

Work Progress in Bologna

- Material Procurement
- Tools Status
- Schedule for Protvino Production
- Pre-Production in Bologna

Alberto Benvenuti,

Muon Week: November 7th 2000

Material Procurement

Tapes:

Abel sent a draft of the contract to H-OLD two weeks ago.

The tape production will be done on the basis of release orders of about 600 tapes of each kind.

The contract stipulates that the firm will have the tapes ready for delivery 8 weeks after notification.

I-beams:

The contract is ready for signature, the price for the first 10 ton extrusion has increased to 15.15 DM/Kg (from 14.7).

A formula defining the prices of the remaining extrusions has been agreed upon.

The information concerning the I-beam extrusions, Cathode production can be found at the following location:

<http://wwwsrv.bo.infn.it/benvenuti/welcome.html>

as "I-beam Extrusions" and "Cathode Production Status".

A similar file will be inserted with the "Tape Orders Status" in the near future.

Status of I-beam Tools in Bologna 06/11/2000:

Second XY-Plotter:

⇒ Operational

40 I-beam Dish:

D2 for :

2490mm (MB2), 3010mm (MB3), 2368mm (ϕ SL)

Machining completed, I-beam positioning system completed,

Two working weeks needed to:

- complete compressed air circuits,
- complete mylar and aluminum cutting bridges,
- insert interlocks.

⇒ Operational end of November

HV contact bars:

Four Units ready and tested under High Voltage.

Three HV cables completed

⇒ Very delicate and time consuming operations

⇒ Ready end of this week

Disconnect boxes:

One prototype ready and HV tested.

Design simplified and made more robust

⇒ Ready in two weeks.

⇒ Test “**final**” HV System next week.

Scenario for Start-up in Protvino 07/11/2000

Lab space and the following items are still not ready:

- racks to hold I-beams during wash/rinse cycle,
- drying area for I-beams,
- HV voltage test system (tank, contact bars, cables).

Obraztsov cannot guarantee that the necessary items will be ready by November 26th which had been set as a target date to start cathode production.

We have agreed that a reduced contingent (V. Cafaro, M. Guerzoni and myself) will go to Protvino on December 3rd for a week to help with the completion of the pending items and to assess the situation.

A target date of January 21st has been agreed to start production.

Cathode Production 07/11/2000

Cathode production will restart in Bologna at the end of November.

The HV test system, which was a bottle neck in the past, has been upgraded to the “final” system and will allow to test 60 cathodes in a run (at least 6 hours long).

The HV monitoring system has been upgraded and the cathode selection:

Good, Clean, Reject

has been automatized.

⇒ The target goal is to produce 120 cathodes/day.

Startup at IHEP Protvino will be organized with only one “expert” technician at a time (either V. Cafaro or V. Giordano) to avoid stopping production in Bologna.

⇒ There is no contingency left

Cathode Production Quality Control

Alberto Benvenuti, Muon Week: November 6th 2000

The documentation for the Cathode Production QC at IHEP Protvino is essentially completed and is under translation to Russian.

It comprises the following items:

- “Quality Control Procedures for the Drift Tube Chambers Cathode Assembly” memo,
- Reception Sheets for the I-beam and Tape shipments,
- Instructions for:
 - I-beams Precision Cut,
 - I-beams De-burring,
 - I-beam Wash and Drying,
 - Cathode Assembly,

- HV test (**in preparation**)
- Packing of finished cathodes.
- Work sheets for each of these steps and for the Acceptance Tests on the raw materials (**in preparation**).

The information from the reception and work sheets will be entered on files on a local PC and will be visible from Bologna. Ultimately the relevant information will be entered in the canonical data base.

I-beam Reception Sheet Nr. _____

Shipping Request Nr. EM-_____;

Nr. of Batches:___

Nr. of Boxes:_____

Nr. of I-beams:

2035.mm **MB1**:_____; 2498.mm **MB2**:_____;

3018.mm **MB3**:_____; 2376.mm **PHI**:_____;

1986.mm **CUT**:_____

Nr. of Damaged Boxes:_____ Action Taken:

Photograph:_____

Report:_____

Date:___ : ___ : ___; Shipment received by: _____

page ___ of ___

| D.Note | Length | I-beams | Batch | Code | Status | Box |
|----------|--------|---------|-------|----------------|--------|-----|
| 81108271 | 2376 | 855 | 2 | 0800-02-PHI-10 | | 1 |
| | | | | | | 2 |
| | | | | | | 3 |
| | | | | | | 4 |
| | | | | | | 5 |
| | | | | | | 6 |
| | | | | | | 7 |
| | | | | | | 8 |
| | | | | | | 9 |
| | | | | | | 0 |

Date: ___ : ___ : ___ ; Shipment received by: _____

page ___ of ___

Cathode Production Sheet; XY-Table ___; I-beam length ___

Operators: _____ Date/Time: : : / : :

| Head | Tape | Batch | Width Begin | Width End | I- OK | Side |
|------|-----------|-------|-------------|-----------|-------|------|
| | Mylar | | | | | A |
| | Aluminium | | | | | A |
| | Mylar | | | | | B |
| | Aluminium | | | | | B |

Accepted I-beams: A: ___, B: ___; **Bad Cathodes at Visual Inspection:**

- Side A Mylar _____; Aluminium _____
- Side B Mylar _____; Aluminium _____

Comments: