Overview of ESTIA Instrument Compliance

PRESENTED BY JOS COOPER

Q-Gate

ESTIA Q-Gate

ESTIA TG4				ESTIA TG4	Exists
ESS-5337335		1	✔	Signature card NSSQ: CET-153: ESTIA: BWI	Released
ESS-5353752		1	✔	Signature card NSSQ: CET-168: ESTIA: Feeder Assembly	Released
ESS-5460363		1	✔	Signature card NSSQ: CET-164: ESTIA: in-bunker components: Virtual Source	Released
ESS-5509441		1	✔	Signature card NSSQ: CET-91: ESTIA: Instrument Shutter Approval Process	Released
ESS-5584959		1	✔	Signature card NSSQ: CET-617: ESTIA: Detector arm (mechanical parts)	Released
ESS-5699657		1	✔	Signature card NSSQ: CET-645: ESTIA: In cave components PART1	Released
ESS-5699659		1	✔	Signature card NSSQ: CET-645: ESTIA: In cave components PART2	Released
ESS-5699660		1	✔	Signature card NSSQ: CET-645: ESTIA: In cave components PART3	Released
ESS-5765182		1	✔	Signature card NSSQ: CET-648: ESTIA: Multiblade detector	Released
ESS-5866814		1	✔	Review card: ESTIA: Beam Filtering System	Released
ESS-5934821		1	✔	Review card ESTIA: Flight tube for the Detector (and analyser housing)	Released
ESS-5937212		1	✔	ESTIA: Flight tube with rotation guide field (Middle focus)	Released
ESS-6031858		1	✔	Signature card NSSQ:CET-118:ESTIA: BBGOA Approval Process	Released
ESS-6032326		1	✔	Review card ESTIA:in-bunker components: Chopper Pit: Approval Process	Released
ESS-6087691		1	✔	Review card: NSSQ: ESTIA: Beam Monitor (He-3 tube): Approval process	Released

Process instigated at the end of 2023

Q-Gate signature card

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Document Type	Document Template
Document Number	ESS-0145020
Date	Feb 2, 2021
Revision	3
State	Released
Confidentiality Level	Internal
Page	1 (3)

SIGNATURE CARD FOR APPROVAL TO INSTALL (TG4A)

Please sign the appropriate box to confirm that you are responsible for and have fully completed the task concerned for:						
Installation package:	*lb1380 Estia Virtual Source*					
Description:	A movable slit set with a laser fed into the component via an optical fiber. The component sits in the chopper pit, and is in vacuum. ESS.NSS.H01.ESTIA.A01.R01					
Approval process:	CET-164					
Date:	2024-06-14					
Task	**Required?**		**Name**	**Position**	**Date**	**Signature**
	Yes	**No**				
CE Marking	☐	☒				
Risk evaluation (risk assessment/ safety strategy), selection of and conformity with standards						
(section 1) electrical engineering	☐	☒				
(section 2) chemical	☒	☐	Betina Pereira Ferreira	OHS Engineer Chemical	2024-06-13	BPF
(section 3) biological	☐	☒				
(section 4) cryo / odh / O2 enrich	☐	☒				
(section 5) ionizing radiation	☒	☐	Iain Sutton	Q-Gate	2024-06-10	IS
(section 6) optical radiation	☒	☐	Nathalie de Ruette			
(section 7) electromagnetic	☐	☒				
(section 8) heat / fire	☐	☒				
(section 9) mechanical	☐	☒				
(section 10) pressure	☐	☒				
(section 11) workplace	☒	☐				
(section 12) ergonomics	☒	☐				

Template: Signature card for EU Declaration of Conformity (ESS-0145020 Rev: 3, Active date: Feb 2, 2021)

Subject matter experts (compatibility, operability conformity with internal standards)						
Task	Required?		Name	Position	Date	Signature
	Yes	No				
Motion Control	☒	☐	Thomas Gahl	MCA Group Leader	2024-06-13	TG
Neutron Optics	☐	☒				
Neutron Choppers	☐	☒				
Neutron Detectors	☐	☒				
Vacuum systems	☐	☒				
Shielding	☐	☒				
Engineering	☐	☒				
Sample environment	☐	☒				
CEP	☐	☒				
CUP	☐	☒				
ECDC	☐	☒				
PSS	☐	☒				
Civil Engineering	☐	☒				

Decision:

Approved for installation.

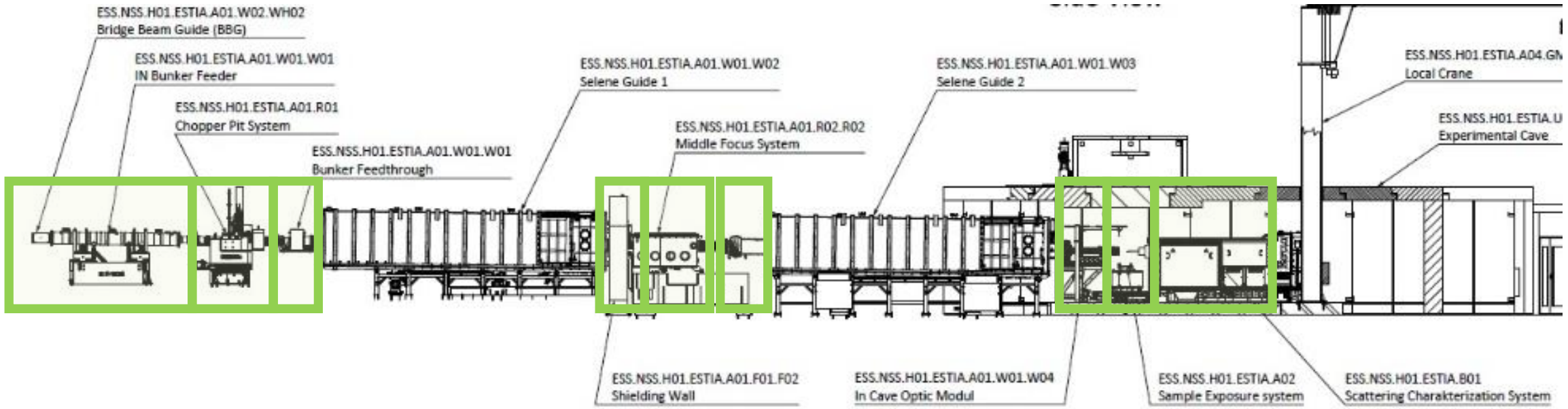
Comments:

Lead:
For operation no lead protection is needed as the component sits in the chopper pit within the bunker. For maintenance a TRA is needed since the lead might be handled/touched and proper protection is needed. Should be mentioned in the maintenance manual where the lead is located.

RP:
Based on the documents indicated;
Drawing ESS-3061543.2 (rev 6)
Bill of materials ESS-5283016
All materials respect the in+house requirements and are approved for installation.
checks completed

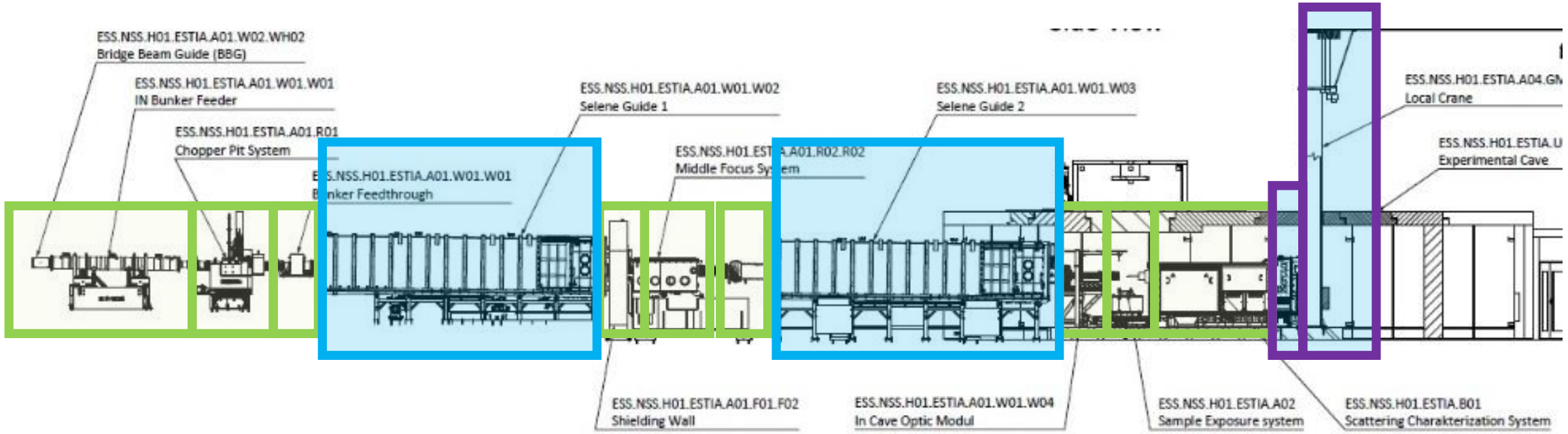
MCA:
Cabling has been fixed according to MCA, cables left loose but will never get caught. Needs to be removed in one piece. Care shall be taken by operations manual for regular insulation tests.

ESTIA Q-Gate


ESS.NSS.H01.ESTIA.A01.W02.WH02
Bridge Beam Guide (BBG)
ESS.NSS.H01.ESTIA.A01.W01.W01
IN Bunker Feeder
ESS.NSS.H01.ESTIA.A01.R01
Chopper Pit System
ESS.NSS.H01.ESTIA.A01.W01.W01
Bunker Feedthrough
ESS.NSS.H01.ESTIA.A01.W01.W02
Selene Guide 1
ESS.NSS.H01.ESTIA.A01.R02.R02
Middle Focus System
ESS.NSS.H01.ESTIA.A01.W01.W03
Selene Guide 2
ESS.NSS.H01.ESTIA.A04.GN
Local Crane
ESS.NSS.H01.ESTIA.U
Experimental Cave
ESS.NSS.H01.ESTIA.A01.F01.F02
Shielding Wall
ESS.NSS.H01.ESTIA.A01.W01.W04
In Cave Optic Modul
ESS.NSS.H01.ESTIA.A02
Sample Exposure system
ESS.NSS.H01.ESTIA.B01
Scattering Charakterization System

ESTIA Q-Gate

Not considered



Compliance of Selene Guides

Selene Guides

Selene Guides

Released documentation should be sufficient, but is unexamined from this perspective

- SSDD and TDD
- Manual
- Risk Assessment
- Drawings and models
- Electrical drawings
- Bill of materials
- DoI's and DoC's of standard components inside the components

Overall Status

- Q-gate processes have been completed for vast majority of the components
- Selene guides have sufficient documentation for us to be confident that we can supply everything which could be needed.
- Motion safety is a separate issue in this meeting, but we are also confident of the solution in terms of practical safety

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