NULCA BULLETIN JULY 2016 THE DBYD ACCREDITATION THROUGH THE EYES OF A TRAINER

Recently I was able to go out with one of the DBYD accessor's and watch the process, as on several occasions on recent training courses I have been asked questions from locators who had not yet passed the DBYD accreditation. I have also been asked to become an assessor. I was extremely surprised by a few things while watching and participating in the process.

The site that was chosen for the assessment had underground Telecommunications, Water, Gas, Electrical in both LV & HV. So pretty much the standard services you may find in day to day locating in a suburban area. You have two hours to complete the locate in the area assigned and this has to be to AS-5488 QL-B. The assessor gives a scenario with clear instructions also indicating your locating boundaries and any special instructions that may pertain to the site.

All the operators who were doing the assessment on the day had between 6 to 20 years' experience, I enthusiastically thought these people would have no problem getting through the accreditation.

Before I go on, I don't profess to be an expert locator, in fact, some of the people I observed would probably have had more life experience locating in the field than what I would have done in the industry. I do owe a lot of my experience to the person I was trained by who had 25 years' experience along with the desire to keep learning from my peers. I also had spent time with a professional locator company which gave me a better understanding of how they locate in the field.

Here's what I observed from the people who were going through the assessment process. Each started locating the individual service's which is a good process in my eyes, I thought to myself this is a great start but from here on in it seemed to go a little backwards. Let's start with the water connection which they all used the direct connection method.

The first thing I noticed was the placement of the earth stake, from the operators I observed both placed it around 200mm from the connection point, using a small screwdriver as an earth, both used a medium frequency to locate. The soil around the connection point was extremely sandy. None of them attempted to improve the earth in any way or change the position of the earth stake which was extremely close to the connection point. I observed extremely low current output from the transmitter around 5 mA on two of the locates. None of them completed a 360 sweep around the connection point and all started locating along the footpath, which is exactly where the plans stated the service was, so I am gathering that they assumed that there was only the one service going along the footpath in the street. One other problem I observed was due to the low current from the transmitter they turned the gain up extremely high on the receiver and within 10 metres of the locate the receiver sensitivity was up near 88 dB, which is extremely high for such a short distance. Having the gain set so high increases the chance of picking up ghost signals. Current was around 0.99 mA which is extremely weak for such a short distance. So locating any kind of signal drop if there were other services branching out would have been difficult to notice. None used the current measurement mode consistently and none detected the signal drop off which indicated a service crossing the road.

OK, I thought to myself maybe there is more to the water than I thought, maybe there was an issue. So I connected my locator up placed my earth stake around a metre away and at 90 degrees from the water service as I had been taught, I did struggle to get a good earth in the sandy soil so had a few choices, go up a frequency or improve the earth, in the end, I was able to push out around 23 mA on a medium frequency from the three what transmitter I had. I then did a 360-degree sweep and found three signals, two along the footpath (each side of the hydrant) and one going towards a reserve inside the locating area. Current measurement from the receiver on each of the signals read around 6, 7, 4 mA, peak and null lined up on all three with a small variation on the one going into the reserve. As I traced along the footpath I noticed a dip in the signal enough for me to warrant a sweep, at this stage my current was around 2.0 mA before the sweep. Once I completed the sweep I found a service crossing the road, both peak & null lined up and the current was now 1.0 mA on each signal indicating that a service was travelling across the road. Without giving too much away about the site the signal travelling across the road went to another reserve. Both these services going into the reserves were not marked on the DBYD's.

The next locating technique I observed which really shocked me was the liberal use of the induction method (sometimes called the drop box method). I watched as locators dumped the box on the ground after they found something on a passive signal then proceeded to locate services that could be found with using better connection methods, in most cases they could not verify QL-B using this method. Now I can understand if there is no physical way of connecting to a service, for instance, an LV or HV line, then induction is your next best method and if that service is in an isolated area there is a chance you can categorise it as a QL-B. This is as long as you induce on to an identifiable service and in this case was a Low voltage cable coming down from a pole, then there is a possibility it could be classed as QL-B. I must add that one of the operators tried to connect to line coming down from an LV using a pole extension on his clamp which was brilliant idea but unfortunately he could not get a good connection due to not getting his clamp completely around the cable. He then reverted back to induction against the pole which in this instance was ok as there was one isolated cable coming from the pole to a transformer substation. I have always been taught that this method is best used for cable avoidance and locating precisely or to QL B level can be rarely achieved. I was really starting to wonder if any of these guys had had any formal training.

I also noticed the random use of passive searching, there was no process involved no passive grid search, it's almost like they walked to an area that they knew there was a supposed signal this really intrigued me in why they would randomly go to an area and start locating using passive.

The next area was locating both HV and LV dropping down a pole. You could not attach a clamp to the LV but were able to safely attach it to the HV. By the way, none of the operators could answer if they could legally attach to HV cable something I assumed would be common knowledge, I myself did not have the answer but have since read some documentation and had discussions with a locator that has located Ausgrid services which clarified what can and can't be done. This is something that all contractors should be legally aware of if they are locating electrical networks for the individual power utilities. Again all operators used induction to locate which would be impossible to locate individual cables. There were three cables in total all assumed they were in the same trench. After clamping on the HV all failed to do a sweep around the pole and all missed the service which was around 500mm to the left of the other cables.

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So I came into this day thinking that the assessors were being overly harsh and unfair to operators trying to complete this accreditation, in fact, it is the complete opposite. After reading the DBYD assessment process and what is regarded as a competent or not yet component, none of who I observed on that day would have been deemed competent according to the DBYD requirements. The assessor in many cases gave the operators hints that maybe they had missed something and that they had not been able to locate to QL-B and even pointed in the right direction something an assessor should not need to do. Most of the operators doing this accreditation have been locating for years and who in the past have had their Telstra accreditation.

Many of the operators on the day missed things by not following a simple process. This then made it harder for them to complete the locate to the level required in the time required. Most had admitted to having no formal training all the things they did wrong could be corrected by following a simple process and having a better understanding of how assets work and how to identify them. The DBYD accreditation is passable and I had been told by the assessor on the day that locators with years less experience who have followed a process have been able to complete the task within the time frame required.

So for those who do not pass the initial process, the assessors do record comments and take notes so don't be afraid to ask in what areas you need to focus on to be ready for the re-sit of the assessment. Don't be afraid to do some training to refresh your skills or iron out the bad habits that you may have fallen into before attempting the assessment re-sit again. I myself have had to do some refresher study in area's that I would have struggled with. I am glad I did as I learnt a little more which I hope to be able to share in the training courses I currently do. By further education, training and brushing up on your skills a competent pass is attainable and will make you a better locator and that's what our industry needs.

If you do have any comments please don’t hesitate to contact a NULCA committee member or comment on the NULCA Linked-in site.