Appendix 4

Isolation Procedures for Safe Working on Extra-Low and Low Voltages (Up to 1000v)

The following chart illustrates a safe Isolation Procedure for persons concerned with work on electrical systems on extra-low and low voltage (as defined in BS7671). Isolation is defined as a function intended to cut off for reasons of safety the supply from all, or a discrete section of, the installation by separating the installation or section from every source of electrical energy. Isolation means the operation of switches, the removal of fuses or links or physical disconnection of conductors in order to make any system or part of a system DEAD and secure so that it cannot be inadvertently made live. This will involve cutting off an electrical installation, a circuit or any equivalent item from every source of electrical energy.

In general remember the following rules:-

- Identify the source(s) of supply;
- Isolate;
- Secure Isolation;
- Post notices;
- Test that the equipment/system is DEAD; then
- Apply earths where necessary and applicable.
- Begin work.
Safe Isolation for Dead Working

PROCEDURE

Before starting work!

Locate the correct Isolation device(s)

Check your test equipment!

Prove your test equipment!

Switch off!

Lock and secure Isolation device!

Post warning notices!

Verify that the circuit and equipment is ‘DEAD’

Prove your test equipment!

APPLICATION

1. Seek permission from the appropriate person and agree the work to be done.

2. Check with the authorised person and drawings/diagrams, identify the room or area where the isolation device(s) is located.

3. *Check the condition of: probes; leads; casings; ratings and ranges; calibration certificate

4. *Check voltage tester on a proving unit or known ‘LIVE’ source

   If test equipment fails then replace or repair (Go to 3)

5. Ensure that switching off will not cause danger or unnecessary inconvenience.

6. **Retain keys for lock(s) and restrict access to Isolation device(s) where possible.

7. ‘Do not Switch On’ at Isolation point and ‘Men at Work’ at work area(s).

8. Check between Live conductors and between LIVE conductors and earth at access point.

   If a voltage is present then recheck isolation (Go to 2)

9. *Check voltage tester on a proving unit or known ‘LIVE’ source.

   If test equipment fails then replace or repair. (Go to 8)

Satisfactory? If yes then begin work.

Reference should be made to the *Health and Safety Executive’s Guidance Note GS38 and ** the current edition of BS7671 the IEE wiring regulations for Safe Isolation, Guidance Note 2.