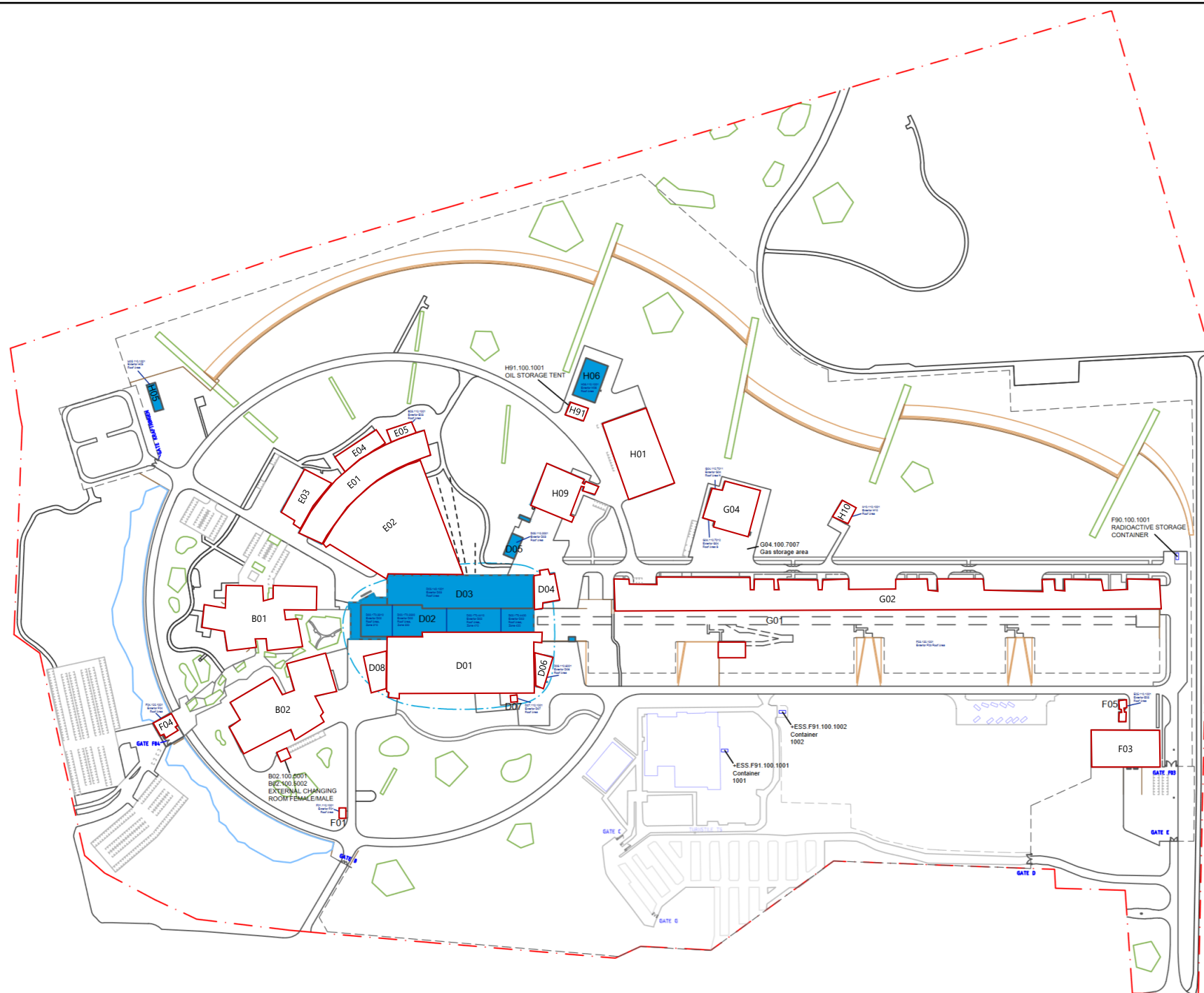
Target Station

Neutron Beam
Extraction

AS-BUILT

As-Built and Relevant to TBL

As-Built but not Relevant
to TBL





Finish presentation