# ECR/Documents for Information and Approval

Giulia Romagnoli and Natalya Kahn for BE-EA, 2024-09-03

EA Documents - Agile Board - CERN Central Jira

# LIST OF DOCUMENTS for Info

**FOR INFORMATION EATM**

| Summary | Reporter | EA Projects | EDMS number | EDMS Status |
|---|---|---|---|---|
| Procedure to Follow in the Event of a Broken Beryllium Window on the HiRadMat Dump | Nicola Solieri | HiRadMat | 3136124 - HRM-T-SYP-0001 | **Under Approval** |
| System Safety Assessment - XWCM/XSCI | Krystian Sidorowski | North Area, NACONS | 3140740 - SPSX-B-SSR-0001 | **Under Approval** |
| Pre-DEC from BE-CEM following the office identification | Alicja Ostrega | North Area, NACONS | 3152084 - SPSX-E-LST-0023 | **Under Approval** |
| Pre-DEC from BE-EA following the office identification | Alicja Ostrega | North Area, NACONS | 3152086 - SPSX-E-LST-0024 | **Under Approval** |
| Pre-DEC from EN-AA following the office identification | Alicja Ostrega | North Area, NACONS | 3152087 - SPSX-E-LST-0025 | **Under Approval** |
| Pre-DEC from EN-CV following the office identification | Alicja Ostrega | North Area, NACONS | 3152089 - SPSX-E-LST-0026 | **Under Approval** |
| Pre-DEC from HSE-RP following the office identification | Alicja Ostrega | North Area, NACONS | 3152090 - SPSX-E-LST-0027 | **Under Approval** |
| Pre-DEC from SY-EPC following the office identification | Alicja Ostrega | North Area, NACONS | 3152091 - SPSX-E-LST-0028 | **Under Approval** |
| Pre-DEC from TE-MPE following the office identification | Alicja Ostrega | North Area, NACONS | 3152092 - SPSX-E-LST-0029 | **Under Approval** |
| Pre-DEC from TE-MSC following the office identification | Alicja Ostrega | North Area, NACONS | 3152093 - SPSX-E-LST-0030 | **Under Approval** |
| Pre-DEC from TE-VSC following the office identification | Alicja Ostrega | North Area, NACONS | 3152094 - SPSX-E-LST-0031 | **Under Approval** |

# LIST OF DOCUMENTS for Info

| FOR INFORMATION EATM | | | | |
|---|---|---|---|---|
| **Summary** | **Reporter** | **EA Projects** | **EDMS number** | **EDMS Status** |
| BA80 Consolidation | Ixone Angulo Vaquero | North Area, NACONS | 3094273 - SPSX-J-SPC-0002 | **Under Approval** |
| North Area Safety File - BKs | Filipa Duque Carvalho | North Area, NACONS | 3135300 - SPSX-L-SF-0001 | **Engineering check** |
| Introduction to the North Area Safety File | Havin Ozcanli | North Area, NACONS | 3121018 – SPSX-S-SR-0002 | **Under Approval** |
| ILC Beam Dump – Water Tank | Krystian Sidorowski | North Area, NACONS | 3101516 - SPSX-T-RPT-0001 | **Under Approval** |
| Disassembly Procedure for Fast FISC | Eva Kamenicka | North Area, NACONS | 3128634 | **Under Approval** |
| Decommissioning of the beacons used for the Indoor Localization System (ILS) | Aurelie Pascal | North Area, AD | 3062801 - CRN-S-EC-0003 | **Released** |
| Guidelines for EDMS Document Writing and Circulation | Natalya Kahn | Experimental Areas | 2907365 | **Draft for Discussion** |

# LIST OF DOCs for APPROVAL

| ECR APPROVAL EATM | | | | |
|---|---|---|---|---|
| **Summary** | **Reporter** | **EA Projects** | **EDMS number** | **EDMS Status** |
| Installation of Multi-Wire Proportional Chamber (MWPC) in IRRAD Zone 1 | Federico Ravotti | North Area – NACONS | 3136064 - PSZ-B-EC-0006 | **Under Approval** |
| Asset Replacement Request - Elevator Building 911 | Damien Lafarge | North Area – NACONS | 3154271 - SPSX-J-ARR-0001 | **Under Approval** |
| Asset Replacement Request - TT84 Ventilation | Helmut Jena | North Area – NACONS | 3139745 - SPSX-U-ARR-0003 | **Under Approval** |
| Protection Against Accidental Contacts for Normal Conducting Magnets in the NA | Olivier Crettiez | North Area | 3124339 - SPSX-M-EC-0004 | **Under Approval** |

# ECR for Approval

PSZ-B-EC-0006
Version **0.2**

*By Federico Ravotti*

## Installation of Multi-Wire Proportional Chamber (MWPC) in IRRAD Zone 1

*The second MWPC on the T8 beamline is needed to equip a new test location in IRRAD Zone 1 which bypasses 30 m of air, vacuum windows and beam instrumentation for the needs of the HEARTS project.*

The HEARTS project provides high-quality, high-energy heavy ion beams to test the effects of radiation on electronics. The T8 beamline delivers the beam through beam instrumentation, sections of air, vacuum and vacuum windows, which all negatively impact the beam quality. The project is therefore equipping a new test location in IRRAD Zone 1 to bypass them

IRRAD Zone 1 currently does not have an adequate beam profile monitor, which is necessary and which must be in the direct vicinity (<1 m) of the test location.

The MWPC consists of a set of 40 µm stretched tungsten wires, with 1 mm spacing. It requires:

- a feed line of Ar/$CO_2$ gas supply
- Power
- HV and signal cables

To properly read out the data from the instrument, a telegram timing signal is needed.


Figure 1: IRRAD Zone 1.

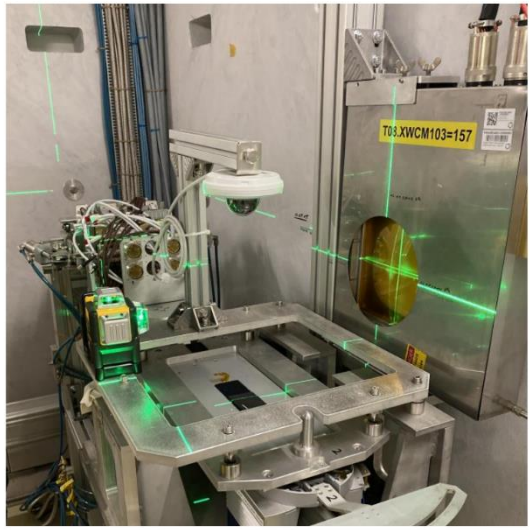


Figure 2: The MWPC unit installed in CHARM (T08.XWCM103).

# ECR for Approval

PSZ-B-EC-0006
Version **0.2**

*By Federico Ravotti*

## Installation of Multi-Wire Proportional Chamber (MWPC) in IRRAD Zone 1


Figure 3: Location of the new MWPC (T08.XIHTAB078) and of its control electronics (XYTIM01 rack) on the left-hand side. On the right-hand side, picture of the prototype for its mechanical support on IRRAD3.

# ECR for Approval

PSZ-B-EC-0006
Version **0.2**

*By Federico Ravotti*

## Installation of Multi-Wire Proportional Chamber (MWPC) in IRRAD Zone 1

**Seen** by BOZZATO Davide (HSE-RP)

**Seen** by EBN RAHMOUN Aboubakr (BE-EA)
Seen

**Accepted** by LAZZARONI Michael (BE-EA)
ok for me,
thanks,
Michael

**Seen** by VENDEUVRE Camille (BE-GM)

**Seen** by BEYNEL Alexandre (BE-GM)

**Accepted** by GARCIA ALIA Ruben (SY-STI)
Approved on my end - many thanks to BI and IRRAD for the related efforts!

**Seeking approval from EATM**

# ARR for Approval

SPSX-J-ARR-0001
Version **0.1**

*By Damien Lafarge*

## Asset Replacement Request – Elevator Building 911

*The elevator in Building 911 will be replaced due to lift ageing and for consolidation purposes.*

The existing lift will be replaced in exactly the same location.
The lift is currently installed in a shaft that will not be modified. The final distribution electric board must be replaced without pulling any new cables. Ethernet network will need to be added inside the machine room to get supervision on the lift.
Compensatory measures during the replacement of the lift can be found in EDMS 2967321.

Figure 1: Lift location.

# ARR for Approval

SPSX-J-ARR-0001
Version **0.1**

*By Damien Lafarge*

## Asset Replacement Request – Elevator Building 911

✔ **Accepted** by **BUTIN Francois** (BE-EA)
Fine with me

✔ **Accepted** by **GRENARD Jean-Louis** (SY-STI)
OK for HI-ECN3 WP4

✔ **Accepted** by **KADI Yacine** (BE-EA)
Mitigation measures presented and approved in a previous document.

This activity assumes that the lift will be maintained in its current location implying that the shaft will not be modified. I hope this is clearly the case and should be confirmed by HI-ECN3 project.

**Seen** by **BEYNEL Alexandre** (BE-GM)

**Seeking approval from EATM**

# ARR for Approval

SPSX-U-ARR-0003
Version **0.1**

*By Helmut Jena*

## Asset Replacement Request - TT84 Ventilation

*As part of the NA-CONS Project, TT84 ventilation will be replaced due to obsolescence.*

**Activities and concerned groups:**

| Activities | Groups | Dates |
|---|---|---|
| | | |
| Transporting new cubicles to the underground | EN-HE | 9/12/24 |
| Displacing collimator *XCMV.X0610733* | EN-HE | 9/12/24 |
| Installing collimator *XCMV.X0610733* | EN-HE | 13/01/25 – 16/01/25 |
| | | |
| Displacing vacuum chambers:<br>• Downstream of *QWL.X0610677*<br>• Downstream of *XCMV.X0610733* | BE-EA | 10/12/24 – 11/12/24 |
| Installing vacuum chambers:<br>• Downstream of *QWL.X0610677*<br>• Downstream of *XCMV.X0610733* | BE-EA | 13/01/25 – 17/01/25 |
| | | |
| Disconnecting collimator *XCMV.X0610733* | TE-MSC | 9/12/24 |
| Connecting collimator *XCMV.X0610733* | TE-MSC | 13/01/25 – 16/01/25 |
| | | |
| Replacing cubicles:<br>• *UACV1-00147*<br>• *UACV1-00148* | EN-CV | 10/12/24 – 14/02/25 |
| Demi water pipes dismantling and re-installation | EN-CV | 10/12/24 – 31/01/25 |
| | | |
| Aligning collimator *XCMV.X0610733* | BE-GM | 27/01/25 – 31/01/25 |

# ARR for Approval

SPSX-U-ARR-0003
Version **0.1**

## Asset Replacement Request - TT84 Ventilation

*By Helmut Jena*

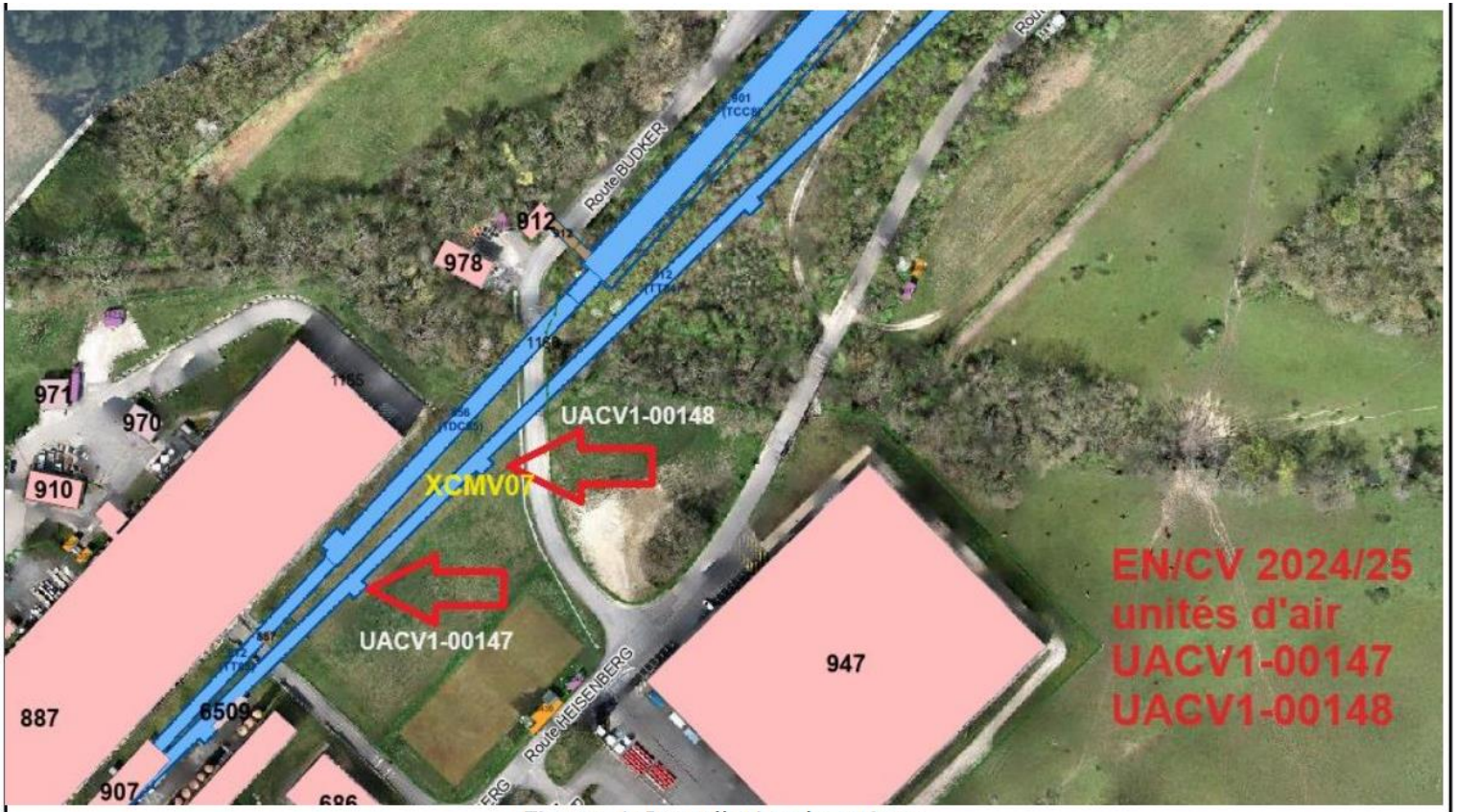


Figure 1:Installation locations.

# ARR for Approval

## SPSX-U-ARR-0003 Asset Replacement Request - TT84 Ventilation

Version **0.1**

*By Helmut Jena*

**Seen** by **GENILLON Xavier** (SY-EPC) Created on 2024-08-02, 15:58
Seen

**Seen** by **HERTY Andreas** (BE-ASR) Created on 2024-08-05, 08:38
The field SAFETY = YES ticked. No impact on EIS or other interlocked systems of the North Area identified. If impact, please specify.

BE DDSO

**Seen** by **PELLETIER Serge** (EN-HE) Created on 2024-08-05, 11:05
merci de suivre les prescription du doc EDMS 2817770

**Accepted with Warning** by **KADI Yacine** (BE-EA) Created on 2024-08-05, 13:34
Could you please specify what are the RP concerns, if any, wrt the displacement and temporary storage of the magnetic collimator.

**Accepted** by **BOISSEAUX-BOURGEOIS Philippe** (BE-EA) Created on 2024-08-06, 10:44
Ok for the vacuum.

**Seen** by **BERTONE Caterina** (EN-HE) Created on 2024-08-07, 16:49
We really need to know how these cubicles look like (size, dimensions, center of gravity) and to check if the new are different from the old ones.
Just to check if we have everything that is necessary for handling or we need something else.

As usual, we ask that construction drawings are sent to HE before drawing acceptance to the supplier to ensure installability.

**Accepted** by **BALTASAR DOS SANTOS PEDROSA Fernando** (EN-ACE) Created on 2024-08-09, 09:31
The different steps involving other teams like transport, vacuum of secondary lines (one vacuum chamber removal), collimators team (it will have to be moved laterally to allow access), ..., was done and different steps agreed.

The planning has been agreed with the NA-CONS coordination team for the YETS2024-25 (Xavier Palle)

**Seen** by **GRENARD Jean-Louis** (SY-STI) Created on 2024-08-09, 09:52

**Seen** by **EBN RAHMOUN Aboubakr** (BE-EA) Created on 2024-08-09, 10:04
Ok for me.

**Seen** by **VAXELAIRE Didier** (EN-AA) Created on 2024-08-09, 10:42

**Accepted with Warning** by **LAZZARONI Michael** (BE-EA) Created on 2024-08-09, 10:52
Thanks for the document.
Do you have a 3D model (simplified) of it? I guess that you stay in the same volume that the present installation? if not we have to analyse it in ICEA meeting.
thanks.

**Accepted** by **ABERLE Frederic Lionel** (HSE-RP) Created on 2024-08-13, 17:08
OK for RP. To answer Yacine's comment: the collimator will probably be slightly radioactive (I expect it to be in the order of a few uSv/h approximately). In my opinion, storage can be done in one of the radioactive storages at Prevessin, or temporarily in EHN2, or EHN1, or in the tunnel.

**Accepted** by **PIRA Yann Pierre** (HSE-RP) Created on 2024-08-14, 10:52
OK for me. I agree with Frederic Aberle.

**Accepted** by **JENA Helmut** (EN-CV) Created on 2024-08-14, 11:25
Reply concerning your comments (thanks to you all for collaboration):
- Transport and handling of the racks done by Cern transport only (not done by contractor).
- RP gives green light. Slight radiation only, no need even for protection drape.
- Obsolete racks will be measured and temporarily stocked and disassembled in TDC85 (as the last years).
- The new power racks have the same size as the old ones (no dedicated 3D model available)
Thank you!!

**Seen** by **VENDEUVRE Camille** (BE-GM) Created on 2024-08-20, 15:12

**Seen** by **BEYNEL Alexandre** (BE-GM) Created on 2024-08-26, 09:13

**Seen** by **TSHILUMBA David** (HSE-OHS) Created on 2024-08-27, 15:54
Seen. No remarks on mechanical safety.

Possible further remarks from Jean-Paul Jullien for HSE-OHS.

**Seen** by **RIOS RUBIRAS Oriol** (HSE-OHS) Created on 2024-08-30, 09:08
would new units allow for interlock with Fire Detection?

**Seeking approval from EATM**

# ECR for Approval

SPSX-M-EC-0004
Version **0.2**

*By Olivier Crettiez*

## Protection Against Accidental Contacts for Normal Conducting Magnets in the NA

*As part of a CERN effort to reduce the risk of accidental contact with live electrical parts, new safety covers will be installed to prevent access to the electrical connections of the normal conducting magnets installed in the NA. Consolidation will be performed on 149 magnets during YETS 24-25 and on the remaining 141 during LS3.*

The magnet families were classified in five levels of protection graded from category a to e, from the highest to the lowest protection level. In the NA, 290 magnets installed were inspected and do not comply with IP standards at present.


Figure 1 – QNL.X0220167, H4 line TT81, existing protection cover with view from underneath on the right.

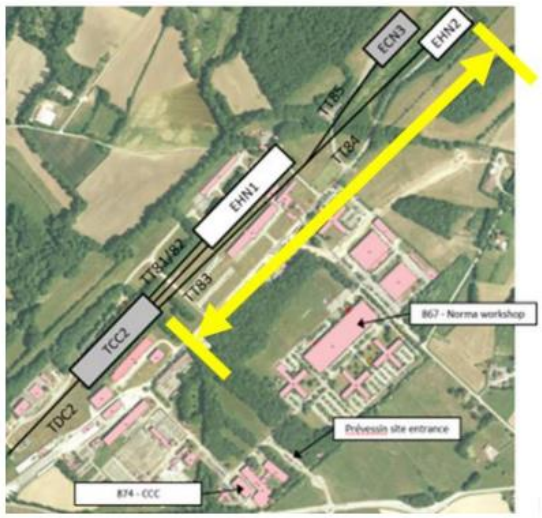


Figure 2 – Consolidation areas.

# ECR for Approval

SPSX-M-EC-0004
Version **0.2**

*By Olivier Crettiez*

## Protection Against Accidental Contacts for Normal Conducting Magnets in the NA

The new safety covers are made of polycarbonate. New covers will be added to those existing and installed on the magnets. The upgrade was verified by prototyping during the previous YETS and is compatible with the NA magnets.

The actions proposed for YETS 24/25 are listed in this ECR, as well as considerations of:

- Logistics
- Transport
- RP
- Waste
- Installation.

Four magnet types will be consolidated:

- QNL
- QWL
- MBNH
- MBNV

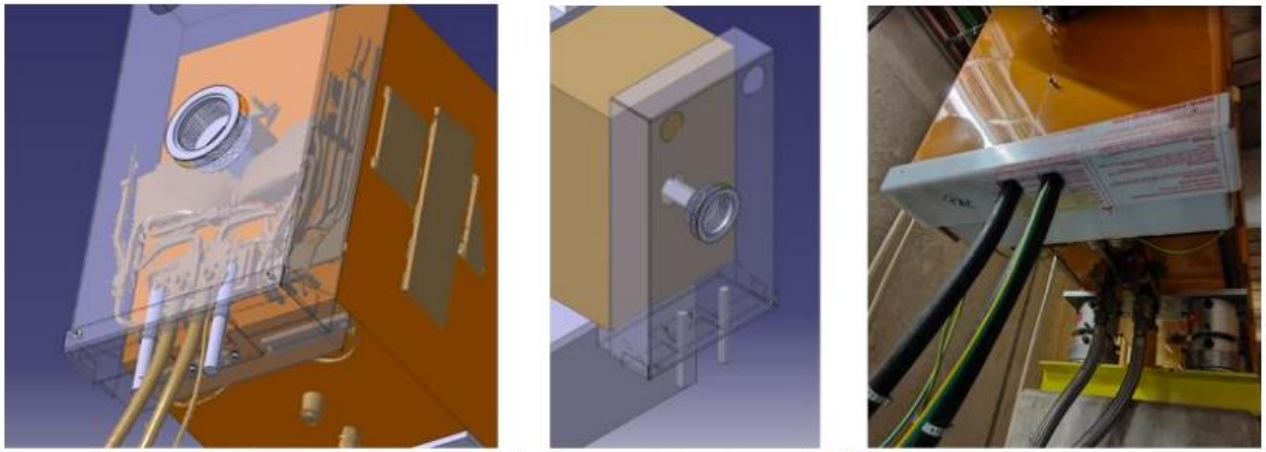

Figure 4 – 3D scan and study for prototyping of QNL magnets.

# ECR for Approval

SPSX-M-EC-0004
Version **0.2**

*By Olivier Crettiez*

## Protection Against Accidental Contacts for Normal Conducting Magnets in the NA

| | |
|---|---|
| ✔ **Accepted** by **ABERLE Frederic Lionel** (HSE-RP)<br>Comments from v0.1 taken into account, fine for me. | Created on 2024-08-19, 14:53 |
| ━ **Seen** by **GAILLARD Yves** (SY-EPC) | Created on 2024-08-19, 15:04 |
| ✔ **Accepted** by **PIRA Yann Pierre** (HSE-RP)<br>OK | Created on 2024-08-19, 15:16 |
| ━ **Seen** by **GALLEAZZI Frederic** (EN-ACE)<br>Pas concerné par cette zone | Created on 2024-08-19, 15:54 |
| ✔ **Accepted** by **KADI Yacine** (BE-EA)<br>comments from "Eng. Check" implemented in this new version | Created on 2024-08-19, 17:21 |
| ✔ **Accepted** by **SCHWARZ Philip** (TE-MSC)<br>ok | Created on 2024-08-20, 11:44 |
| ✔ **Accepted** by **GAIGNANT Christelle** (BE-ASR)<br>Thanks. | Created on 2024-08-23, 11:15 |
| ✔ **Accepted** by **LAMONT Mike** (DG-DI)<br>Continuation of an important programme to address electrical safety. | Created on 2024-08-24, 19:06 |
| ━ **Seen** by **BEYNEL Alexandre** (BE-GM) | Created on 2024-08-26, 08:57 |
| ✔ **Accepted** by **LAZZARONI Michael** (BE-EA)<br>Hello, merci beaucoup! Merci de bien créer votre IMPACT en avance (dès à présent) afin que l'équipe de coordination puisse récupérer cette activité depuis cette plateforme. | Created on 2024-08-26, 09:11 |

| | |
|---|---|
| ⚠ **Accepted with Warning** by **VENDEUVRE Camille** (BE-GM)<br>Covers should not interfere with alignment system or survey reference points.<br>The survey GIMSA are not visible on the drawings of QNL and QWL covers so it is difficult to estimate if there is interferences.<br>The covers should be installed as low as possible in term of height so that the visibility of the sockets above the magnets is not affected. | Created on 2024-08-26, 09:17 |
| ━ **Seen** by **PELLETIER Serge** (EN-HE) | Created on 2024-08-26, 10:37 |
| ━ **Seen** by **FUMEY Sylvain** (EN-HE)<br>ok | Created on 2024-08-27, 09:55 |
| ━ **Seen** by **FUMEY Sylvain** (EN-HE)<br>ok | Created on 2024-08-27, 10:05 |
| ━ **Seen** by **FUMEY Sylvain** (EN-HE)<br>ok | Created on 2024-08-27, 10:53 |

**Seeking approval from EATM**

# Thank you!