



**MQXFAP1b Coil-P06  
Readiness Review**

US-HiLumi-doc-  
Other:  
Date: 12/13/2018  
Page 1 of 4



**US HL-LHC Accelerator Upgrade Project**

**MQXFAP1b Coil-P06 Readiness  
Review**



# MQXFAP1b Coil-P06

## Readiness Review

US-HiLumi-doc-  
Other:  
Date: 12/13/2018  
Page 2 of 4

### TABLE OF CONTENTS

|                            |   |
|----------------------------|---|
| 1. GOAL & SCOPE.....       | 3 |
| 2. CHARGES .....           | 3 |
| 3. TECHNICAL DETAILS ..... | 4 |



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US-HiLumi-doc-  
Other:  
Date: 12/13/2018  
Page 3 of 4

### 1. Goal & scope

MQXFAP1b is the re-assembly of the first prototype of the MQXFA magnets to be used in Q1 and Q3 for the High Luminosity LHC. MQXFAP1 reached 17.4 kA during training at 1.9 K before a short coil-ground caused test to be stopped.

The main goal of MQXFAP1b is to reach ultimate gradient (143.2 T/m) at 17.9 kA. A secondary goal is to aim at 19 kA to demonstrate margin. MQXFAP1b is the last prototype to be tested by AUP, therefore it is the last chance for the AUP to demonstrate margin above 17.9 kA (acceptance current).

MQXFAP1b is planned to have three coils previously used in MQXFAP1, and a new coil (P06) replacing the coil that caused the short to ground in MQXFAP1. Reviewers are requested to check that coil P06 is fit for use in MQXFAP1b.

### 2. Charges

The committee is requested to answer the following questions:

1. Does coil P06 meet the MQXF coil requirements?
2. Is coil P06 fit for use in MQXFAP1b?
3. Is there any other comment or recommendation regarding coil P06 to assure MQXFAP1b is going to achieve its goals?



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## Readiness Review

US-HiLumi-doc-  
Other:  
Date: 12/13/2018  
Page 4 of 4

### 3. Technical information

#### Committee

GianLuca Sabbi (LBNL), chair

Susana Izquierdo Bermudez (CERN)

#### Date and Time

December 18, 2018; starting at 8/10/11/17 (LBNL/FNAL/BNL/CERN)

#### Connection

Video-link by Zoom, info will be provided by email

#### Link to talks

<https://indico.fnal.gov/event/19381/>