

Environmental shield review

12 Feb 2004

Justin Greenhalgh, RAL, 12 Feb 2004

1 Attendees

Andre Levin (AL)
Vassilli Kachanov (VK)
V Grishin (VG)
John Hill (JAH)
Lucie Linsen (LL)
Sergei Gninenko (SG)
Ken Bell (KWB)
Wolfgang Funk (WF)
Justin Greenhalgh (RJSG)
Dave Cockerill (DJAC)
Bob Brown (RMB)
Tiziano Camporesi (TC)

2 Actions

2.1 Review of actions from last meeting EE/365

2.1.1 Drawing changes – immediate action

All had been completed; the following new issues arose:

On pipe connector types: WF and LL are organising tests of various types and hope to be able to make a recommendation. In the meantime it was agreed that for the pressure test by the manufacturer they should use any type they chose and that some additional length should be left so that after the test they could cut the pipe to the designed length thus leaving an undamaged portion for the final connectors to be fixed to.

ACTION on AL to ensure that this was the arrangement with the manufacturer.

A final check should be made with A Sourkhov about clashes between preshower cooling pipes and backplate return pipes.

ACTION on WF.

A request was made that all aluminium parts are treated with “Alodyne” or a similar process to ensure a corrosion-free finish for good electrical connectivity. It was agreed that this would be done.

ACTION on AL to put this on the drawings, and on VK to negotiate with the manufacturer.

2.1.2 Other action items from the previous meeting

Three actions were deferred until the manufacturer has been chosen:

AL to ensure that RJSG has a chance to comment on the final decision of pipe fixing method made with the manufacturer.

AL to ensure that any joints in the pipes (within EE, for manufacturing reasons) are checked with JAH before manufacture.

AL to verify tolerances for holes that allow fasteners between EE and OES, with manufacturer.

All other actions were complete or superseded with some follow-ups noted in the next section.

2.2 Actions arising at this meeting

RJSG to forward to AL note on radiation levels, verifying that the latest info from Huhtinen has been included.

VK to verify radiation resistance of foam insulation material, thermally conductive compound (bonded to alodyne treated aluminium), and textolite material.

AL to implement change control on drawings starting today.

AL to change “flexible” part on IES joint to stainless steel.

AL to change FES joining scheme to one using flexible sheets similar to IES.

AL to verify with manufacturer the inspection scheme for the holes mating to the backplate and for the internal and external envelope dimensions. Such a scheme might include parts on a checking jig to represent the four extreme partial SC. The scheme to be agreed with RJSG/JAH, and the checking must be witnessed by AL at the manufacturer.

VK to consider inviting RAL engineers to visit manufacturer at a suitable time, for example once final production drawings have been made.

RJSG to verify that thermal compound is compatible with alodyned surface.

LL to ensure that the design of the support beam was such as to allow the IES to be fitted.

JAH to check clearance of IES flange on SE cone and on SC during IES fitting.

AL to modify the environmental shield support frame to avoid the area inside the IES. With this change it was agreed that the environmental shield support frame should be made.

DJAC to organise a separate meeting to discuss fitting/removal of environmental shield with the Dee in vertical orientation.

KWB to verify that the foam insulation is OK with TIS.

3 Overall status of Environmental Shield design

The design had been approved in concept at the EDR, and had been reviewed in detail at these two internal reviews. It was agreed that the drawings should now be put onto CDD and change control implemented.