# Remove and replace magnets to install a new beam collimator

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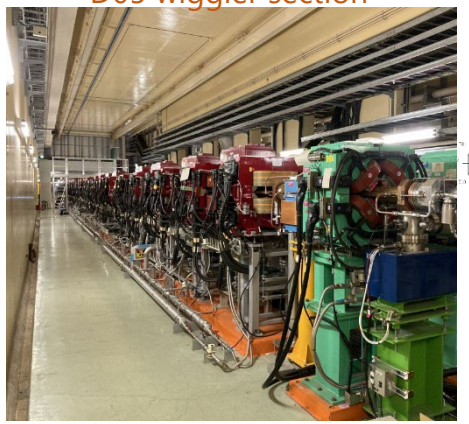
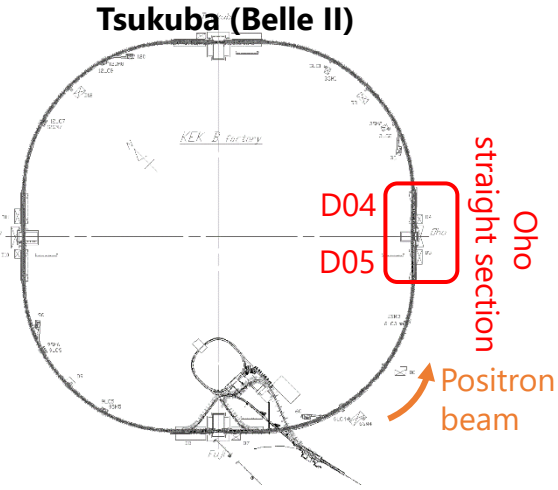
# Schedule and Major work in parallel

- Major work items in accelerator tunnel:
  - Disassembly and reinstallation of concrete radiation shields
  - NLC construction (LER)
  - RF cavity replacement (LER)
  - Ceiling aseismic reinforcing work
  - Installation of new radiation shields for NLC

Concrete radiation shield

D05 wiggler section






## Oho straight section (D05)

**JFY2022**

| 2022 | | | | | | | | | 2023 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 1 | 2 | 3 |

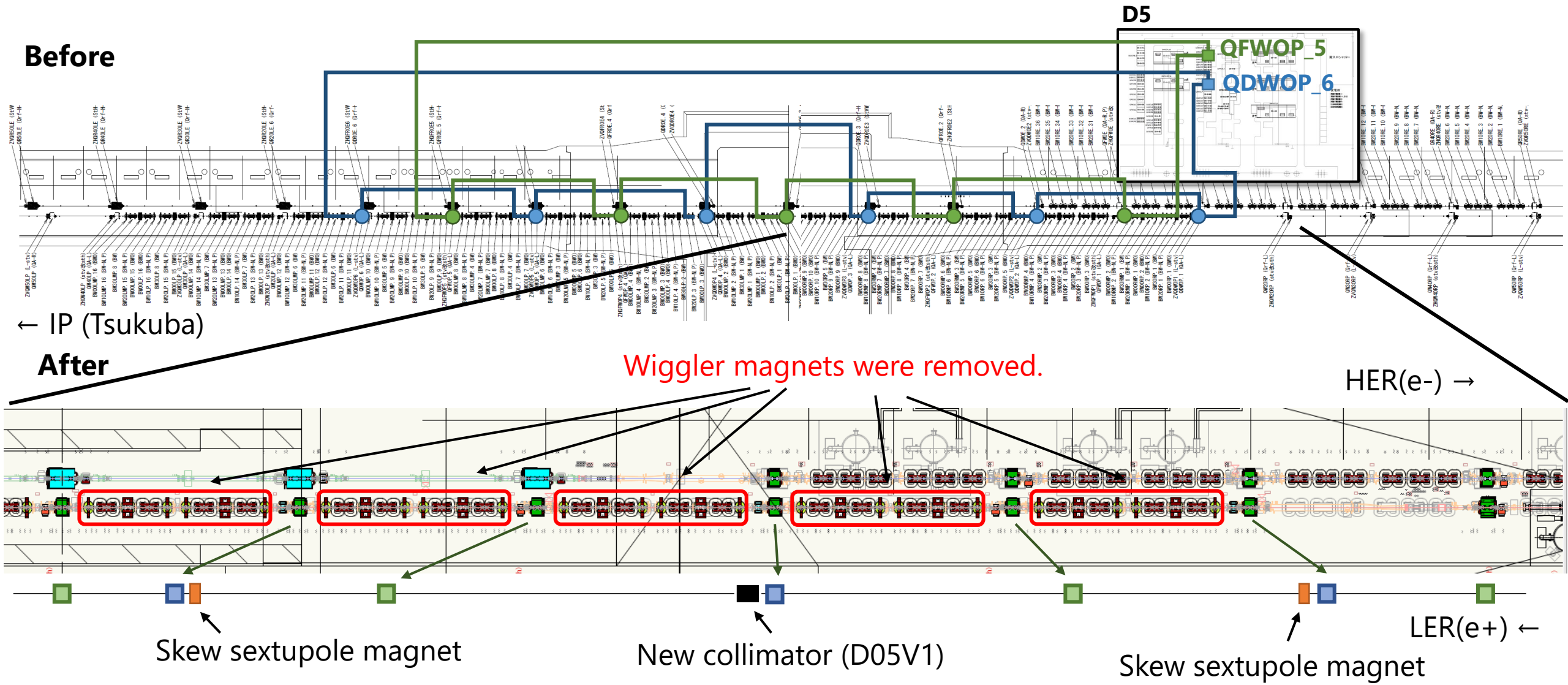
- 2022b run
- Concrete shield removal
- RF cavity inspection
- Crane not available
- Ceiling aseismic reinforcing work
- NLC construction
- RF cavity replacement

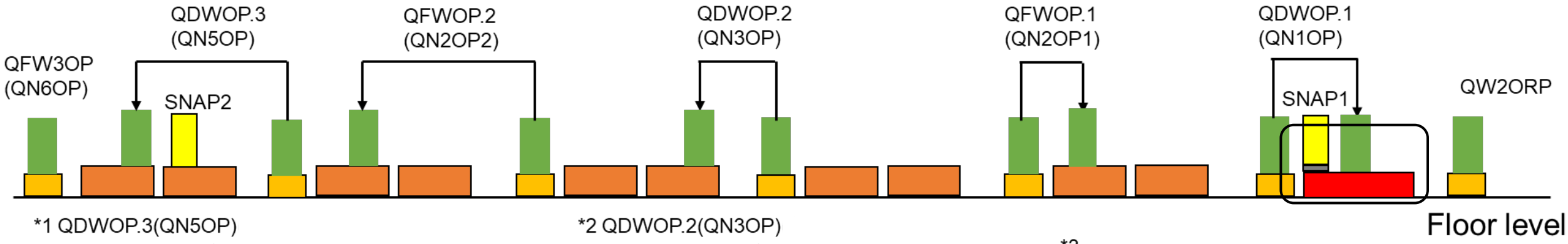
**JFY2023**

| 2023 | | | | | | | | | 2024 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 1 | 2 | 3 |

- NLC construction
- New radiation shield installation
- Concrete shield reinstallation
- Power supply startup
- 2024a run

# Focus on the removal magnets

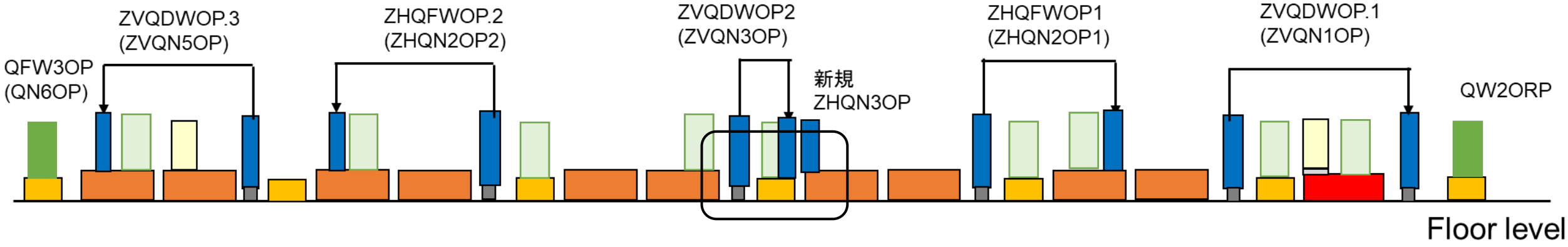





*1 QDWOP.3(QN5OP)
Processing to shift the position of the holes in the trestle.

*2 QDWOP.2(QN3OP)
Processing to shift the position of the holes in the trestle.

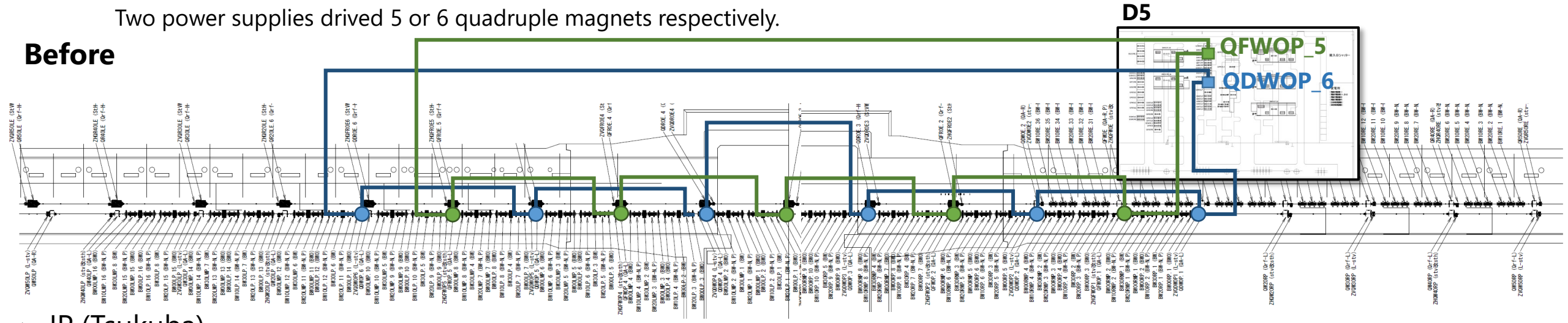
*3
The new skew sextupole magnets are manufactured to match the height of the existing plates.



# Focus of the power supplies

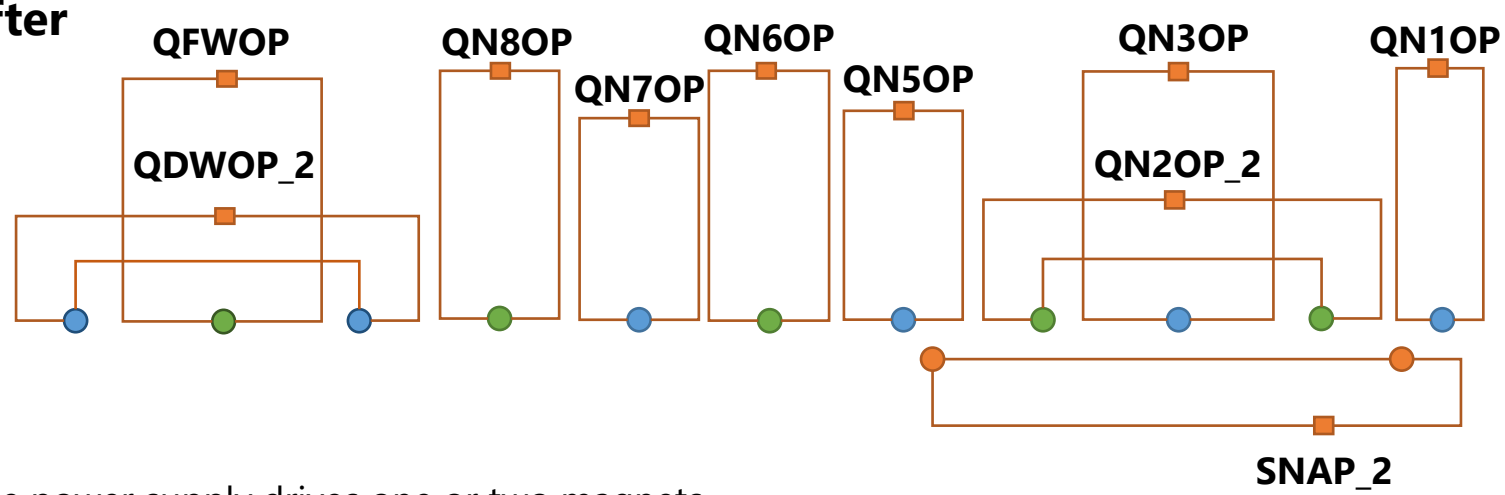
Two power supplies drived 5 or 6 quadruple magnets respectively.

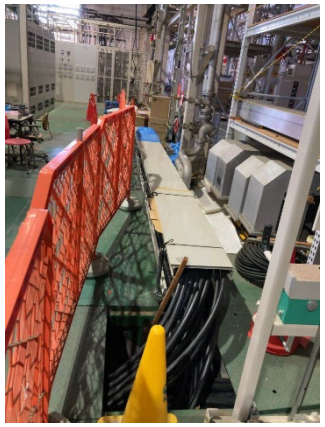
**Before**




← IP (Tsukuba)

**After**

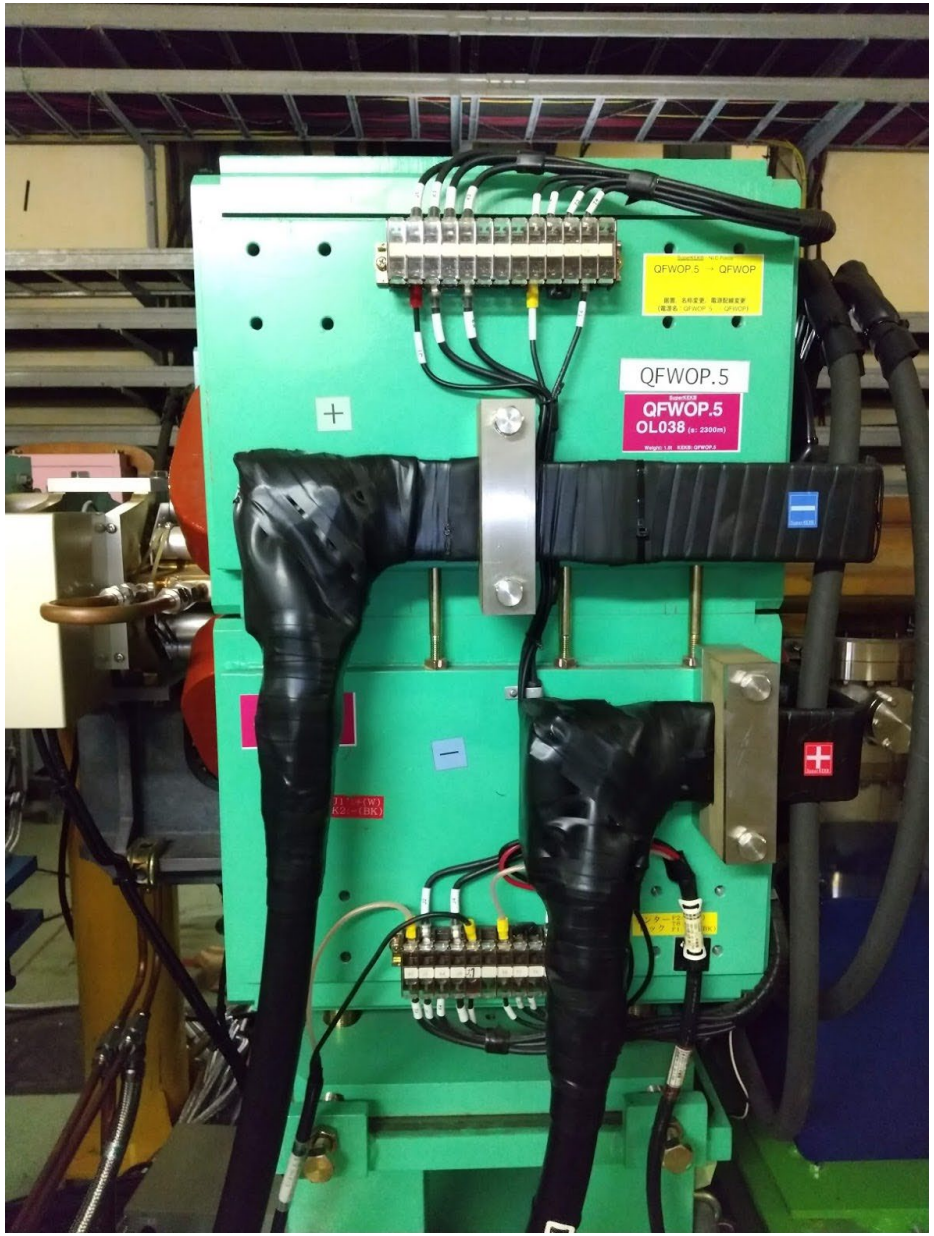


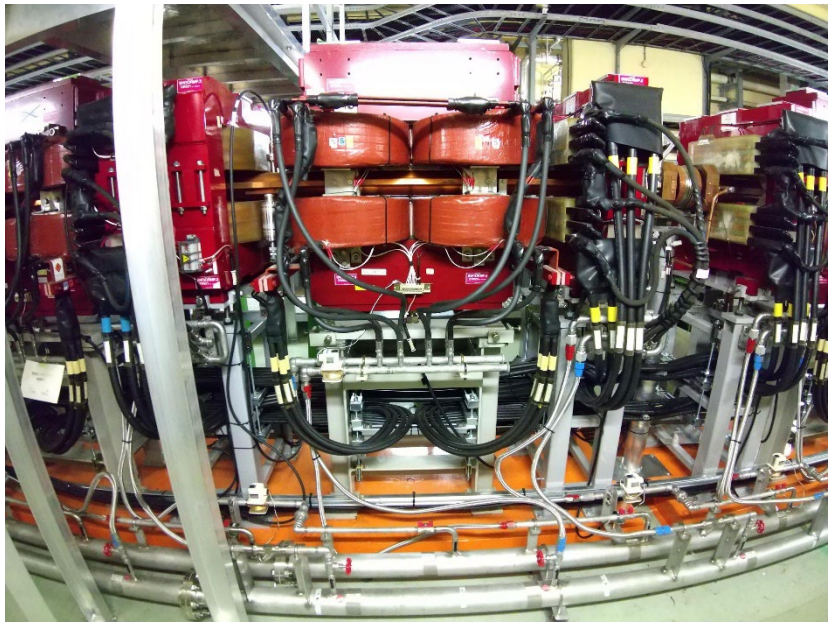
One power supply drives one or two magnets.

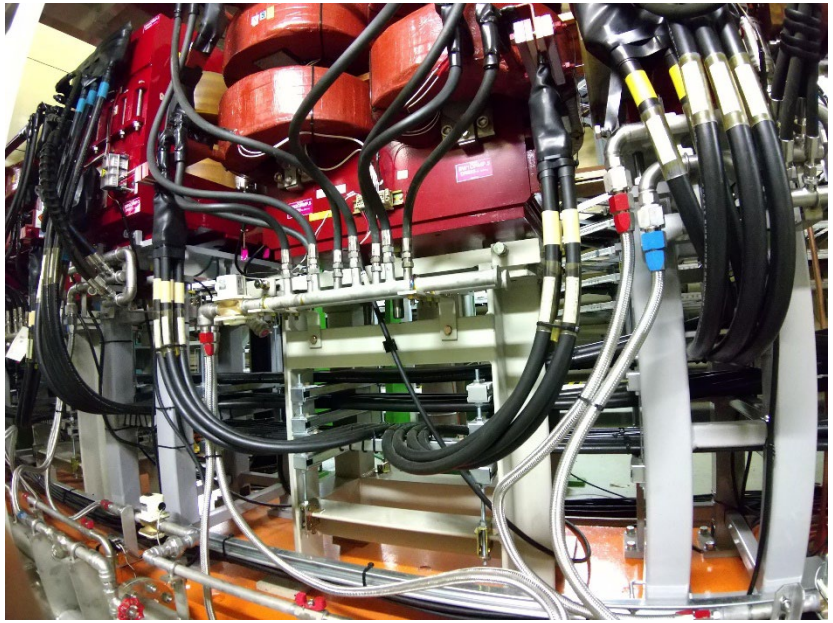
# Spares

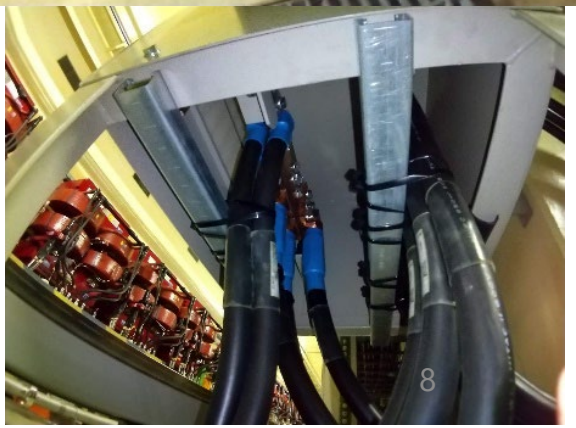
# Q-magnet



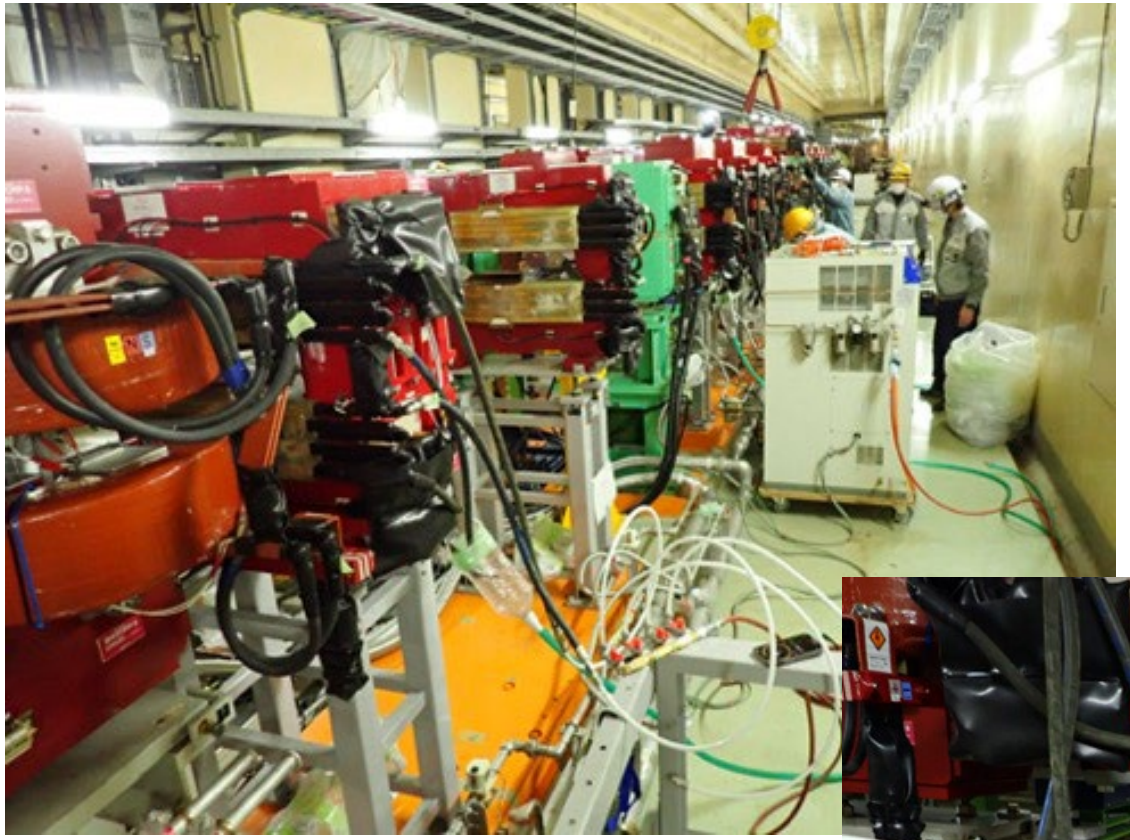

# Wigger magnets



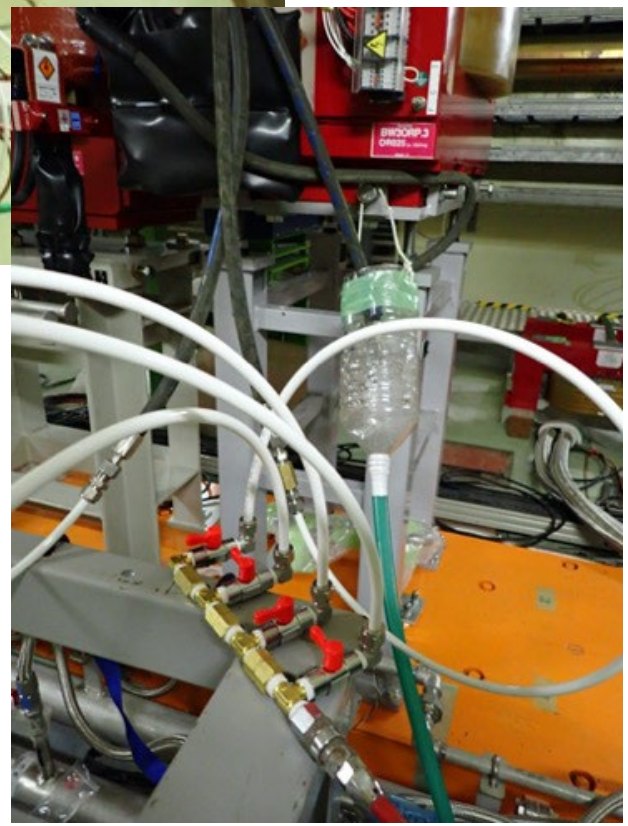


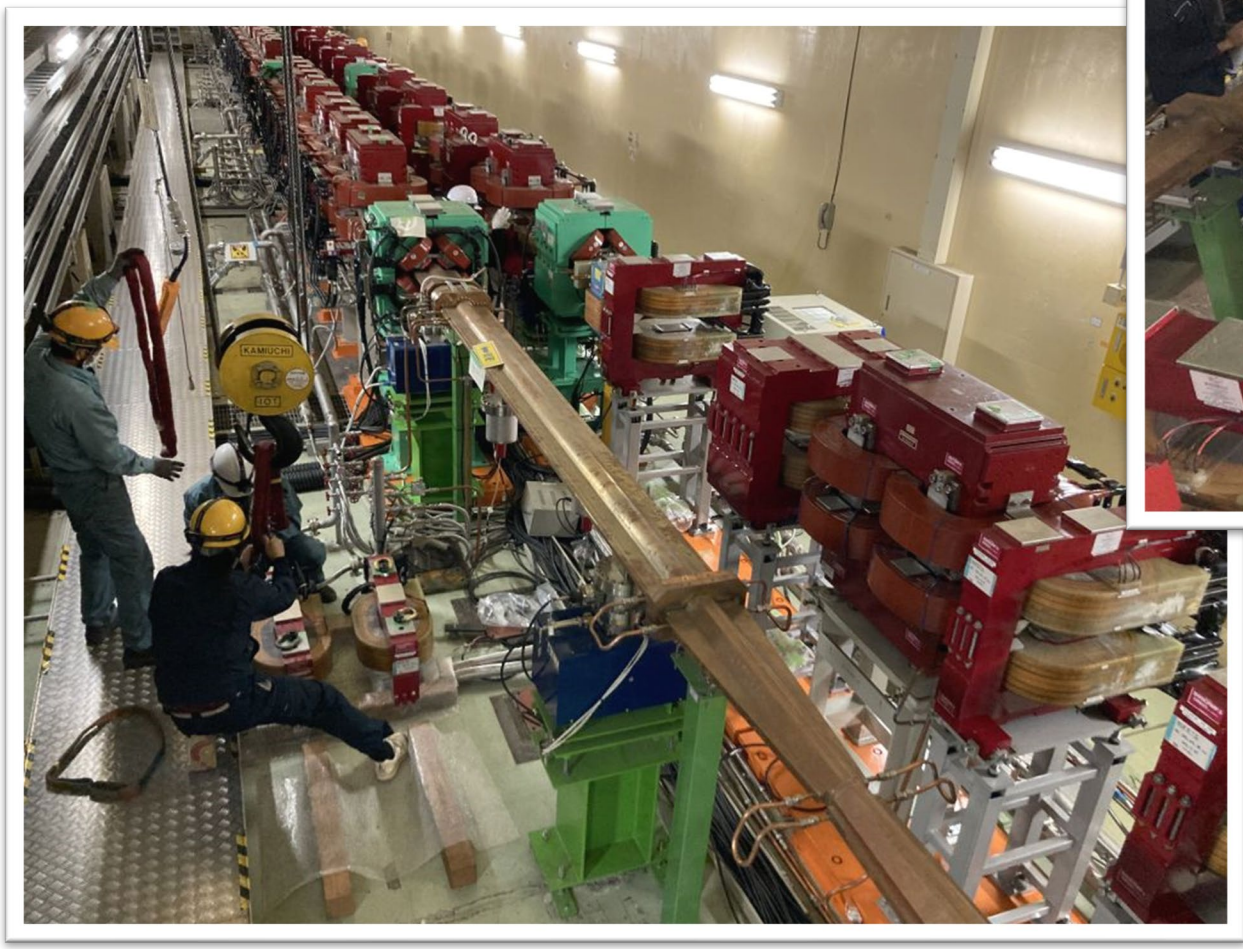


Dividing wigger magnets to remove a beam pipe



Draining cooling water



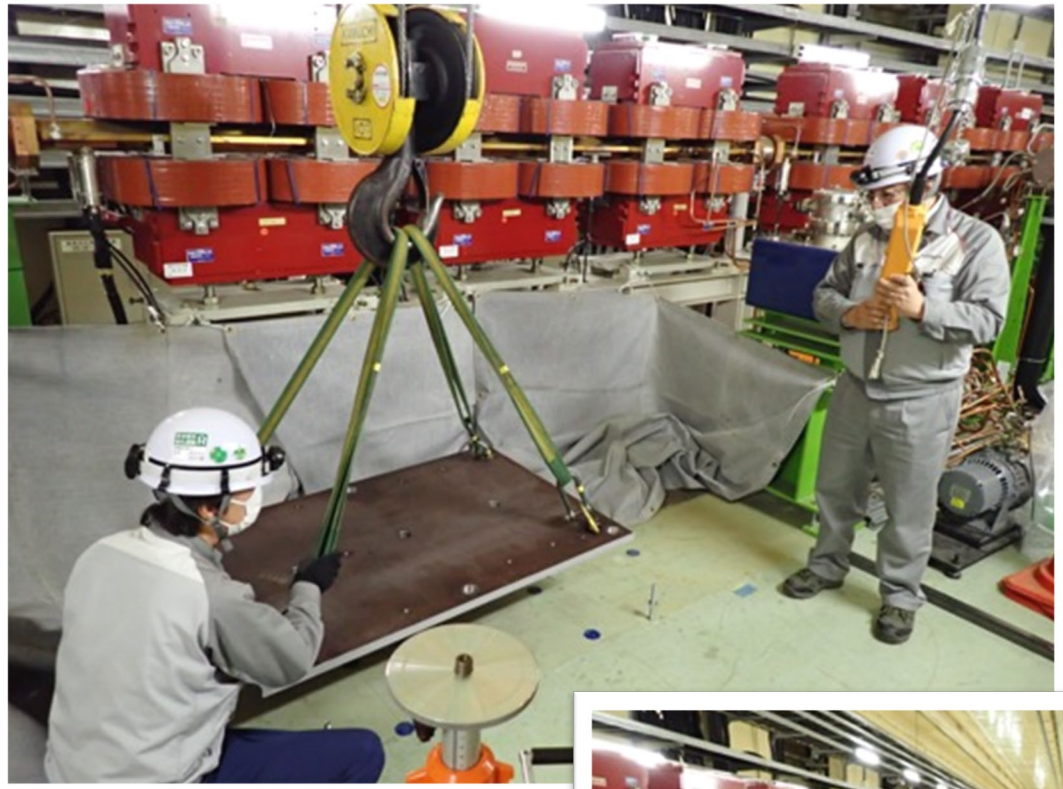

KAMIUCHI

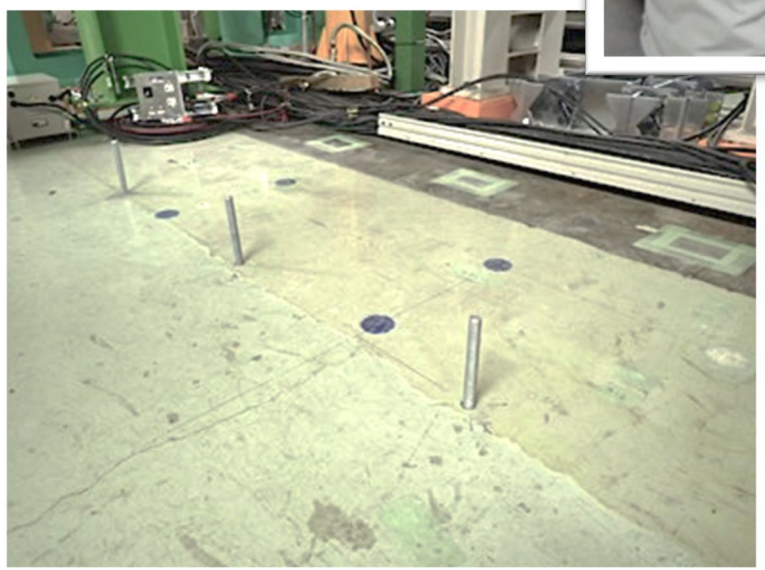
## 2023/1/17 Tapping

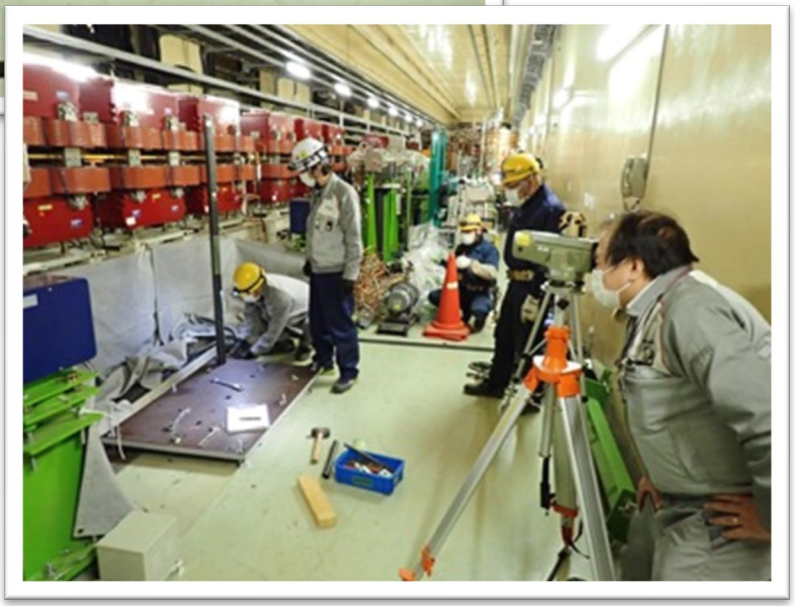


## 2023/2/1~ Extend base plate

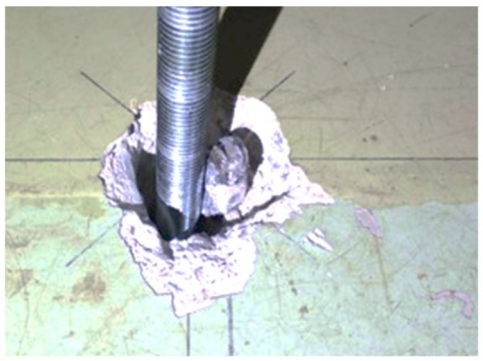
## 2023/1/26~ making a new base plate



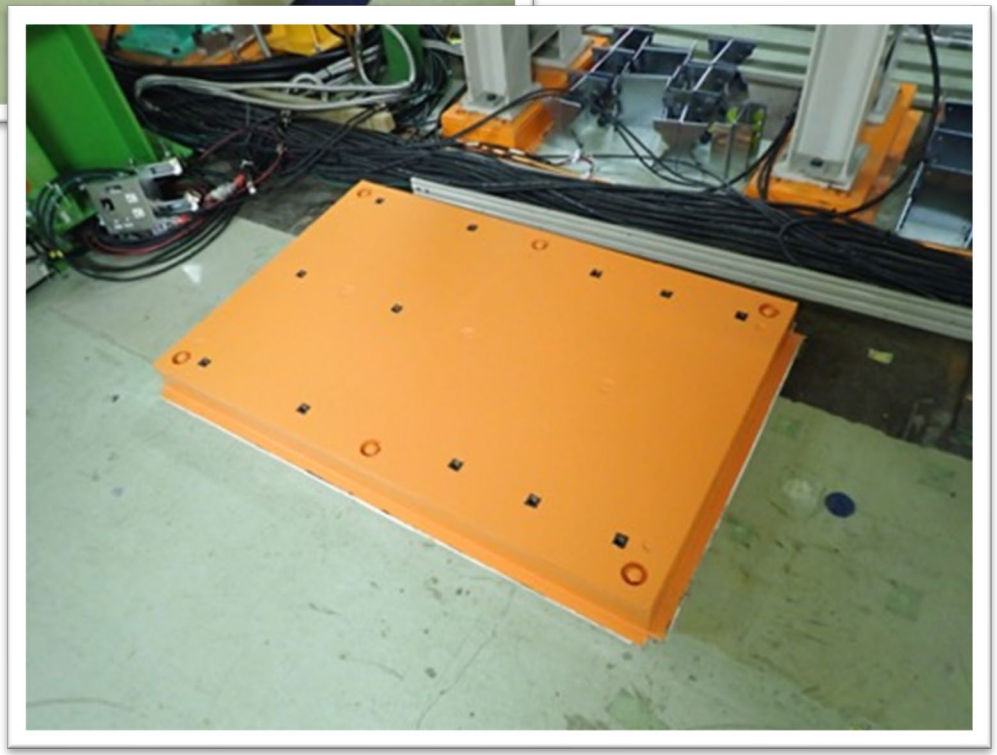




Found a buried anchor



# 2023/1/26~ Grouting and painting




HITACHI
QDWOP.3
QDWOP.3
QDWOP.3
QDWOP.3
Qmag反
SNAP 2