NR/L3/SIGELP/50001 Working on or near 650V Signalling Power Supplies		
NR/SPS M001		
FSP Maintenance (650V Signalling Power Supplies)		
Issue No: 01	Issue Date: 6th June 2015	Compliance Date: 6th June 2016

Includes:	Any FSPs or signalling equipment housings (REBs, relay rooms, location cases, apparatus cases, battery cases, relay cabinets, equipment cupboards, stump boxes) containing 650V power distribution equipment.
Excludes:	Signalling equipment housings with no 650V power distribution equipment. PSP 650V equipment.

GENERAL

Safety: Refer to NR/SPS S001 to carry out this maintenance specification.

Record details of your maintenance visit and any other work undertaken in the site logbook or record card as the final activity before leaving.
Undertake any corrective maintenance issues as detailed in NR/SPS M002.
Before leaving site, check that covers, doors and locks are properly fitted and secure, including any insulating barriers or bags provided.

Refer to NR/L3/SIGELP/50001 for the definition of maintenance actions.
This document details the maintenance requirements for the 650V Signalling Power equipment within equipment housings including FSPs, location cases, relay rooms, REBs, etc.
These equipment housings may also contain signalling equipment. Refer to NR/SIG/10663 – Signal Maintenance Specifications EL21 and EL31 for the maintenance of signalling equipment within FSPs, location cases, relay rooms, REBs, etc.

SERVICE A

1. External Inspection

1.1 Check surroundings of cases are accessible and the doors are not obstructed.

Remove or report excessive foliage or obstructions as a corrective maintenance item.

1.2 Check for fire risks around the location(s).

Remove or report any possible risks.

1.3 Check (if provided) that any guardrails and staging are secure, fit for purpose, and that any metalwork within 2.5 m has an earth bond attached. Report any defects as a corrective maintenance item.

1.4 If provided, Check insulating barrier or bag for damage and that they are secured around the case. Rectify immediately any defects.

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1.5 Examine base, housing steelwork and doors for corrosion, damage, obstruction, and security. On portable equipment rooms, Check that the skirt around the bottom of the location is effective.

Report any sign of structural deterioration or forced entry to your Section Manager.

Report any exposed bare metalwork where insulating paint is present as a corrective maintenance item. If this is in a public accessed location, then install an insulated bag until the insulated paint is repaired.

1.6 Check housing identity is clearly labelled.

1.7 Check locks are fitted and in good order, including to any securing insulating barriers or bags. Rectify immediately any missing locks securing insulating barriers or bags.

1.8 Where provided, Check the earth connection between the location(s) and the earth rod for tightness and that the earth rod is secure in the ground.

- In SIMIS-W areas Check that the protective sleeve is in place if the earth cable passes under the track.
- Check earth electrode inspection pit covers and earth conductor to earth electrode terminations for satisfactory condition and security (where provided).

Report any earth defects as a corrective maintenance item, including missing earth connections and electrodes.

1.9 Check that any safety/warning/information labels/signs are correctly displayed and legible, including a sign identifying the highest voltage present within the loc.

These may include electrical warnings, No Smoking, Wear PPE, No Mobile Phones etc.

1.10 Lubricate locks, catches and hinges.

2. Internal Inspection

2.1 Examine cables, cable glands and wires for damage (or a sample of in equipment rooms) particularly in ducting and where they pass above a heater, transformer, or any other heat source. Report any damage as a corrective maintenance item.
Take immediate corrective action on any exposed conductors above 175V.

Your Section Manager may tell you which cables and wires to look at in equipment rooms. Damage includes any new wet/dry degradation. Rodent damage can occur to wiring in ducting which is not immediately visible. Cables with damaged or missing insulation exposing conductors require immediate corrective action if above 175V.

Cable clamps should be fitted to ensure that short circuits cannot occur if the cable is pulled from outside the case.

2.2 Check site copy diagrams (such as location case wiring schematics) are available, properly stored and fit for purpose.
Submit a request for replacements / amendments as required.

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2.3 Check that any cable entry openings are suitably sealed with clay balls and rat brushes as appropriate to prevent rodent entry.

2.4 Remove any dust/infestation.

2.5 Check earth conductors and supplementary and main equipotential bonding is in satisfactory condition. (Report if not present)

2.6 Check that any safety/warning/identification labels/signs are correctly displayed and legible.

These may include electrical warnings, equipment identities, cable identities, etc.

2.7 Check case door seals, fixings to base, and interior for corrosion, damage, damp or overheating.

2.8 Check any asbestos parts for deteriorated condition. Report any of the following: -

- The surface being damaged, fractured, chipped, frayed or scratched.
- Surface sealants missing, peeling or breaking off.
- Material becoming detached from its base or base layer.
- Protective coverings designed to protect the material, missing or damaged.
- Asbestos contaminated residues or debris from damage near the material.

More information can be found in NR/L3/ELP/00110, from which the above was taken.

2.9 In equipment rooms, Check the rubber matting is not damaged, gauntlets are not damaged and are within their test date and spare fuses are available.

2.10 Check that the housing environmental systems are in order. This includes:

- Location ventilation.
- If provided, heating in cases is switched on and working correctly. Heating in equipment rooms should be switched off during the summer.
- If provided, air conditioners (coolers) are switched on and working during the summer (April to September). If controlled by thermostats, they shall be on all year.
- If both heating and cooling are fitted and controlled by thermostats, Check that the controls for this are working correctly.

Heaters and coolers should not be both on at the same time.

If heating is turned on/up whilst you are working in the room, you shall return the controls to their original setting when leaving. Report any problems to your Section Manager.

In damp locations and where black relay bases are still fitted it is important that the heater is working correctly.

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