**Notes for Discussion – CP Competency**

In terms of practical training, I’m not sure what the ICorr courses deliver. Simon, - feedback from your staff could inform this.

I think the following would be useful:-

1. We must recognise that not every corrosion course delegate intends to pursue a corrosion control career. It could be that they are attending for general awareness required by other disciplines etc.
2. For delegates intending to pursue a corrosion control career, attending and simply passing a course does not deliver competency. Such training must be supported by significant practical elements. These elements need to be identified, and completion validated. They could include:-
* Measurement of pipe-to-soil potential using a portable reference electrode. Demonstrate correct instrument polarity connection and correct connection procedure.
* Measurement of pipe-to-soil potential using a permanent reference electrode and explain why measurement from portable and permanent cell may be different.
* Measurement of AC potential, state any special instrumentation requirements.
* Reference cell requirements and maintenance, safe disposal of copper sulphate.
* Measurement of anode current.
* Measurement of current using a shunt.
* Measurement of ‘ON’ & ‘OFF’ coupon -to-soil potential.
* Measurement of CP transformer output voltage & current using external instrumentation, also measurement of back voltage.
* Demonstrate installation and use of a logging device to measure current via a shunt.
* Awareness of remote monitoring devices and connection requirements. State typical problems that may arise.
* Installation of synchronous switching devices, (subject to satisfactory completion of supplementary training and restricted authorisation other training requirements).
* Demonstrate awareness and use of instrumentation to confirm effective synchronous switching, such as Picoscope.
* Participation in a close interval potential survey. Discuss possible problem areas and quality control requirements.
* Participation in a direct current voltage gradient survey & awareness of other coating survey techniques. Demonstrate calculation of %IR at features.
* Participation in a current attenuation survey and use of the ‘A’ frame for accurate fault location. Able to state the benefits and limitations of this technique.
* Participation in the installation of sacrificial anodes.
* Participation in the installation of an impressed current groundbed.
* Provide a written analysis of a provided CIPS report. Available, (real), CIPS reports could be suitably anonymised and errors or omissions included.

 I envisage that ICorr or other certification would identify those delegates just requiring background knowledge, i.e. limited or restricted certification Those intending to pursue corrosion engineering as a career choice would have an independent mentor allocated. The practical elements would be entered in a log book where the delegate would enter the specific details of where and when the particular training task was completed. A number of additional questions, yet to be developed, could be associated with each task which would be administered by the mentor. When satisfactorily completed, the mentor would sign off that particular element. When all elements have been satisfactorily completed, limited certification would be appropriately endorsed or new certification could be issued.

Some of the practical elements could be easily completed in a workshop scenario using a temporary set-up, but some tasks would need to be on-the-job training.

Competency would be revaluated at 5 years by delegates attending a one-day refresher workshop after which they would have one week to complete and return a written project.