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Hyundai Transformer Projects

PBA have recently begun executing a trio of high profile transformer installation projects for Hyundai Heavy Industries.

The 250 MVA unit at Transpower's Islington substation and the first of two 120 MVA units to be installed at Paraparaumu substation were underway almost simultaneously with the second Paraparaumu transformer to be delivered only two weeks after planned completion of the first.

Beginning to work with Hyundai on these projects has been a milestone for the business in a couple of respects. It is another big step in continuing to establish PBA's reputation as New Zealand's provider of leading expertise in power transformer installations.

Forging this relationship with Hyundai in parallel with other works further demonstrates PBA's ability to maintain up to three transformer installation projects across New Zealand's two main islands at any one time.

The Hyundai transformers posed a new challenge to the PBA team in needing to be enclosed and heated during the vacuum phase – this required an innovative solution from the PBA team. PBA are proud of the good working relationship with Hyundai throughout these transformer installation projects.



The first of the Paraparaumu transformers enclosed in the wrapped scaffolding.

2014 EEA Conference - Showcasing PBA's Innovations

PBA made a big impression at this year's Electrical Engineers' Association Conference in Auckland. The theme of the 2014 EEA Conference was innovation.

With a well-positioned trade stand, the scene was set for the PBA team to fill it with innovative engineering products. This challenge proved the perfect catalyst to a team of PBA's SF6 and circuit breaker specialists who had already been developing the design and construction of PBA's very own SF6 gas cart. The EEA Conference became the deadline and production efforts took a sudden step up in intensity. Come June, a PBA built gas cart was a reality.

Along with the gas cart, PBA's team designed and built an SF6 mass flow meter.

This device is made to be fitted in series with a transfer of SF6 gas and provides a live digital read-out of the mass flow rate of SF6, the dew point of the gas and a purity measurement too!

These two exciting innovations captured plenty of attention at the Conference with many interested parties stopping by to check out the demonstrations and to have a chat with the PBA team at the stand.

The PBA team is now looking forward to innovations that could be built in time for next year's Conference...



PBA Donates to Special Children's Christmas Party

On a more sensitive note; PBA is an organisation within which the team members care about not only quality results but also about one another. This is a critical and defining element of the culture within PBA. In keeping with this ethos PBA made a donation to a charitable trust set up by The Radio Network to put on a Special Children's Christmas Party for children suffering from life threatening illness, physical and intellectual impairment, domestic violence or living in under-privileged circumstances. PBA is pleased to support this important event.



PBA SF6 Specialists Reclaim over 1,600 Kilos of Gas for Transpower

As part of a specialist services contract PBA manage the distribution and returns of all Sulphur Hexafluoride (SF6) gas for Transpower. PBA provide testing and consolidation of any returned and expended SF6 cylinders.

Following an SF6 cylinder amnesty, over 200 cylinders were returned providing plenty of work for PBA's SF6 team to get on with. PBA have been weighing each cylinder and then testing and categorising these cylinders as new gas, re-usable gas and contaminated gas. Cylinders with an existing LAB number but with expired inspection dates were evacuated of all their gas and then inspected. Those which were then assessed as being in good condition were sent to test certifiers for recertification, on return these cylinders were ready for re-use.

Another area of specialist SF6 service PBA have been providing has been to procure cylinders that meet the New Zealand Environmental Protection Agency (EPA) guidelines which are widely regarded as the most robust and demanding requirements in the world. Cylinders identified as not meeting the EPA requirements have been evacuated of all SF6 and then appropriately disposed of to ensure they were not refilled and re-used. From the consolidation project, over 1,600 kg of sufficiently pure (re-usable) SF6 gas has now been made available for re-use with a further 600 kg awaiting processing. This ensures there is still a significant amount of gas available for use on Transpower equipment.

Utilising PBA's bespoke gas management database has allowed for exact details of the gas recovered and made available for re-use. Gas that was identified as not being fit for consolidation due to its contamination has been quarantined awaiting appropriate disposal.

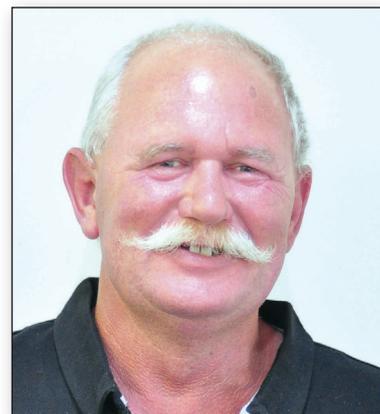
There's a lot to think about when dealing with SF6 gas stocks and the team at PBA are well versed in not only the legislative requirements but also the many technical challenges associated with working with SF6.



PBA's Michael Pascall and Tom Wech handling an SF6 cylinder as part of the consolidation works.

PBA's Rex Bare - Keeping Sites Safe

PBA's Rex Bare has an eye for site safety, a broad knowledge of industry compliance requirements, and a kind and approachable manner which makes him the perfect electrical work site safety supervisor. Rex's expert services have been engaged by Northpower to supervise their trenching contractor on a job which has run for close to 12 months. With this project's worksites almost all in the public domain Rex's supervision required ensuring both the public and the contractors were kept safe and the job was executed to a high standard.



PBA's Contract Management Software - Conject

For larger projects traditionally, PBA relied on conventional communication methods such as email and spreadsheets etc. With experience it became clear that these processes could be executed more efficiently and reliably.

Often the case at PBA; the opportunity to improve on a status quo drove the development of a unique innovation. PBA's new Conject Project Management software package helps enforce best practice contract management techniques by tracking deadlines and listing appropriate actions and responses to initial queries and requests. Key features of this package are:

- Transparency between client and contractor regarding changes to a contract
- Simplified management and tracking of multiple contract changes
- Fewer missed deadlines
- Collation of issues and tracking of the contract query processes

PBA is now encouraging our clients' engagement with this system on larger PBA projects. It's worth noting that traditionally Conject's software has been associated exclusively with the NEC style of contract but PBA's customised version allows us to implement this tool across non-NEC contracts, including NZS 3910, Transpower's TP Works 4 and other client bespoke contract forms.

Matt Daffin, PBA's Project Solutions Manager, summed it up succinctly when he stated that "these days there's so many different processes a PM needs to remember to be executing daily that they often jostle for your priority. Conject helps a PM decide what to concentrate effort on".

PBA Welcomes Dean Whiting

PBA continues to expand geographically with a permanent base now established in the Hawkes Bay. Setting up a base of operation within the Central North Island had been on the business plan for a couple of years.

When the opportunity presented itself and, as has become typical with these things, PBA jumped at the chance. Dean Whiting joined the PBA team in September and was immediately engaged locally on protection upgrade work. Dean, an electrical fitter by trade, received his induction training early in September and within a week mastered PBA's internal systems. He has since been tendering work, compiling safety documentation and managing jobs utilising PBA's arsenal of management tools after hitting the ground running. Dean is an excellent site supervisor; familiar with a range of numerical relays, installing and testing a variety of indoor and outdoor switchgear, and power transformer installation and overhaul. There couldn't be a better way for PBA to launch into this new area of New Zealand than with a team member so well versed in a broad range of HV technologies.

PBA are proud to welcome Dean to the team and are excited about the opportunities his presence in the Hawkes Bay represents to the business.

