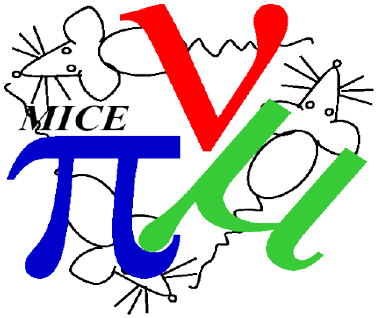
MICE Operations Overview



- Goals of the Operations Group
- Organisation and Staffing
- Preparations for data-taking
- Summary

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Goals of Operations Group

- Ensure that data required to fulfil physics goals are taken efficiently
- Oversee the smooth running of the MICE beam, cooling channel, data flow, and interface with ISIS
- To prioritise data taking with specific experimental configurations

The structure of the operations team and the working procedures is being put into place.

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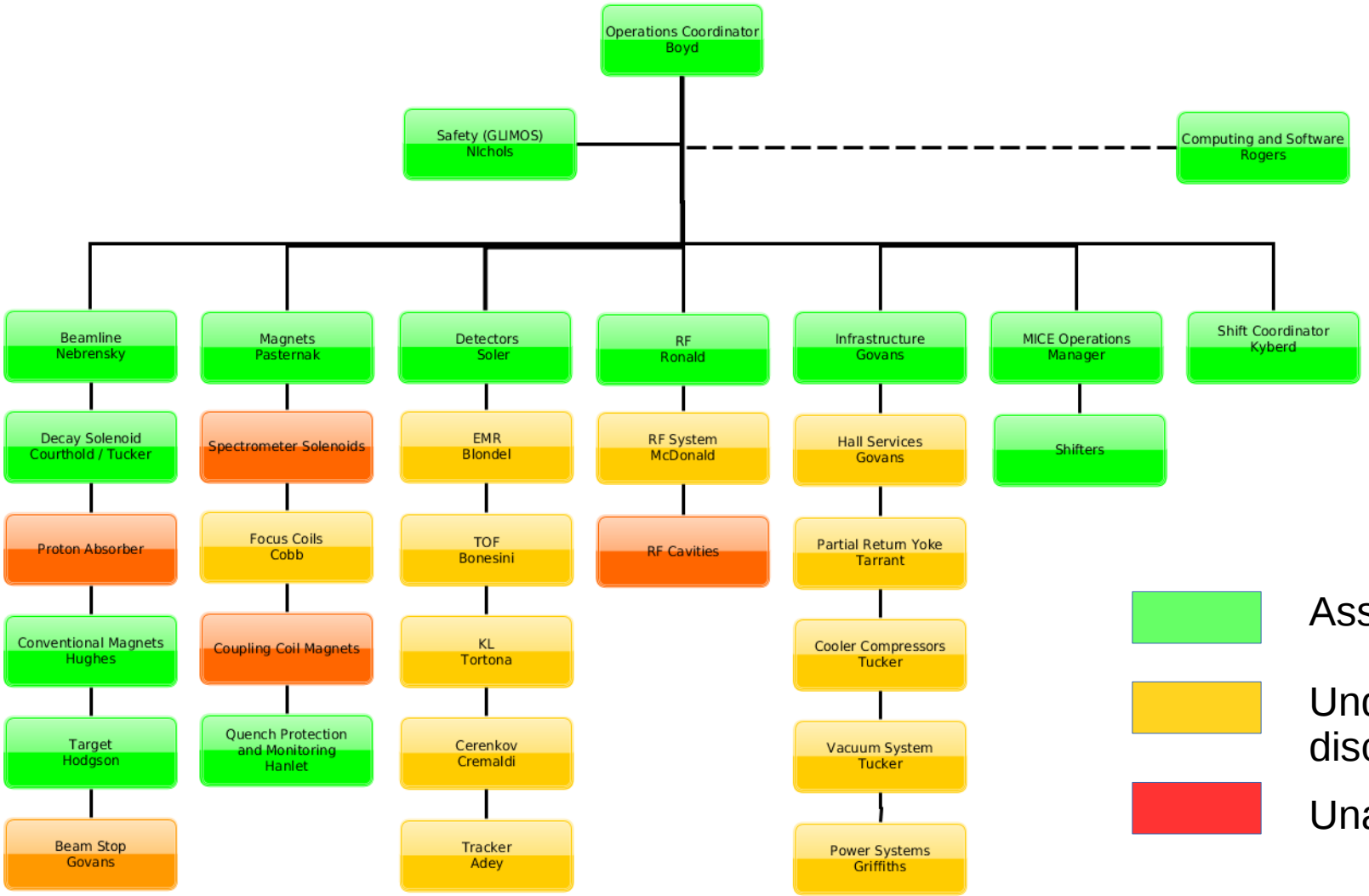
Operations Structure



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ISIS Support

- During standard operations it is vital that MICE can access technical support in a timely fashion.
- The ISIS Operations Group (under Zoe Bowden) have analysed the required technical support and recommended 6 FTEs of effort needed to support smooth operations.
- These posts will work within the relevant ISIS Operations teams and will leverage access to the ISIS technical resources
- Three FTEs have already been hired : J. Govans, Hall Manager; T. Stanley, RF Engineer and M. Tucker, Cryogenics Technician.
- The other 3 FTEs effort are being supplied from existing ISIS resources.
- Posts will be funded in the first instance by MICE UK

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ISIS Support

Function/Title	FTE	Band	ISIS Structure	ISIS Group
MICE Hall Manager	1.0	E[1]	IAC/AEG	Accelerator Engineering
RF Engineer	1.0	D[1]	IAC/INJ	Linac RF
Vacuum	0.1	E[1]	IEO/SENV	Sample Environment Cryogenics
S/C Magnets	0.5			
Cryogenics	0.2			
Mechanical Engineering	0.2	D/E[2]	IAC/AEG	Accelerator Engineering
Ancillary Plant	0.8			
Mechanical Craft	0.1	B-C	IAC/AEG	Accelerator Engineering
Accelerator Physics	0.1	D-F	IAC/SYNCH	Accelerator Physics
Controls	0.5	D-F	IEO/CON	Target Controls
Electrical/Interlocks	0.5	C-E	IAC/OPS	Accelerator Operations
Conventional Magnets	0.3	D-E	IAC/EEG	Electrical Engineering
S/C Magnets	0.5	D-E	IEO/SENV	Sample Environment Cryogenics
Design	0.1	D-E	IDD	Accelerator Design
Heavy Gang/logistics	0.1	B-D	IEO/TGT	Target Operations
Total	**6.0**			

← J. Govans

← T.Stanley

← M. Tucker

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Preparations for data-taking

- Expert and Data-taking Shifts
- Run configuration requests
- Step IV readiness review

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Shift Procedures

- List of subsystem experts is now being maintained by MICE secretariat.
- Groups responsible for subsystems have been asked to nominate on-call experts when MICE is running.
- Tending the experiment will require shifters from each collaboration institute.
- A shift policy has been written and is under discussion
- Shifters from overseas will require notice of at least a month
- Intend to implement online tool allowing self-allocation of shifts and providing shift tracking and statistic capability
- New Shift Co-ordinator is Paul Kyberd. He and I will be taking care of shift management.

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Commissioning planning

- The physics goals will require MICE to take data in a number of well-defined configurations
- The intention is to understand the run plan a number of months in advance.
- We have started a Step IV Readiness planning exercise. to understand what needs to be in place, made ready, switched on and in what order to be ready for data-taking in early 2015.
- Working with the Physics groups we will also start defining a prioritised run plan for 2015, noting that the early part of the year will be taken up with commissioning activities.

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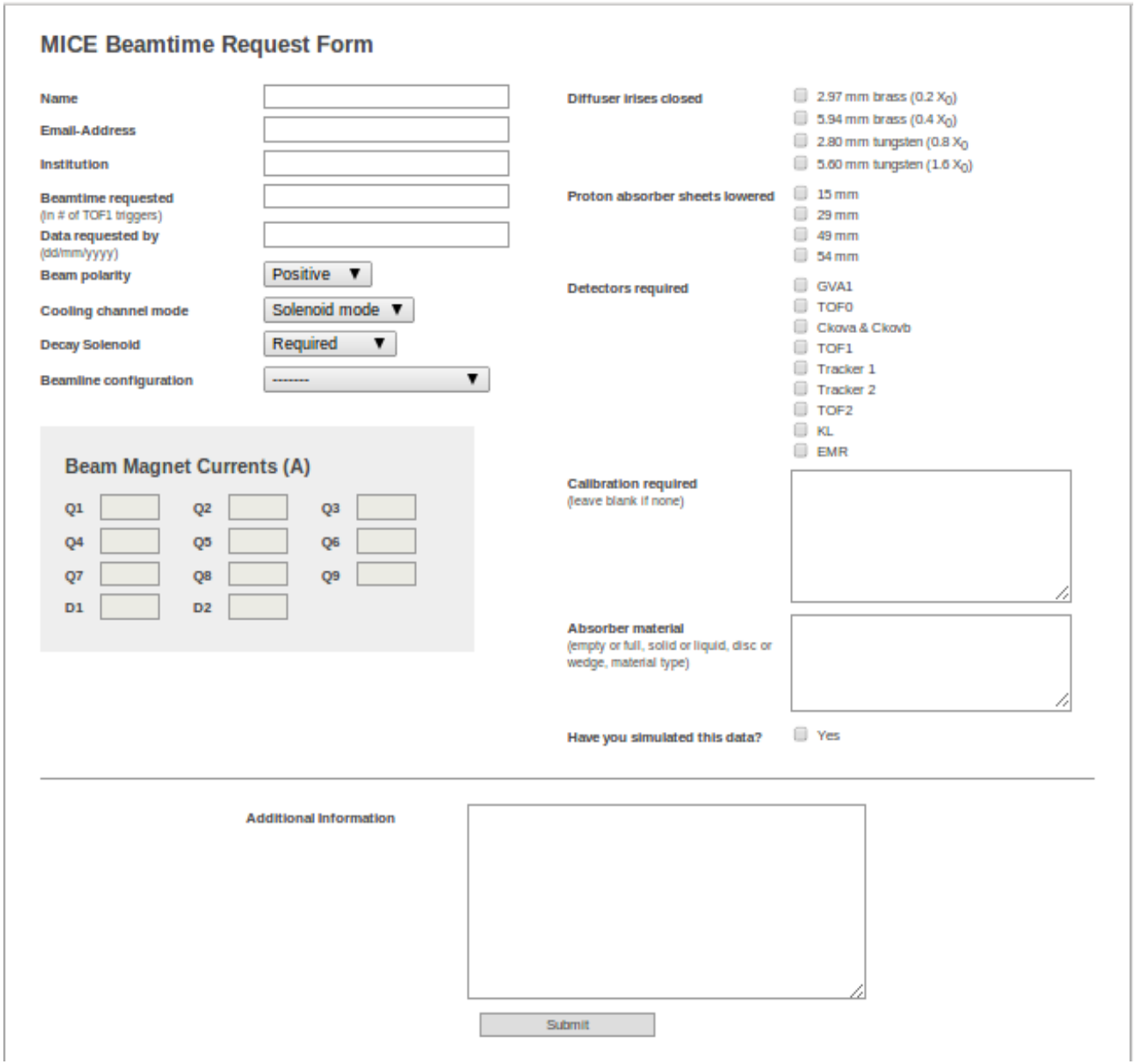
Configuration Specification

- Once stable running is achieved, we will want to collect data in a number of different MICE configurations.
- Preparing an online configuration specification form to track the different desired run conditions



MICE Beamtime Request Form

Name
Email-Address
Institution
Beamtime requested
(in # of TOF1 triggers)
Data requested by
(dd/mm/yyyy)
Beam polarity: Positive
Cooling channel mode: Solenoid mode
Decay Solenoid: Required
Beamline configuration: -------

Beam Magnet Currents (A)

Q1 Q2 Q3
Q4 Q5 Q6
Q7 Q8 Q9
D1 D2

Diffuser irises closed
- 2.97 mm brass (0.2 X_0)
- 5.94 mm brass (0.4 X_0)
- 2.80 mm tungsten (0.8 X_0)
- 5.60 mm tungsten (1.6 X_0)

Proton absorber sheets lowered
- 15 mm
- 29 mm
- 49 mm
- 54 mm

Detectors required
- GVA1
- TOF0
- Ckova & Ckovb
- TOF1
- Tracker 1
- Tracker 2
- TOF2
- KL
- EMR

Calibration required
(leave blank if none)

Absorber material
(empty or full, solid or liquid, disc or wedge, material type)

Have you simulated this data? Yes

Additional Information

Submit

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Summary

- The structure of the Operations group is in development.
- We are putting procedures in place to ensure that we are ready for data taking in early 2015, including shift and configuration tracking procedures
- A STEP-IV switch-on study has been started.
- Working with the Physics group, a run plan for STEP IV will be developed. This should be ready by the end of this year.

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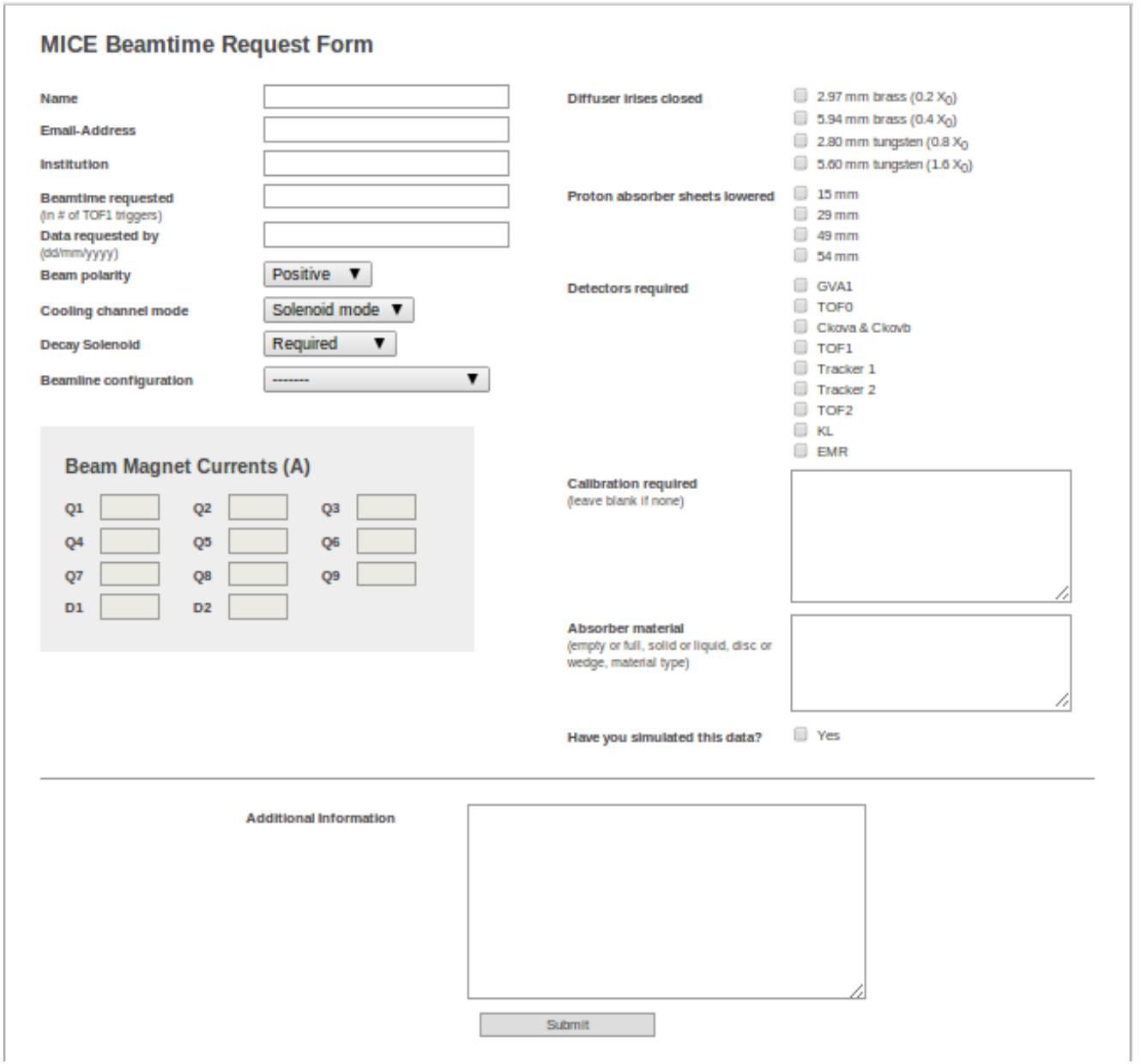

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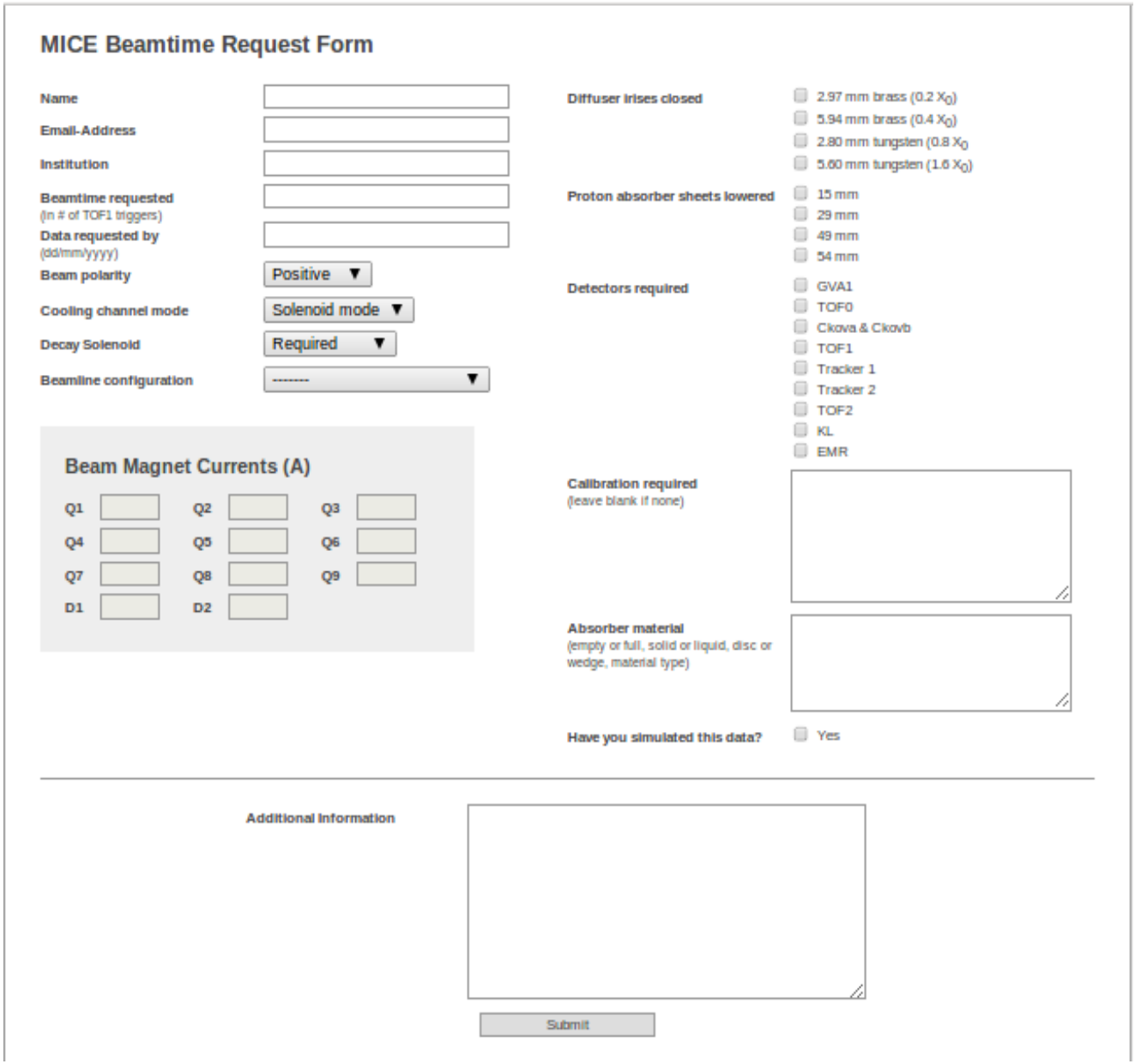

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