

Our Ref: SSL1/PL01/EN02/0001

Your Ref:



Enterprise Managed Services
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20-Aug-2010

For the attention of Jason Simkins

Dear Sirs

**SSR Project Package 1A
Cast Resin T&R Traction Converters/Rectifier Transformers Equipment
Approval**

I understand that the T&R 2.5MW 630/750VDC Traction Converter units are close to being commissioned at Harrow substation.

Following a detailed review of the Technical Dossier and Compliance Matrix submission ref. MNL-ELC-A001-009752.zip, the Equipment Approval Panel meeting have recommended the following equipment for approval.

Transformers & Rectifiers Limited, 11kVac / 630/750Vdc 2.5MW AN cooled Cast Resin Traction Converters, comprising:

- 12 pulse, series bridge (fuseless) diode rectifier (indoor use, above ground), with
- Dry type (cast resin) double wound rectifier transformer (indoor use, above ground) – @ Finchley Road & Harrow Substations.

Approval is subject to provision of detailed O&M manuals and the following concessions against Powerlink Specification SP80101v2 (Traction Converter Groups for use on the System) for:

- 11.11.4 – Short Circuit Performance
- 11.11.5 – Converter Group Parallel Operation (Load Sharing)
- 11.11.7 – Converter Output Voltage Waveform (Harmonics)

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Reply Required: No

Originator:



- 12.2 – Enclosures and Compartments (height) – working platform to be provided
- 12.10 – Earthing Arrangements
- 13.1.5 – Open Circuit Arm Detection

There is a further concession requirement against SP80001 v1 (General Requirements for Fixed Installation Power Supply Equipment) for:

- 13.15 – Wire Identification

The formal process requires a Powerlink equipment approval document (which is under preparation) and ratification by the DRP, but in view of the time constraints, please accept this letter as approval.

Yours faithfully



Andrew Pallett
Power Manager

cc. (LU/SSR:) David Rushton, Daren Stinton, Don Bootle, David Elliott
(Powerlink:) I Draper, P Smith, N Gardner, G Lennon