

# Review – Niowave fabrication file

Beam tube assembly

30/10/2014

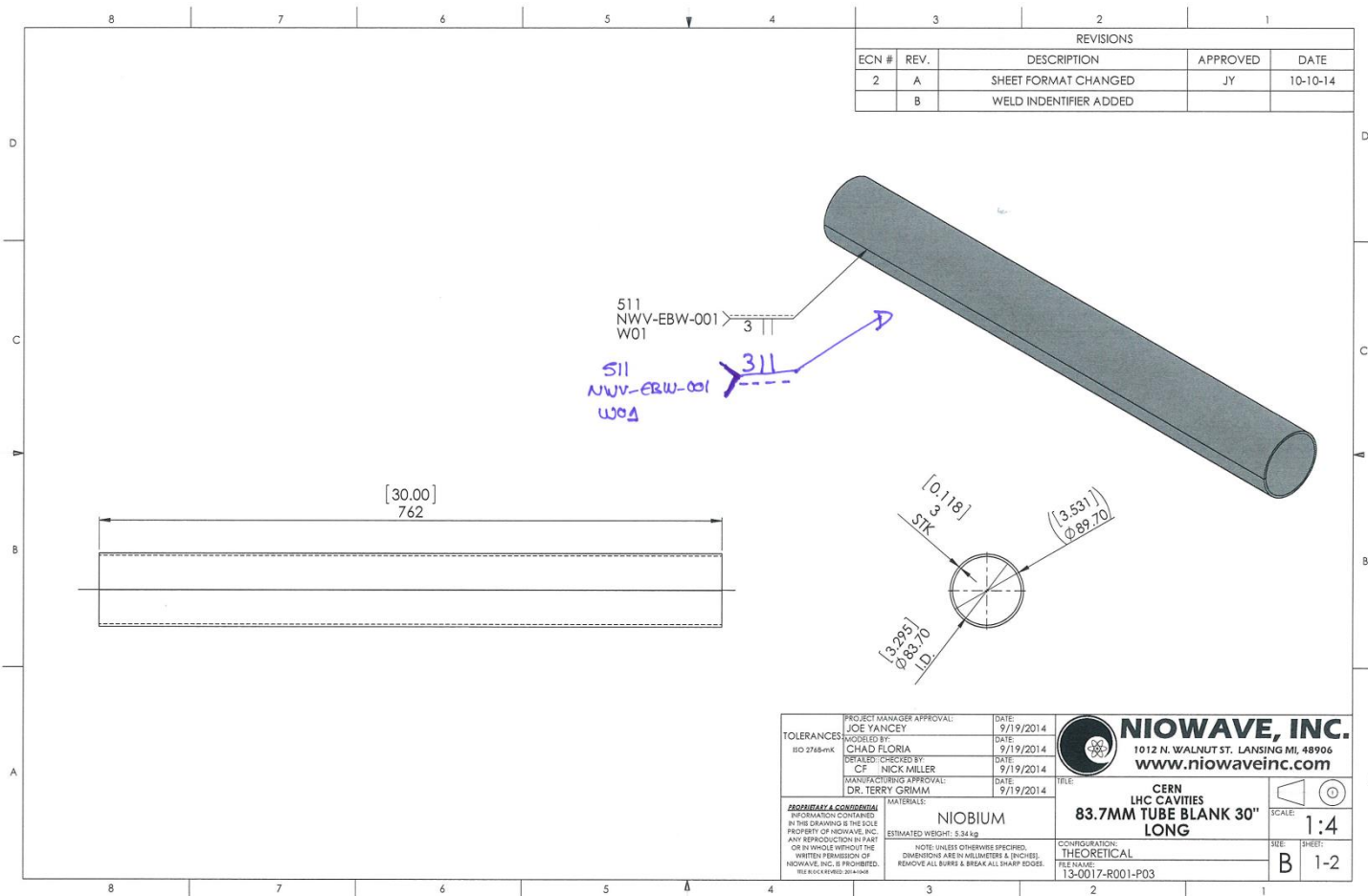
Comments from CERN Design Office

# General comments

- welding:
  - Welding & brazing procedure qualification record (WPQR and BPQR): Still missing
  - Welders performance qualification, welding and brazing operators performance qualifications (WPQ, WOPQ and BOPQ): Still missing
  - NDT personnel qualifications: Missing
- Materials:
  - Nb rod RRR=300: material grade to be discussed. Concerns material certificate 81067318 (Heraeus H8) niobium grade 2 vs grade 3

## 13-0017-R001-P03:

According to ISO Standard 2553, the welding detail is not correct.  
Find attached the right welding detail in the drawing.



# Drawings

- 13-0017-0174-P02, 13-0017-0108-A50, 13-0017-0150-A73 – commented pdfs attached
- Step on inner diameter at the SS insert region – if you can't avoid this, please try to make it a smooth transition, like a ramp.
- Only representative drawings are listed above, all other similar drawings are expected to be revised accordingly.