

# Construction/Installation approval process (LBNF and DUNE, post AUP)

M.Ne, February 2020

A first attempt for a discussion

- In white : documents handling
- In light green : approval requests
- In dark green : acceptance by line management
- In yellow : reviews
- In blue : project steps

<https://edms.cern.ch/document/2302829>

# Consortium/Project (post AUP)

compliance  
office  
requirements

physics  
requirements

- technical specifications
- QC plans
- technical drawings
- safety plans

EDMS storage

Structural/elect.  
analysis

TC, cons. PL and TL approval  
or LBNF PL approval

compliance office check  
and approval

**design  
reviews**

DUNE TC or LBNF man. approv.

compliance office approval

QC officer approval

configuration control approval

safety approval (EH&S manag.)

- final DR
- Production technical specifications, incl. tools
  - Production drawings
  - Final QC plans
  - Safety plans
  - Installation plans
  - Transport and storage

**installation  
reviews**

- Detector FD, ND
- Cryostats
- External cryogenics
- Internal cryogenics
- Top of cryostat infrastructure
- Facility infrastructure
- Services

EDMS final storage

**PRR  
reviews**

TC, IPD, LBNF-PD approval

Production by the consortium/project

TC, IPD, LBNF-PD approval

- QC results
- non conformities
- compliance office check
- ready for installation milestones
- production history

EDMS production final storage

Installation process start

# Installation process start

cryostat, cryogenics, detectors  
installation, BSI managers

insitu inspection by install managers

compliance office approval

QC officer approval

configuration control approval

ES&H representatives safety approval

- installation procedures (risks, coactivity, training, procedures, tools)
- installation tools
- QC plans
- installation drawings
- safety plans (ODH, fire, access,...)

EDMS final storage

IPD approval

## Installation start

EDMS safety files storage

project managers approval

safety approval (EH&S manag.)

compliance office approval

QC officer approval

- QC results
- non conformities acceptance
- cryogenics conformity
- cryostat conformity
- electrical conformity
- safety systems conformity
- safety organizational procedure

IPD and LBNF-PD approval

commissioning process  
start