

TG4 reviews and safety aspects

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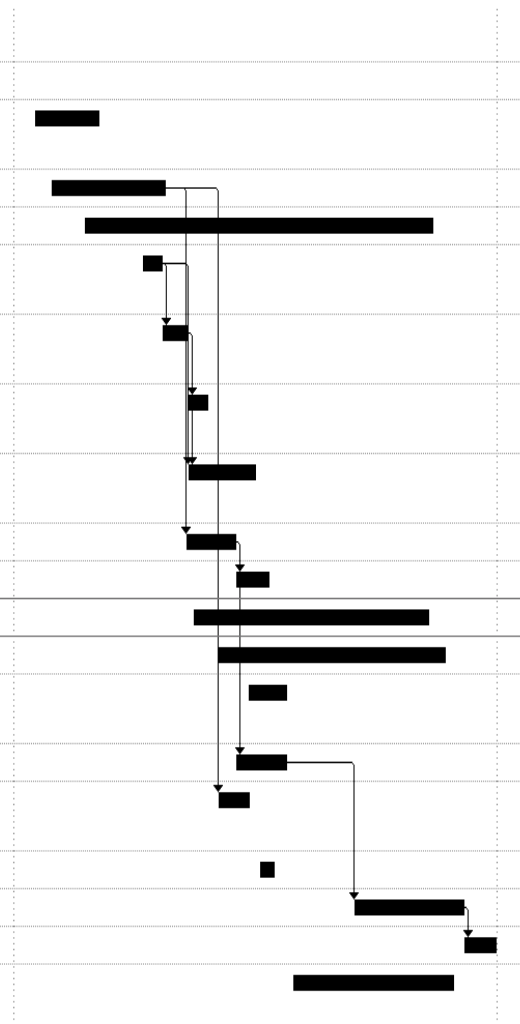
5th April 2019

NSS installation schedule (synthetic version March 2019- **DRAFT**)



High level integrated schedule with IKK review dates, Partners and Inst. Package Leader







Description			Area	IRR date (DRAFT)	IRR/TG4	Respons	Install. Pack. Le	
Instruments Interface plates on top of the beamline piles W2,W3,W4,W6 (E02.1)	Mon 02/09/19	Fri 25/10/19	E02.1	06.08.2019	IRR 1	NSS	NSS Constr. Engineer	█
BEER ex cave	Mon 16/09/19	Fri 20/12/19	E01	20.08.2019	TG4.1 (BEER)	BEER	Radim	█
NBPI integration (including temporary tent)	Mon 14/10/19	Fri 31/07/20	E01	02.09.2019	IRR 2	NSS	Hans	█
C SPEC guide shielding - lower walls (NSS shielding group)	Mon 02/12/19	Tue 17/12/19	E02.1	16.10.2019	IRR 3	NSS	Zvonko/Senad	█
BIFROST guide shielding - lower walls (NSS shielding group)	Wed 18/12/19	Wed 08/01/20	E02.1	16.10.2019	IRR 3	NSS	Zvonko/Senad	█
MAGIC guide shielded - lower walls (NSS shielding group)	Thu 09/01/20	Fri 24/01/20	E02.1	16.10.2019	IRR 3	NSS	Zvonko/Senad	█
CSPEC neutron guides system and steel support structure	Thu 09/01/20	Wed 04/03/20	E02.1	28.10.2019	TG4.1 (CSPEC)	CSPEC	Fernando	█
NMX ex. Cave	Tue 07/01/20	Mon 17/02/20	E01	14.11.2019	TG4.1 (NMX)	NSS	Giuseppe	█
NMX utilities into the ex. cave	Tue 18/02/20	Mon 16/03/20	E01	14.11.2019	TG4.1 (NMX)	NSS	Giuseppe	█
E04 labs mech/el services and furniture	Mon 13/01/20	Mon 27/07/20	E04	18.11.2019	IRR 4	SANBER	Monica	█
E03 labs building completions	Mon 03/02/20	Mon 10/08/20	E03	09.12.2019	IRR 5	NSS	Monica	█
Bunker project: installation of R6 brackets in D02 (D01 and D03 side)	Fri 28/02/20	Mon 30/03/20	D02	16.12.2019	IRR6	NSS	Zvonko/Dawid	█
BIFROST ex cave	Tue 18/02/20	Mon 30/03/20	E01	10.01.2020	TG4.1 (BIFROST)	BIFROST	Liam	█
BEER neutron guides system and steel support structure	Mon 03/02/20	Fri 28/02/20	E02.1	15.01.2020	TG4.2 (BEER)	BEER	Radim	█
Magic steel guides support structure	Mon 09/03/20	Fri 20/03/20	E02.1	20.01.2020	TG4.1 (MAGIC)	MAGIC	Xavier	█
Magic ex. cave	Wed 27/05/20	Wed 26/08/20	E01	20.01.2020	TG4.1 (MAGIC)	MAGIC	Xavier	█
Magic utilities into the cave	Thu 27/08/20	Wed 23/09/20	E01	20.01.2020	TG4.1 (MAGIC)	MAGIC	Xavier	█
NSS instruments power distribution in the E01 hall	Mon 06/04/20	Mon 17/08/20	E01	17.02.2020	IRR7	NSS	NSS El. Engineer	█









Logistic layout September / December 2019

NSS Project Division
E02.1 LOGISTIC LAYOUT (INSTALLATION)
TIMELINE: 09/2019-12/2019

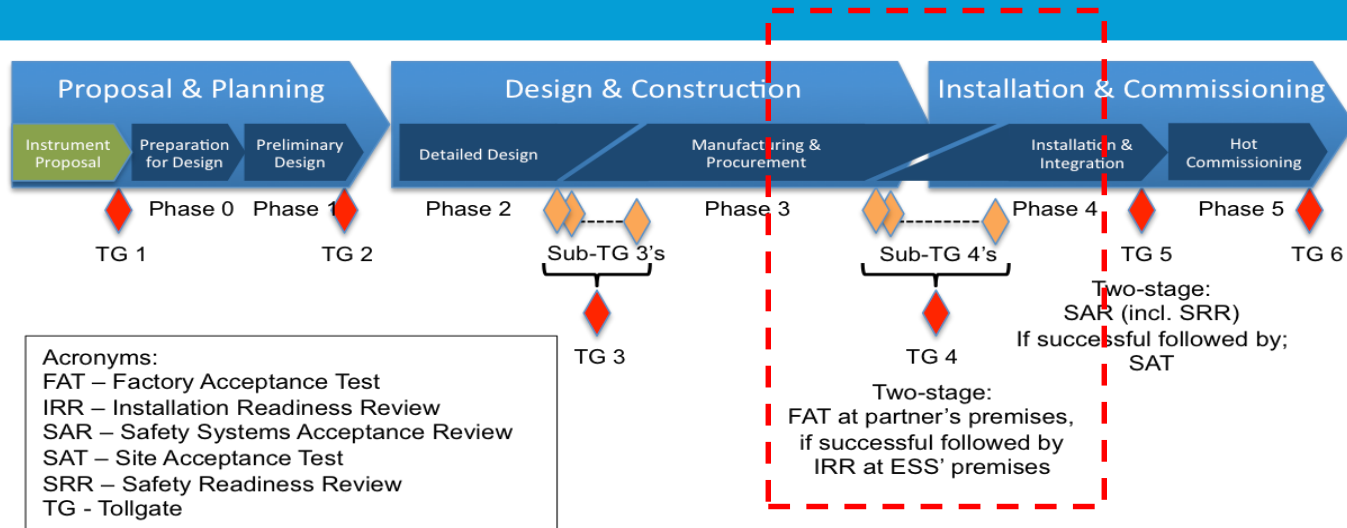


-  Unloading zone
-  Power outlet
3pcs 16A 1-phase
1pcs 16A 3-phase
1pcs 32A 3-phase
-  Cooling water
-  Nitrogen gas, Deionized water
compressed air, n. 2pcs Lan
-  Fume hoods
-  Tap and waste water

	BEER
	LABS (storage)
	C SPEC
	NSS SHIELDING GROUP
	NBOA/NBPI
	CHOPPER GROUP

E02.2
Not available before May 2021

Installation Readiness review

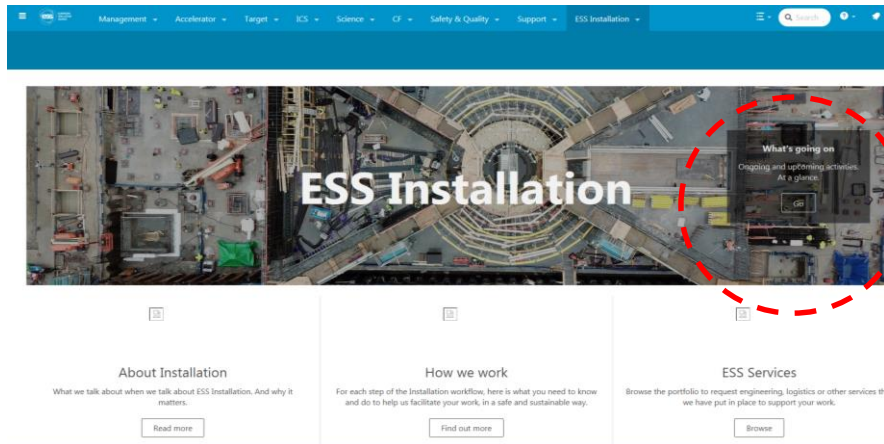


- The purpose with **Installation Readiness Review** is to make necessary preparations have been performed and the supporting documentation are in place for the upcoming installation package.
- Each IRR will correspond to an **Installation Package (I.P.)**. The I.P. is manageable discrete piece of the complete installation.
- Relevant installation package documentation is collected into a “Binder” and shall require NSS approval before the installation can take place.

Installation packages (binders)

ESS Installation/What's going on/ESS Installation binder library/Create an Installation binder

1



2

ESS Installation Binder Library

- ESS Installation Binder Library
 - ACCSYS BINDERS
 - ICS BINDERS
 - NSS BINDERS
 - 13.3.3 SURF E-Building Installation
 - ib122 - 13.3.1 Labs & Workshop Installation
 - 13.6.3 LoKi Instrument
 - Ongoing - NSS
 - Archived (closed) - NSS
 - TARGET BINDERS
 - TRASH

3

ESS Installation Binder Library

- ESS Installation Binder Library
 - ACCSYS BINDERS
 - ICS BINDERS
 - NSS BINDERS
 - 13.3.3 SURF E-Building Installation
 - ib122 - 13.3.1 Labs & Workshop Installation
 - ib122 - 01 List of Documents
 - ib122 - 02 Scope of Work
 - ib122 - 03 Organisation
 - ib122 - 04 Time Schedule
 - ib122 - 05 Risk Assessment Method Statement (RAMS)
 - ib122 - 06 Temporary Services
 - ib122 - 07 Drawings
 - ib122 - 08 Installation Procedures
 - ib122 - 09 Work Permits
 - ib122 - 10 Daily Diary
 - ib122 - 11 Non-Conformity Report (NCR)
 - ib122 - 12 QC - Installation & Test Documentation
 - ib122 - 13 List of Components & Material
 - ib122 - 14 Reference Documents
 - ib122 - 15 Installation Finalization
 - ib122 - Binder Versions
 - 13.6.3 LoKi Instrument
 - Ongoing - NSS

- 00 List of Documents
- 01 Scope of work
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- 04 RAMS Risk Assessment Method Statement**
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- 12 List of Components & Material
- 13 Reference Documents
- 14 TRR Test Readiness Review

04. Risk Assessment and Method Statement (**RAMS**)

- Installation sequence
- Transportation route interference check
- Job Hazard Analysis
- Equipment & resources
- Etc.

Template available

Installation Binder

- 00 List of Documents
- 01 Scope of work
- 02 Organisation
- 03 Time Schedule
- 04 RAMS Risk Assessment Method Statement
- 05 Temporary services**
- 06 Drawings
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05. Temporary Services

- Scaffolding;
- Laydown Areas (Storage)
- Site logistics;
- Lifting;
- Temporary Power and fluids;
- ESS workshop support;



Safety during installation



SWEDISH
WORK
ENVIRONMENT
AUTHORITY



EUROPEAN
SPALLATION
SOURCE

NSS Installations have to comply with Swedish legislation of construction works and a “BAS-U” will be appointed from ESS to lead installation works in order to prevent injuries




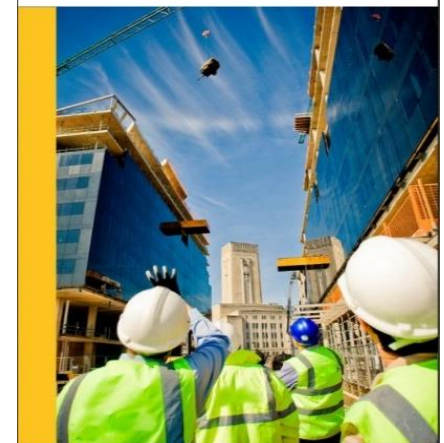
Reference provisions from Swedish work environment Authority:

- building-and-civil-engineering-work-provisions-afs1999-3;
- scaffolding-provisions-afs2013-04;
- use-of-lifting-devices-and-lifting-accessories-provisions-afs2006-6;
- who-is-responsible-for-what-within-building-and-construction-adi704-eng;

[Web site](#)

<https://www.av.se/en/work-environment-work-and-inspections/publications/foreskrifter/>

Who is responsible for what within building and construction? 



Questions

