

**NEW SOUTH WALES ELECTRICITY INDUSTRY
INCIDENTS AND ANECDOTES**



**Compiled by:
Bob Porter & Ken Thornton
2025**



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Top: White Bay December 1954 (ECNSW 00378),
Nurse January 1963, (ECNSW 04132)

Middle: Munmorah Foyer Mural

Bottom: Liddell Fire Fighting Training June 1970, (ECNSW CT9.0038),
Liddell PCR May 1971, (ECNSW 10589)



Power Industry Memoirs Incidents And Anecdotes



PACIFIC POWER



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Preamble

The Proposition – August 2024

The idea took shape during a casual game of golf at North Turrumurra. Mike Melidonis, Peter Jackson, and a few others were swapping light-hearted stories from their early days at Bayswater. The laughter that followed sparked a thought: perhaps it was time to gather and preserve these memories before they faded with time. From that moment, a project emerged:

“Interesting and Funny Stories from the Electricity of NSW / Pacific Power”

Was the idea worthwhile? We believed it was. Ken Thornton and Bob Porter agreed—willingly or otherwise—to take on editorial duties.

Building the Network

Within the industry, several informal email groups had formed over the years, each anchored by a former colleague - these networks became the foundation for spreading the word.

- Oasis Group – Gunter Wett
- Operators – Ian Ladyman
- Construction – Ross Shirtley
- Head Office – Tony Morrissey
- Munmorah 2017 Reunion – Bob Porter
- Facebook groups for Liddell and Eraring

The Call for Stories

In August 2024, we put out an invitation for contributions. We asked for true stories drawn from life in the electricity sector—covering the Electricity Commission of NSW, Pacific Power, TransGrid, and their successors. Anyone who worked in the industry, in any role or capacity, was welcome to participate.

The aim was to publish a collection of stories in time for the 75th anniversary of the Commission's founding in 2025. This would be a not-for-profit publication created to preserve the richness and character of working life across the industry.

Contributions could take many forms, such as short stories, recollections, notes, or anecdotes. We also welcomed photos, sketches, and memorabilia.

A few ground rules were made clear. No defamatory or offensive material would be included. Contributors could choose to remain anonymous, though all stories would otherwise be published with the author's name. Mentioning names within stories was acceptable—as long as it was done respectfully and without intent to embarrass.

We also asked contributors to ensure their stories were accurate to the best of their knowledge. The heart of the project was authenticity.

Expanding the Project

In early September, we followed up with a draft table of contents—designed to jog memories and encourage further input. Reminders were sent out again in October and November, and the project's scope widened slightly.

We invited stories about nicknames and how they were earned, as well as accounts of major plant incidents: fires, breakdowns, accidents—anything that left a mark or told a bigger story.

A final call for submissions went out in February 2025.

The Result

The stories that came in were more diverse, personal, and engaging than we had imagined. They reflect the humour, camaraderie, challenges, and quirks of a working life that helped power New South Wales.

We hope they spark memories, offer a few laughs, and serve as a tribute to the people and experiences that defined this chapter of the state's industrial history.

Ken Thornton and Bob Porter

August 2024

Executive Summary

Ken Thornton

This memoir is a rich tapestry of recollections from those who powered New South Wales through decades of industrial evolution. Told through the eyes and voices of engineers, apprentices, station managers, electricians, operators, and fitters, the stories capture a bygone era in which loyalty to craft, camaraderie on the job, and the humour of the everyday made the electricity industry not only a career but a community.

The journey begins with White Bay Power Station, whose history from 1917 to decommissioning in 1984 mirrors Sydney's growing appetite for electricity. The voices of former workers resonate with vivid detail: the clang of coal wagons, the ever-present haze of asbestos, and the unique quirks of supervisors who were part myth, part mentor. From here, we move to Balmain, where wartime experiences may have relieved the station of ever paying for a German turbine, and to Pymont, where a cadet's run-in with a ticket inspector leads to advice from a superintendent with a surprisingly compassionate side.

At Bunnerong, recollections of wartime conscription, strict 45-hour weeks, and blackouts reveal how vital power generation was—and still is. It is in these tales that we see the seed of the Electricity Commission of New South Wales (ECNSW), an organization born not of corporate ambition but of public necessity, literally keeping people alive—some in iron lungs—when the power stayed on.

As the narrative travels up and down the coast—from Wangi to Munmorah, Vales Point to Eraring—we encounter more than just machinery and megawatts. There are cheeky apprentices, and evening row-boat trips up the outlet canal that—though dangerous in hindsight—speak to the audacity and ingenuity of young engineers. We read about the mysterious skeleton discovered in a boiler at Wangi, the heritage murals of White Bay's Recreation Room, and the lunchtime pranks that bonded teams across job grades and generations.

Technological and managerial shifts are quietly chronicled through stories of major incidents—boiler explosions, turbine failures, and grid collapses—each one a lesson in engineering and accountability. But the real throughline is human: a tradition of mentorship, of learning by doing (and sometimes failing), and of deeply embedded pride in keeping the state's lights on.

There is wit, too, in stories of power station prawns, illicit tool fabrication, and “William Tell” overtures played a minute before knock-off time to win the race to the showers. The origins of Koala Park, the legacy of social clubs, and the personalities behind the nicknames all round out a history that is as much about people as it is about power.

In these pages, we don't just glimpse the technical past—we feel it, hear it, and occasionally laugh at it. The stations may be decommissioned, but the spirit of the power industry lives on in these stories, told with the precision of engineers and the affection of old friends around a table. Together, they remind us that electricity may be invisible, but the people who made it possible never were.

White Bay

White Bay Power Station opened in 1917 and was decommissioned in 1984. By that time, it was Sydney's longest-serving power station. It ran as a substation for another decade and was bought by the Sydney Harbor Foreshore Authority in 2000

In its heyday, it employed several hundred people. Sydney's electrification began in the 1880s. The New South Wales railway commissioners built White Bay to generate electricity for Sydney's trams and trains. In 1953, the Electricity Commission of New South Wales inherited White Bay when it took over all the state's power stations.

As with any workplace, there are many stories from White Bay. In 2003, a group of former employees on an organised tour the station and recalled some. These are amended extracts from the video made of that tour. (https://www.youtube.com/watch?v=FUnu_mux-cw)

"This is where they used to unload the trains of coal. They'd back them down that railway track, and the men used to go in with big bars and knock the door open underneath, and the coal used to fly straight down into the works below. One night, two carriages came in here full of wheat. Before they knew what they had done, they bumped the two wagon doors and had two wagons of wheat fall down there. Folks ran everywhere, trying to get bags and take wheat home for the chooks.

Another former employee noted that "the place was dripping with asbestos. I used to walk around and sort of try to hold my breath around the pump rooms and things like that because the asbestos was in the air. You knew it wasn't going to do you any good."

Yet another remembers, "one of the supervisors here used to fascinate me back in the early days. He'd walk up to a piece of high-voltage switchgear before the staff started work, walk up, put his hands on it, and say, Okay, it's safe to start work. And I never, ever forgot that I used to sit back and watch this guy in awe. I thought he was God."

"Number two unit was the one that blew up (probably 1958). And it blew up mainly in the front portion. The high-pressure steam comes in this end and goes through, and as it goes through, it gets lower and lower in pressure. But this front part was quite badly damaged, and it had blown pieces off the casing, and they'd gone up through the roof and out into the roadway, and that's where I went, had a look around, and picked up the pieces and just brought them back, dropped them here. There were two or three of us doing that."



White Bay #2, February 1958 (ECNSW 01436)

"Nothing was done before 8:30, you'd start at seven o'clock, have a cup of tea, and breakfast. You'd walk out to whatever job was to be done and have a look, and then come back and have morning tea. Then work would occur maybe from 10 o'clock till 1130, and then you'd wander back to the workshop and wash up and have lunch.

The guys who worked on the Operating Floor would have taken a lot of pride in their work. They didn't just twiddle a valve and sit down ... they went around with a can of Brasso, a rag and a duster, and they were cleaning the place up." "I never came to this room (Recreation Room) for entertainment. But there was a real tradition of concerts and what have you. In the very early days there were concerts, bands ... it was just part of the general scene. We've found photographs of the room being used for flower shows and for entertainment. There's a photograph taken of that stage with a woman, and it looks like it's 1950s. It was immediately after the war." The memorable features of this room were the murals on the walls and at the back of the stage.

In the old days. It would have been flying the place by the seat of your pants. You'd get a feel, you'd get attuned to all the noises, whereas in a modern power station, you're in a soundproof control room. You're fully dependent on the control and alarm systems and metering, and it's a different feel altogether.

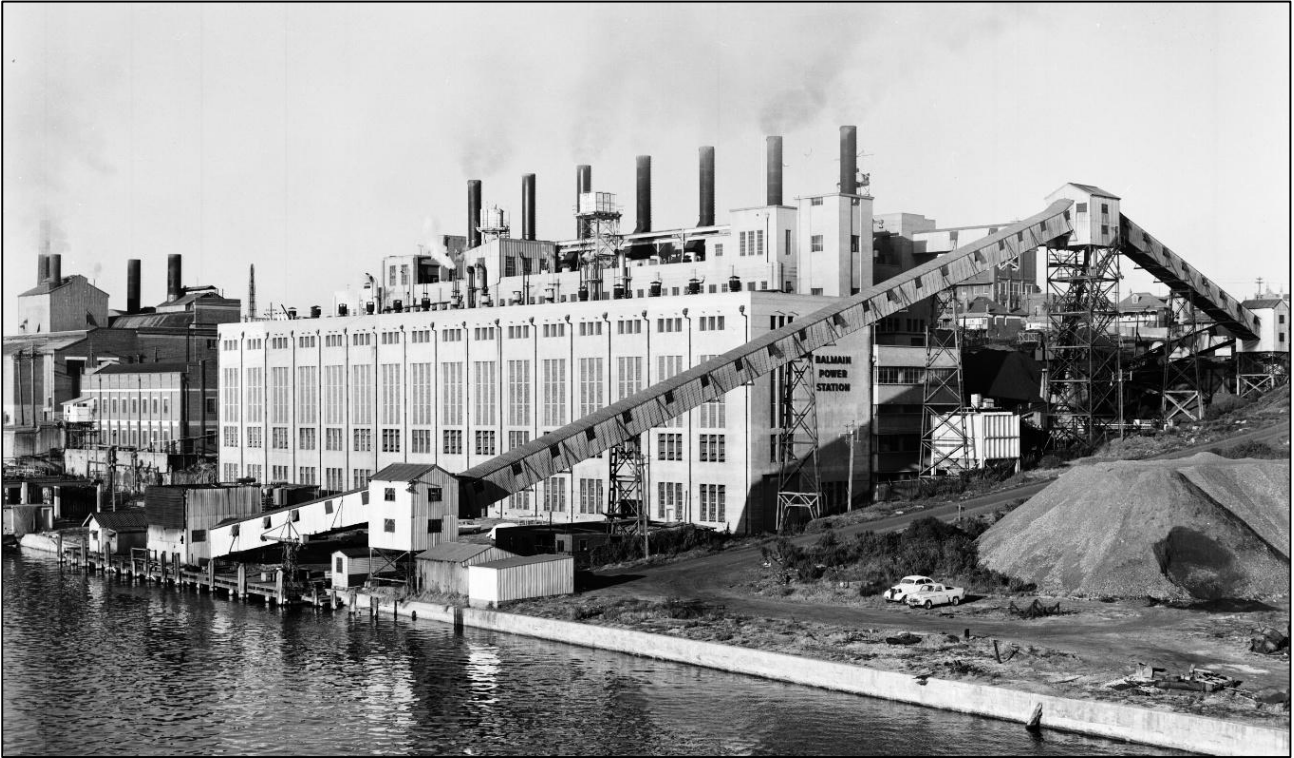


Andy Lominci and one of his murals in White Bay's Recreation Room, December 1954 (ECNSW 00378)



White Bay Electrical Control Room, January 2025, 43 years after the station was decommissioned (Ken Thornton)

Balmain



Balmain, July 1957 (ECNSW 01150)

Did They Ever Pay For Balmain No. 5?

Norm Whipp

This one is hearsay, recounted to me in the workshop when I was an apprentice at Balmain Power Station sometime in the 1960s:

It is possible that Balmain Electric Light and Power Co. never had to pay for 'A' section turbine alternator No. 5. This plant, manufactured and installed by the German company AEG, was in the final stages of commissioning in early September 1939 when the AEG staff didn't turn up one day.

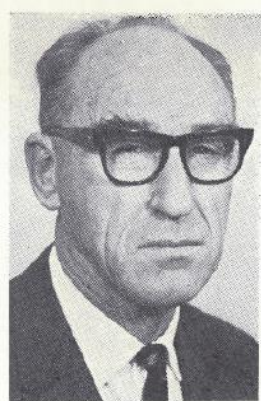
As told to me, they apprehended one fitter in South Australia, but the engineer and two or three other staff were never found and probably made it back to the Fatherland.

As an aside, No. 5 could run on bled steam from 'B' station and occasionally got dispatched at the time I was there (EC apprentices used to get rotated around the Sydney plants and the drawing office to gain experience). As an apprentice, I didn't concern myself in those days where or how the condensate was returned to 'B' station.

Pymont

Good Advice

Bob Porter



MR. BARNARD

Network January, 1967

The year was 1961. I was completing my first year as a Mechanical Engineering cadet. Travelling from Parramatta to Sydney University during the year, I purchased a weekly train ticket. This practice continued into the Examination window - but for one week of the exams, I had only used my weekly ticket twice, and had one more exam the following week. I figured the ticket still 'owed me', so I used it for that one trip. Alas, an eagle-eyed ticket collector at Wynyard spotted the stamp from the previous week on the ticket! Bells began ringing, security personnel appeared from nowhere, and I was duly apprehended.

Fast forward about 6 weeks, and I was doing the routine stint prescribed for Cadet Engineers in the Pattern Shop at Pymont. I had been summoned to appear in the Children's Court on a particular afternoon - that was an affront!! Children's Court!! (I was still only 17!). So, I applied for Special Leave Without Pay.

Shortly after, I received a call from the Power Station Superintendent, Jack Barnard, who wanted to see me. So, somewhat fearing the worst, I went to his office.

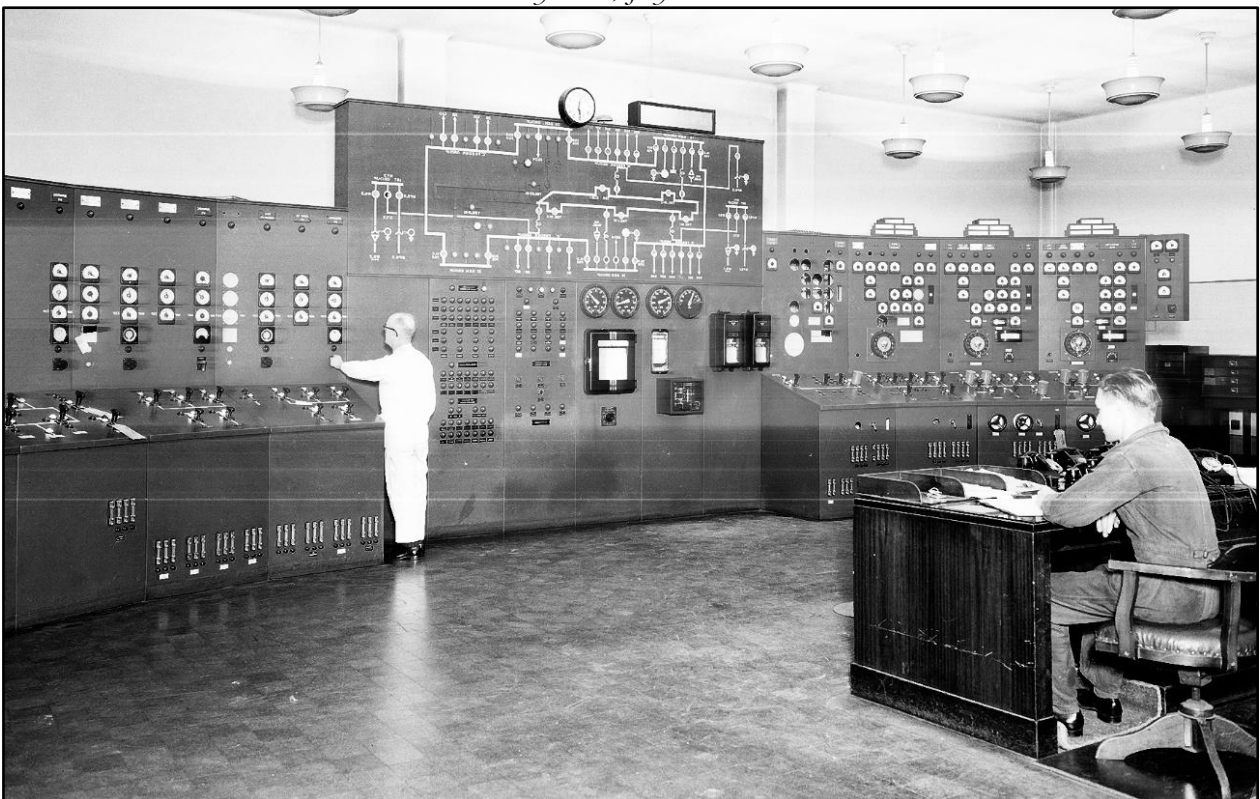
I was greeted with: “You stupid young bastard! What have you been up to? What’s this about?” as he waved my application. With much embarrassment, I explained the scenario! With that, he tore up my application!

“Go and fill out another one and the reason you need time off for is ‘Personal Business!’” “The least that lot over there in Head Office know about you and such escapades, the better!” And that ended the interlude! Phew!

The Magistrate was similarly sympathetic, and I received a modest penalty and a mild dressing down. But Jack Barnard’s advice was an interesting revelation of the workings of the organisation.



Pyrmont, July 1955



Pyrmont Electrical Control Room, November 1953, (ECNSW 00220)

Knockoff Time At Pymont

Ray Berry

Anyone who worked at Pymont would remember the daily spectacle of knockoff, which was proclaimed by the power station whistle at 4.00 PM. For the workers, the name of the game was to beat the whistle and get past the gatekeeper by a few precious minutes. So, by 10 minutes to 4.00, the workers would leave the shower room and start edging their way surreptitiously towards the gatehouse. The hapless gatekeeper would be on the phone pleading with Management for assistance, which eventually came some days, but to no avail. As with the annual migration of the Wildebeest and Zebras crossing the crocodile-infested Mara River in the Serengeti, the boldest would make a dash for freedom past the gatehouse, which precipitated the charge of the rest, all yelling. The irony was that once having attained freedom, the guys would mostly hang around on Pymont Bridge Road, some waiting for the 4.10 PM bus, others yarning or making their way to the pub. The point being of course, that they had collectively beaten "the system".

Bunnerong

The EC of NSW : How It All Began.

Max Cuthbertson

The following are the recollections of a young boy in the 1940's

When World War II started, my father was assigned to Bunnerong Power Station; his job was to shovel coal from the coal bunker onto the conveyor belt that fed the boilers.

In those years, it was a forty - five hour working week, and I mean you had to work forty - five hours. You were to be at your workstation to start work when the hooter sounded and only finish the day's work when the final hooter sounded at the end of the day. They had a morning tea and lunch break, but all break times were strictly monitored and had to be adhered to. It also meant that to make up the forty-five hours, you had to work a half day on Saturday; consequently, by the time you finished work and travelled home, everybody else had also finished work, and the shops and other places were closed.

Because Bunnerong Power Station was built in what was, at the time, a remote southeastern area of Sydney, on the shore of Botany Bay, across the road from Botany Cemetery, there was no regular public transport for the workforce. Additionally, there were not many privately owned cars (so few that we kids could really play cricket in the middle of the road), and during the war, petrol was rationed, so many car owners had their cars "up on blocks" in their garages. Workers used government industrial buses to get to and from Bunnerong Power Station. I do not know what would have happened if you had missed the bus.

I recall the "blackouts" that would occur regularly after the end of World War II. There were many, and they could last a long time. From memory, newspapers would print notices indicating which suburbs were to be affected so people could prepare accordingly. And, of course, they were why the State Government was forced to create the Electricity Commission of NSW.

It is strange to remember that three power stations operated in the heart of Sydney, Ultimo, where the Powerhouse Museum is located, as well as in Pymont and White Bay. Pymont was brought back into operation when Liddell Station had problems during the 1980s. It was these stations, plus Bunnerong and other power stations throughout the State, that were combined to become the generating arm of the ECNSW,

Part of the Charter of the ECNSW was that they had to guarantee the supply of electricity. One reason, of course, was for the benefit of the people and industry, but another was vital to some individuals in the community. For many years, polio was a common disease in the population. Some people were killed by it, some were crippled for life, and some could only survive by living inside what was called an "iron lung." These machines were powered by an electric motor that kept the person breathing. They also had a large lever that could be pushed backwards and forwards manually to keep the person in the lung alive during power outages. I can only try to imagine what it must have been like to be a person suffering in an iron lung and the other person having to operate the lever with regular timing during an extensive power outage.

Of course, the politicians removed this requirement to guarantee supply from the companies that now own the electricity industries – strange that!

It does annoy me when I hear some people say that money was wasted over-engineering the ECNSW. For a country that was pulled out of a worldwide depression by a world war, money was very carefully accounted for and spent only when necessary, at that time.

When I consider how vast the ECNSW became, with changes in generating stations from the size of Bayswater to Brown Mountain Number 1 hydro station, and transmission lines spanning from Queensland to Victoria and all points west, I cannot understand why it was destroyed.

When I consider what Australia had with the combination of the ECNSW and the Queensland, Victorian and South Australian counterparts, I see what a magnificent group of organizations they were. Why would you want to dismantle it?

P.S. I do hope that some people can tell me about the formation of the transmission arm of the ECNSW.



Working conditions were not as they are today, May 1960 (ECNSW 02599)

Boilermaker Initiative!

Lloyd Griffiths

In the late 1950s, I was employed as an Indentured Electrical/Mechanical Fitter Apprentice. In those days, we were issued working overalls, a Safety Helmet, Boots with metal horseshoe heels, plus a set of Tools and a tool cupboard.

My next-door neighbour owned a Dirt Track Speed Car, which he raced at the then-Sydney Showground Speedway on Saturday nights. After most meetings, there was always something to be fixed on the car! This episode stands out among the rest.

I suggested relocating the rear spring hangers towards the rear of the car to add weight over the rear axle. Jointly, we agreed on the design and a plan to build two spring hangers.

On Monday morning, I went to work at Bunnerong with a fist full of papers containing drawings and dimensions of these proposed spring hangers. A couple of weeks passed, during which I accumulated enough mild steel and sheet metal offcuts to have bent, cut, drilled, and assembled as per the design. The culmination of this preparation was the welding of these steel parts to form two solid Spring Hangers.

Arrangements had been made with one of Bunnerong's best Boilermakers to do the welding. It eventuated that this Boilermaker was assigned a task at the generator end of No. 7 Turbo-alternator – out of general sight, so an ideal location to carry out the 'foreign order' exercise. At the designated time (which coincided with a lunchtime meal break to minimise work-time interference), I joined him with my Tool Bag, devoid of tools but loaded with all the mild-steel off-cuts necessary to assemble the spring hangers.

I should add that the flooring around the Turbo-alternator was mild steel checker plate – so an ideal welding earth facility.

“OK ‘Flat-top’, the time has come for us to spot weld these spring hanger components together. Could you turn around, with your back to the job, so you won’t get any welding flash, sparks or fumes from the welding?”

I carried out his instructions but remained reasonably close to the job so I could assist with anything that went wrong!

“OK ‘Flat-top’, the job is complete. You can turn around now!” So, I endeavoured to turn around to witness the job behind me. Alas, this manoeuvre was not possible! My hitherto complicit Boilermaker had turned feral, and had welded both of my steel boot-heels to the checker plate flooring!!!!

Needless to say, I was “Not happy” – far from it! I stepped out of my boots, and persuaded my ‘adversary’ to lend me a cold chisel and dumpy hammer to enable me to chop my near-new boots from the floor!

This operation took up the remainder of the lunch break, such that I was still ‘hard at it’ when a large proportion of the work force were returning from the Station canteen. There was no shortage of ‘verbal encouragement’ from the ‘passing parade’.

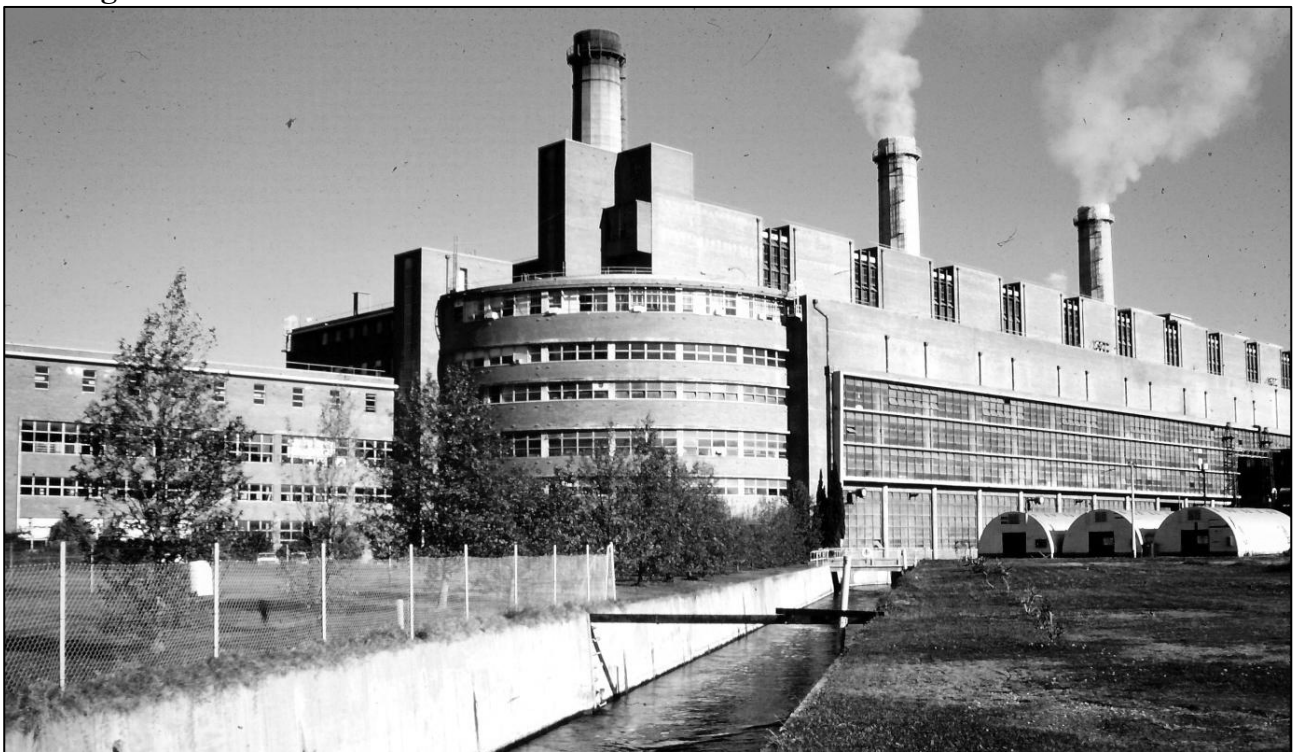
Waratah Switchyard

The Lizard

Frank Rynehart

Back in the 1960’s, a dead lizard was found near the fence at Waratah switchyard. The dead goanna was installed into a power worker’s locker. It was tied by its neck with a string securing it to the back of the locker door. The tail was secured to the floor of the locker – “The trap was set!”. When the worker opened the door, the lizard would appear to leap out and frighten the wits out of him. It took him a few minutes to wash up ready for lunch when BIN-BAN-BONG, followed by a very loud scream, then much laughter from the other power workers. The ‘target’ was a very good sport and laughed after recovering!

Wangi



Wangi, June 1974

Past And Present

Bob Porter

The landscape changes – and in many cases, current inhabitants of an area have little knowledge of its past appearance.

Just by chance, so it is with Wangi Power Station and its environs. I’ve lived in the area since 1980, and always recall the view of the Power Station from Donnelly Road as being



. . . .that's Wangi Oval, with Wangi Men's Shed to the left (built in 2015). So a relatively recent photograph.

But back in the early days probably late 50's / early 60's the outlook from the same approximate location was



. . . . i.e. the area to the north of the outlet canal was a swamp.



Both photos taken from this location with a 50+ years separation!

I've been able to confirm that Wangi Warriors Rugby League team played on Wangi Oval in the mid-70's, and another discussion suggested the Oval was in use in 1966-68. Also by coincidence, I have confirmed the swamp's existence during the early 60's as pictured, from a contact whose father worked on construction in the mid-50's. And those conversations also suggested that the section of Dobell Drive past the Workers' Club / Bowling Club and along the waterfront over the Wangi outlet canal did not then exist. The swamp was effectively a backwater of Lake Macquarie.

So the whole above scenario begs the question when was it filled? By whom? And for what reason – an Electricity Commission 'gift' to the community?

I'm guessing that the 'swamp' may have been augmented as a result of Wangi Creek flow to the Lake being interrupted by the Power Station construction. On completion of the Station, Wangi Creek was directed into the outlet canal (as shown on the 'google' view above), at which stage the 'swamp' would have dried up!

Paul Backhouse recalls that : “Much of the area has ash as fill. There was a carrier in the 70's and 80's with an old red truck who used to deliver ash. I suggest the oval has substantial ash-fill, as have the netball courts (where I worked on the lighting of the courts in the late 70's).”

Wangi Timekeeping Protocols

Mike Melidonis

It was the early 60's and Wangi Power Station was very much an essential part of the recovery from the post-War energy crisis that led to formation of the Electricity Commission of NSW. Those were the days when all Salaried Staff had to sign an Attendance Book, with time of arrival and departure duly recorded. Station Superintendent, J. Y. Nielson, used to rule a red biro line at the designated 7:30.a.m. starting time, so that staff arriving late had to sign under the red line, and were therefore identified as late. (Ed. And corresponding payroll adjustments were made because of the lapse!)

Being a cheeky young Junior Professional Officer (on Christmas vacation break from university), this was somewhat affronting! So one day I ruled a red biro line under every entry. Apparent this caused quite a stir in the administration section.

Wangi Historical Links

The internet has a surprising selection of articles tracing the history of Wangi Power Station, particularly since its decommissioning and transfer to private ownership. As the last of the fully-enclosed brick-built power stations, the station building and the chimney stacks are Heritage Listed on the NSW Register.

Of possible interest

“Remembering Wangi Power Station” by Bill Bottomly, a 45 page history of Wangi PS [Wangi-bklt.pdf](#) compiled after interviews with former Wangi staff –

Judy McQueeney – Administrative Assistant during Construction, and then Generation

Greg Whitbourne – Apprentice and Mechanical Fitter

Jim and Merle Rawson – Communication Technician (Engineering Officer) and Timekeeper (Clerical Officer) respectively.

Ron Turvey – Trades Assistant, Gardener, Chemical Sampler – construction and then generation.

. all Wangi locals, at some stage, and some still are.

A professional photographer, Brett Patman, exhibits his work under the “Lost Collective” label. The “Lost Collective” project presents visual and written records of the forgotten and neglected built environments that pervade society. Its key focus is to document the essential roles that people and places played in shaping the communities that collectively make up our society's identity. Wangi Power Station is featured in one Album <https://m.facebook.com/media/set/?set=a.1696604910576877&s=24> . . . or Wangi Power Station - Lost Collective

Another Album covers White Bay Power Station White Bay Power Station - Lost Collective

In December 1957, Wangi No. 2 unit experienced a catastrophic turbine governor failure, with consequent overspeed – destroying the turbine, with major components smashing through the turbine house wall, and into the switchyard. The unit was rebuilt, with replacement components supplied by Parsons from the United Kingdom.

And for the technocrat “history buffs” – there's hours of ‘fun’ here <https://hunterlivinghistories.com/wp-content/uploads/2020/05/Wangi-Plans-Drawer-List-COMplete.pdf>

. 534 pages, containing the complete Wangi Power Station Drawing Index!!!!

Coastal Power Station Prawns

Amongst several contributions to this compilation by Mike Melidonis there was brief mention as follows

“One advantage of an overtime call-out on a Saturday or Sunday evening was the prospect of a good helping of freshly cooked prawns, generally available from the Plant Control Room meal room!”

Editorial Note : This was a legacy of the cooling water system rotating screens capturing prawns in the inlet canal cooling water flow. The prawns would be dropped into bypass chutes, with sluice water flushing them into the outlet canal – for return to the lake system. Their journey back to the outlet canal could be readily intercepted in the sluice water trough – providing a bountiful supply of prawns for those ‘on shift’ at the time.

Clearly “overtime on a Saturday or Sunday evening” was not the only time that prawns were “on”. Most Operators would vouch for this!!

There would be Operating staff more eminently qualified to narrate this episode than I am but deep in the Munmorah archives is the story of a massive run of prawns, and an embarrassing consequence of a ‘cunning ploy’ to facilitate their capture.

Standing by the sluice-water trough raking out prawns was a time-consuming exercise (and probably interfered with genuine operator duties!). Someone had the bright idea to turn off all seven rotating screens – the prawns would be caught in the bottom of the screen chamber – and then one-by-one, the screens could be switched on, and the catch ‘bulk loaded’ into the sluiceway, and scooped into garbage bins.

Alas, on one occasion, the run of prawns was so heavy that unbeknown to the Operators, all seven isolated screens blocked up with prawns, sufficient to prevent cooling water flow. The cooling water pumps supplying water to all four unit condensers quickly depleted the inlet canal of water – and all four units tripped on loss of cooling water supply.

That method was just as quickly refinedno more than three screens were ever to be isolated, from then on!! But the prawn supply still continued!

Cooking large quantities of prawns in the Plant Control Room meal rooms was also a laborious, and potentially messy process. So again, buried in Munmorah folklore was the answer. Manageable quantities of prawns (15 to 20 kg.) in a metal garbage bin would be taken to deaerator level, where there was a deaerator drain line that provided a supply of low-pressure boiling water. A quick dump of deaerator water into the garbage bin – and presto! – cooked prawns in no time flat!

Skelton Found In Wangi Boilerⁱ

John Ure (former NSW Police Detective), *Newcastle Herald* 19 August 2022

Thursday, November 2, 1972, started much the same as any other day for Neville Parker, a maintenance engineer at the then fully operational Wangi Power Station, but the day was to take a dramatic turn.

Shortly after lunch Neville set out on a routine inspection of the Number 3B Boiler and, for the first time since March 1971, climbed into the "dead space", a chamber above the boiler which served as further insulation to the main boiler.

Although the inside of this chamber was not exposed to direct flame, it could reach (very high temperatures). He made his way along its length, through the thick 100mm layer of dust and, as he reached the other end, was shocked to see what looked like a complete human skeleton lying in the dust, just below an access hatch with the lid partially removed.

Detective Sergeant Max Jacobson, my boss at Toronto, and I were there in quick time. We confirmed that it was a human skeleton and also found a few personal items in the dust - a man's wristwatch, a chrome tobacco tin, a metal arm band and the remnants of a belt.

Detective Brown of the Newcastle Scientific Section photographed the scene and took the bones for examination. Doctor John Raschke, government medical officer, would confirm that the bones were human and that there was no apparent damage to the skull or any of the bones.

So, who was this person? How and why did he, or she, find their way into the dead space? Was it murder? Was it suicide? Or was it just an unfortunate accident?

There were no records of missing persons in the area, however Constable Eddie Gill - the sole officer at Wangi Wangi Police Station - recalled that about 18 months earlier Victor Evans, a former local resident, had reported to him that his neighbour, Arthur Lawrence Sneddon, an alcoholic who had spent time in Morisset Hospital as an inebriate, had banged on his door in the middle of the night in a frantic state and blurted out: "There's two blokes chasing me, they're going to get me. Here they are coming through the gate now".

Mr Evans confirmed that there was nobody else in the vicinity and was also satisfied that Arthur was hallucinating. He formed the opinion that he was suffering from the DTs [delirium tremens], then encouraged him to go back inside to sleep it off. He did not see Arthur again.

Arthur, whose mother lived in Sydney, was not reported as a missing person as he frequently went wandering off for a few days or weeks. So, there was a strong possibility that the skeleton was Arthur Lawrence Sneddon, but how to prove that to the satisfaction of his family and the coroner?

There were some very small markings and numbers on the inside of the back of the watch. This was before throw-away watches; if your watch wasn't working you took it off to a watchmaker for repair.

I knew that watchmakers generally recorded their individual mark on the inside of the back of the watch during repair, so off I headed into Newcastle to track down the watchmaker who inscribed these markings and, after a few false starts, to Whitakers Jewellers where watchmaker Hugh Dare identified his mark and showed me a job-sheet where the watch was booked in under the name of Sneddon, of Wangi.

Start the conversation

Detective Sergeant Jacobson and I travelled to Cessnock, where Arthur Sneddon's mother was now living, and she identified the tobacco case, armband and the watch as having originally belonged to her late husband, who had passed them on to their son Arthur. Her sister Enid was also able to identify the items.

On April 26, 1973, Newcastle Coroner Reg Radford found that Arthur Lawrence Sneddon had died at the Wangi power station, "but when and by what means he died, the evidence adduced does not enable me to say".

And that shall remain a mystery. We know that Arthur had a working knowledge of the power station but the reason for him climbing into that remote space died with him.

Since the early 1950s the Wangi Power Station has dominated the landscape at the south-western end of Lake Macquarie. Operating from 1956 to 1986, it played an important role in keeping the lights on in NSW during the critical power shortages in the 1950s and 1960s and at one time was the largest power station in the state.

It was heritage-listed in 1999 and hopefully will one day be repurposed to again bring life to this imposing, historic building. Perhaps the tale of the skeleton in the dead space will figure somewhere in its new life.



The skeleton among the dust in the dead space above a Wangi Power Station boiler.

The Cheeky Apprentice

Frank Rynhart

When working at Wangi Power Station, an electrical apprentice was instructed to go to the store to pick up a spare part for a high voltage oil circuit breaker. The apprentice said, "I'm not a bloody tradesman's assistant – get it yourself!".

The power station electrician quickly moved and grabbed the apprentice by the shirt. That move changed things considerably!! Because the warm power station outlet was only metres away, the PSE said, "IN YOU GO!!". The apprentice got out of the grip and ran away, stooped and threw the store's order on the ground, yelling out, "GET IT YOURSELF!!" (the cheeky little bugger!). Later that afternoon, the apprentice was walking along the operating floor when he was drenched by a full bucket of water from above. GOT YA!!

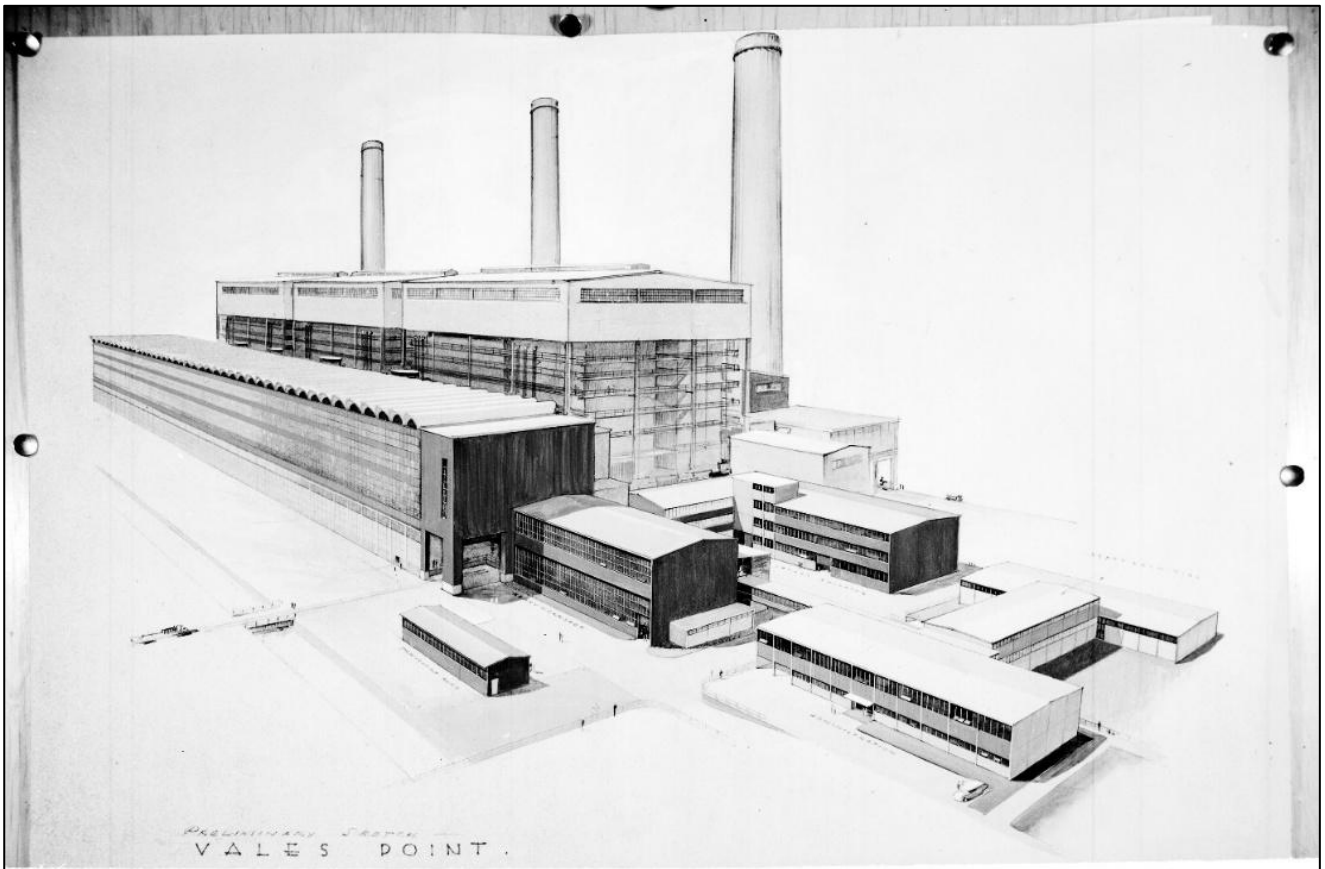
Tradesman's Assistant Teeth

Frank Rynehart

A smart Tradesman's Assistant used to clean his dentures on a grinder/buffer. On one occasion, a false denture was cracked. After much consideration, he decided to glue the two pieces together with the latest 5-minute super glue.

After the bond had cured (around 3 hours later), what did the knucklehead do? He rebuffed the denture and cleaned them up. He then tested them out by eating a hard biscuit.....no worries!!

Vales Point



Vales Point Artists Impression, March 1969 (ECNSW 02493)

Picket Lines

Peter Jackson

The exact timing of this story is vague in my memory, but we were in the middle of the biggest Industrial dispute I had ever witnessed. It involved the introduction of shiftwork, the use of contractors, and the removal of many restrictive practices.

The dispute was raging across all sites and was being managed closely by Sydney management. I'm sure Jim Eckford would have much more to tell.

The dispute had escalated into a complete strike of all maintenance staff at all sites, including 24-hour picket lines at all the power station entries. Letters had been couriered to every maintenance worker that they would be sacked unless they returned to work.

I was in Alan Shield's office, the Vales Point Power Station Superintendent, when he took a call from Sydney. Sydney management advised that they required local management to inform the picket line that unless they immediately left the site, they would be deemed trespassing, could be arrested, and would certainly be sacked.

Alan was the new breed of manager, a father of a large family, and had excellent people skills. He was also a great delegator. He advised me that as acting maintenance engineer, it would be a historical

opportunity and most appropriate for me to convey the sentiments of the Sydney industrial management to the picket line delegates.

So obediently, I trudged reluctantly out to the front gate.

“Ah, hi guys. How’s it going? I just want to pass some information on to you. I appreciate you probably know what’s going on but it is getting serious. I’m told that Sydney might be moving the dispute into trespassing arrests and sackings and I would hate it to get to that. Anyway, maybe you should do some ringing around the union to find out what’s happening”.

Phew! Job done. Got to get out of there fast. So I raced back to Alan’s office.

As I looked behind me, to my shock and amazement I saw everyone packing up and leaving.

So I went back to Alan’s office and said “Anything else I can do for you today Boss?”.

I discovered the truth later that day. The picket line had folded first at Liddell, probably due to the influence of John Marcheff. After that the sites collapsed like dominoes. Vales Point was already in the process of shutting down the picket line when I approached them.

Timing is everything.

Vales Point Outlet Canal Challenge

Bob Porter

The year was 1964 - the four Vales Point ‘A’ station units were nearing completion, with at least three in service. In those days, E.C. of NSW (like many Government agencies) awarded Engineering cadetships - maybe 20 per year - and during University end-of-year long break, cadets underwent industrial training at a variety of centres - affectionately identified as “Christmas Beetles”.

From 1963, some cadets were assigned to non-City locations. In 1964 there were 8 or so ‘Christmas Beetles’ at Vales Point. The Capistrana Flats at Mannering Park were home for this contingent for the 3-month break. All 6 flats were occupied by either Cadets or Grade 1 Engineers that year, and Landlord, Bob Hall took on the role of a ‘father figure’ with concern for the welfare of his new-found ‘flock’!

The Capistrana Flats on Vales Road extended through to Lake Macquarie, with a jetty and row boat, for the use of guests. After dinner one evening, six of the ‘flock’ decided on an evening ‘cruise’ in the row boat. Two forward, two aft - and two in the middle on the oars - with a rotation every so often to share the workload. Where to go?

We meandered around the Lake for a while, and ‘came across’ the Vales Point Outlet Canal discharge at the southern tip of Wyee Bay. There’s a challenge - let’s row up the canal. The rowing effort stepped up a notch to overcome the cooling water flow, but we steadily made progress. Reaching the tunnel under Vales Road gave the oarsmen a break. The tunnel construction featured Macalloy bars stretching between the sidewalls about 1 ½ metres above water level and about 1 ½ metres apart - just the right height and spacing for the two forward-hands to ‘drag’ the boat and its passengers hand-over-hand through the tunnel.

Things got a ‘little more exciting’ as we approached the turbulence at each of the CW pump discharges into the canal, with considerably more effort required to keep the craft pointing upstream. And the cable tunnel crossings posed a greater challenge, as there was only about ½ metre clearance - so everyone had to virtually lie down to pass under. This precluded using the oars - so “row like hell” approaching the cable tunnel to build momentum sufficient for the guys in the front of the boat to grab the upstream corner of the tunnel, and pull the boat through until the oarsmen could sit up and continue rowing.

Likewise transit through the bridge pylons supporting the road to the switchyard, and the CW screen access bridges - two of these at each location gave a spacing which required the oars to be ‘shipped’ - so the forward-hands were again required to pull the boat through.

Suddenly, our little band was lit up by torch-light from above : “Hey! What are you lot up to?” “Just out for a row” was the defensive reply, with the full expectation that our little expedition was about to land us in a heap of trouble!!

“You can’t get through to the screens that way!” “Yes - we know”!! And much to our surprise, we were left to continue our journey. Very soon afterwards, we reached the dead end of the canal - quiet, serene conditions. We rested for a few moments, and then began the return passage. This involved a different set of challenges. No rowing required - the canal flow took care of that - but steering was critical, to avoid collision with the bridge pylons, and timing to pass under the cable tunnel crossings was likewise critical, to avoid being decapitated!

We shot out into Wyee Bay and rowed the few hundred metres back to the jetty, well satisfied with our evening’s exercise. Exhilarating!



Capistrana Flats - 1964 Location ★

Vales Point Outlet Canal ———

It was many years later - and I expect with considerably more maturity - that we learned of the stupidity, and extreme danger, of our evening escapade. It was in that very same canal that two experienced divers perished, because aeration of the CW flow results in effective 'water density' with insufficient buoyancy to allow the human body to float!

Vales Point Switchyard Incident

Contributor AA

In the late 1980's the NSW 500 kV grid "backbone" was being established. This included significant works at Vales Point to integrate that system with the lower voltage network. One of the features of the Vales Point switchyard work was high level overhead conductors strung between steel structures, acting as flexible busbars.

On a date which has faded from memory, an end fitting on one of those overhead busbars failed, dropping the live 500 kV conductor onto lower voltage components beneath it. Some disruption (and extensive operation of protection systems) followed.

During construction, the number of end fittings supplied was short by one, so the contractor decided, in the interests of time, to fabricate one on site. This involved welding two sections of heavy steel plate together, then drilling to fit the required bolts and shackles. The completed assembly was cold galvanised.

Over time the cold galvanised weld surfaces gradually corroded due mainly to the inadequate preparation for, and inadequacy of, the cold galvanising. The two plates slowly separated as a result of the corrosion, allowing the shackle to pull out of the fitting and drop the conductor onto the unsuspecting items below.

By sheer coincidence the Commission's Executive Safety Committee was meeting at Vales Point that day, giving its members a unique opportunity to witness a significant plant safety "event" as it happened, in contrast to their normal experience of studying safety events remotely, on paper, and well after much of the evidence might have disappeared.

Aussie Experiences

John Dardemann

(Editorial Note: John Dardemann is / was a very tall slender German, with a booming bass voice, who worked for Siemens – the Control System contractor. John first came to Australia to work on Vales Point 5 and 6 installation and commissioning, and progressed to Eraring and Bayswater. He married an Australian, settled here, and subsequently undertook similar roles at many power stations throughout Australia. He currently resides in Melbourne, and saw fit to submit an extensive commentary on his life in Australia. The anecdotes from John in this publication have been 'distilled' from that saga.)

Soon after arriving in Australia in the late 1970's, the Siemen's site manager and I were advised that, as expatriate German's, we needed to comply with Australian 'rules' for foreign workers – in particular, obtain an Australian driver's licence, and undergo a health check. The latter was easy – I visited an agency

in Sydney, filled out forms and then was x-rayed. This involved a very old Siemens machine – perhaps the oldest X-ray machine in the world. I received more radiation there than in the rest of my life.

To obtain our Australian driver's licence, we drove in my site manager's car to the local traffic office, where we underwent a multiple-choice test of traffic rules – each question had four possible answers from which to select the 'correct' one. We had picked up the questions with the answers a week earlier to familiarize ourselves. Notwithstanding that Australians drive on the left, most of the traffic rules were the same as in Germany, so we were not too worried.

We both failed the exam! When asked about the legal alcohol limit, we both thought : "we don't drive drunk" and ticked "0". However, the examiner told us that we could repeat the exam the next day. We got in our car, drove home and studied some more. The correct answer was 0.05%, as is now, and also the case in Germany. The next day, we both passed!

The wife of one of our colleagues, also German, passed the exam at the first attempt - although she spoke very little English at the time. But she memorized the correct locations for the ticks and passed. That's how it works!

Another experience that is prominent in my recollection is linked to Aeropelican at Belmont. My girlfriend at the time, later to become my wife, resided in Melbourne. So I had a few weekend visits from Lake Macquarie to the southern capital. Sometimes I would go by coach from Sydney – an overnight trip involving three stops, the first and the last at a restaurant chain "Wiener Wald" where they had real coffee! The half-way stop involved a driver change.

Occasionally I would take the more expensive, but quicker option of flying – although airport access was 'somewhat unfavourable'. It was either a drive to Mascot, or to Belmont on the other side of Lake Macquarie from Morisset, and Melbourne's Tullamarine was a good 25 km. from my girlfriend's home. Plus landing at Belmont was inevitably a 'scary experience.'

The runway was orientated east-to-west on the very short stretch between the Pacific Highway and the shore of Lake Macquarie. Mostly the wind came from the South. The airplane had to land pointed slightly into the wind at an angle to the runway (depending on wind strength) and then flick parallel to the runway when touchdown. I had a few frightening experiences, but fortunately always landed safely.

Our relocation to Muswellbrook for the Bayswater project introduced us to the features of the Hunter Valley, unlike Vales Point and Eraring, located some distance inland from the coast – about 120 km. in fact. In particular, I learned a better appreciation of Australian red wines. One of our senior employees became not only a friend but also a teacher in the enjoyment of rich Australian reds. We went out with our wives to one of the winery restaurants almost every Saturday and enjoyed a bottle or two. On one occasion, we drank two bottles of South Australian 'Grange', which featured the name and year of harvest on the label in red lettering. Back then these were \$50 for a bottle. I later learned that 'Grange' is 'top shelf' as far as wines are concerned, and today sell for at least \$600, with many vintages over \$1000. If I had known that, then maybe I should have stored the bottles. Importantly, they were enjoyed at the time!

Hawkesbury River Yachting

John Dardemann

It was 1978, and I was heavily involved in commissioning Vales Point Units 5 and 6, as Siemens Site Engineer. During the latter stages of the commissioning programme, a Senior Project Manager from Karlsruhe – Siemens' manufacturing centre in Germany – visited the Vales Point site.

During a short weekend break, I took the opportunity to show him a little of the Australian landscape, via a boat trip on the Hawkesbury River. We rented a yacht, about eight metres long, equipped with an outboard motor and a small dingy in tow. Our 'rations' consisted only of a crate of beer, as my colleague had to be back in Sydney that evening, to attend a meeting the next day.

The Marina Operator gave us "sailing instructions" – although my colleague had sailed previously, and I was licenced for cutter sailing in the North Sea – so we knew the theory of sailing. We set out about noon, and after about a kilometre, emerged from a side-arm of the river into the main stream. We proceeded along the valley, flanked by distinctive sandstone cliffs, until well out of sight of the jetty.

All was going fine – or so it seemed. And then we realised as we watched the river banks, that we were not moving – it was only the river flow that gave us a sensation of movement. We were aground – firmly stuck in the mud. We tried to move into deeper water, using the outboard motor – to no avail. My colleague transferred to the dingy, and tried to row us clear. That didn't work either. I was busy untangling

the tow line, so didn't notice that my colleague and the dingy had also become stuck in the mud! The run-out tide had depleted our portion of the river of water. And there we sat – motionless and stranded.

My colleague decided to return to the yacht, and so there he was – in what you'd definitely classify as 'very smart casual' attire - knee-deep in mud, with little crabs crawling out of holes in the mud and snapping at the air with their pincers. Unfortunately, I didn't have a camera with me – although I would never have been forgiven. It took considerable effort not to laugh!

Resigned to the fact that we weren't going anywhere soon, we bunked down for the night. In the middle of the night, we woke up to feel the boat moving. The tide had turned, and we were again afloat. We paddled the yacht to the middle of the river. Next morning was very still, but with the help of a very slight breeze and paddles we made it back to our jetty.

The boat owner was not too concerned that we returned his boat a day late, He asked us if we enjoyed the sailing so much, that we extended our tour. Little did he know.....!

My colleague missed a dinner meeting that evening, with an EC of NSW representative – who fortunately was a sailor, and fully appreciated our demise. The missed dinner engagement was forgotten.

Some time later, on vacation in Karlsruhe, I visited my favourite pub. When I mentioned that I was working in Australia, the above episode was narrated back to me – unaware that I had been a principal in the saga. Such a small world when such stories spread so quickly, even without Facebook and Twitter.

Vales Point Turbine Failure

Contributor AA

Vales Point Unit 5 was the first of the Commission's Toshiba 660 MW units. These turbines use a main oil pump mounted on the turbine shaft, giving a very high degree of reliability. This main pump is backed up by a.c. and d.c. standby pumps, with the main a.c. pump being used for start-up.

The main turbine lubricating oil tank is in the basement below the turbine; this meant that the main (shaft driven) oil pump was well above the tank, so a second pump at tank level provided suction pressure to the main pump. In turn, this tank-level pump was itself driven by an oil turbine which was powered by a bleed from the main pump. It's somewhat circuitous but this arrangement ensures that no electrical supplies are needed to maintain oil supply when the turbine is operating.

The turbine failure was triggered by an accidental earth fault on the state's high voltage grid, close to the Vales Point switchyard. In the short time it took for protection systems to operate, this caused a momentary – but quite significant – fall in voltages at all levels. The Vales Point boiler-turbine control systems' power supplies were affected, dropping from the normal operating voltage then recovering following normal protection systems' operations.

The boiler-turbine control systems included a "reset to manual" feature which ensured that all auto/manual systems were set to manual when power was first switched on. This ensured that operators were not faced with a large number of spurious auto starts of auxiliary systems when the control system was first powered up. Operators could then select "auto" in a planned sequence. When the control system voltage recovered, the fall in that voltage had been enough to cause the system to "think" that it had just been switched on, so all auto/manual systems had been automatically switched to "manual".

The voltage drop caused by the initial fault on the high voltage grid also led to a boiler trip, and a consequent turbine trip. As the turbine slowed down from 3000 r.p.m., the pressure being supplied by the main turbine oil pump gradually fell. This loss of pressure then caused the output from the turbine-driven oil pump in the basement to fall. When the turbine speed had fallen sufficiently, this system could no longer supply the main shaft-driven pump with the necessary input pressure, and its output collapsed.

As outlined above, the turbine's a.c. and d.c. pumps' control systems had been switched to "manual", so they didn't start when the main oil pump's output failed; this left the turbine without lubricating oil for the remainder of its run-down. The heat generated was sufficient to cause serious damage to the turbine and generator bearings, which led to the shaft dropping to the point where (amongst other damage) turbine blades came into contact with the casing.

Ironically, the "last ditch" lubrication oil pumps – the d.c. battery-supplied pumps – were not provided with electrical protection (e.g. overcurrent, earth fault). This ensured that if these pumps were required to operate (because all other sources of lubricating oil had failed or were not available) then it was better for an oil pump to fail (if it suffered a fault) than to risk having it turned off by a faulty operation of a protection system. If that logic had also applied to these pumps in the auto/manual system design, this failure would not have occurred.

Shower Line Up Vales Point

Frank Rynehart

A small group of workers had to walk the full length of a Turbo Generator Unit to get to the showers at knock off time. By the time they got there, all the showers were taken by workers whose work shops were close by. This happened every day. A solution was arrived at after some clever heads got together and initiated a signal to operate 1 minute prior to the knock off siren. A tape recorder was set to go off with a musical tune. It was the “William Tell Overture”. On special occasions (only a few), the workers would press the play button, negating the automatic start, so that William would blare out and allow them to get to the showers quicker.

Vales Point Unit 6 Boiler Stop Valve Incident. (Birth Of The ‘Think Button’)

Steve Carter

Not long after the commissioning of units 5 and 6 the Power Plant Operator on unit 6 had problems with starting a pump. The unit was at full load. The technician duly arrived and began troubleshooting. He pulled out a large schematic drawing of the system he was investigating and laid the drawing over the left hand wing of the unit’s panel. Technician then explained to the PPO what he thought the problem was and pointed to the area on the drawing. Unfortunately, one of the main boiler stop valve push buttons was directly beneath his finger.

Unbeknown to everybody he had inadvertently pressed the close command to one of the boiler stop valves. It was not obvious what he had done, as when he pulled his finger away the fast-flashing close indicator of the Siemens’ control button was hidden by the drawing.

A minute later there were multiple very high superheater metal temperature alarms and safety valves were lifting due to the very high boiler pressure, as effectively half of the final superheater steam flow had stopped, though the boiler was still firing.

When it was realised what had happened, Geoff Kretchmer and I, as young Assistant PPOs, were dispatched (with ear plugs AND earmuffs) to re-open the stop valve as the remote operation didn't work. But we were on a hiding to nothing as there was a huge pressure differential pressure across the valve so there's no way it would have opened manually, even though we gave it a good go, with superheater safety valves screaming in our ears.

The unit was rapidly taken out of service, but the damage was done. The shutdown revealed that a final superheater section feeding the boiler stop valve was virtually destroyed, with some of the tubes ballooning in shape and some ending up in the ash hopper.

After the failure, the ubiquitous “Think Buttons” were added to all Pacific Power unit panels so that just one push button action could not operate a plant item.

Safety Valve Silencer Of The Late 90s.

Dean Hamilton

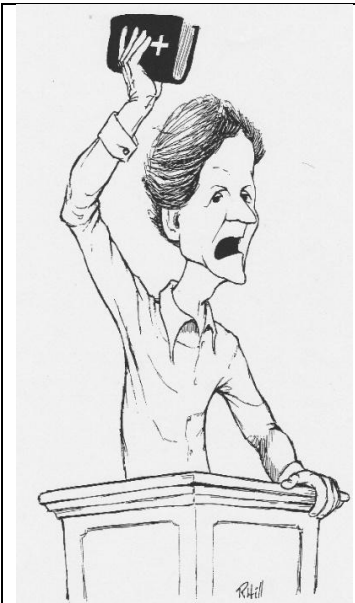
Noise had become a sensitive issue to the local community. Graham Pill came to visit the boiler section one morning announcing that the long awaited safety valve silencers had been designed and once fabricated could be installed on our safety valves with complete confidence.

It was going to be brilliant. These magical devices were quickly manufactured and placed on top of the safety valves. After an uneventful test-success was declared Graham returned to Sydney.

But that’s not how things go in the Power Station world! A few months later the safety valves were lifted, due to an operational boiler pressure excursion, and the first unmanned power station space launch unofficially took place – touching down not so gently about 500m away taking with it a great strip of boiler cladding.

A drain hole was added to the design to prevent a repeat of the corrosion that caused the fail and the silencers worked fine from then on effectively ending the station’s participation in the space race. After the modification Graham rang to see how things had gone. He was informed in very serious terms that they were working fine, except that every dog for miles around was barking due to the new industrial dog whistle we had just installed. There was a stunned silence on the other end of the phone, until everyone burst into tears of laughter.

Russell Hill's Vales Point Cartoons



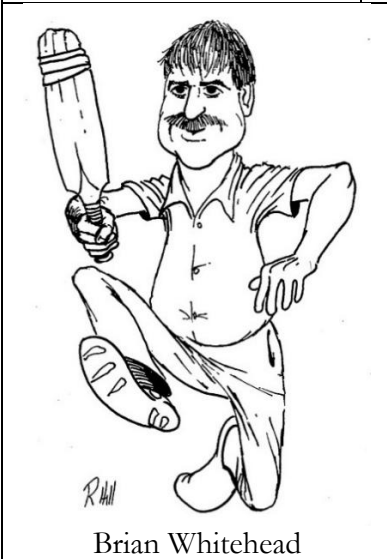
Shane Davis



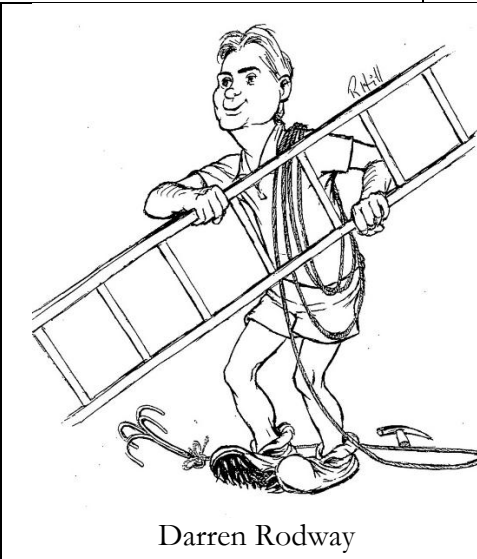
Bill Cuthbertson



Bill Duffy – Fire Appliance Repairer



Brian Whitehead



Darren Rodway



Graham Campbell



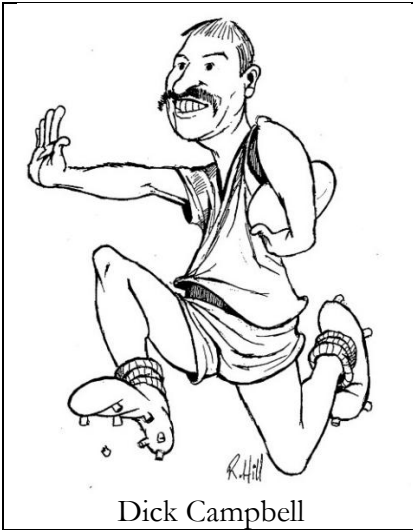
Graham Martin



Peter Burgess



Peter Jones



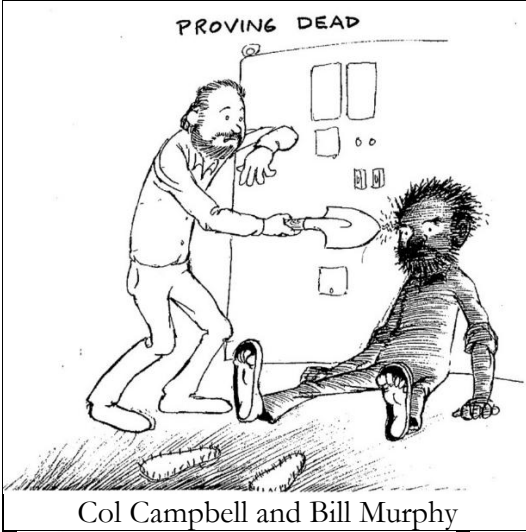
Dick Campbell



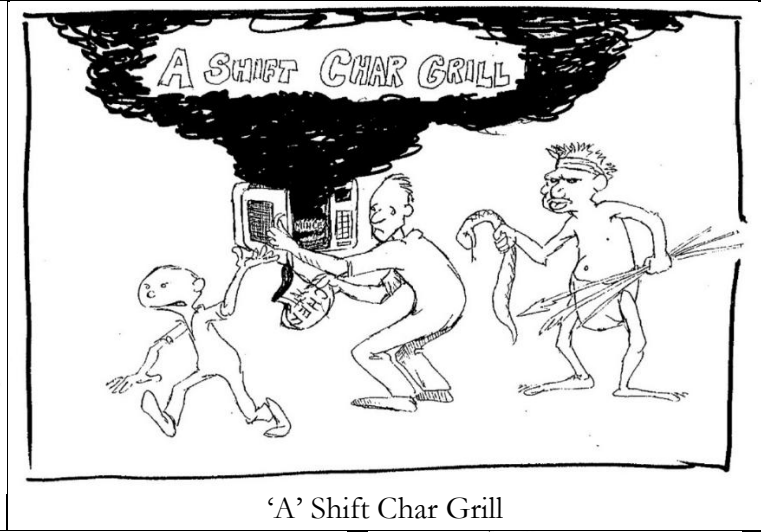
Terry Coombs



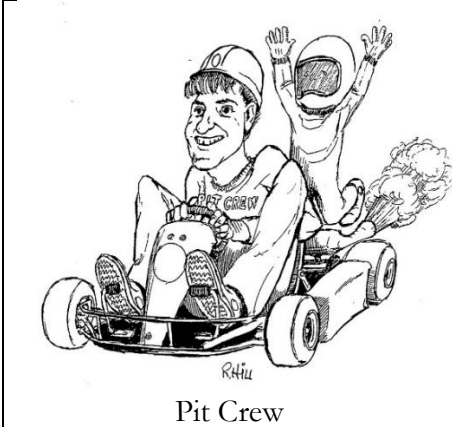
Susan Spencer



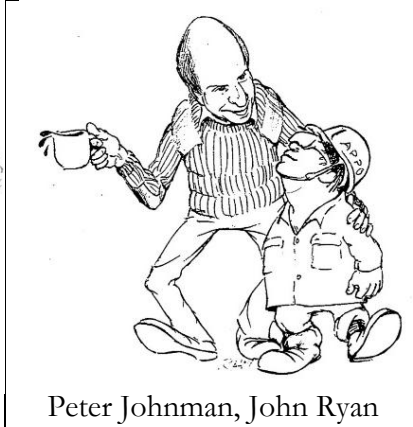
Col Campbell and Bill Murphy



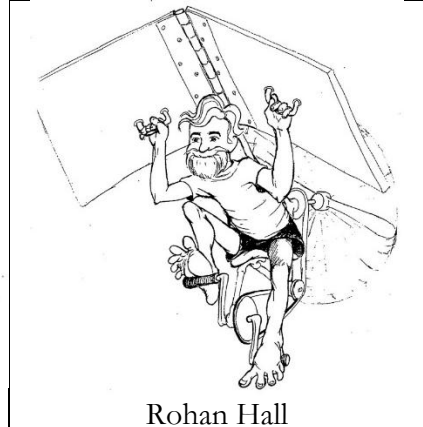
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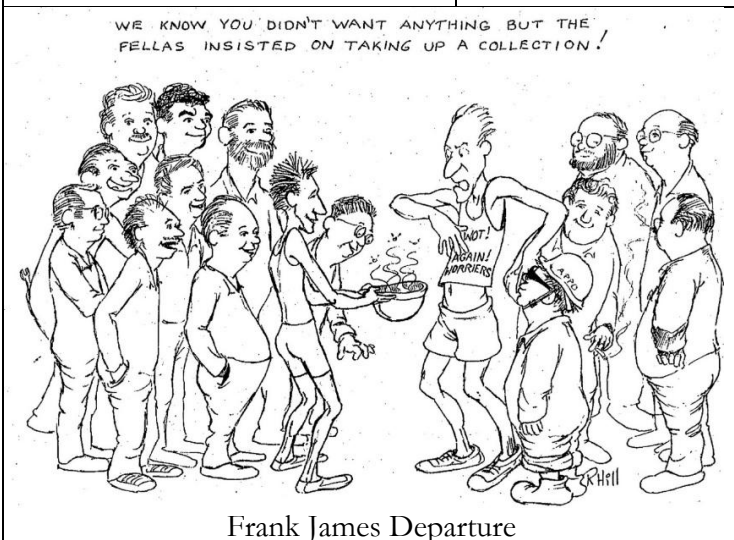
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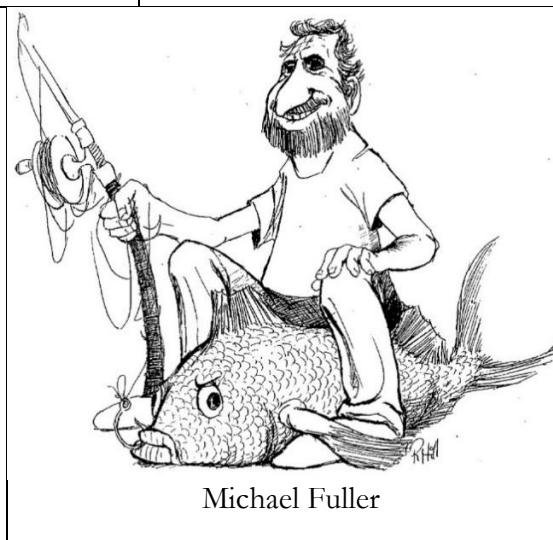
Peter Johnman, John Ryan



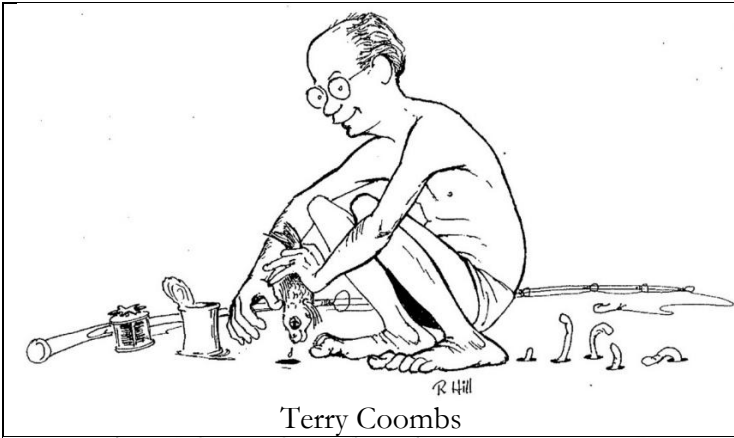
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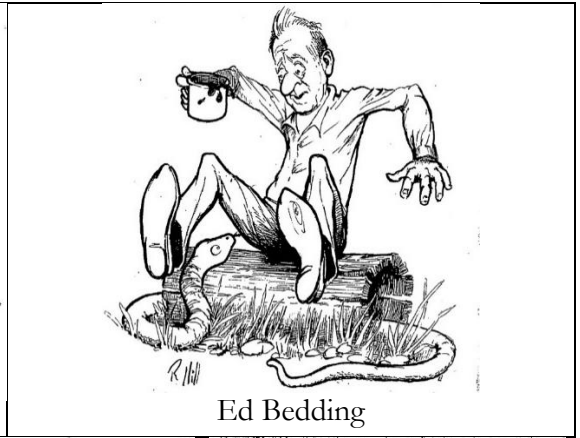
Frank James Departure



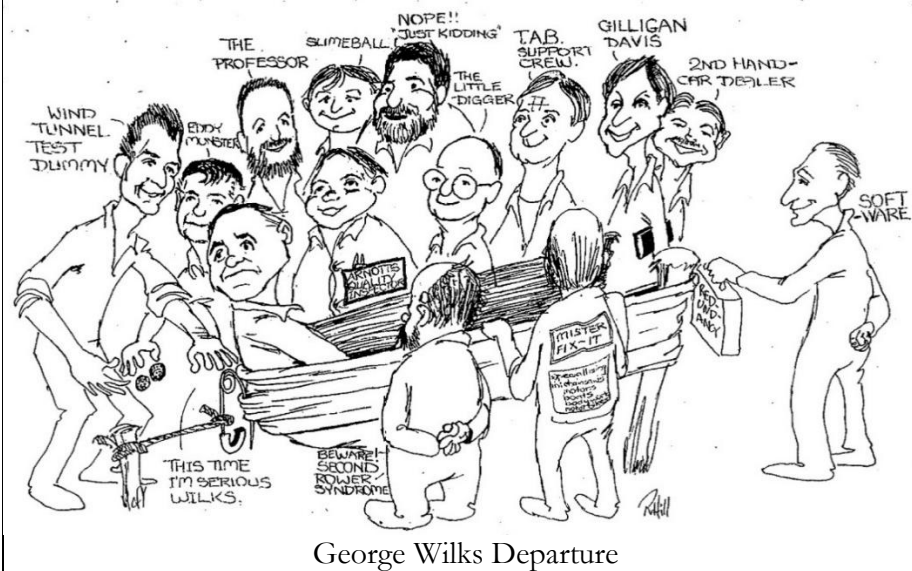
Michael Fuller



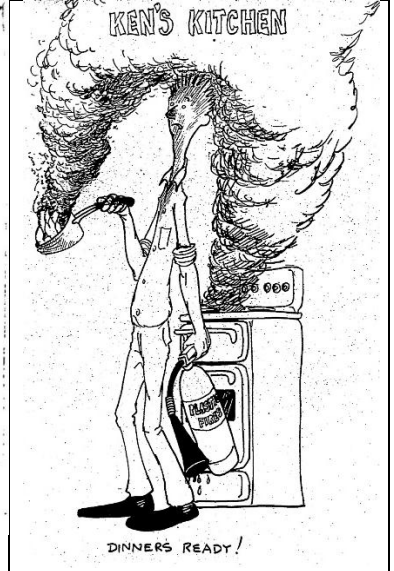
Terry Coombs



Ed Bedding



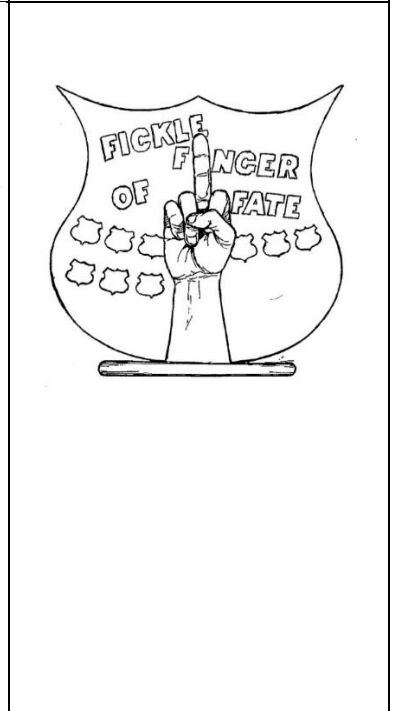
George Wilks Departure

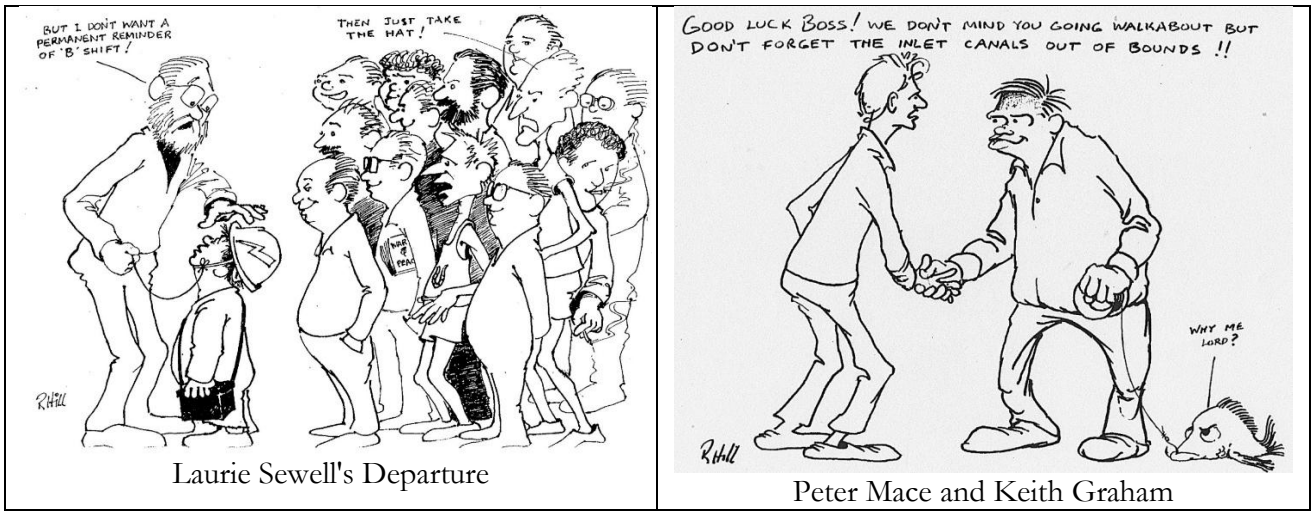


DINNERS READY!



Peter Jones Departure 1999





Redundancy of 1999. Doug Ibbotson, Alf Jones-Russell

Prawns At Vales Point

Terry Plunkett

There was a sequel to the prawn story. At Vales Point, as everywhere, prawns must be cooked before consumption. During commissioning Unit 5, we had a feed pump trip, and then a Unit trip. It all related to the cooking method for prawns. On this occasion, the screens had produced a couple of garbage bins full of decent schoolies. The unnamed chefs took these up to the Deaerator floor for cooking and trolleyed the bins under the closest small drain, whereupon the bin was filled with hot water. The 'chefs' had failed to identify that particular drain as the drain from the extreme low-level switch float chamber and drained the chamber, initiating the "all feed pumps" trip!

Construction staff were often on shift when commissioning required it. Before that event, they were never privy to details of the prawn run. After the cone of silence prevailed on who had done what on that night, the Construction team were always given a share of the night's catch!

Bribery Works

Peter Jackson

Vales Point didn't promote visitor tours but it did its fair share of allowing school children to tour the station. Not like Bayswater that employed a full time tour guide who managed 10,000 visitors a year.

On this particular day it was summer and in the mid-30s.

As acting maintenance engineer, a foreman urgently entered my office to tell me we had a problem. A large group of about 20 primary school children and their teachers were trapped in the boiler house lift. An electrician was working urgently on the problem so I decided to personally walk to the Operating level to greet and apologise to the teachers.

Well I honestly can't remember how long they were trapped but it was at least 45 minutes.

When the lift doors eventually did open, I do clearly remember being greeted by a mass of crying, red faced children and 3 very angry teachers. Two children had minor asthma attacks and had to be taken to the medical centre.

How to salvage this crisis? What would Jack Reacher do?

Well of course, any parent knows the answer.

Everyone down to the canteen, open up the shutters and announce:

"Anything....anything you want.....it's yours. Just take it." And we began handing out drinks, ice creams and chocolates. A lot of children went home hyperactive that day, but also happy.

We were told that the children want to come back next term.

Munmorah



Munmorah, February 1967 (ECNSW 07044)

Munmorah Electrical Overtime Planning

In the early days of Munmorah Power Station, Gordon Carter as the Electrical Engineer was renowned for his meticulousness, and also for being 'ahead of the game' relative to his subordinates. Terry Wark was part of Gordon's team at that time, responsible for maintenance of External Plant. Terry was preparing a plan for an overtime shift involving work on a coal conveyor, involving a multi-disciplined crew. Gordon was quizzing him on his preparation for the shift.

"Have you got a well prepared plan for the shift?" Yes.

"Have you got a good crew, suitable for the conveyor job?" Yes.

"Have you booked all the necessary spares out of Store?" Yes.

“Have you got all the required documentation – manuals, method sheets?” Yes.

“Have you got a suitable vehicle lined up to carry all the gear?” Yes.

“Is the vehicle fuel tank full of petrol?” Silence!

Didn't see that one coming! Gotcha!

Terry would have made the process much less onerous had he replied “No!” at question 1. The interrogation would have concluded at that point!

Speaking Frankly

Peter Jackson

This is a story that reveals the truth of a Munmorah mystery that very few have ever heard about.

Like all great mysteries, there has been a 50 year embargo, but now the truth can be told, and the victims named, without fear of retribution or even a defamation claim.

The event goes back to 1977 and involves two famous Franks. Frank Walsh and Frank Mieszala. The villain happens to be myself, an enthusiastic Grade 1 Engineer working under the auspices of Frank Mieszala, The Boiler Engineer. Frank Walsh was the Grade 8 Maintenance Engineer.

FM was an amazing mentor. He introduced me to Munmorah Volleyball which later became an important sport in my life. He showed me the best way to vomit off the back of his boat when deep sea fishing. And he explained precipitators with engineering precision by taking me inside one, and then jumping out himself as he kicked the dust laden plate which created a huge dust avalanche engulfing me.

In the spirit of schoolboy pranks, I saw my opportunity. It was winter and F.M. went into the bathroom cubicle so of course I quietly filled up a bucket of cold water.

As I launched five litres of water over the top of the cubicle, I thought I should enhance the prank by making sure there was no doubt who the intended victim was by shouting “Cop this Frank, You bastard,” meant of course with respect and kindness.

I then raced back to my desk knowing F.M. would appreciate my effort and would no doubt respond with an appropriate and proportional prank on me.

So imagine my escalating surprise, shock, horror, fear and terror when Frank Walsh walked along the corridor cursing and dripping.

Some stories are best told after a bit of a time delay.

My sincere and belated apology to Frank Walsh, now deceased.

The Origin Of Koala Parkⁱⁱ

Bob Porter

Munmorah Sports and Social Club quickly became an integral part of the power station fabric. The prospect of employment at Munmorah attracted applications from a wide-ranging population – from other centres within the Electricity Commission of NSW, and from outside sources. Residentially, the spread was from Charlestown in the north to at least Gosford in the south – and a large proportion of the employees found themselves settling into new neighbourhoods and social environments. Events arranged by the Sports and Social Club provided a social outlet with work colleagues experiencing similar integration scenarios.

So from the outset, the Sports and Social Club was always well supported, and to their credit, the Station Management in the early days recognised this, and its value in developing a harmonious working environment.

There were plenty of venues for the more formal occasions – Halekulani Bowling Club, Doyalson R.S.L., Toukley R.S.L., Tuggerah Lakes Memorial Club to name but a few. But the more casual events always posed a challenge in identifying a suitable venue. This prompted an initiative to create the Station's own venue – with the buffer zone immediately adjacent the Station access road as an ideal site. I seem to think this was about 1975, as the Station was ‘settling down’ after the early-70's 35-hour week campaign.

A concept plan was developed and approved by management for implementation – an amenities block with kitchen, toilets, showers and change rooms, a storeroom and an adjacent B.B.Q. But there were constraints. Volunteer labour needed to be maximised; staff input during working hours could occur subject to other Station priorities; moderate draw was permitted on materials from Store, and any external expenditure had to be within the Delegated Authority of the Station Superintendent – which I seem to recall stood at the princely sum of \$1,000 at that time!

So there were some innovative measures applied to achieve the desired result, within these parameters. Services were the first consideration – water was sourced from the fire main running along the access

road – not without incident (refer later) - electrical supply was run from the ‘nearby’ Vale-Munmorah Conveyor Transfer Tower, and there must have been a septic tank installed for waste water and drainage (as I don’t recall any other provisions in this regard)!

Water supply was run during a weekend ‘working bee’ – with a 50 mm T off the nearest hydrant stand-pipe. The Station back-hoe was put to good use, and installation of the branch pipe was well progressed, when the booming voice of Charge Engineer, Dick Stack, interrupted proceedings! “What do you think you bastards are up to? The Station is ‘off the air’! We’ve got no contact with the outside world at all – not even System Control!” We explored the newly dug trench, and after shifting a few sods, revealed the very ragged end of a 50-pair telecommunications cable. Exploration of the immediate surrounds soon revealed a matching ‘very ragged end’! We’d inadvertently sliced through the Station’s telecommunication link with the outside world. Telecom (as it was then) was called in – and a couple of technicians spent a few hours splicing in a repair cable. The resulting two cable pillars about a metre apart bore an embarrassing witness to our misdemeanour for ‘many years’. (I note that they are not there now – 2017 – so upgraded communications must have occurred at some stage).

With water and power available, the project moved ahead apace. The slab was formed, and reinforcing mesh transferred from Store – and then the concrete pour occurred in ‘\$1,000 batches’ – separated by a few days, to give the exercise suitable ‘corporate credibility’. Similarly, concrete blocks were delivered in \$1,000 lots – and laid progressively with volunteer labour, before the next batch was ordered. Roofing materials were similarly acquired and installed. The Station Carpenters did a great job with the kitchen joinery – and the minor finishing tasks were completed via suitable ‘working bees’ and deployment of Station personnel wherever possible.



December 1992 Christmas tree (Photo: Munmorah Operations Collection)

Early events at the venue were well patronised, and confirmed the benefits of the Koala Park development. But it was soon apparent that the initial plan had limitations – the slab was extended, and a skillion roof extension applied to give a workable area protected from the elements. And the B.B.Q. quickly grew to match the demand placed upon it at the Children’s Christmas Tree, and other major events.

By the late 70’s, the concept of a Caravan Park evolved, to better utilise the facilities. About 20 sites were laid out, and power supplies run to give suitable amenity to visiting caravaners. This development led to the appointment of an on-site manager, with Barney Miller filling this role for many years. Employees from other E.C. of NSW sites were encouraged to use the Caravan Park for their vacations, and the venue established itself as a worthwhile adjunct to the organisation’s welfare provisions. By the late-70’s or early-80’s the need was recognised to expand the venue from a social hub to embrace sporting activities. The tennis courts were installed – presumably under similar provisions to the original Park development (although I am not familiar with the detail). And as a further adjunct, the oval was laid out, graded, grassed and fenced.

Koala Park came into its own when Munmorah hosted the Electricity Commission Annual Games weekend. The Caravan Park was always booked out, and the B.B.Q. and Picnic area was the venue for Games B.B.Q.s on each occasion. Progressively the adjacent areas were developed to improve the venue’s capabilities. These included picnic tables and benches, children’s playground, and the many ‘generations’ of the children’s train ride, with permanent tracks laid in 1989. Little Koala Park Station was opened by recently-retired Station Manager, John Moore, in December 1990.

Koala Park was the venue-of-choice for a variety of Station social events – section Christmas celebrations, retirement celebrations, the Social Club Christmas Tree, local school activities, Cycle Classic Stage finishes – and a regular flow of private events (available at nominal rates to Club members). On peak occasions, the facilities accommodated an estimated 1500 – 1600 people!



December 1992 Christmas Tree (Photo: Bob Porter)

And history records the many major Pacific Power events that were scheduled for the site – several Fire and First Aid Competitions, the Station’s 25th Anniversary Luncheon (with a huge marquee erected on the picnic area), the Pacific Power Cycle Classic on at least two occasions... and I am sure there are many more that people can remember, particularly during the latter years.

It is significant to note that Koala Park’s existence will continue long after Munmorah Power Station has disappeared. The site has been assigned to Central Coast Council on a long-term lease basis. A nine-basket Frisbee course has been installed, and the original structures (less the railway line) still exist. The oval is well maintained and used, and the facilities are available for general public hire and use. Council is keen to further develop and promote community facilities on the site!

A Few Early Notables?

Dean Hamilton

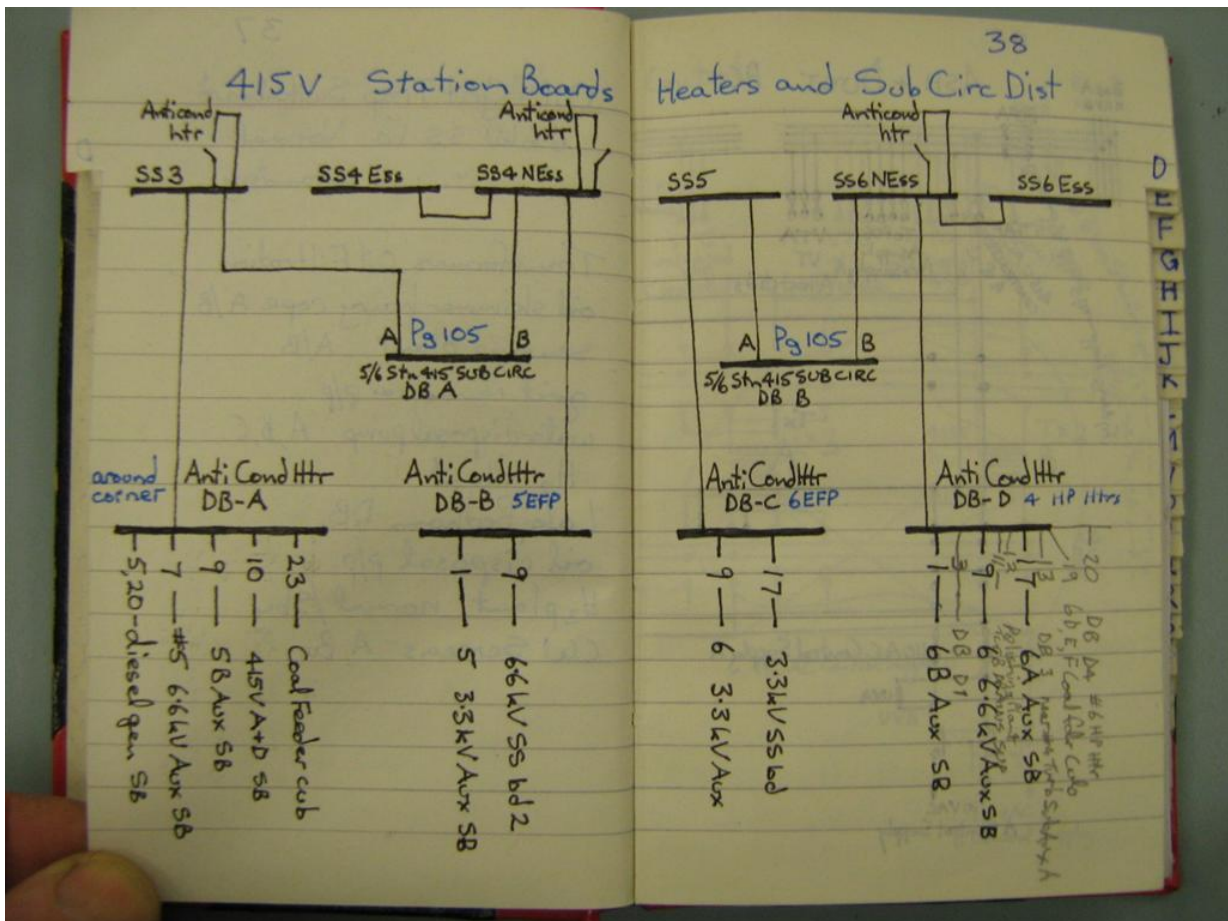
Many of Munmorah’s notable personalities commenced their career in the power industry well before they arrived at Munmorah. Ron May, for example, began his 45 years in the industry as a Junior Messenger with the NSW Railways in their Head Office in Sydney’s CBD in February 1947. He worked at places such as Ultimo, White Bay, Wangi, Vales Point, Munmorah Power Stations, the ECNSW’s Head Office and retired as Administration Officer at Lake Macquarie Training Centre.

Ken Aldridge started with the Electric Light and Power Supply Corporation in 1952 as an Electrical Fitter at Balmain Power Station. He transferred to the ECNSW in 1957 when the Commission assumed full ownership of the station. He recalls one day in Kelvin House in the city, being 'chipped' for whistling on the job by H.G. Conde, the ECNSW's first Chairman.ⁱⁱⁱ In 1958 he transferred to Wallerawang as an Assistant Power Plant Operator (APPO) then a Power Plant Operator (P.P.O.). 1962 saw Ken at Wangi as a P.P.O. He recalls that at Wangi an overtime callout often meant that a taxi was provided on the basis that there was no public transport. In 1966 he transferred to Munmorah as an APPO and was later promoted to P.P.O. Ken was one of the initial four Munmorah Operators on site mainly to carry out switching. He finished his operating career as a P.P.O. at Eraring in 1991.

John Moore started his forty-one-year career in the power industry as an Apprentice Fitter and Turner at Balmain Power Station in November 1949. He graduated from UNSW in 1954 as B.E. Shortly after, he was sent by the Electric Light and Power Supply Corporation (owner of Balmain) to the United Kingdom and Europe for instrument training. While he was away, Balmain was transferred to the Electricity Commission of New South Wales. From Balmain, John moved to Pymont and arrived at Munmorah in February 1966. He held various Professional Engineer grades until his appointment as Maintenance Manager in December 1985. John was Manager of Munmorah from 1986 to 1989. He took redundancy in October 1990.

Trevor St Baker, while not commencing his career as early as Ron, Ken and John, nevertheless has had an association with the industry that few can match. In fact, Trevor's involvement with power generation on the Central Coast has come full circle. In 1967, he, John Moore and Alan Shields from the Efficiency Section, were present at the synchronising of Munmorah's No. 1 unit. Forty-eight years later, in 2015, Trevor's company, Sunset Power International, a subsidiary of the Sunset Power group, bought Vales Point Power Station from the NSW Government.

Charge Engineers (Shift Managers) in those days were often seen as 'Super APPOs.' Perhaps they still are! They knew the plant backwards, and often solved a plant problem in a matter of minutes after an APPO had been fighting for many hours. Part of his personal 'operating kit' was a succession of note books that contained many and varied pieces of information garnered over the years. As with most Operators, not only those at Munmorah, a 'Good Guts Book' was invaluable in resolving intractable problems at 3 a.m. on a cold and rainy winter night-shift.



APPO Ian Ladyman's 'Good Guts' Book (Photo Ian Ladyman)

As with Ken Aldridge, John Kett was in the first group of Operators to arrive at Munmorah in 1966. The others in that group, apart from John and Ken were George Wilks and Des Ranson. Their main task, before the first Station School, was to carry out switchings, plant isolations and security. John recalls that Dick Stack, Peter Smith, Grahame Tickle, John Linehan, John Eilers and a short time later Jack Kennedy, were the first Charge Engineers.

John, as did many ex-Munmorah people, noted that he enjoyed working in all power stations, but considered Munmorah the cream of the crop. "The early years especially were very special as both the Operating and Maintenance teams worked really hard and together to embrace the new technology in power station operation. It was a time that I personally never felt threatened by the new technology and it was also a time that I and others worked hard and sometimes long hours to get on top of all the new facets of power station operation."

As for the 1970s and the 35-hour week campaign, John recalls that this was a "very bad time." He recalls shifts where the station was manned by a skeleton crew of operators as their colleagues attended meetings in Sydney. More traumatic, at least for some, were those occasions when Operating staff withdrew their labour and both P.P.O.s and APPOs had to hand over the job to often inexperienced engineers. In these circumstances, Charge Engineers did not withdraw their labour. He also remembers the role P.P.O. Jack Jeffery played as an intermediary between System Control and P.P.O.s, not only at Munmorah but also at other ECNSW power stations.

John fondly remembers on-shift Christmas dinners, the Sunday afternoon shift B.B.Q. and Team Meeting and the relaxing drinks at the 'Doyle' R.S.L. Club after the last day-work shift. He also recalls that on a number of occasions this ritual was partly sponsored by Munmorah Management.

The Great Race Of Munmorah – 1975^{iv}

Gary Houston and Ron May

Operators, as with many who work in close-knit teams, work well in emergencies and other stressful situations. Thankfully these situations – oil fires, Occupation Health & Safety (O.H.S.) incidents or plant and equipment failures – are infrequent. During less stressful times, while enjoying a cup of coffee in the meal room or the Plant Control Room (PCR) discussions often turn to discussion of these incidents. More often than not the discussion turns to non-work related topics; the merits of one brand of motor vehicle over another; the car dealer that will offer the best deal on a new car, or perhaps the best way to lay pavers in an outdoor patio. Such was the camaraderie evident on a power station operating shift. However, when the sporting prowess of one Operator over another was raised then pride, boastfulness, foolishness, ingenuity and fun often take over. One such incident was the 'Great Race of Munmorah.'

In 1975 Max Antcliffe-Jones and Ron Hines were both APPOs working afternoons on Grahame Tickle's 'A' Shift. The quickest runner was the topic of discussion. Max being the younger boasted that he could beat anyone on shift. The other APPOs in the meal room had heard Max's boastful assertions for many months if not years. A couple of APPOs around Max's age and fitness were just about to call his bluff when the slightly older Ron beat them to the punch. He challenged Max to a foot race to see who really was the quickest. Of course Max could not help himself and agreed to the challenge. Gary Houston, the third player in this challenge, suggested that they arrange to race around the perimeter of the main power station buildings wearing full operating gear. Once the Charge Engineer had given his approval it was agreed that the 'great race' would take place the following afternoon shift around 5:30 p.m. after all Office Staff had left the site.

In the course of the discussions, Ron (the challenger) secretly confessed to Gary (the organiser), that there was no way on earth that he could beat the much younger Max. Gary thought for a minute and told Ron "leave it all to me. We will beat Max by fair or foul means." Over the next few hours, unbeknown to Max, the arrangements for the next day's great race were finalised.

At 5:30 p.m. the next day, Max and Ron lined up at the starting line adjacent to No. 1 Unit Generator Transformer. Max seemed a little surprised that he and Ron were not the only contenders. Five young fellows from the Maintenance shift were also lining up to run as well. Unbeknown to Max, these five and Ron were party to what was about to happen during the race.

The flag dropped, and the race was on. Max quickly took the lead. Whether through a lack of athletic ability or by design, probably the latter, the other six lagged behind, although not by a distance that Max might deem suspicious. The six also tended to group together, with Ron in their midst.

Halfway along the first leg of the race, Ron separated from the group and ducked through a door into the Turbine Hall. His place was quickly taken by Gary Houston dressed in similar attire.

While Gary and the other five followed Max at a suitable distance, Ron quickly moved through the station and concealed himself behind a large item of plant at a point where the route turned a corner of the main building and was within easy striking distance of the finish line. Meanwhile, Max was powering, but at reducing speed along the agreed race route with the group of five plus Gary some distance behind, but closing.

By the time Max passed Ron's secret location and had turned the corner, the group of five plus one had closed the gap to a few meters. A refreshed Ron, joined the group as Gary ducked into Ron's hiding place. The real part of the race was now on. Max was slowing, Ron was gaining. The finish line was in sight. With only metres to go Ron edged past a panting but incredulous Max to win the 'Great Munmorah Race of 1975'.

P.S. – Did Max think he was fairly beaten? Probably. The truth came out a few years later.

Walk The Vince

Bob Porter

Vince Murray was a distinctive character at Munmorah. He was never lost for a word, and could wax lyrical on a diverse range of topics. And he took great delight in intercepting a few people from the office when they ventured into the Workshop or Plant - and then engage in protracted conversation on whatever was topical at that moment!

It was virtually impossible to escape, without being directly 'unfriendly' - and forcibly terminating the conversation. But a mechanism was devised to provide a modicum of 'relief' - "Walk The Vince". The objective of the 'game' was to manoeuvre Vince during the one-way conversation so that he faced north, south, east and west in the shortest possible time. I recall that the 'record' was something less than 90 seconds!!!

Munmorah Smoko

Bob Porter

As at most regional locations, the Sports and Social Club played a major role in the social life of members. This was particularly the case at Munmorah, with many of the staff having moved from other parts of the state, and not having too many community links (at least initially). The Annual Men's Smoko was a feature event on the calendar, held at one of the local Clubs.

Always well attended - perhaps by 150 members - the event always featured a selection of entertainers - vocalists, comedians, dancers, etc. - Johnny Pace and Hariette, Lucky Grills, Maria Venuti come to mind - but there were many others over the years.

The date and venue of this particular episode is lost in antiquity - mid-70's and maybe Toukley R.S.L. or Halekulani Bowling Club - but a stripper was included in the floorshow. This attractive young lady was ever willing to please the lecherous disposition of the all-male audience, and left very little to the imagination about her feminine attributes!!

As the performance came to a conclusion - amidst thunderous applause from the audience - an agitated Club Supervisor came rushing up to Tom Francis, who had been involved in liaison with the Club on organisation of the function. He was concerned that a performance involving full female nudity was not consistent with the Club's behavioural standards, and was in 'full-flight' administering admonishment and promising repercussions. Without batting an eyelid, and in solemn belief of his defence, Tom protested : "Your assertion is unfair and invalid - at no stage was the young lady naked; she had her shoes and feather boa on throughout the performance!".

I seem to recall that the conversation terminated rather abruptly!

The Munmorah Car Park Raider, Ranger Ronny^v

The Backstory to 'Ranger Ronny' – Ron May

Munmorah Station layout featured a number of car parking spaces around the lawn adjacent to the Admin. Building, and then the main Staff Car Park some short distance further away.

Senior Management were assigned car spaces closest to the Admin. Building, and then Operators and Salaried Staff were allowed to park in the remainder "first-in-best-dressed".

This discriminatory arrangement was resented by a few Wages Staff - and at that time, with the Wages Division commencing work some 40 minutes ahead of the Salaried Division, the Admin. Car Park became increasingly occupied with their vehicles.

Gordon Carter, the Manager [1987], was annoyed he could not access his "reserved" parking position. This was the prime position immediately outside the Administration Building.

I told him I would get it fixed.

The only group permitted to park outside the Admin. Building were the night shift operators, who would have left the power station at 7 a.m.

There was an allowance paid annually for the use of a private vehicle, where the claimant had to nominate their registration number, so it was easy enough to identify those who were not "playing the game." I circulated an Administrative Note that all employees should park in the car park.

At the same time, I had developed a good relationship with the Sergeant at the local Police Station. (I still see him occasionally). With that, it was possible to identify any at fault drivers. Eventually, almost everybody played the game.

I said almost everybody because there was one guy who would not. He would park a car outside the car park. I contacted the Police Officer who informed me who the owner was.

I rang this guy and asked him if he knew that his car was parked at the station.

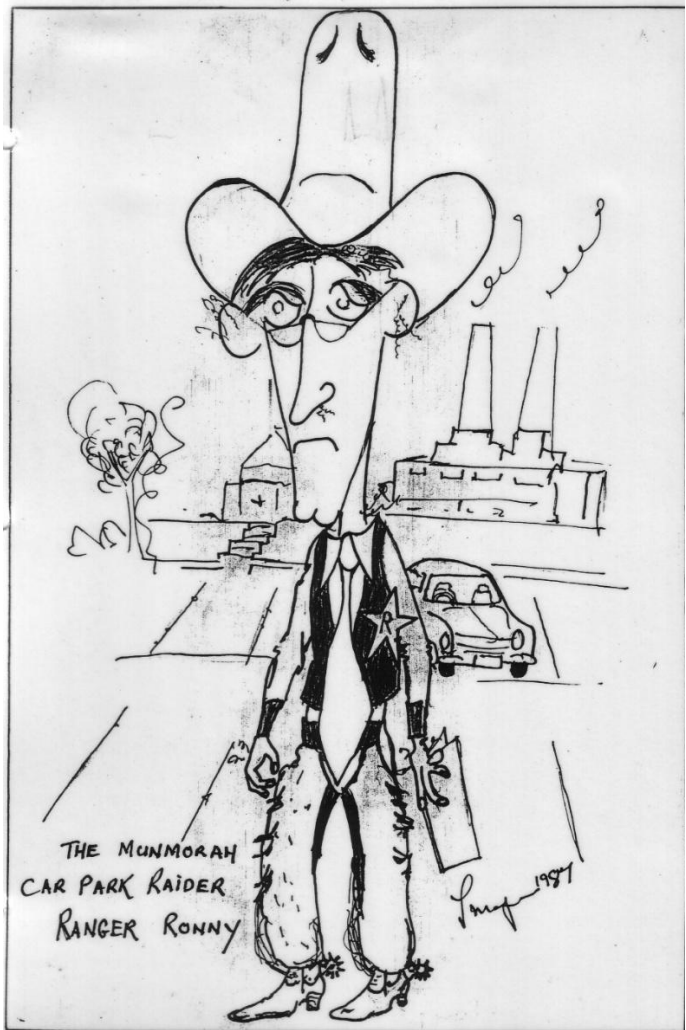
"Yes" he replied, "I have lent it to a very good friend of mine."

OK then, could you give me his name. He suddenly developed a loss of memory.

I had an idea who was driving the car and asked him "whether it was an ugly big bastard."

"Yes," he replied.

I told him that if it continued to be parked outside the car park, I would lock it with a wheel brace, and it would remain there for a week. This ended the problem.



The Great Snake Heist At Munmorah

Steve Austin

It was an ordinary day. The hum of generators filled the air, a symphony of industrial progress punctuated by the occasional clank of machinery and the aroma of burnt toast from the PCR meal room. Little did Charge Engineer Dave Herbert know, his shift was about to take a turn, rivalling even the wildest episodes of a nature documentary.

Everything was cruising smoothly until the fateful moment when Dave's colleague, let's call him Jim, stumbled upon a red-bellied black snake curled up snugly in a piece of equipment that looked like it was auditioning for a horror film. Now, when you work at a power station, encountering strange things isn't unusual—after all, it's not every day you find a snake that appears to have confused a generator for its next Airbnb. But a venomous snake? That's the kind of thing that could turn a mundane Tuesday into a scene from "Survivor: Office Edition."

In true "us against nature" spirit, the team gathered. The plan was simple: immobilize the snake using a CO2 fire extinguisher. Genius, right? After all, if Hollywood taught us anything, it's that a dramatic freeze moment usually works wonders. "This will be a piece of cake!" Dave declared, channelling his inner action hero. Armed with a fire extinguisher, he felt like he was about to win a battle against the fiercest of foes.

As Dave approached the unsuspecting snake, he took a deep breath, confident that he was about to perform a rescue mission that would go down in Munmorah history. With the flick of a wrist, he unleashed a frosty plume of CO2. It seemed like a triumphant scene from an action movie for a split second: the gas sprayed in a perfect arc, illuminating the snake's scales in a shimmery haze.

But then—oh, then—the fog rolled in. In mere moments, the area transformed into a scene that would make even the most dramatic fog machines envious. The dense cloud enveloped not only the

snake but everyone watching. Panic set in. Where did the snake go? Did it make a run for it? Did it stop to snatch a quick coffee? Was it now plotting its revenge, waiting for the right moment to strike?

"Did we get it?" someone shouted, squinting through the cloud as if expecting the snake to emerge wearing a tiny bandana and brandishing a knife. The group huddled, eyes wide, heart rates soaring. They waited for the fog to clear, which it finally did—like a grand unveiling at a magic show.

The moment of truth arrived. But instead of a frozen snake lying helplessly on the ground, there was... nothing. Absolutely nothing. The snake had pulled a Houdini, disappearing as if it had been a mirage. It was like losing your keys but on a much more existential level. Was it still there? Did it slip away under the cover of gas, perhaps on its way to start a new life as a corporate consultant?

"Great job, Dave," Jim smirked, still wiping tears of laughter from his eyes. "You just sent a snake to the Olympics for sprinting!"

As they stood in disbelief, it dawned on them: they had created a snake-sized evacuation plan that was, ironically, the opposite of what they intended. Instead of immobilizing the snake, they had merely provided it with a smoke signal to alert its friends: "Don't go near the equipment; it's a war zone!"

From that day on, Dave became a legend at Munmorah. His story circulated like wildfire, becoming an essential part of shift-change banter. "Did you hear about Dave and the disappearing snake?" they would chuckle, exchanging knowing glances. "Next time, maybe try a snake catcher instead of a CO2 extinguisher!"

And thus, the infamous day when a red-bellied black snake outsmarted a power station team became a cherished memory, forever cemented in the annals of Munmorah folklore—a reminder that even the best-laid plans can take an unexpected twist, especially when snakes are involved.

Generation Dinner 1970

Bob Porter

The year was 1970; Munmorah's four units had been recently completed, and the Station had been hailed as the 'current' premier location within the E.C. of N.S.W. The annual Generation Division Dinner that year - held in a down-town Sydney hotel - was an event where a Munmorah presence was seen by the Station as "highly desirable".

Attendees included George Goodrich (Station Superintendent), Alan Turner, John Moore, Bob Porter and Leo Pitt. Bob was assigned as the driver in George's vehicle for the journey to Sydney. The group was dropped at the venue, and then Bob parked the car "nearby". Bob had over-indulged early in the proceedings, so opted to take a 'fresh-air' break. By chance, he sauntered past the parked car, and decided to have a brief nap.

Some time later, George was desirous of going home - but no driver, and none of the others knew where the car was parked! George negotiated a lift with someone else travelling back to Belmont! Bob returned in due course, to be informed of George's anguish at the 'unknown' location of his vehicle, but to the delight of the other four - who had a positive intent to experience some Sydney night-life!

The Mandarin Club was selected by the other four! Bob slept off the 'over-indulgence' and then drove the other 'well lubricated' group home. George's car spent the night at the Porter's (Swansea), and was sheepishly returned to the Goodrich's (Belmont) early on the Saturday morning.

George - to his credit - took it all in good humour, insisted on driving Bob back to Swansea, and then (with Bob having recently arrived at Munmorah from Sydney Head Office), sought an introduction to Marie!! Fortunately, she was out of bed by that time!

We will never know whether that was a decisive moment in Bob Porter's career aspirations within the Electricity Commission Of N.S.W.!

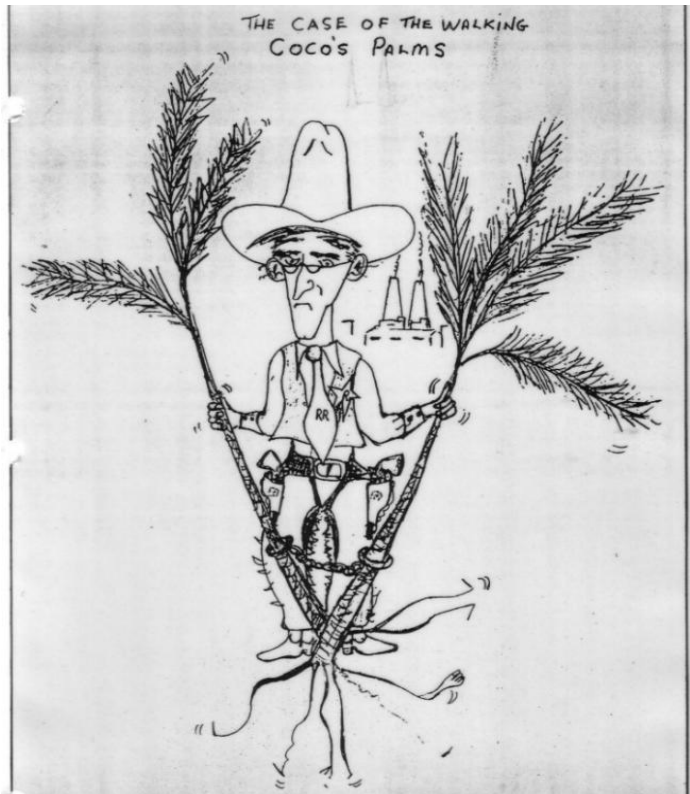
The Missing Palms

Bob Porter

The Munmorah Koala Park precinct was developed over an extended period, with enhancements introduced progressively as activity at the venue increased. One such development in the early years was the installation of a large number of Cocos Palms, to beautify the area – approximately 80 in all.

Ron May, Senior Clerk at this stage, received a visit from Joe Micaloff (General Station Foreman), who slumped into a chair in Ron's office exclaiming : "They've done it again!" "Done what again?" was Ron's retort. "They've pinched the Cocos Palms – all 80 of them! And this is the second time!" "What do you mean 'the second time'? When was the first time?" Joe consulted his diary to establish the date of the first transgression – an episode which was not given any publicity. The second occurrence certainly attracted coverage! Commercial Manager, Paul Wheelahan, was acquainted with

the circumstances, and an investigation was initiated. Mindful of Ron May's proven investigative skills, Paul assigned Ron to the case, in an endeavour to identify the miscreants, and hopefully recover the palms.



It was determined that the same Afternoon Shift were rostered on both occasions that the "great Palm robbery" occurred – so potential suspects and their residential locations were noted. And Ron was sent on a reconnaissance mission, to see if he could locate the palms.

This exercise revealed a couple of clandestine activities involving Station personnel in the San Remo area in particular, but alas, no palms. Station Management decided to let the matter lapse. The lack of a conclusion did not deter Cartoonist (thought to be Terry Monger) from targeting the saga, with both Ron and Paul featuring in the related sketches

There were a couple of corollary sequels to the cartoon series. A "For Sale" notice appeared in the Wyong 'Advocate' – Cocos Palms for sale - \$2-50 each, with Ron's home telephone number. The barrage of enquiries caused a fair degree of consternation in the May household for a few days.

And similar advertisements to the newspaper entry appeared on Munmorah notice boards for some days afterwards – with Ron's colleagues bent on removing them as quickly as possible.



Cocos Palms – Typical

1986 Mill Section Christmas Party

Bob Porter

Jeff Pearce was the Munmorah Mechanical Mill Section Foreman in 1986, and had built up considerable cohesion amongst the group - the largest maintenance contingent at that time. A Christmas Celebration was planned as an “after-work” event at Koala Park - with a fancy dress theme advertised as a “must” for all attendees.

As Mechanical Engineer at Munmorah at the time, Bob Porter had a desire to support the event, and join the festivities! But how to dress up - that was the question? Go in ‘drag’ - that should be fairly distinctive, and give appropriate support to Jeff’s initiative.



Bob Porter - Fancy Dress

So a suitably sized “outfit” was acquired with adornments, and taken to work that morning. Not game to be seen leaving the office so attired, Bob drove out along the Dust disposal pipeline, to a secluded area adjacent the Ash Dam, changed into the fancy dress outfit, and then returned to Koala Park parking area to join the function.

The party was well underway around the Koala Park Amenities block, and as Bob walked towards the gathering, his presence . . . and attire . . . was noted! NO-ONE ELSE was in fancy dress! This disturbing observation immediately focused Bob on the whereabouts of Jeff Pearce! “You bastard!! You’ve conned me!! This is not a fancy dress gathering at all!”

There was an effusive apology and rejection of this assertion! “I expected they’d all come in fancy dress! That was the universally advertised format! I can’t help it if they didn’t respond!” - was the pitiful reply!

The other notable recollection of those few moments was the horrified, disgusted look on Gordon Carter’s face - Station Manager at that time - at seeing one of his senior engineers decked out in drag! There was much hilarity created by the situation . . . and then . . .



“Hoss” from TV Series “Bonanza”

One by one, the vast majority of the other attendees snuck back to their cars, brought out and changed into their fancy dress, and returned to the gathering. There were some hilarious costumes - and suddenly a whole new demeanour came over the event.

Two other observations, that come to mind 38 years later

Bob had a kindred-spirit . . . Norm Dunshea also came in drag, and was much more ‘chic’ than Bob’s bedraggled appearance. And Bill Dafter dressed up and performed as “Hoss” from the T.V. series ‘Bonanza’ - a memorable episode, that brought forward the most debaucherous and disgusting antics that one can imagine!

Bulldozer Driver Training

Bob Porter

At the height of the 35-hour Week campaign, work bans were a mechanism employed by the Unions to support their cause. Such bans would invariably result in “no-work-no-pay” penalties on the employees refusing duty. Bans were clearly selected to cause maximum disruption, exposing as small a group of staff as possible to NWNP impositions. Bulldozer drivers involved in Coal Stack operations were a much-favoured vehicle for work bans - a very direct impact on generating capacity, and a very small group subject to NWNP!

It needs to be understood that Non-Trades staff had the option to nominate two ‘lines of progression’ - defined areas where they would undertake training on specialised duties that attracted higher rates of pay. Bull-dozer driving was one such specialisation, with quite a large number of Non-Trades staff nominating this line.

The ability of management to target this larger group for stand-down was seen as a mechanism to make bulldozer driving bans less attractive to the Unions. But they could not be directed onto the Coal Stack until they had undergone suitable training.

Operations Assistant, Norm Brooks, was given the task of conducting a training course to 'suitably qualify' about a dozen Non-Trades staff who had nominated Bulldozer driving as a line of progression. I don't believe Norm had ever handled a Bulldozer 'in anger'!

Nonetheless, the courses were conducted - at least theoretical, in the Staff Training Room - and the "trainees" were deemed competent, to enable them to be directed onto the banned work, and on refusal, consequently stood-down NWNP.

Will Mitchell's Cartoon on the subject evidences a very succinct understanding of the scenario!



So We Could Not Be Blamed For That ... Munmorah No. 1 Boiler Explosion

Mike Melidonis

Munmorah was a funny place for young newly graduated engineers. We saw the humour in most things. We arrived after the first boiler explosion, so we could not be blamed for that. Some poor Leads and Northrop technician got the blame for that by removing a wire from the control transmitter instead of the monitoring transmitter, thus removing the boiler fuel demand, causing the Primary Air fans to run to zero without a minimum stop, causing a flame-out, then replacing the wire after realising his mistake causing the PA fans to ramp up very quickly to maximum dumping a heap of unignited pulverised fuel into the furnace to be reignited by the hot furnace walls - huge bang, bent boiler or something like this from memory. I must admit falling for a similar mistake at Wallerawang as an instrumentation engineer, but no bent boiler or bent anything.

Flying And Diving

Mike Melidonis

In October 1986, in a Tobago, Duncan XXXX, a technician at Munmorah, and I flew from Cooranbong to Gladstone and return to go on a 12-day scuba diving trip from Gladstone to the Swain's Reef off the coast of Queensland. Some highlights were night diving into the caves under a coral cay (an island made entirely of coral), being greeted by moray eels coming out to see who had invaded their territory, and diving with sharks, moray eels, and sea snakes. The boat skipper used to go underwater to spear coral trout at around 11.30 for our lunch, which he cooked. This excited the sharks circling beneath us as we ascended from our morning dive. One notable event was the evening wash-up of cutlery stored for cleaning in a water-filled bucket. One evening, someone thinking the bucket was empty tossed its contents, including the cutlery overboard. The dive master luckily went overboard in his scuba gear and picked them all out of the coral. We could see him with his torch, picking each item in turn from amongst the coral. He was not amused.

Memoirs Alive And Well

Gordon Neale

There was a recent informal gathering of former Pacific Power personnel at Swansea RSL Club – where the gathering of Industry memorabilia was the subject of discussion. We concluded that the group was ‘living proof’ of memoirs from yesteryear!

How could you disagree?!!



From left to right :

Doug GLEESON (Trades Assistant then Foreman) – 27 years’ service.

Mick SMITH (Trades Assistant then Lagger) – 28 years’ service.

Jack VAN-DER-VELDEN (Construction Inspector) – 15 years’ service.

Tom FRANCIS (Mechanical Foreman) – 44 years’ service.

Gordon NEALE (Mechanical Fitter then Engineering Officer) – 38 years’ service.

Collectively, 152 years of service, and agreement that Munmorah was a great place to work, where many long term memories and friendships were developed over the years.

(Editorial Note : One might have expected that a few stories and incidents would have flowed from such a gathering! Not so! Clearly the passage of time has dulled a few memories.)!

NSW Rugby League Grand Final Patriotism - 1977

Bob Porter

In 1977, the Parramatta ‘Eels’ and St. George ‘Dragons’ featured in the NSW Rugby League Grand Final. Merv McLean was a passionate St. George supporter; Bob Porter was similarly disposed towards Parramatta. Both were accommodated in the Munmorah Mechanical section on the first floor, with Offices opposing each other across the corridor.

There was considerable decorating of the Office environs – red-and-white St. George; blue-and-yellow Parramatta - in the days leading up to the match.

On the Friday afternoon, immediately preceding the 1977 Grand Final, the two protagonists dressed up in clothing and adornments geared to their respective Club’s colours, and amidst an environment of “friendly but serious” rivalry, paraded through the workshops and portion of the plant, whipping up support for their Teams!

Lots of good fun! The result was a 9-all draw, resulting in a Grand Final replay the following week. I don’t recall a reprise of the workplace parade, although the Office decorations were retained. Alas – St. George were the victors 22 - 0 in the replay; and Merv had boasting rights for the next several weeks Parramatta (and their supporters) had to be satisfied with the Minor Premiership that year.

Fungal Epidemic

Bob Porter

I suspect that from time to time, many of us have had an ‘itchy crotch’ or a touch of tinea between the toes. Generally easily treated and not damaging! In the mid-to-late 70s at Munmorah, the incidence reached epidemic proportions!

It defies explanation as to how the scenario developed! Perhaps the guys were comparing notes under the shower, in the change room of an afternoon. But there was soon a growing awareness that some degree of fungal infection was widespread!

And, of course - it has nothing to do with personal hygiene or the domestic environment - it must originate from the communal Power Station change room. The disinfectant was deployed in gallon lots; anti-fungal powder within the Store was quickly depleted, and restocking placed the suppliers' production line under 'extreme duress'! Each afternoon, after the crowd had departed, the change room looked like a snowstorm had passed through!

Within a couple of weeks, the crisis had passed; the fungal epidemic had been defeated, and 'sanity' restored to the afternoon ablutions. However, the saga was not lost on Cartoonist Will Mitchell.



The Munmorah Mural

Bob Porter

When the last Munmorah generator was shut down in 2012, demolition of the plant and repurposing of the site was an inevitable corollary. When demolition gained momentum in 2016, and was very active when the 50th Anniversary Reunion occurred in October 2017, the word on most people's lips was : "What's happening to the Foyer Mural?"

The Reunion Organising Committee had an ongoing legacy in this regard – and pursued this matter 'vigorously' over the ensuing couple of years. It is worth recording here, the coverage that the Mural received back in 1966-67 during the Station's construction.

For those not familiar with the design of the Mural, it is a stylised representation of the electricity generation process – the conversion of the energy contained in coal, via combustion, steam generation, turbo-alternator operation and control, delivering electricity via substations and transmission lines to the community.

As the photo below indicates, the ceramic tiles making up the Mural were laid directly onto the brick structural wall of the Munmorah Administration Building Foyer – a factor that introduced considerable complexity in its recovery.

Initially, the demolition management were 'laissez-faire' about the future of the Mural – agreeing to take steps for its preservation, but maintaining a relatively passive role about its future. The Reunion

Committee set about exploring options for its relocation, recognising that there would be considerable costs involved in its restoration.

BELOW: A full view of the terra cotta mural as it was being erected in the foyer of the Munmorah power station administrative block last month. The 30ft. x 8ft. mural depicts the production and distribution of electricity.



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MUNMORAH MURAL



Artist Gino Volpato supervises erection of the mural at Munmorah power station.

ABSTRACT DESIGN HAS 800 PIECES

A 30ft x 8ft ceramic mural has been completed in the foyer of the Administrative Building at Munmorah power station.

The mural, which contains 800 pieces of glazed terra cotta, is an abstract which shows the production and distribution of electricity.

It has a basic color scheme of blue and grey, with touches of green

and black. The blue color is used to convey an effect of the mural "floating" in the Universe.

From a centre piece which indicates the control of power production set within the windings of a generator, the mural traces the steps in electricity generation on the left, and its distribution on the right.

The final design of the mural was developed by Mr. Gino Volpato of Sabemo Pty. Ltd. from a theme prepared for S.E. and A. Branch by Mr. Alex MacGillivray.

Mr. Volpato spent a total of six weeks designing, casting and glazing the big mural.

The mural faces the entrance door to the foyer, which is finished in marble slabs.

Anniversary

This month marks the 17th Anniversary of the formation of the Electricity Commission.

The Commission was constituted on May 22, 1950.

The chronology has been muddled by the passage of time – but overtures were made, and serious discussion held with the following organisations

- Newcastle Museum
- Newcastle University – Callaghan Campus – Advanced Technology Centre
- Newcastle University – Callaghan Campus – Engineering Precinct

- Newcastle University – Ourimbah Campus
- Wyong Art House
- Wyong and Gosford Shire Council Offices
- Allison Homestead, Wyong District Museum and Historical Society.
- CFMEU Office, Cessnock – an expression of interest submitted.
- Walka Water Works (Maitland Pump House)
- Wangi Power Station – pending redevelopment, but long-term stalled
- Doyalson RSL Club – as a component of the Club’s potential redevelopment.
- Power House Museum, Ultimo.
- Toukley And District Art Society, Wallarah.

Other potential sites that were noted but not pursued included Bluetongue Stadium, Chittaway Wetlands, Tuggerah Station, Budgewoi Park and Wyong Race Course.



MUNMORAH POWER STATION
ADMINISTRATION BUILDING FOYER MURAL
WITH DESIGNER / ARTIST Mr. GINO VOLPATO
1966

During protracted investigation and negotiation with these various agencies – extending through to late-2023 – State Parliamentarians Yasmin Catley (Swansea) and David Harris (Wyong) expressed interest in the fate of the Mural, as did several members of Central Coast Council.

And Gino Volparto’s family – now primarily involved in an architectural business based in Switzerland – undertook some focused lobbying in support of the Munmorah Mural’s preservation, in parallel with local endeavours. This involved at least two visits to Australia by family members, and some relatively high-powered but independent meetings.

Liaison with the Volparto family revealed that the Volpatos still have a workshop and outlet in Sydney, and during recent activity in these locations, had discovered Gino’s original design

documentation and specifications for the Munmorah Mural. Significantly, this will facilitate reverse-engineering some of the mural tiles that were damaged during removal.

As demolition of the Administration Building approached, Generator Property Management displayed a more positive disposition to the Mural’s future. A three-dimensional laser scan was undertaken of the Mural in situ, and a professional artisan was engaged to carefully remove each of the 800 + tiles, catalogue them and package them in three wooden pallets. It is understood that the ceramic tiles had ‘aged’ since installation, resulting in a few sustaining damage during removal.

However, by late 2018, the Mural components had been recovered, and were securely stored in one of the few remaining buildings on the site.

The quest for a permanent home for the Mural continued, with Generator Property Management taking a more proactive role in the search.

The Committee had some very positive discussion with Alison Homestead management, with prospects of a purpose-built structure to accommodate the Mural, as a component of the Museum’s further development.

In parallel, GPM had negotiated a future for the Mural with the Power House Museum – either at the Sydney CBD Ultimo site (appropriately a former NSW Power Station), or integrated with the relocation of the Museum to the proposed Parramatta site.

In January 2024, Steve Saladine of Generator Property Management conveyed the following advice to the Committee :

“(Quote) . . . I can now advise that late last year the Powerhouse Museum resolved to take possession of the Mural, and the GPM Board has agreed to donate it to the Museum. They have funds allocated in their budget to reconstruct the mural in a way that it can be assembled and dismantled for use in relevant displays or be used permanently in the new museum. (Unquote).”

This news attracted comment from several people who had been actively involved in the above sequence, as follows

“So an interesting development . . . with downsides in some respects . . . not housed on the Central Coast being the principal consideration. But also with a few upsides permanent archival ownership; a definite link with the Power industry; responsibility for the effective restoration and erection of the Mural; and responsibility for the significant funding support necessary for the project.”

“This is a satisfactory outcome, although not the perfect one we would have liked. It would be a battle to raise the finance needed to undertake the project locally, even if a suitable site could be found. A permanent home is better than no home at all.”

“This is an interesting outcome for our 'Munmorah' mural - notwithstanding we would have preferred a more 'local' restoration location. No doubt . . . the Volpato family connection would have had a vested interest in the mural relocation. Relocation to the Power House Museum will best suit all concerned stakeholders, giving the 'Munmorah' mural greater access to the general NSW public, who were also stakeholders in the original 'Mural' artwork.”

“It is a good result. Trying to find an alternative location for the mural within the Central Coast/Lake Macquarie was highly unlikely.”

During 2024 there was limited interaction with a member of the Museum staff on the Mural’s future, with an indication that the display would feature commentary on its origins and history, and perhaps some recollections of former Munmorah staff on its significance.

That contact has since left the employ of the Powerhouse Museum, so the “trail has gone a little cold.” So it’s clearly time to re-establish links with the Museum, and maintain some degree of ‘remote surveillance’ of future Mural developments! Watch this space!



Footnote to the Mural Article

GINO VOLPATO - Passed away on 18 November 2008 Aged 81 years

The "Resting Place" of Gino "Beniamino" Volpato was presented by Woronora Memorial Park.



Gino Volpato made Australia his home. With his Italian heritage, it is understood that he was well connected with the Belgiorno-Nettis family (Transfield), which may have been the link that secured his engagement to design and install the Munmorah Mural. It was indeed a major innovation for inclusion in the Station architecture back in the early 1960’s, and not repeated since.

At Munmorah, It Didn't Pay To Be Thin Skinned . . .

. At Least Not When Cartoonist Will Mitchell Was Around.



THE NEW CANTEEN CLEANER



SPIRO AND THAT STOMACH STUMBLE GUTTS PUMP



ARRR... WE WERE RIGHT BOYS, HE BLOODY WELL IS.



The 'Catch' is a likeness to Power Station Superintendent, George Goodrich, who is bearing an ST19 - the standard "Please Explain" Disciplinary Notice.



Commentary On The 1970's 35-Hour Week Campaign - when Engineers in particular were called upon to engage in strike-breaking duties of other classifications . . . Operations, Maintenance, et al

Skiing

Mike Melidonis

In the early days of Munmorah (1968), Ray Berry from construction was one of the few people who could ski. He organised a fairly large beginner's ski party to drive down to Smiggin Holes, leaving Friday evening and driving all night. On the way down, we stopped under a bridge for breakfast. Ray made hot porridge seasoned with several pounds of salt. On arrival at Smiggin Holes, after collecting our rental skis and boots, we prepared ourselves for our first lesson. After half an hour of slipping and sliding and falling over, Ray said to me, "Melidonis, you're ready for the next step", so we trundled on skis past the lift labelled beginners, past the lift labelled for intermediate skiers to the lift labelled for expert skiers only, and lined up watching pairs of skiers launched into space by the T-bars with worn out springs on the T-bar ropes. By some miracle, we managed to stay on reaching the top and falling off on arrival. Ray picked himself up, said to me, "you know how to ski down" and skied off to focus on some other poor

beginner. Ray's lack of formal ski instructor qualification was no deterrent. Some hours later, as I reached the bottom of the run, I realised that I fully appreciated this teaching method. Apparently, Ray's early skiing days were only surpassed by his brother, Transmission engineer Eric, who is reputed to have skied on his first run uncontrollably down the slopes across the icy car park, slamming into the side of a parked car.

We, various people from Munmorah, went down many weekends during the winter of 1968, an excellent year for snow. One notable one was when Ray announced that he was going to ski cross country from Thredbo to Guthega, sleeping overnight in the mountains, and that he had arranged accommodation for us through his mate Lindsay Black, a DMR engineer. On the way down, I asked Ray if he had a good compass. He said no, so I gave him my compass, which I had purchased for 20 cents a short time before. When we arrived at Thredbo, the weather looked ominous.

Nevertheless, we rode the main chair up to the Eagles' Nest at the top of Thredbo, with our heads buried in our gloves, into a wind that was reportedly up to 100mph. Arriving at the sheltered top station, Ray and one of his intrepid mates set off across the main range. The rest of us asked the lift attendant if we should go out into this snowstorm with our minimal experience. He advised us strongly to catch the lift back down to the next station, which we did. On the way down, I fell and injured my knee but managed somehow to make it down – my skiing finished for the weekend. We drove around from Thredbo towards Perisher Valley, finding our accommodation on the side of the road up to Perisher. It was an empty steel shipping container with nothing inside, unheated naturally, but it came at the right price. My leg was so sore that I decided to take a medium-sized coke bottle to bed with me rather than hobble outside for the obvious. I was to learn a useful lesson in fluid dynamics the hard way - always ensure you have enough capacity in any container you choose. The next day we went skiing, except me, and we were astounded that there waiting for us was the overland ski party when we arrived at Guthega. Ray told me that they had a complete whiteout and only made it with the help of the compass. We had heard that a doctor had died from exposure after being caught on the chairlift, which had stopped for a long time that weekend. For the trip home, it was deemed that as I had hardly skied, I would be the driver for the journey home. I still had one functioning leg, and the car was an automatic. The next day at work was spent reading manuals with my head propped up by two hands. This was normal practice after a ski weekend.

Conveyor Belt Inspection

Bob Porter

In the early 70's, as a consequence of the practice of rotating junior Engineers through a range of positions, I found myself assigned to the Mechanical Coal and Ash Section. The Technical Assistant in this section was Dave Crouch, who greeted my arrival with the declaration : “You’re the fourth Engineer I’ve had to train in this job during the last two years; you’ve got three weeks to prove yourself!” I must have passed - we maintained pretty good rapport during my subsequent tenure in the role.

The coal conveyors installed by the ‘cheapest complying quote’ Contractor were of 4-ply cotton, which after 5 or 6 years’ service, began to degrade rapidly. The damp condition of the coal on occasions did not assist, with the fabric starting to rot and loose its original strength. Widespread replacement of the belts was clearly inevitable.

But this involved major expenditure when financial authority within the Station was very limited - \$1,000, from memory. So the justification would have to withstand Head Office scrutiny. To establish the parlous state of the conveyors it was decided to map the conveyor belts - with the bunkering conveyor 5A selected as the first such exercise.

A datum was marked, and then with a 20 metre tape separating us, Dave and I crawled the length of the conveyor, identifying defects and noting their location with respect to the datum. It was a dirty, painstaking exercise.

As we emerged from the reclaim tunnel, and began to approach the head-end of the conveyor, the belt was covered by a close-fitting canopy for weather protection. So our two quite substantial frames were in pretty confined space. We pressed on!

Then suddenly the belt-start warning siren began to sound. We both new that our 5A belt was isolated, and I had the Out-Of-Commission Order in my overalls pocket. Nonetheless, that siren created a moment or two of “mild panic”. I reached out of the canopy, and damned near tore the trip wire running along the side of the conveyor structure off its mountings. Then I looked back to see how Dave was faring . . . and he was nowhere to be seen.

He had 'abandoned ship' - and had somehow squeezed out from beneath the canopy, and was standing on the conveyor aisle, outside the belt. He must have ejected from beneath that canopy like a champagne cork out of a bottle!

As the siren timed out, the adjacent 5B conveyor belt started up - and there were sighs of relief all around! We resumed our mapping exercise - but there was no way that Dave could squeeze back under the canopy. He had to return back to the uncovered section of belt in the reclaim tunnel, and crawl back to the point reached before the 'false start' interruption!

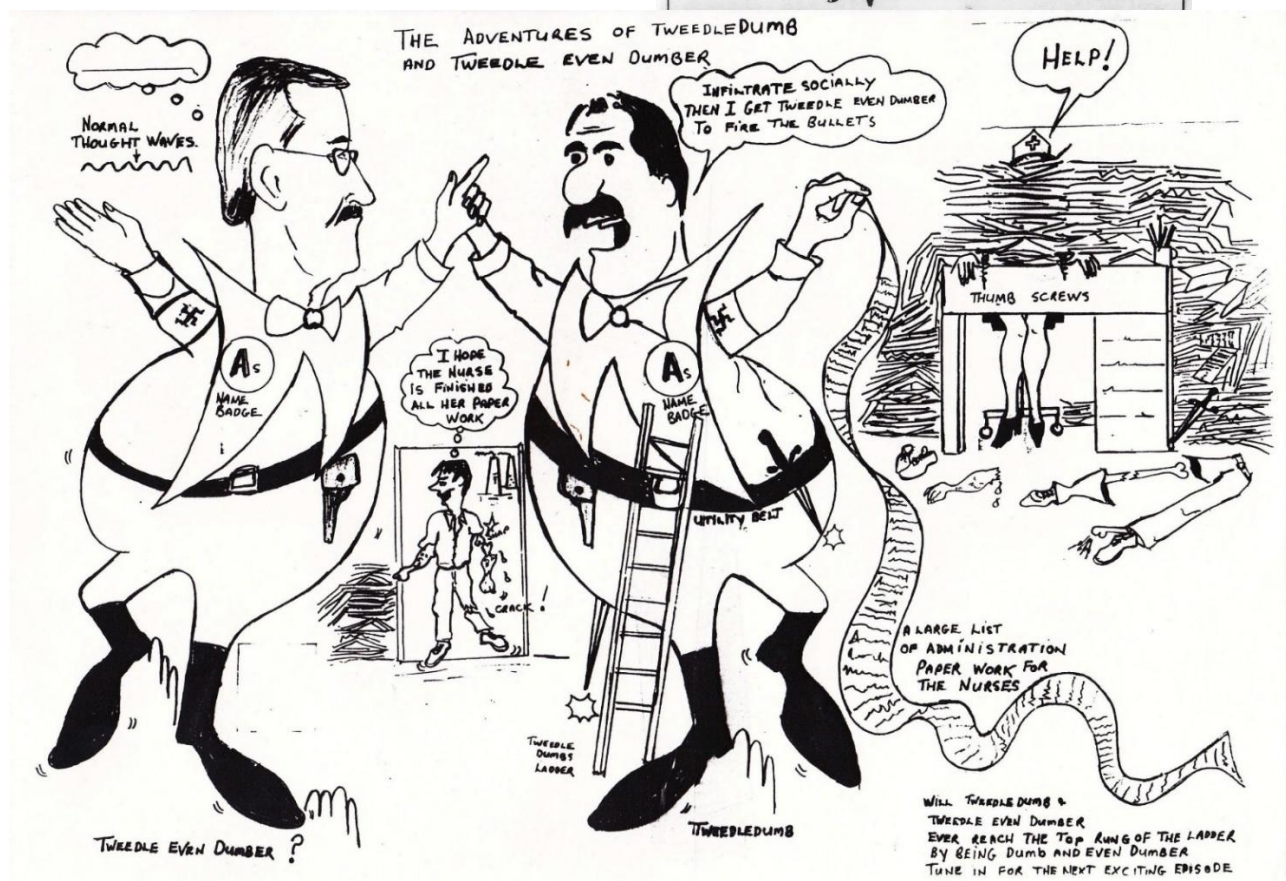
The exercise was justified. Over a period of a couple of years, all the cotton ply belts were replaced with 4-ply polyester-nylon ply material - about three times the strength, and much more durable.

First Aid Centre Multi-skilling

Bob Porter

During the mid-1980's, there was widespread focus on the reform of work practices - with efforts made to introduce multi-tasking to several classifications. The First Aid Centre and the Industrial Nurses were not spared in this process, with a range of administrative tasks assigned to them in addition to their health and medical activities.

The circumstances were not lost on the 'resident cartoonists' of that era.



Munmorah Gate House

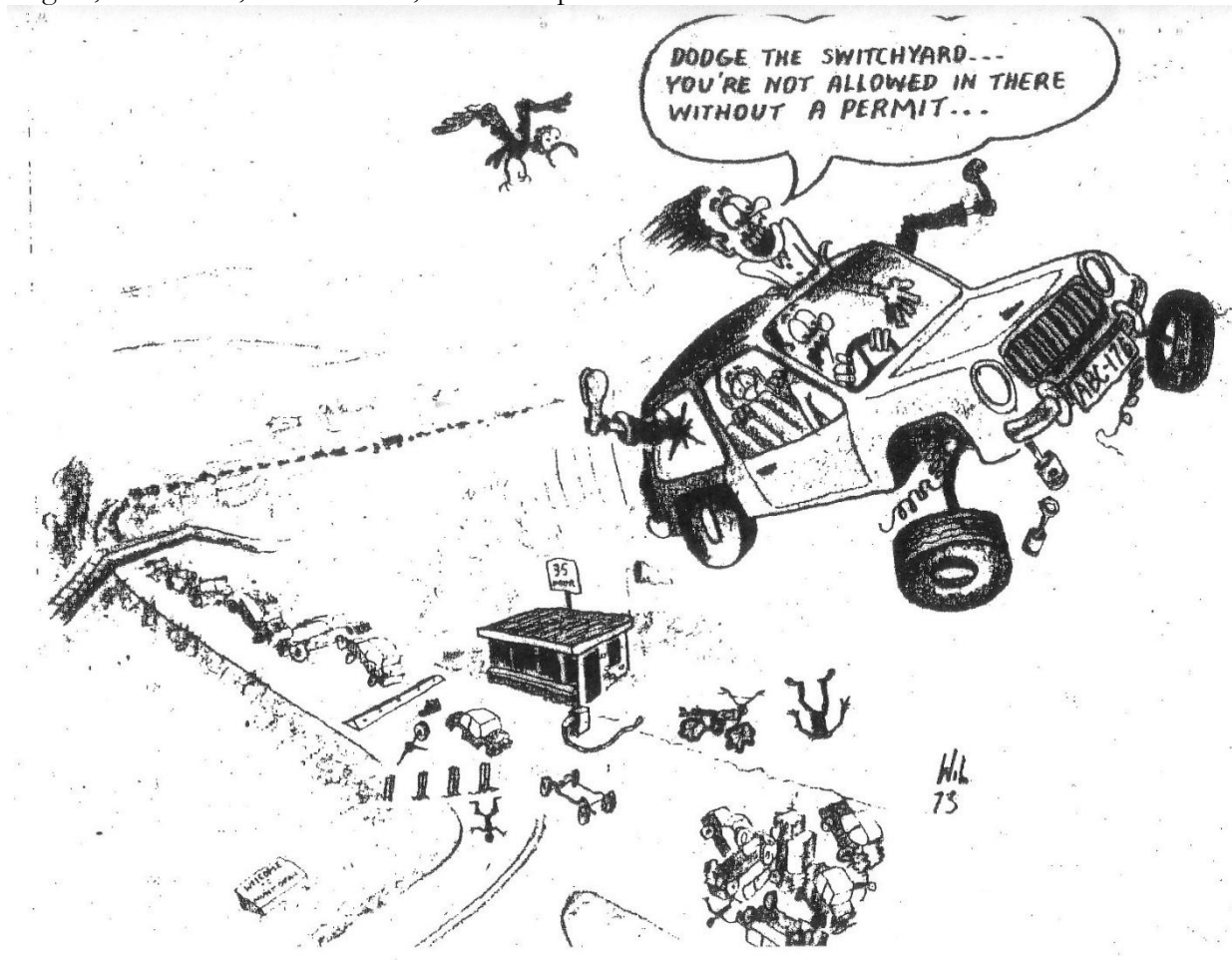
Bob Porter

In the early days, the Gate House at Munmorah was on a long straight section of the Station access road. There arose concern that employees arriving for work were not slowing sufficiently approaching the Gate House, and that the excessive speeds constituted a safety problem.

The solution - install a speed hump 30 metres or so before the Gate House.

This measure had the desired effect in slowing the passage of vehicle, but caused a degree of discomfort for the passengers . . . and attracted a degree of resentment.

Again, Cartoonist, Will Mitchell, summed up the scenario rather well.



Munmorah Induction

Tony Booth

I began at Munmorah in mid-May 1971 as a Trainee Chemical Technical Officer. This was at about the time that the Unions' 35-Hour Week campaign was ramping up. I had no prior knowledge of the campaign and its intensity, so my first day there became a most memorable introduction to Munmorah. (I was later to learn that staff relationships were decidedly 'strained' with some nasty overtones prevailing).

On Day 1, Station Chemist, Lew Drummond, took me on a familiarisation tour of the plant. As a Salaried Staff member, Lew was in his E.C.-issue white boiler suit. Mine had not yet been issued, so I wore civvies, and a lab coat from my previous job at AIS Port Kembla – of course it had to be white! The tour lasted several hours, and for one with no former power station awareness, was very noisy but an extremely impressive and awesome experience! . . . that is until we returned to the Office.

Lew's timing wasn't great on this occasion! It was approaching knock-off time, and our route took us via the ground-floor corridor, where Wages staff were lined up at the Bundy clocks, waiting to clock off.

It was akin to the Spanish "Running Of The Bulls" in reverse. As we traversed the line-up, we both copped it in a big way - we were booed (the acoustics in that corridor were perfect for this) and loudly branded as "white suit scabs"!

I recognised some of the guys in the line-up – they were former school colleagues! At that point, I was having second thoughts about my new assignment, but the job ethic prevailed.

I quickly explored details of the prevailing “divide” between salaried and wages staff and the sometimes bitter campaign associated with the former having a 35-hour working week, as against a 40-hour week for the wages staff. I also learnt what a “scab” was.

The inequalities that created this divide were no doubt legacies of the Nation’s industrial history. Many a discussion tackled the ‘rights’ and ‘wrongs’ of the circumstances, and there were certainly sympathisers with the campaign amongst the salaried ranks. It took some years, but the 35-Hour week was ultimately granted, and the “true spirit of Munmorah” thankfully came to the surface and prevailed.

But the episode certainly made my Munmorah induction experience a memorable one!

Munmorah Superheater Inspection

Bob Porter

It was the mid-70s when Munmorah was in its heyday, and plant availability was critical. One of the units had come out of service with a major superheater tube leak, so there was pressure to evaluate, repair and return to service. The Boiler Team – from memory, Leo Pitt, Kevin Gill, and maybe Tom Francis – along with Mike Melidonis (who was Mills Engineer in the group at the time) arranged an inspection.

Mike arrived at the Superheater gallery a little later than the others and was confronted by a set of superheater sling tubes that neatly bisected the access door. He squeezed past on the left-hand side of the sling tube wall and proceeded across the top of the superheater bank to where the others were already inspecting the failure . . . on the OTHER side of the sling tubes.

“How did you get over there?” asked Mike. Ever disposed towards a friendly prank, one of them advised : “Just move along the sling tube wall until you find a couple that are slightly wider spaced than the rest – you can spring them apart and squeeze through!”

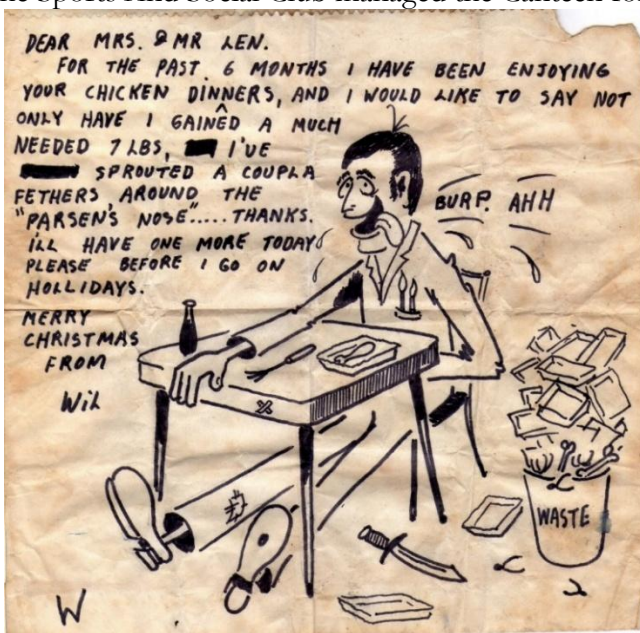
Mike proceeded to obey the directions, found a suitable pair of tubes, eased them apart and poked his head through! Alas, there was no way the rest of the body would follow – no matter which way he twisted and turned. So retreat was the only option!

Alas, his ears now acted as a non-return device and precluded any chance of an exit. Mike was firmly wedged in the sling tube wall. This caused great mirth amongst his colleagues . . . for a few moments, at least . . . after which they took pity on him. A couple of them ‘leaned heavily’ on the sling tubes, sufficient for Mike to withdraw his head. Then they guided him back to the access door to re-enter and, this time squeeze to the right-hand side of the sling tube wall and participate in the inspection and failure analysis.

Munmorah - Buckingham’s Canteen

Bob Porter

Len and Dot Buckingham were amongst the ‘Munmorah Originals’ - operating the Construction Canteen during the Station’s development. On completion, when generation commenced, they applied for and were granted the Lease to run the Station Canteen. They ran a very successful operation and were generally well-regarded by Munmorah employees. Their tenure lasted until the mid-70’s, following which the Sports And Social Club managed the Canteen for a few years.



The archives reveal a couple of “Len and Dot Buckingham” tributes which are worth inclusion . . . yet another Will Mitchell creation . . . and, a “Farewell Poem” when they ceased operation.

And so we say “Farewell” to Len
And of course, to little Dot
We think they’re a great couple.
In fact, they’re ‘just the shot’!

When they’ve worked so very hard
To keep our tummies full;
With variety on the menu
And steaks from a pedigree bull.

With fish and chips, and hamburgers
And also scallops, too.
And most obliging with it!

AND SO WE SAY FAREWELL TO LEN
 AND OF COURSE TO LITTLE DOT,
 WE THINK THEY'RE A GREAT COUPLE
 IN FACT THEY'RE "JUST THE SHOT!"

WHEN THEY'VE WORKED SO VERY HARD
 TO KEEP OUR TOMMIES FULL
 WITH VARIETY ON THE MENU
 AND STEAKS FROM A PEDIGREE BULL
 WITH FISH & CHIPS, HAMBURGERS
 AND ALSO SCALLOPS TOO,
 AND MOST OBLIGING WITH IT;
 AND SELDOM A BOO-BOO.

AND FREE SOUP ON OVERTIME
 (WHEN THE REST WERE IN THEIR COT)
 WE ENJOYED ON COLD, COLD NIGHTS
 AND WE SAY, 'THANKS A LOT'

WE'LL MISS THE CRISP CHIPS THAT LENNIE
 COOKED
 AND ON THEM WE DID MUNCH
 THE GOOD PART OF THE BUCKO'S -
 THEY WERE NEVER "CLOSED FOR LUNCH"

FIRE FIGHTERS, PICKETS, VOLUNTEERS
 WE'LL MISS YOU DOT & LEN
 AND IN OUR HEARTS SAY "GOD BLESS."
 UNTIL WE MEET AGAIN.

Anonymous.

Some years later – mid-1980's, Cartoonist Terry Monger also chimed in with Canteen-related content.



Munmorah Prawns

Steve Carter

Later in Munmorah's life, only Units 3 and 4 were in operation, but the Circulating Water (CW) pumps from 1 and 2 were still operational. Thus they were frequently utilised for additional cooling of the CW outlet canal water to ensure environmental compliance, typically during the day shift.

And seldom a boo-hoo.

And free soup on overtime
 (When the rest were in their cot).
 We enjoyed on cold, cold nights,
 And we say, "Thanks a lot"!

We'll miss the crisp chips that Lennie cooked.
 And on them we did munch.
 The good part of the Bucko's -
 They were never 'closed for lunch'!

Fire fighters, pickets, volunteers . . .

We'll miss you Dot and Len.
 And in our hearts, we say: "God Bless"
 Until we meet again.

However, the experience was that an additional CW pump in service had the potential for blockage of CW screens by marine life, so additional CW screens were often placed in service, usually to no avail. So when many prawns were blocking the CW screens (mostly on nightshift), the nightshift operators selflessly assisted by manually removing them.

Munmorah Snippets

Lionel Faber

Our Munmorah car club comprised Dennis Swancott, Brian Stacey, John Cronin and myself. We each took turn-about driving weekly to Munmorah via the old Highway and the notorious Swansea Bends. John was an ardent Labour Party member and traversed the Swansea Bends almost weekly to attend meetings. So it was no surprise when we received a phone call – possibly on four occasions – “Can you drive for me? I crashed on the way home last night”. I stress that John was a tea-totaller to my knowledge, so these lapses were absolutely weariness and fatigue.

Dennis Swancott and Jim Byrnes were concerned at one period that the bullseye glasses in the steam drum gauge glasses were failing. An inspection was scheduled to identify whether it was a fitting problem or a glass quality problem. They returned to the office very shaken and looking like apparitions, completely covered in white dust. They had been on the gauge glass gallery when the boiler exploded (No. 3, I think). They said they had crouched between the flanges of one of the main boiler columns for safety till it was all over, as the ‘dust of ages’ rained down on them!

While visiting the Store to check tools and materials, I was summoned by Storeman John Nunn to go with him to the Clearspan Store. There, he pointed out that the Storemen had repositioned shelving to form a small workshop space – relatively well concealed. This was when wooden-slatted garden furniture was all the go, and the ‘workshop’ had a well-developed production line operating! On discovering the facility, John berated the team and had it dismantled. The irony of this scenario was that when John arrived home from work that afternoon, there was a brand new set of brightly painted garden furniture on his front verandah!

Dennis Swancott and I were driving home from work when a truck threw up a stone and shattered Dennis’ windscreen. A small section in front of the driver remained clear, allowing limited forward vision. We decided to leave the glass in and keep going. I was assigned to put my hands against the glass to support it and stop it from falling in. Shortly after climbing the hill towards Swansea, it started to rain. Almost intuitively, Dennis turned on the windscreen wipers! Quick as a flash, the wipers were in the car and banging my wrists, and we were covered in glass - both ‘shell-shocked’!

The Munmorah Store featured a chap nick-named Bizzo. He was incessantly eating raw octopus or raw liver. Alas, while wandering the Store, selecting items for issue, and serving at the counter, he would leave his octopus or liver on the shelf. This generated a continuous flood of complaints to the Stores Officer. Bizzo would also bring all sorts of homegrown fruit and vegetables to work, which “the boys” thought was great. This was in the era when most dwellings in the region had pan toilets, and it was ‘discovered’ that Bizzo fertilised his garden with the toilet pans. Enthusiasm for Bizzo’s benevolence waned a little after that! Recounting this episode has reminded me that if you didn’t leave a few beers out for the ‘Sano-Man’ at Christmas, the quality of the service was likely to be marginal for the following twelve months!

Munmorah Canteen Early Access

Russell Williams

There were undoubtedly some characters at Munmorah. This episode has stuck in my mind – recounted as I recollect it. Others may recount differently, but it reflects the cheeky spirit of the day.

The Problem: At Munmorah, people were accessing the canteen early for smoko.

This will never do; something must be done.

The Solution: A crackdown on the transgressors; hold them at bay until the appointed time; get the Foremen on the job. Word had got around.

The Foremen were posted. The time was near. The troops were gathered, stalled at the Mills workshop door. It was tense.

Suddenly, Bill Dafter appeared past his assembled mates and with a tape measure. He quickly checked the distance to the electrical workshop door. Then, he checked the distance to the workshop wall, then to the canteen wall, then to the canteen door and, as quick as a flash, he was in.

Done with style; everyone just cracked up.

Munmorah Offshore Ash Disposal Investigation

Peter Melhuish

When Munmorah was being designed, the method of disposal of the fly ash which would be produced was given detailed consideration. One proposal was to dispose of the fly ash at sea – pumping it out some distance from the shore and letting it slide down and over the continental shelf.

Bruce Kirkwood in Power Development set up a team to explore this proposal, with Ken Watson and Garth Coulter playing leading roles. I was included in the diving group.

Our diving training for this exercise involved working with a professional diver in Middle Harbour, with the Water Police centred at Circular Quay and with the Navy for deep off shore diving.



Water Police Interaction – Circular Quay

Gordon Lloyd (Standing), Ian Cumming (brown jumper), Ken Watson (sitting).



Diving Tuition Preparation, Clifton Gardens

Some diving tuition sessions were held at Lake Parramatta. This site was chosen for training because the suspended matter in the water resulted in nil visibility and divers were tied to a rope for safety. We also had exercises in the water with totally blacked out masks and all movements had to be done by feel.



Lake Parramatta Dive Tuition

Water Police And Ken Watson

Peter Melhuish After A Dive

After the training regime, the action shifted to Wybung Head, south of Catherine Hill Bay, in an ocean location close to the proposed Munmorah disposal site. The exercise required the assembly of a ‘flotilla’ of marine craft, plus a surveillance aircraft, operating out of Pelican Airfield, Belmont.



Fishing Trawler ‘Robyn Ann’



‘Longana’



‘Mystic’

Volunteer Coastal Patrol Vessels



Collier ‘Dunsmore’



Aircraft At Pelican Airfield, Belmont

Chemical treatment of the Fly Ash on dumping was assessed – with an injection line running into the ocean discharging in the dump area. A Survey Surveillance Station was set up on the Headland, to record any detectable surface impact.



Wybung Head Activity

Chemical Mixing

Chemical Dosing Line Running To Dump Area

Survey Station

Garth Coulter reported seeing a whale glide by during one of his dives! I found it interesting that when in deep water and out of sight of the surface or the bottom, the only way of knowing which way is "up" is to observe the bubbles of expired air. The other interesting thing I observed while returning from a deep dive was to see a board rider above me. All that was visible were legs surrounded by concentric rings of light (caused by the laws of reflection and refraction) radiating out from where the legs broke the surface. To a shark, it would be very attractive !



Wybung Head Diving Operations

Navy Diver About To Dive

Garth Coulter Preparing To Dive

Ken Watson, Ian Cumming, Peter Melbuish

Ian Cumming On 'Mystic' With Air Hose

Fly ash used in the tests came from either Pymont "B" or White Bay Power Stations. The collier 'Dunsmore' was loaded in Sydney, before sailing to the Wybung Head test area.

The idea of dumping at sea was not new as this was the normal way of handling ash from Pymont "A" power station over the years. There was a loading dock in Blackwattle Bay where the current fish markets are located. Ash was collected in trucks and transported to the dock where it was loaded onto barges, which were then towed out to sea for disposal. There never seemed to be a problem, although the quantities involved would have been quite small by today's standards.

The 1962 investigation established that this disposal mechanism was feasible. However, it was not implemented for political reasons. Disposal at sea of Bayswater power station fly ash as a slurry was also looked at by Power Development, but of course not taken any further.

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OCEAN TESTS IN RESEARCH PROJECT

Research into the prospects of disposal of fine fly ash at sea is being carried out by the NSW Electricity Commission.

The research is being carried out in conjunction with the University of New South Wales and with assistance from the C.S.I.R.O.

The first full-scale tests—begun off Wybung Head, central coast, on June 13—were officially described as being "highly successful."

In these tests, trial loads of fine ash are dumped through hoses to the sea bed, and the dispersal of the ash tracked by skin divers and by surface observers using echo sounding and charting equipment.

Fly ash consists of very fine particles collected by electrostatic precipitators from power station flue gases before they leave the chimneys.

The research is proceeding on the theory

FLY ASH GOES BY SEA

that such fine particles will be carried out to sea below the surface and dispersed in deep water.

The theory was scientifically tested for the first time in the tests off Wybung Head last

Projects Division observers will co-ordinate the results of the tests with other investigation work, but there are no firm plans for the use of the method at this stage.

For the test on June 13 the collier, Dunmore, was loaded with 500 tons of fly ash in Sydney on the previous day.

Control

Engineers had been at Wybung since the previous Sunday making preliminary current tests and other preparations.

month.

Purpose of these and associated experiments is to study the possibility of large scale disposal at sea of fly ash from power stations in the northern area.

Provided

Some of the investigation work is being carried out by the C.S.I.R.O. at its Oceanographic Laboratory, Cronulla.

For the ash disposal tests off Wybung Head the Navy provided a team of divers, and the Volunteer Coastal Patrol provided boats used as bases for observations.

The Police Diving Squad has previously trained a number of Commission engineers in diving.

Members of the Commission's Power Development Branch/Projects Division are taking an active part in the tests, directed by Engineer/Power Development (Mr. Bruce Kirkwood).

The control centre was set up on top of a cliff overlooking the spot where the collier was anchored.

Calibrated markers had been placed on the sea bed so that the divers could check on any accumulation of ash.

Two large chutes were slung on the side of Dunmore and a large grab poured the ash into them.

These carried the ash 40ft. below the surface, where skin divers started the long task of tracking its movement.

University of N.S.W. personnel on another boat used ash density meters to check ash concentration.

Current meters and other equipment were also used.

Meanwhile, two Commission survey parties checked movement of the marker buoys from hilltops near Wybung Head.

(Continued in P.2.)

(Continued from P.1.)

A light aircraft was also used to gain a clearer picture of movement.

Close radio communication was maintained between control, and the other groups assisting in the test.

Measurements taken by divers, surveyors and University personnel were relayed to the control centre, where engineers co-ordinated the results.

Movement of the ash was checked during the night by using the meters.

Engineers remained at Wybung for several days after the ash was dumped, taking further measurements.

Most of the ash moved steadily out to sea with the currents, as predicted, and remained "in suspension" in deep water. No ash washed back on the coast.

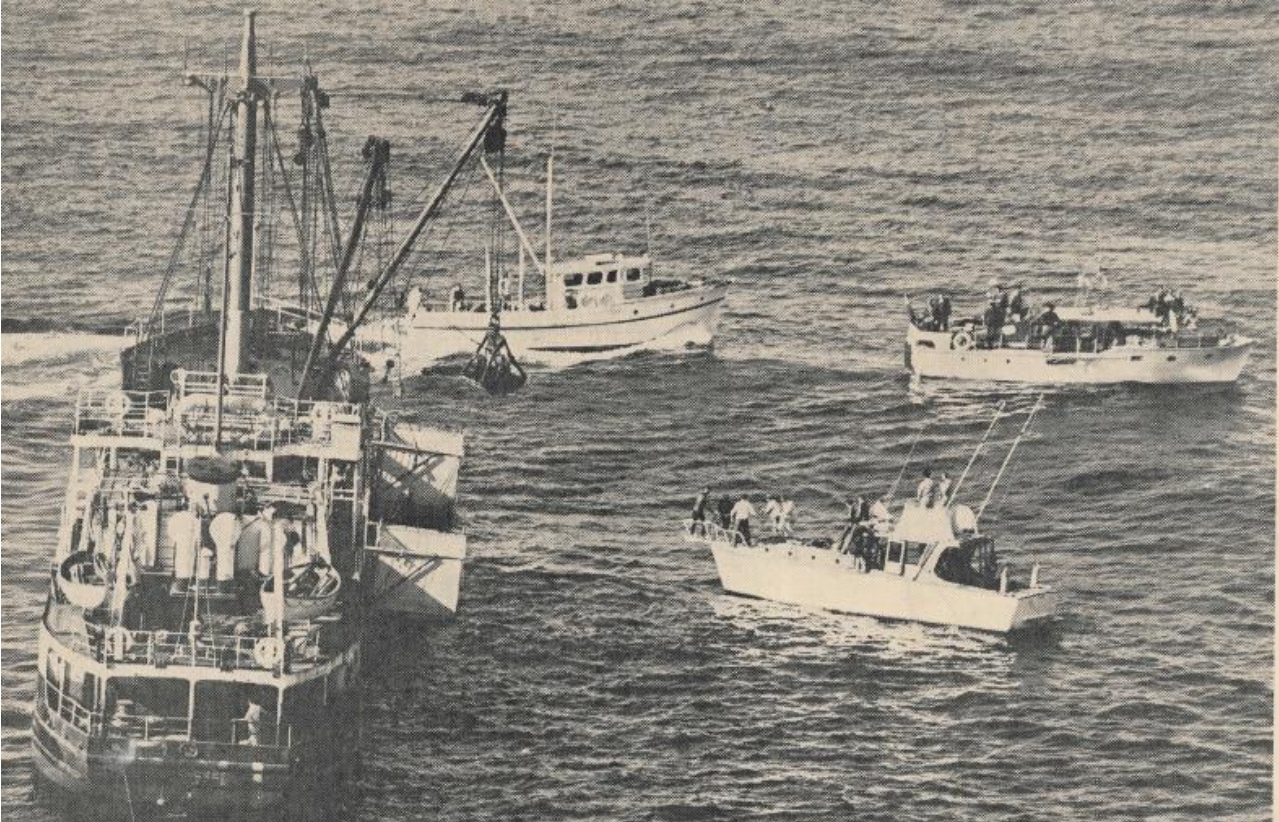
The Commission's Projects Engineer (Mr. F. J. Aston) was at Wybung Head for the opening phases of the tests.

Projects Division members who took part in the tests under Mr. Kirkwood were:

Engineers, K. Watson, C. G. Coulter, I. Cumming, A. Stokes, P. Melhuish (trained as divers); N. Lamb, N. B. Heal, I. Nesteroff, A. Kugaevsky, A. Potter, R. Wall and G. Lloyd.

Technical Officers, R. Chappell, R. Marshall and A. Algie.

In addition to this 'lead article', the same edition of 'Network' featured a two-page centre spread of photographs, depicting various aspects of the operation.



Above: A cluster of boats at Wybung Head as the collier, Dunmore, makes ready to begin the dumping operation. The other boats in the picture are the divers' boat, Mystic, in the foreground; the Longana and Robyn Ann at rear. Below: The real story of the ash movement is revealed in the plotting room manned by Dave Foster (University of N.S.W.) at left, Igor Nesteroff (Commission) and I. Wood (University of N.S.W.). Bottom right: A close-up of the dumping operation. The ash is lifted from the hold by the grab and dropped through a canvas chute 40ft. below the surface. Five hundred tons of the fine ash was dumped into the ocean from the Dunmore. The dumping operation itself took several hours.

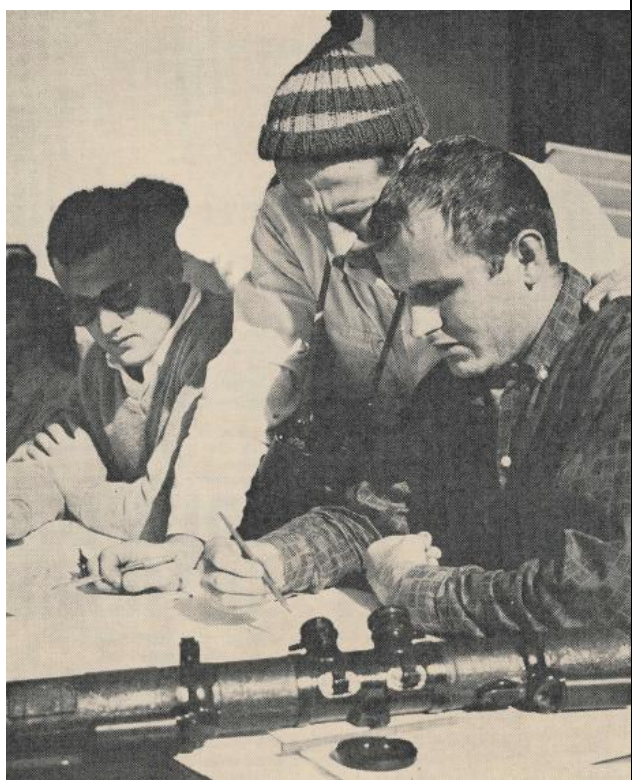




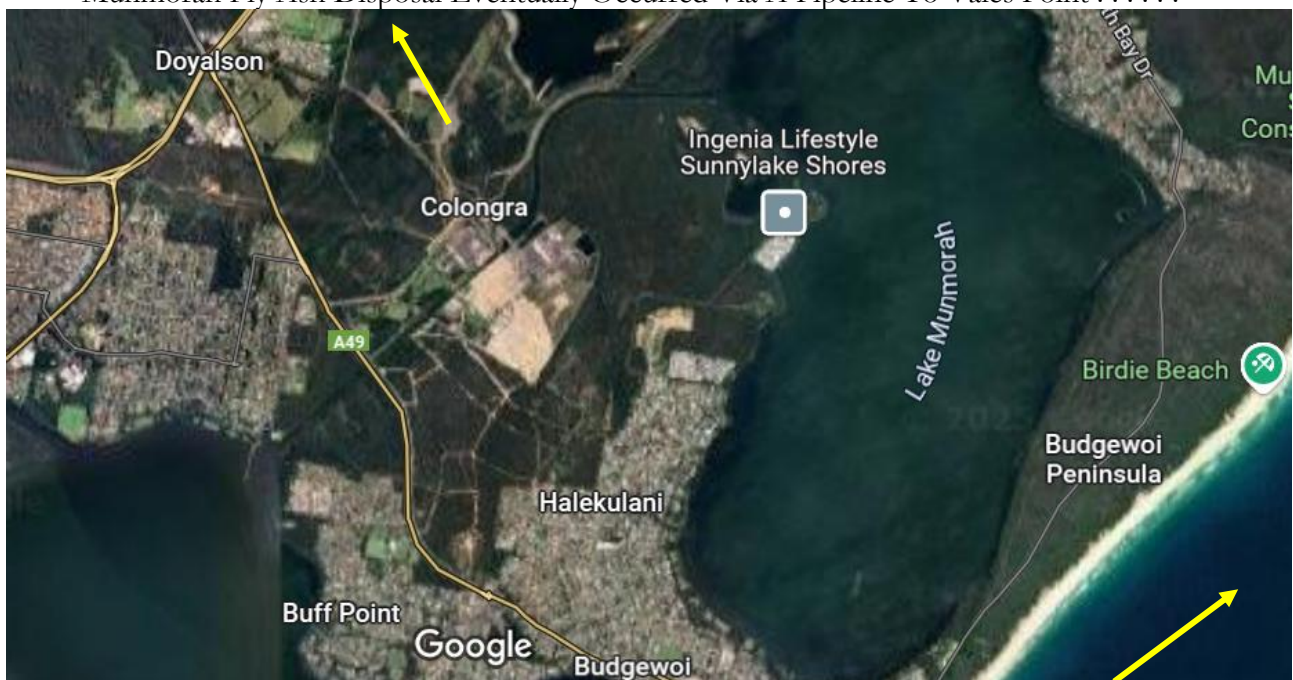
At right: Surveyor Graham Caddy and chainman, Bill Mullins, check float positions from one of two shore survey stations on the hillside. The aerial picture below right, shows the operation as seen from a light aircraft. The ash can be seen suspended in the ocean current moving away to the north-east as predicted.

Shore control station, Wybung Head. From this point the operation was directed and the results co-ordinated. At left, Engineer Ken Watson (centre) asks for information from Bob Wall (Commission) and Gordon Lloyd (Commission). Control was in constant radio communication with the Dunmore, the divers' boat and surveyors stationed on two

hillsides near Wybung Head. Calculations and measurements taken by personnel at these locations were directed immediately to control where an overall picture of progress was obtained. Commission engineers remained at Wybung for several days after the test, tracking movement of the ash. The test was later described as "highly successful."



Munmorah Fly Ash Disposal Eventually Occurred Via A Pipeline To Vales Point



. And Not Here !!!

(Editorial Note : One has to be grateful that the decision resulted in land-based development of Fly Ash Disposal with a disposal line run from Munmorah to the Vales Point Ash Dam. Imagine the controversy over the next forty-five years of the Station's operation if disposal had been into the ocean!

A corollary comment, again with gratitude for the land-based solution – Munmorah fly ash contained a proportion of "floaters" – hollow spherical 'beads' that rapidly ascended to the surface of the disposal

pond. These migrated to the shoreline, wherever the breeze would take them, and would accumulate in great ‘fluffy’ masses. A veritable nuisance.

Pozzalanic went to special pains to harvest these ‘floaters’ – their features made them an ideal additive for light-weight concrete! Had these ever been discharged into the ocean, many Central Coast beaches would quickly have become an environmental nightmare).

Munmorah’s Cat

Stefan Steens

Late at night end of shift, John Turner and I had finished our jobs on the unit 4 end and decided to walk back along the outlet canal to the workshop. Nearing unit 1 end, we stopped to look at the power station cat at the end of the canal wall. The cat became scared as we approached and ran along the trash-rack access bridge. Unfortunately, the cat fell into the water. John jumped onto a scaffold and offered the cat a plank for rescue; the cat refused and kept swimming. Cats can swim very well - I don’t know why they don’t like water. Watching the cat swim in circles, we felt we had to save it. We grabbed a fire hose left on the ground by some forgetful person and lowered it to a tired cat swimming around in the current. Cat grabbed the hose, climbed up, and staggered back into the station, looking very bedraggled. We never saw the cat again... but we were gratified that we had been able to save it.

Fishing

Mike Melidonis

Munmorah mechanical section ran an outside fishing club from Swansea involving foremen, Technical Assistants, Technical Officers and Engineers. With a hired boat, we (up to 10) would start at around 5a.m., motor out offshore up to 10km, and fish away. We usually got a great catch, but seasickness was often a problem. One unfortunate day saw slightly rough seas. One by one, people started to get sick. Ted Pickering barely made it out of the channel before curling up in the foetal position and remaining like that for the entire trip. He was followed by others, including Tom Francis, until Frank Mieszala and I were the only ones still functioning. Frank went well until he performed his usual method of sucking the old bait off the hook to rebait, when he succumbed, leaving only me for a lonely return to Swansea. They used to call me old iron guts.

Greenpeace Invades Munmorah 1

Ken Thornton



Greenpeace activists protest 15 November 2007 (<http://www.greenpeace.org.au>)

Munmorah was in the news on many occasions. Whether it be the commissioning of its first unit or the announcement that the station was closing down. Between these two events - four decades apart - the Greenpeace protest of November 2007 was of great concern at the time. The Sydney Morning Herald of 15 November 2007 published an article relating how 15 Greenpeace activists had occupied vital parts of the station. The activists shut down coal conveyors, chained themselves to equipment and even announced their protest to the world by painting the words 'COAL KILLS' on the Turbine House roof. The intruders entered the station at first light, and the protest ended with their arrest by Police a short time before 11 am.^{vi} A senior Central Coast executive at the time of this event concedes that this was a very worrying morning.^{vii} There was concern for the safety of those intruders in the vicinity of coal conveyors. While it appears that those intruders on the Turbine Hall roof were using safety harnesses and were anchored to the roof, power station management and staff were concerned that the intruders were directly above the 330 kV generator transformers. Anecdotal evidence suggests that Greenpeace were aware of the OHS issue associated with access to the power station, especially accessing the roof of the Turbine Hall. A short time after this incident a senior Delta Electricity executive met with local Greenpeace representatives to discuss the power station related risks that their members had been exposed to.

GreenPeace Invades Munmorah 2

Bob Porter

Following on from Part 1 above is an extract from a Greenpeace 2012 article, that was posted shortly following Delta Electricity's announcement that Munmorah would be permanently closed, and decommissioned. Refer : [Munmorah made me the criminal I am today - Greenpeace Australia Pacific](#)

Greenpeace quote Delta's rationale for the closure : *"Decreasing energy demand in NSW has created an excess supply situation. Munmorah's place in the market has been overtaken by newer and more efficient generators and alternative electricity sources. The station's ageing infrastructure and high maintenance costs mean that it is not economically viable to operate. The carbon tax further erodes its viability."*

The article then goes on to highlight the long-standing Greenpeace anti-Munmorah campaign against what it alleges to be "one of the oldest and dirtiest coal power stations in the country."

The author continues

"Munmorah and Greenpeace go way back. In 2007, I was one of 15 Greenpeace activists who were arrested for occupying the power station and painting "Coal Kills" on its roof. This happened just one week out from the "climate change election" of 2007. It was the first time I was arrested for taking non-violent direct action and led to me now having a criminal record. Deciding to take illegal action for the cause of tackling climate change took a long time, but it's a decision I've never regretted. That day showed me the power and importance of taking direct action."

In March 2008, an earlier transcript records :

"13 activists, including myself, appeared in court today after we took part in a peaceful Greenpeace protest last year. We shut down coal loading equipment at the Munmorah coal-fired power station and painted the message "Coal Kills" on its roof, in order to highlight the fact that our atmosphere is being choked with greenhouse gases, caused primarily from burning fossil fuels such as coal."



In addition to the Turbine House roof inscription, the “invaders” shut down the coal conveyors supplying coal to the bunkers, and chained themselves to the conveyor belt structures. The Police intervened the next morning, arresting the intruders, and removing them from the site.



Editorial Note : The brazen escapade by Greenpeace was undoubtedly a successful operation from their viewpoint, in highlighting the consequences of fossil-fuel power generation. However, despite their assertion to the contrary, their protest would have been inconsequential in the decision to decommission Munmorah. As outlined by Delta at the time, the closure was driven purely by commercial considerations.

Volleyball

Frank Mieszala

I was just thinking that volleyball at Munmorah is a fine memory of mine. At lunchtime, we had 17 teams playing during the peak, including trades, techos and office staff. There was rivalry between Munmorah Pythons and Vales Point Cobras in the Central Coast Volleyball Association. There was a Munmorah team in the Newcastle comp under the name of Polonia (some Munmorah members joined this team, but it was soon all Munmorah). We won the comp a couple of times.

Wyang

Occupational Hazard – Mill Balls !

Terryl Frazer

In the mid-1980's, with Vales Point and Munmorah being long-standing operations on the Central Coast, and with developments under consideration at Mardi, Olney and Chittaway, the Electricity Commission decided to open a Public Relations Office in Wyong. I was appointed as an “Information Officer.” The Office received a large number of enquiries, complaints, information requests about wide-ranging issues associated with the Commission's activities, and future plans.

With high unemployment in Wyong Shire, the Office was a de-facto employment agency; and there were several educational projects conducted in conjunction with local Schools, to promote a better understanding of the industry. “Mr. Megawatt” – the Commission's promotional character – was a frequent visitor. Amongst a few select exhibits in the Office was a cluster of mill balls – steel balls about 40 mm. diameter, used in the coal pulverising mills at Eraring.

One morning an aggrieved member of the public entered to Office in an extremely agitated state. The visitor was clearly severely affected by alcohol. There was a tirade of criticism levelled at the organisation . . . and at me in particular . . . as if I was directly responsible. The aggressor suddenly grabbed a mill ball and poised ready to project it in my direction. Being the only person at the Wyong Office, I had visions of being severely injured by this threatened action – perhaps rendered unconscious – perhaps worse!

Using all my crisis-management skills, I managed to slowly calm the intruder and eventually managed to get him to leave the Office. Shaken by the episode, I opted to visit the nearby Wyong Police Station, to report the incident. The Officer who received my report was very understanding and supportive, but without any real solution in the event of a recurrence – other than install an alarm!!

The collection of mill balls was deemed an ‘occupational hazard’ and returned to Eraring to be more productive.



Terryl Frazer – Wyong Office – June 1987 ; courtesy of 'Network'.

Liddell



Liddell, July 1972 (ECNSW 11438)

Promotions, The Branxton N.R.V. And Disaggregation.^{viii}

For the first 25 years or so, many Liddell people scanned each new issue of the Position Vacant Circulars (P.V.C.) for jobs that offered a better paying position at Liddell or other Electricity Commission / Pacific Power stations. Many acknowledged the difficulty of moving away from the Upper Hunter. Any coastal employment opportunities would be hotly contested. While the ECNSW would generally contribute to moving costs, moving children away from school and friends was never easy. Some partners could not get back to the coast soon enough. Many perceived these and other factors as a figurative employment non-return valve at Branxton that limited transfers from the Upper

Hunter to the coast. With disaggregation in 1996, and expiry of an agreement to allow P.V.C.s to be published across Pacific Power, Macquarie Generation and Delta, this non-return valve morphed into a virtual stop valve. Employment opportunities in coastal power stations were only available through the media or online.

While perhaps attractive to younger employees, leaving the organisation was not a feasible option for older employees. Superannuation benefits were the “invisible leg irons chaining them to the front gate” especially as they approached retirement age.⁴⁰

Ken Partridge came to Liddell in October 1976.⁴¹ He recalls that many of the older Supervisors at the station had transferred from smaller Electricity Commission stations with the express purpose of acquiring a higher graded position before they retired. Others took up 8/9 positions and were eventually promoted to 14/15 positions. Unlike Ken, they moved to Vales Point ‘B’ or Eraring as these stations were commissioned. For over two decades, promotion in the Upper Hunter was common, as it was across the broader organisation.

For example, engineers could elect to ‘chase grading’ at Liddell, Wallerawang, Vales Point, Munmorah or in later years at Eraring, Bayswater and Mt Piper. Many operators progressed from APPO to P.P.O. and later Charge Engineers / Shift Managers at Liddell or other stations. A few APPOs came off-shift to take up an operator training role and went back as P.P.O.s. A very small number left operating altogether and transferred into the technical or engineering side of power stations. For many Supervisors, 1996 ushered in growing frustration as their perceived career path in the Upper Hunter and the coast was thwarted. Promotions relying on retirements were restricted while transfers to coast were eliminated. The departure of some older Foreman between 2010 and 2012 offered limited promotion opportunities, but the sense of frustration returned as these positions were filled.

Gender^{ix}

Liddell’s workforce was predominately male, although the percentage declined over the years as more females were employed – 11 per cent across A.G.L. Macquarie in 2020. While all ECNSW power stations employed females in administration-related jobs, Liddell was the first to employ ladies for non-office work as cleaner labourers and later as power workers, tradespersons, technical and engineering staff and managers in later years. For this reason alone, it would be remiss if the experiences of this portion of the workforce were not recorded. Going beyond the everyday experiences of men and women working at the station, this story highlights aspects that may not immediately come to mind. Some recall good experiences, some not so good.

A long-time female employee related a story of an inappropriate question at her interview for an apprenticeship in the mid-1980s. She was asked, “How would you feel about working in a workshop adorned with pictures of naked women?” Just the type of question a 19-year-old young lady does not need at her first-ever job interview. What does she say apart from ‘we’ll see how it goes.’

The pictures in question were there on her first day in the workshop. She asked that they be removed – they were not. Her recourse was to go to the newsagent after work and buy a few magazines with male centrefolds. She placed the centrefolds under the Perspex on the meal room table the next day. Fight fire with fire! The following day, nothing was said, but the male pictures had Texta fig leaves in the relevant places.

In 2020, it would seem that the offending posters were not on public display to the same extent as in previous years. However, some individuals reportedly had them in their personal locked compounds or lockers.

Nevertheless, it has to be acknowledged that not all ladies working at Liddell were subjected to such treatment. A current (2020) Engineer commented that in her experience, males tend not to swear in her presence. If they do, it is generally in the heat of the moment. Most immediately apologised, although she did note it was usually older men who did, not the younger. Another young engineer of recent times recalls that her experience of Liddell in this area was uneventful, except for requests for dates. Another long time female employee started as a cleaner labourer. She, too, had to contend with the meal room ‘art gallery’, but her solution was to sit in a position such that she did not have to look at the pictures. In situations like this, she did not force the issue. This lady gave the impression that she did not put up with inappropriate behaviour. “The job still had to be done, and you just got on with it.” In her work, some men were helpful; for example, in heavy lifting, others were not so helpful. In their opinion, ‘you’re employed to do the job, so go and do it.’ In retirement, she described the team she worked in as ‘her’ team, not that she was the supervisor. Instead, she felt she was a valued member, comfortable, and, most importantly, had a sense of belonging. Her time at Liddell was the “best job I ever had.”

Women like this sound resilient, and of course, they are the ones who persevered and survived. Several men have used the term concerning their time at Liddell. However, it is doubtful they would have classed their ‘survival’ in terms of their gender.

Allied to gender in the workplace is the workshop supervisor's role in setting the tone or standard. As the ‘centrefold’ story highlights, some would argue that the acceptable standard in that workshop at that time was relatively low.

However, all workshops were not the same. A long-time Supervisor countered bad language and ‘centrefold galleries’ with “Would you speak to your wife or daughter that way, or would you display centrefold images in your own home?” In 2020, it would seem that at least one Supervisor ensured that team members and their workshop reflected current community standards regarding gender and all aspects related to diversity.

In many respects, Liddell’s workforce was a microcosm of the wider society. Playboy centrefolds were perhaps the least of the problems confronting some women. Hearsay suggests that situations occurred that crossed the line of acceptable workplace behaviour, no matter the era. It is acknowledged that such events more than likely took place, that research into such circumstances would be challenging, and that this compilation is not the most appropriate place to air such information.

Grade 9 Versus Grade 18 – It’s All About The Numbers

Steve Carter

Operators in the early days of Liddell were graded from 4 to 9 for APPOs and 15 to 18 for Shift Managers (Charge Engineers then).

One of the more ‘unique’ charge engineers at Liddell was famous for pointing out to APPOs that “I am ze grade 18 charge engineer and zo I am zerefor twice a smart as a grade 9 APPO”.

It came to pass however that the APPOs received an increase in grade, so the APPOs went from grade 9 to a grade 10, while the charge engineers remained at grade 18.

One APPO wag then pointed out with some delight to the said Charge Engineer, “unfortunately you are now only 1.8 times smarter than an APPO”.

The Magic Key Number

One busy afternoon shift at Liddell and the Operators needed some gear stored in a rarely used storeroom on the operating floor. But unfortunately, they couldn’t find the key. They could see on the lock what the key number was, so they called the office Admin Assistant before she left for the day to see if she had a copy.

The young lady from Admin answered the phone: “what’s the key number?”, she queried.

The operator replied, truthfully - “69”.

There was a pause at the other end of the phone.

She replied, “you operators are all the same...”.

Boiler Stop Valve Incident - Liddell Corollary

Steve Carter

Refer Vales Point 6 Boiler Stop Valve incident - a similar Liddell event occurred several years prior:

C Shift Charge Engineer Stan Butel (aka Mother) was fond of having a chat with the PPOs at their panels. The front of the unit panels at Liddell sloped up 45 deg. so were perfect for sitting on and having said chat. There were also some largish L&N Boiler Stop Valve control buttons located on the panel there too.

So, one day when Mother came in for a chat with the PPO, he planted his considerable backside on the panel, inadvertently pressing one of the unit’s boiler stop valve close button. The PPO fortuitously noticed that this was happening and averted a catastrophe by alerting Mother to the issue.

To prevent a recurrence, the engineering staff cleverly designed sturdy perspex boxes to fit over the main control buttons. The boxes had a hinged lid that had to be lifted up to operate the buttons.

Henceforth these covers became known as “Baggy Arse Covers”.



The Late, Great, PPO Rod Drummond guarding his panel with the Baggy Arse Covers in place.

Luigi The Amazing Italian Acrobatic Tuneful Painter.

Ray Berry

During the erection of the turbine house crane rails at Liddell, entertainment was provided by Luigi, the Italian Transfield painter who was painting the crane rail beams in situ by the unorthodox and highly risky technique of straddling the top flange of the beam, reaching over and painting the undersides of the top flange, then both sides of the web, then reaching down and painting the top of the bottom flange, then amazingly, hanging by his ankles to the top flange, reaching around upside down and painting the UNDERSIDE of the bottom flange, all the time signing lustily Oh Sole Mio , Nessun Dorma and other Italian classics!! Three coats applied, with no safety harness.

Col Stark will verify this amazing feat.

Internal Combustion Engine Conversion

Steve Carter

On a reasonably quiet day shift at Liddell, the PPO on in-service Unit 3 noted that the Generator Hydrogen frame pressure was dropping fairly rapidly. He asked the Turbine APPO to go and check around the see if he could find the source of the leak.

A short time later the turbine APPO had located the offending source. A construction worker was jackhammering in the turbine basement and had somehow mistakenly connected his jackhammer compressed air line to the generator hydrogen purging connection!!

The horrified APPO alerted the jackhammer operator with this observation, to which the jackhammer operator casually replied “But the jackhammer was going great. Although I did wonder about the blue flames coming out of the exhausts...”.

A Few Random Thoughts

Ken Thornton

Fifty years ago (on May 17, 1971) the first generating unit at Liddell Power Station was successfully connected to the NSW electricity network.^x

"Successfully" is an appropriate description of this event, because a few weeks earlier, a similar exercise had failed.

For those of a technical bent, the 500 MW generating unit had an electrical problem and attempted to synchronise 180 degrees out of phase.

At that first attempt, the electrical jolt that the unit received was quite severe.

The power plant operator in control remembers that he had never seen so many ashen-faced engineers and contractors.

Liddell has a reputation of "everyday something different happens".

Usually, that something is not of a minor nature.

It could be coal storage and its transportation issues, boiler tube leaks, generator failures, transformer explosions, even a fire on a tanker delivering hydrogen gas.

But 50 years is a long time for a large complex industrial facility not to have significant technical incidents.

For nine of its first 11 years, Liddell generated more than 30 per cent of NSW's electricity, and for two of those years, 39 and 40 per cent respectively.

Towards the end of its life, 2014-2018, the station managed to contribute an average of 12 per cent, with a maximum in that period of 23 per cent.

But Liddell is more than incidents such as these. It is more than the current political arguments about its closure or concern about its emissions or coal ash dust, important as each is.

As a substantial contributor to the NSW and now the South-East Australian electricity networks, Liddell affected the lives of many millions of people.

More directly, it had an impact on the thousands who worked there in those 50 years.

Too often, the public face of power stations or their parent organisations are chairpersons, general managers, managing directors or station managers.

Apart from the energy trader at the centre of the Pacific Power/PowerCor court case in the late 1990s, or a Liddell employee recently voicing concern over the station's looming closure, individual employees rarely surface in the media.

Although not of recent times, when employees have made headlines, it was usually through the withdrawal of their labour.

When interviewed, an early union delegate recalls the "industrial relations warfare" of his time and still holds bitter memories of the discrepancy in the quality of subsidised housing allocated to different employee groups.

Former and current employees have mixed opinions of their time at the station. Many commented on Liddell being hot, dirty, dusty, cramped and noisy.

Positive comments such as a passion for Liddell, the camaraderie, a willingness to achieve under difficult circumstances, responsibility at a young age and a great learning experience were notable.

In contrast, a couple of experienced engineers commented on their fear of an unfavourable job reshuffle, the stress of dealing with senior management or in one instance that their time at Liddell being the worst of their career.

Perhaps the most novel comments were that the station had a reputation among employees in the early days as the 'Warehouse by the Lake,' or 'Lakeside Discounts'.

Liddell furrowed the brows of many who worked there. I am not ashamed to admit that, along with some other operators, Liddell on occasion frightened the hell out of me.

Those of a technical or engineering nature enjoyed its intricacies, to the point that one or two people thought it to be a serious 'toy' to play with.

Many workers had an in-depth knowledge of their patch; others had more than one patch under their belt.

A few had "beyond the call of duty smarts" and applied their expertise accordingly.

In many instances, these were the "go-to" people.

Others saw working at Liddell only as a means to earn money.

One highly respected maintenance supervisor wryly saw the station as a place to while away his time before and after a stint of lunchtime lakeside carp fishing.

The opinions of politicians, the media, and special interest groups are important.

Yet, people are equally important and are at the heart of Liddell.

An Engineer “Dropped In”

Frank Rynehart

A quiet game of 500 was in progress during a lunch break. An Electrical Engineer was tracing out some computer input cables. He was on the mezzanine level right above the game in progress at the lunch table. Unfortunately, the engineer stepped on the flimsy ceiling plaster, instead of the joists, and was working by torchlight when...BING, BANG, BONG!! He fell through the roof and landed in the middle of the lunch/card table. It took a minute for the dust to settle, then injury free, everybody laughed heartily and couldn't stop. The cards were postponed, and a half hour was allocated for clean-up. The sandwiches had to be thrown out!

Liddell's Last Day

Steve Lanesbury

This narrative of Shift Manager Steve Lanesbury's experience reflects his journey through Liddell's shutdown process, marked by tradition, challenge, and quiet pride. Here's how the story unfolds based on his interview with Ken Thornton:

In April 2023, Steve was deeply immersed in the intricate and symbolic process of shutting down Liddell's last three Units. Unlike traditional operations, there were no specific instructions from management. Instead, they entrusted the responsibility to the Shift Managers, whose guidance became the linchpin in managing this unprecedented task. Steve, along with his team, approached the decommissioning as if it were a conventional CMOP (Critical Maintenance Outage Procedure), yet with new job sheets and flow charts designed to capture unique aspects for the Decommissioning Team, including tasks like flushing chemical tanks and draining systems. Steve and his team, including the SMs (Shift Managers) and SPCs (Senior Plant Controllers), undertook the assignment, learning and refining their approach with each Unit's shutdown.

A particularly poignant moment was the decision to have Dallas Cunneen, a veteran of 49 years, take Unit 2 offline, emphasizing the station's historical continuity. This wasn't just a matter of protocol but a tribute to the contributions of the maintenance team, as much a part of the station's heartbeat as the operators. After discussions with other Shift Managers, Steve proposed that Dallas trip the Unit mechanically—a fitting honour that the team agreed upon and supported. When the time came for the Unit to be tripped, Steve and Dallas left the PCR and walked to the Governor end of the Unit. Steve likened it to a funeral procession—an apt metaphor for the emotions stirred by the station's final days.

As the shutdown of the last unit, #1, approached, Steve recalled an old strategy to let the Unit “take itself out” by gradually lowering the X-Over pressure. This technique, developed over years to manage tube leaks, had always been a bit of a game. How low could the pressure go before the Unit would trip on back pressure? Steve Gardiner had set the record, taking it down to around 3500kPa. Yet, this time, things didn’t go as expected. Despite reducing pressure, the Unit lingered, outputting 0 MW even as the back pressure fell below anticipated levels. It wasn’t until they tripped the Main Turbine on the DCS that the shutdown was finalized.

Applause filled the room, marking a moment of collective recognition. However, for Steve and his close team members, there was a sombre tone. The applause was met with muted reactions as they absorbed the gravity of the closure, a symbolic end of an era. As Steve put it, it felt “a little morbid,” a quiet acknowledgment of the weight of what had been accomplished and lost.

In the following days, Steve’s team quickly set about the initial stages of decommissioning, draining systems and reducing the operational footprint. Planning for decommissioning had been a long process, spanning seven to five years, ensuring that, when the time came, everything would proceed smoothly. Decommissioning, however, was an evolving skill, and the team learned as they went. A group of experienced operators took on the primary decommissioning tasks, some set to retire afterward, while others would transition to Bayswater. Meanwhile, a core team of operators remained on shift for tasks like monitoring the 33kV system and overseeing the Ausgrid system’s feeds, continuing operations under Bayswater's oversight until the new infrastructure was fully operational.

A postscript to the shutdown. Four weeks later, Ken Thornton returned to interview Steve. It was a cold June day, and as he and Steve walked through the basement, Ken commented on how cold it was. “Of course it’s cold. The plant has been heating for 52 years and now it’s not. Of course, it is cold.” And then there was the large pump running somewhere in the basement. This was the first time in 50+ years that it could be heard from just outside the PCR.

Hanoi

Vietnam Experiences

Bob Porter

In the early 1990’s, Pacific Power International established a range of overseas relationships, particularly with Vietnam. PPI personnel undertook Owner’s Engineer roles to Electricity Of Vietnam on the 500 kV Transmission line project, from the outskirts of Hanoi to Ho Chi Minh City – almost 1,700 km; and the Pha Lai project in the north – 2 x 660 MW coal fired Power Station, 2 x 220 kV Substations, and 125 km of 220 kV Transmission Lines. On the latter project, Bob Porter was Manager of the Hanoi Project Co-ordination Office, and Pat Smith was the Power Station Site Manager.

In mid-1996, the Power Station construction was out to international tender, with a requirement for potential Bidders to attend a Site Inspection. On the Pha Lai project, PPI were joint-ventured with EPDCI of Japan – their representative, Toshi Toyama, was also involved in conducting the Site Inspection. We each had our respective interpreters – fundamental to effective communication in Vietnam. The inspection was attended by 35 – 40 representatives of international consortia, and successfully completed.

Toshi offered to shout dinner back in Hanoi for our group – a generous gesture, and we agreed. Our minibus – under Toshi’s direction – took us to a cluster of restaurants on the Red River to the north of the CBD. We were ushered in, and immediately recognised that we were in for a distinctive experience by the newspaper ‘table cloths’!

It was banquet style, with Toshi making arrangements. Multiple courses were delivered, and served around . . . with the ladies consuming little more than the side-salad. The repast was accompanied by lashings of rice wine – a liquid with a potency akin to a mixture of methylated spirits and 94-octane gasoline. At the conclusion of dinner, we each were dropped off at our respective abodes, thinking that we might have enjoyed a more salubrious venue, but grateful for Toshi’s hospitality.

A couple of weeks passed, and over lunch, I was perusing the daily “Hanoi News” English newspaper. A centre spread in said publication featured an article on the Dog Meat Restaurants of Hanoi – and there was a detailed description of the location we had visited, and a course-by-course review of the menu. Particular mention was made of the finale – “Dog Paw Soup” – a large tureen with a set of clearly identifiable paws (complete with toe nails) hanging over its edge!

The article was promptly presented to two of the Interpreters, also lunching in the front office, with a demand for explanation! “We knew where we were being taken, but were sworn to secrecy!” Clearly s conniving Toshi Toyama plot!

We subsequently gleaned that the Dog Meat scenario is an almost exclusively male domain, which explained the ‘salad only’ disposition of the ladies in our project group. It supposedly enhances the male libido, and is most beneficial during the fourth week of each lunar month. It didn’t work for me!!

Multiple preparatory trips to Hanoi for the Pha Lai project, and then 4 ½ years resident in Hanoi during project construction provided many experiences distinctly Vietnamese.

On the day of the previously reported Power Station Site Inspection, our lead interpreter, Miss Ha, took ill with severe lower abdomen pain. We delivered her to the Emergency Department of Hanoi Hospital before heading to site, to enable diagnosis and treatment. When we returned in the evening, she was still in the same emergency ward, still in pain, and seemingly without any diagnosis or treatment.

Pat Smith and I requested to see the Doctor-In-Charge, who fortunately spoke sufficient English for us to be understood. We explained that Ha was a vital member of our project team, that we were concerned for her welfare and wanted her treated, that we would provide “support”, and would he do his best to see she was treated and cared for. The conversation was accompanied by the casual appearance on his desk of a ”white envelope” containing \$40 of crisp, new American bank notes!

Within an hour, Ha had undergone an appendectomy – a development which potentially saved her life. I labelled it “Instant Medicare”! Her favourable treatment during several days of hospital convalescence attracted a similar premium!

The Hanoi traffic mix in the late 90’s was about 30% bicycles, 50% motor bikes and 20% motor vehicles. A 125 cc Honda was a “family machine” and it was common-place to see Mum, Dad and two or three kids precariously perched astride this mode of transport. Several of our expatriate cohort decided we should obtain motor bike Licences, to facilitate “getting around town”. There were several tuition sessions on out-of-the-way byways, and a little study of the basic road rules (which in practice, seemed to be either ignored or misunderstood by the vast majority).

We all registered for the test – which was in two parts – a written theory exam, and a practical test. We arranged for one of our receptionists to make the arrangements – including a ‘significantly enhanced’ Test Fee. There were perhaps 20 people in the group doing the test that morning – with the theory exam comprising several pages of multiple choice questions . . . in Vietnamese! Surprisingly (??) on each of the desks assigned to our 5 or 6 applicants was a template within the bundle of papers, indicating the correct answers!

The practical test was to ride a figure-of-8 marked out on a 15 m. x 7 m. grid. The natural tendency was to use 1st (low) gear on the bike. No! No! No! Put the bike into 3rd (top) gear and slowly traverse the course – much less sensitive to throttle control, resulting in a smoother and more predictable manoeuvre. We all passed!

Our first PPI accommodation in Hanoi was in a small back-alley called Hoi Vu, just a block from the main tourist strip of Hang Bong and Hang Gai, and about a kilometre from the Central Post Office. The standard inner-city building block was about 15 m x 6 m, so anything substantial had to go up! Our building had six levels – the ground floor featured the project office; our Receptionist, Ha and her husband Vinh (who doubled as our caretaker) were in the Level 2 flat, which also had a large lounge-family area. Levels 3, 4 and 5 were all identical two-bedroom apartments for Porters, Mallin family and visitors respectively, and Level 6 (the roof) featured the water tank, clothes drying area, and a few scattered pot plants. A staircase via the office gave access to all levels.

One weekend, Marie and I were the only ones in residence – the others had all left for various reasons. Before leaving, Vinh advised in broken English that a typhoon was approaching Hanoi. We took little notice of the warning, expecting only a storm of some kind!

Very early during the Sunday morning, Marie and I were wakened by the sound of running water. We opened the door to the landing, to be greeted by a cascading waterfall pouring down the stairs – all the way to the ground floor office. Via torch light, I made my way against the flow to the roof to identify the source. The rain was torrential, and the roof flooded – with the stairwell being the point of overflow. There must be a drain up here somewhere? Now with pyjamas soaked to the skin, I explored. “Yes – there it is!” – located on a narrow parapet, outside the handrail, with a 6-level drop to the street below resulting from any slip-up. The drain was clearly blocked.

I precariously manoeuvred through the handrail to the drain inlet, and removed several handfuls of accumulated debris. With a rush and a gurgle, the roof accumulation began to slowly dissipate, until perhaps 15 minutes later, the staircase waterfall ceased.

There was considerable mopping up to do, although fortunately most of what flooded down to the office continued to flow out into the street via the gap beneath the front doors, and there was little damage of any note.

We later learned that Vinh's typhoon was in fact a hurricane, that 'came ashore' from the South China Sea. And we were subsequently more mindful of any weather advice he gave us.

The 500 kV Transmission Line project involved Frank Mieszala, Garry Smith, Ed Henna (and others that don't readily spring to mind). The route ran from Hoa Binh (west of Hanoi) almost the length of the Country to Hi Chi Minh City (Saigon) in the south.

Their project induction included inspection of various sections of the route, and they were directed to stay strictly within the boundaries of the transmission line easement, which had been clearly marked. "Why such limiting movement?" was the obvious question. "Land-mines!" was the very graphic one word response.

The easement had been thoroughly scanned for unexploded mines – a legacy of the Australian contingent that had preceded our guys back in the 60's and 70's!

Storm Over Hanoi

Bob Porter

Pacific Power International were contracted to Electricity Of Vietnam as Owner's Engineer on the Pha Lai Power project. A project management Office was established in Hanoi, in a small back alley just off the main tourist corridor of Hang Bong and Hang Gai.

At the time, Ralph Garland was General Manager / PPI – a relatively senior Executive in the Pacific Power hierarchy. Ralph was visiting Hanoi for a special occasion. I think it might have been the groundbreaking ceremony at the Power Station.

After dinner with the project team at a Hanoi restaurant, Ralph indicated he'd like to see the Office and our associated residential facilities. Not a problem. We grabbed a cab and travelled a few kilometres to the venue.

As we reached 21 Hoi Vu, the 'heavens opened' as they are wont to do in tropical regions, particularly in the early evening. It was a massive, torrential downpour.

21 Hoi Vu was located right in the middle of a small, almost imperceptible street dip, with a marginal stormwater system at the best of times. During periods of heavy rain, this dip quickly filled, forming a veritable lake for about 100 metres in each direction. There were three steps from the street level to our ground floor and the water level never got above the second step – because the dip overflowed at the end of the street into Greater Hanoi.

We offered to put Ralph up for the night in our guest quarters. Still, he insisted on returning to the more salubrious environs of the Hilton Hotel. We rang for a cab, which pulled up within sight at the edge of the "lake" – but would not venture any further.

I still retain the graphic image of our PPI General Manager silhouetted in the light of a nearby street lamp – shoes and socks in one hand, a borrowed umbrella in the other, trousers rolled up above his knees, with rain still pelting down, wading through the murky stormwater to reach the cab. Welcome to Hanoi, Ralph!

Homebush

High Voltage Transformer Testing

Lloyd Griffiths

During a 'life-time' of electricity industry employment, I had occasion to have three terms of work at Homebush Sub-Station. During one of these, I was a team member on an investigation into a Power Station transformer problem – a Munmorah 22 kV / 330 kV single phase generator transformer, from memory.

Previously the High Voltage Test Branch had inspected the transformer in service, and deduced that the problem emanated from either a loose Winding Busbar and / or the Tap Changer Mechanism. It was dispatched to Homebush for further investigation and remedial treatment.

The test programme was under the direction of the Chief Electrical Engineer. I was assigned the role of Control Panel operator to regulate and adjust the Testing Transformer output voltage, that was applied to the windings of the faulty Generator Transformer.

Energisation was from the Substation 415V Switchboard via a Variac Control to the truck-mounted Test Transformer, which was coupled to the Generator Transformer under test. The Variac output was

adjusted half-a-turn at a time – then a hold, while conditions stabilised, and were monitored – then await the next instruction to proceed.

This repetitive process continued for about an hour, when suddenly the calm and orderly environment turned into chaos! I was instructed to move SLOWLY to the centre of the Control Cubicle, with minimal movement of hands, arms and legs. All other personnel were instructed to stand well clear, a safe distance away!

It was determined that the earth connections on the Truck / Test Transformer had not been connected to the Substation Earth Grid. The voltage build-up resulted in massive “Corona Rings” around each of the truck’s steel rims – a ‘display’ that would match many a New Year’s Eve fireworks.

It took some time for the energy to dissipate, via discharge through transmission earth rods! Fortunately there was no ‘collateral damage’ to either plant or personnel. The saga illustrates the importance of detailed Method Sheets, and associated Check Sheets in avoiding such adverse circumstances.

Wallerawang



Wallerawang, March 1982 (ECNSW 13512)

No Fluke.

Ray Berry

During the commissioning of Wallerawang Unit 8, the Electrical section persuaded the Commissioning Manager Bruce Aird to buy us a quite expensive Fluke digital voltmeter to accurately check transmitter outputs during commissioning. A recurring issue at the time was the flooding of the Once-Through CW pit.

One night, an erudite young engineer (name withheld) set up the Fluke at the pit-level transmitter. A group had assembled in the PCR during load raising when the PPO noted that the Once-Through CW Pit was flooding again. "Oh my gosh- the Fluke!" called out the young engineer sprinting off to the pit, later emerging with a very soggy water-filled Fluke in hand, which he had found floating out the end door of the turbine hall.

Later that night, we went back to the construction office and inquired about what had happened to the fluke. "Oh my gosh- the Fluke!" cried the young engineer again sprinting off to the meal room, reappearing with a Salvador Dali-style melted Fluke. He had put it in the pie warmer to dry out on HIGH (and, of course, forgotten about it).

The next morning, John Elkins and I fronted Bruce Aird with the sad news of the fate of the Fluke. Bruce, the perfect gentleman who never swore, exclaimed in exasperation: "what that boy needs is a big, fat, f....!".

Parties

Mike Melidonis

At Wang, extracurricular activities were essential for one's sanity. These included parties, one notable one held at Grant Everyburn's house in the country not far from Wang. I think it was New Year's Eve. Much alcohol was consumed, and at midnight, one of the wives came out into the main living room naked, got up on the table and danced for a while, waking everyone up. These things were a bit feral at times.

Early Munmorah parties were generally tame, with only the occasional topless night swimming.

Later, Eraring parties were generally big theme-based parties. One based on a Greek theme involved one Vales Point engineer coming as a Greek soldier in one of his wife's pleated netball skirts. This was OK until he had to drive the babysitter home. Backing out of his drive, he ran off his driveway. Eventually retracting himself from that situation, he drove his 19-year-old babysitter home without incident. However, had he been pulled up by the police, he would have had to draw on his considerable powers of persuasion.

Balls

Mike Melidonis

Balls were an essential part of life in Lithgow for those working at Wang. The highlight of the year was the Scottish ball in mid-winter. Towards the end of the night, when everyone was almost completely pissed, the full Scottish pipe band would enter playing Auld Lang Syne. It woke everybody up, a sight to behold. Singleton had the same thing. I was able to attend both, which was a real highlight.

Fiji

Mike Melidonis

One of my engineering mates from Wang got a job with the Fijian Electricity company, I think as training manager. My wife and I went over for 3 weeks in 1979 to visit him and his wife, who lived in Nadi, on Viti Levu, Fiji. The house was near the international airport. When the PanAm jets used to land it felt like they were in the living room. The trip was quite an experience. We hung out with all the expats. We made one trip out to Castaway Island to stay in a buré for a few days, which was magic. We travelled out on the 25-metre schooner *Sea Spray*. While journeying out in perfect weather, sipping cold beer, we noticed a US Neptune anti-submarine plane above. He dived down towards the yacht, going over us at about 100 feet. We met the pilots at an expats party there. They told us how they fly these planes with just a couple of fingers on the control stick, without knowing that they had buzzed our yacht. We understood. It was an idyllic experience for this engineer who left Fiji quietly one day to return to the ECNSW.

Flying - Wallerawang

Mike Melidonis, with input from John Kempnich

A posting to Wallerawang provided the opportunity to learn to fly - and I made the most of it, on both powered aircraft and gliders.

In January 1978 a group of us flew from Bathurst Airport (Raglan) to explore the Blue Mountains - Engineers John Marshall and Ray Berry and Charge Engineer. Norm Whipp. This 'payload' probably came very close to the weight limit for a Cessna 172!

After traversing Lidsdale, we flew over Kanangra Walls, a spectacular cliff feature with a large vertical drop, then spiralled down rapidly into Kowmung Gap and Cox's Valley, well below the peaks. Unfortunately, this caused Ray in the back to turn green, matching his t-shirt, with his focus firmly on his sick bag. We climbed out of the Cox's Valley, heading towards Katoomba. Approaching Katoomba (with the town still located above us) there was 'mild concern' over finding a path out of the valley. Pressing on, eventually we did just clear the escarpment by about two hundred feet over Katoomba. I had intended to give my passengers an aerial view of the three sisters, but the horizontal view did allow them to wave to tourists there.

In June that same year, with Robin Higgs (Wallerawang Instrumentation Engineer) and one of his 4-wheel driving mates, we flew from Bathurst in a Grumman Cheetah plane along their regular route

to Innamincka, South Australia. We refuelled en-route to Broken Hill, and aimed was to land somewhere next to Wilpena Pound.

We found a very large private dirt strip close by, landed there and pitched a tent. In the distance we noticed a large dust swirl approaching. A guy in a ute pulled up and asked us what we were doing. Apparently, his family owned the substantial ranch called Wirrialpa where we had landed. He was happy to let us stay the night.

The next day we headed towards Leigh Creek (fuelling again) and then turned north towards Innamincka using 4-wheel drive navigation - sitting 500 feet above the Strzelecki Track, impossible to get lost. Landing at Innamincka was interesting, a short gravel strip. Most planes taxi down the road and tie up outside the hotel (there's not much else there). After tying the plane down, we shouldered our packs and walked through the bush to the banks of Coopers Creek and spent the night there next to Bourke's grave (Bourke of the ill-fated expedition [20 Aug 1860 – 28 June 1861] from south to north of Australia).

After waking up to noisy white birds flying along the creek, we hiked back to the plane and took off to inspect the Burke and Wills Dig Tree 116 km away across the border in Queensland. There being no strip there we circled it at low altitude, took a few photos and flew back to Bathurst, a good three-day trip.

In July 1982, now at Eraring, a group of us planned to go on a camping trip – subsequently upgraded to a Great Keppel Island sojourn. The plane was a relatively new Rockwell Commander plane, and the group comprised John Kempnich, David Whan, John Barben and myself. The plan was to leave Central Coast's Cooranbong airport and land on the beach on Frazer Island and then book into the hotel there. However the beach had rivulets coming down from the forest making landing there a risk, so we decided to push onto Maroochydore. This took us along the very long beach on the east coast of Frazer. This was around 100km long and we flew at 50 feet above the water's edge, not entirely legal but interesting.

Landing at Maroochydore we rang a hotel on the coast nearby, an eight-storey resort hotel, they picked us up and we had a very nice dinner in their restaurant on the top floor overlooking the beach. Next morning we pushed onto Great Keppel Island (GPI). Approaching the island, I spotted the airport with a departing plane, so opted to land in the same direction he was taking off, rather than fly over the airport to check the windsock. Our arrival did gain notoriety amongst the resort guests, as the first landing had to be aborted, resulting in us flying VERY low above the tourists on the beach!

In March 1984, a group of us from Eraring took off from Cooranbong in a Piper Cherokee (PA-28) to fly to Hobart - John Kempnich, Mark Franklin, John's friend Ian Holden and myself. Kempo recalls that "it was Jeff Harris's private plane that we hired. It was a bit of a bomb, anyway cheaper than the first plane hire. We picked up Ian at Bankstown airport on the way. Whilst taxiing to the runway at Bankstown, you did a magneto engine check. One of the magnetos in the engine "spluttered", so you decided we better go and get it checked out. After the mechanic looked at it, we were good to go. Doing the same test before take-off the engine again spluttered. But this time we decided 'let's go anyway, one magneto is enough'."

We stayed overnight at Merrimbula on the way down and Wagga on the way back.

Our visit took in Hobart Casino, where John Kempnich was the star, having an incredible winning streak. Every bet seemed to pay off and he accumulated around \$500 in chips before the winning streak turned around. Wisely he cashed his chips in at \$480, making it a financially rewarding night.

When it came to fly home though, John Kempnich recalls that "my friend Ian bailed out and caught a commercial flight home."

During the return, low cloud over Bass Strait forced us down to about 700 feet. The sea was incredibly rough - not unusual for the Strait. Kempo classified the flight as 'scary' due to the Bass Strait storm and retains an image of Mark in the back saying a silent prayer.

The low altitude meant that in the event of engine failure, we would only have about 30 seconds to respond! To a Kempnich enquiry about ditching, Mike replied: "We have life jackets plus a spare so all OK." Fortunately, no such occurrence! We survived!

Ironically, John recalls his father pointing out that sometime later a small aircraft ditched in Bass straight and the search-and-rescue was botched and they never found them.

Editorial Note: Mike's flying escapades were notorious - and the anecdotes here tell only part of the story. People who accompanied him on more than one flight were either very brave . . . or very naïve . . . or perhaps a little of both. Representative of many episodes was the narrative of a landing just on dusk at Wagga, with the airport shrouded in heavy fog. All on board peered anxiously into the 'white abyss' desperately trying to gain a 'visual' of the airstrip. The descent

continued until they were well below the level of the terrain surrounding the airport. Fortunately, the airstrip came into view before the mountains! I suppose we should acknowledge that they all lived, to recount these tales!!

Kanangra Walls

Ray Berry

The annual 3-day Kanangra Walls to Katoomba Classic walk was enthusiastically undertaken every May by mainly the Wallerawang Instrumentation engineers, including Robin Higgs, Tom Bennets, Ray Berry, Mike Melidonis, Howard Morris and sundry others. The APSS Pat Walsh, well known for his volatility, somehow heard about this plan during Unit 7 commissioning, summoned the group to his office and announced that he was banning the hike on the basis that "what if you get lost and the whole Instrumentation Group goes missing – the commissioning of Unit 7 will be delayed". We hikers respectfully pointed out that what we did in our own time was our business and headed off cheerfully for Kanangra Walls.

Stan McCusker

Ray Berry

Stan was an Irish inspector who had definitely kissed the Blarney Stone. A superb teller of yarns, he was forever getting caught by the Resident Engineer John Dalby telling yarns on the job. One morning I had just got in to work at 8.30 when Dalby exploded into my office complaining that he had just seen McCusker out on the boiler entertaining an audience of 20 Transfield workers. As soon as McCusker appeared for morning tea I called him into the office and acquainted him with his misdemeanour: "Dalby saw you yarning and stopping 20 men from working". "To be sure" said McCusker "you can ask a bird not to fly or a fish not to swim, but don't ask an Irishman not to tell yarns". Touche!

Make Sure You Backup Those Files.

Ray Berry

In 1984 I was visiting Liddell to get a briefing on the 45,000 plus maintenance jobs that had been entered into the Maintenance Data Base, an achievement of great pride for PSS John Marcheff ("Marcho"). On request, I was given a complete paper copy of the database, which was in an A3 fanfold about 300 mm high, thinking it would be very useful for the Wallerawang planners. Not long returning to Wallerawang I received a frenzied phone call from Marcho: "Have you still got that database?" "Yes of course" I said. "Good" said Marcho, "I will get a driver on the road right now to come and pick it up". It transpires that a glitch in the central computer mainframe had deleted every single record in the Liddell Maintenance Database, and the only backup was the hard copy made for Wallerawang.

Where Are They Going?

Ray Berry

Returning to Muswellbrook by taxi late one night after commissioning activities, we were surprised to see in the headlights two young ladies, dressed up to kill in short skirts and high heels and so forth, crossing the darkened New England Highway towards the Transfield construction camp. "I wonder where they are going at this hour of the night?" I innocently asked, to which the taxi driver replied laconically: "Any girl who goes into the Transfield camp at this hour of the night **KNOWS** where she is going".

The Silk Road Of Wallerawang.

Ray Berry

Most people have heard of the fabled Silk Road by which the riches of the Orient in the east travelled to the West. In the 1980's Wallerawang had its own Silk Road. Let me explain. It was common knowledge that the good townfolk of Wallerawang (population 1200) had their own emporium known colloquially as "Big W", that is, the Wallerawang Power Station store where all manner of consumer durables could be obtained at unbeatable (zero) prices and taken home along the track across the paddocks known as the Silk Road.

When security at site was tightened up, a six foot high perimeter fence, personnel turnstiles and other security kit were installed. The chain-wire security fence was provided with a large road gate at the eastern end facing town in the west. Soon after the gate was erected it was reported that the padlock chain of the gate had been cut, so we gave orders to replace the chain with a high tensile chain. The next morning it was reported that the new chain was intact but a fence panel next to the gate had been

cut and taken down, so we gave orders for the fence to be repaired, the station backhoe to be sent out to dig a "tank trap" either side of the gate, plus the installation of CCTV. These measures proved effective and traffic along the Silk Road ceased henceforth. The consequential effect was that consumer durables began to pile up in the store, creating a huge problem which required order points to be changed and trucks to be sent from St Peters Central store to take the surplus away.

An Indiana Jones Moment

Ray Berry

Following the demolition of the Wallerawang B Station, curiously there remained a large intrusion in the adjoining wall of the C Station office block. This discontinuity was generally accepted as a fact of life. After around one and a half years curiosity got the better of me and I started making enquiries. No, no one was able to explain it, so one day a small committee including Manager John Crawford was formed to investigate. We climbed the remaining stairs in the shell of B Station, and found a door leading into the mystery space. To our surprise we found a forgotten crib room and to our amazement found an employee sitting at a table reading a book. "Who are you and what are you doing here?" we asked. "I'm a B station Ash and Dust Operator". But, but, but, the B Station has not operated for two years! "Well, no one told me so I just keep coming here waiting for someone to tell me what to do". Truly an Indiana Jones-like moment from the movie "The Last Crusade". The situation was quickly rectified and the guy was reallocated to cleaning up duties on the C Station coal conveyors.

"Quicksand" Ash

Ray Berry

The Wallerawang Ash Dam was a fairly sterile and unattractive place, the surface being kept wet to avoid dust being blown around. Despite the obvious danger one Saturday three local trailbike enthusiasts looking for a challenge attempted to ride across it. They did not get far as the bikes and riders began to sink into the quicksand-like surface, the more they struggled the deeper they sank. The lighter of the three was able to make it to shore and ran for help. A rescue mission was quickly formed, cleverly using an air lance driven by a portable air compressor mounted in the Power Station tinnie. With two power station men pulling and a third using the air lance to break the suction, the two bikers were dragged one at a time into the tinnie. There was a price to pay however, the trail bikes sank out of sight never to be seen again, and the larger of the two bikers had both shoulders dislocated by being pulled by both arms out of the mire.

A Cross Dresser In The Control Room

Ray Berry

Long before sexual ambiguity became normalised in the community, we had a cross-dresser at Wallerawang which caused quite a stir among the ranks. The person (name withheld) achieved wide publicity when he/she appeared on the Mike Willesee Show on National Television. I was "in the chair" at Wallerawang when the person, a 53 year old operator, arrived for work unshaven in garish makeup of bright red lip and rouge, wearing a short skirt and fishnet stockings over hairy legs and wobbling on high heeled shoes. You get the picture. In very short order I received a deputation from the operators, who had taken the position of banning the person from using the operators change room facilities. This was then followed by a deputation from the female clerical staff, who had taken a similar stance, saying that the person was certainly **not** welcome in the ladies' facilities. Fortuitously, a solution was readily available in that there was an executive toilet in the admin block, so the simple expedient was to direct the person to use that facility. Just another day at Wallerawang.

Demolition Stories No. 2, No.3 And No. 4

Peter Jackson

One of the more obscure jobs I was responsible for in Supplementary Maintenance Group was the removal of plant and equipment from Wangi and the detonation of Wallerawang chimneys.

At Wangi, a serious OH&S issue arose. The lead levels in the blood of the workers were exceeding safe limits. The Safety Officer was tasked to purchase positive pressure breathing apparatus, the type firefighters use in smoke-filled rooms. They worked but you couldn't do physical work in hot conditions for more than an hour without a break. Face filters were also tried but the workers of course would take them off when you turned your back. They weren't practical to wear all day, every day.

The unions got involved and made a claim for double time allowances for working under these adverse conditions. I thought that's all we need, another allowance to add to the multiple allowances already in the award.

And then someone recommended an industrial hygienist. What is that?

So in desperation we engaged a young woman just out of university to follow the workers around for a day and then report back.

She advised it was actually a primary school problem. Children eating their lunch without washing their hands. The workers were getting lead paint on their hands then eating their lunch without cleaning. We introduced compulsory hand washing with training courses on how to wash your hands, much like Covid rules.

The problem immediately went away. No allowance, no safety issues.

You definitely can teach old dogs new tricks.

The detonation and demolition of the old Wallerawang chimney stacks was another fascinating story. These were the chimneys in the old station, one of which was retained for heritage reasons. The large chimneys of Units 7 and 8 were detonated later in 2021.

I believe it was the first major detonation after the Royal Canberra hospital disaster in 1997 where a young girl was killed and 7 others injured. They were 400 metres away from the detonation over Lake Burley Griffin.

I was responsible for the Wallerawang contract and all eyes were on the event. A one kilometre no-go zone was created and it included some public roads and the local petrol station. It had to be closed for about 8 hours and we paid them compensation. The whole event was controlled and monitored by local police.

With some reluctance I agreed to a limited group of observers, about 1 km away on a hill overlooking Wallerawang chimneys. It was a Sunday and a classical winter day at Wallerawang; cold and raining.

We were in touch with the detonator contractors and they advised that the rain was causing delays and they needed to protect the explosives from the wet weather. I recall about an hour's delay which is a long time in the open cold.

Eventually the warning siren sounded, the crowd silenced in awe and I felt sick in my stomach.

The dust was the first sign, then the boom arrived followed by the slow motion collapse of the chimneys. Then I saw something that sickened me, debris floating into the air that looked like rocks. I didn't know whether to yell to everyone to take cover or just wait to see if there was really any danger. Nothing happened, a few people asked what was that debris and another engineer said 'I hope that didn't damage the switch yard'.

I soon found out that the contractors had placed lots of light grade laminated timber panels over the explosives to keep them dry and they became mulch that scattered for a hundred metres. Spectacular, frightening but harmless.

I did experience some mild anxiety when I watched the detonation of Munmorah and No. 7 and No. 8 Wallerawang chimneys.

Final demolition flashback; I recall we had a huge clinker in the Vales Point Ash Hopper and nothing would budge it, not even jackhammers. So we called in the demolition experts. As a curious engineer I accessed the ash hopper during the setup. The contractor explained you have to be very careful as the clinker is still warm inside. He had to drill into the clinker deep enough to place the detonator but he explained if it is too hot the detonator can go off prematurely.

"Oh" I said. "How do you know the temperature is ok. Do you use a calibrated thermocouple?"

"Oh no" He replied. "I insert a plastic rod, if it doesn't melt it's ok."

Interesting, simple, reliable, but time to get out!

Peter Minks

Ray Berry

Peter Minks was a venerable Civil Inspector of retirement age and nature. During the construction of Wallerawang B Station, the AWU, for maximum effect, pulled on a strike partway through the pouring of one of the TG Blocks. As such large pours must be continuous, the ECNSW inspectors were called on to complete the pour. Without the benefit of a TG crane at that time, the concrete was ferried from the batch plant via one cubic metre diesel dumpers, and out over the TG pour along a temporary scaffolded aerial carriageway. Peter was allocated one of the dumpers to drive, but he lost

control at the end of the scaffold and rode the dumper down into the pour. His reputation as a driver thereafter was sealed.

Wallerawang Ash Dam Rescue

John Little

AB and JL were called to investigate a young man riding his motorbike on the Ash Dam surface. Security of the area was non-existent.

We found that the rider and his bile had sunk into the ash surface and he and his bike were stuck and the man was freezing.

With the aid of a tinnie (boat) and I think a ladder we were able to get the guy out to safety.

His motorbike however was left stuck in the ash.

Sometime later we returned to the Ash dam to take a look at the bike and found that it had been removed. It's amazing what these young fellows will do to save their motor bike.

A Liquid Vibration Monitor

Ray Berry

The Unit 8 Boiler at Wallerawang was squeezed up against the Cox's River such that only a narrow strip of land separated the 8B ID Fan from the River. In that narrow space ICAL had located their site store directly across from 8B ID Fan. As time went by a problem developed in the huge motor to fan Bibby coupling. For some reason the operators had not responded to the installed instrumentation and the vibration continued unchecked for weeks. Eventually the ICAL storeman went to the PCR complaining that the transmitted vibration through the ground was so bad that it was shaking his hut and spilling his cup of tea. By the time the ID fan was taken out of service the motor bearings, coupling and fan bearings had suffered severe damage, requiring a considerable outage for major repairs.

Eraring



Eraring Across Attemperating Dam (Origin)

Bad Luck, Fires And Weddings

Peter Jackson

I am told that the probability of a generator transformer fire at a power station is 1000 to 1. Therefore the probability of having two separate transformer fires happening at two different power stations at about the same time must be 1,000,000 to 1.

I am also told bad things happen in runs of three by Murphy. I can testify from my experience that Murphys Law will always overrule the Laws of probability.

In my final years at Eraring, in just a few months, there was a G.T. fire at Eraring, another one at Hume Hydro station and a boiler vestibule explosion at Eraring.

Just to satisfy an engineer's curiosity, here is a very brief summary of the causes of failure. It really wasn't my fault!

The Eraring GT fire was due to a bad internal paint job 20 years earlier. No diagnostic test could have found it.

The Hume GT fire was a combination of old age and a poor contractor maintenance job.

And the boiler vestibule explosion goes back to a minor baffle modification during construction that created a latent but ultimately fatal failure of a water wall tube inside the vestibule, a catastrophic formula.

Miraculously there were no injuries in any of these major incidents.

Though there was one collateral disaster in the Hume incident.

As luck would have it, the black plume from the G.T. fire was blown over the nearby caravan park about a kilometre away. Lady Luck was in full bloom that day as there was a wedding going on.

Everyone was evacuated by the fire brigade.

I'm sure today the bride and groom still laugh and enjoy retelling the story of their wedding.

But they weren't laughing that day.

Remembering the bribery success I had with the school kids trapped in the lift at Vales Point, I thought a gift might work. But ice cream and chocolates wouldn't be enough this time.

So a \$5000 cheque was presented to the happy newlyweds so they could at least have a better honeymoon. Another happy ending.

And the amazing part of this story was that I, a mechanical engineer, became a sought after expert in Generator Transformer diagnostics and failure, giving several lectures on the topic to rooms full of electrical engineers.

Eraring Canoe Course

Peter Melhuish

During the construction of Eraring, a proposal was put forward to build an Olympic white water canoe course. As we know, the cooling water for Eraring is pumped up to a high-level canal that leads to the station. This water is then discharged back to the lake, with a considerable drop in elevation.

The civil contractor at the time offered to carry out the civil works at no cost while their big machines were on site. The only cost to NSW would be for a diverter valve, estimated at about \$500,000. The Civil Design Branch drew up plans, but the Government at the time wouldn't come to the party. Hence, a white water canoe course with freely running water was lost to the State.

Eraring Trouble Shooting Technique?

Steve Carter

In the early days of commissioning Unit 2 at Eraring, the unit was being loaded up and the PPO, guided by the contractor, commenced putting the PF mills into service, one-by-one. On the second mill being placed in service, the operator pressed the start button on mill's coal feeder. The unit suddenly tripped.

An investigation duly followed, and the PPO advised the investigating team that he was just starting the coal feeder. But no unit trip cause could be found, so no conclusion was reached.

It was decided to continue on with the commissioning with monitoring of the boiler supervisory circuits. When it reached the point where the same mill was being put in service, the PPO said to the assembled contractor's engineers "all I did was this", and then... bang! Down she went a second time - red faces all round...

Unisex Change Rooms

Peter Smith

When Eraring was being built, the designers did not foresee the large number of female Tradeswomen, Labourers and Trades Assistants. So there were inadequate female change rooms and shower facilities. The interim solution in the early eighties was to provide prefabricated change rooms a fair way away from the workshops and associated male change facilities. The women employees decided they wouldn't wear this arrangement, so they started changing and showering in the men's facilities. Management got formal complaints via the Unions: The men were embarrassed and wanted the women out! The women had no problems with this arrangement!

Flying - Eraring

Mike Melidonis

In July 1982 a group of young and foolish engineers from Eraring joined me in a trip to Great Keppel Island in a Rockwell Commander plane. They were John Kempnich, David Whan, and John Barben (?) and myself. The plan had been to leave Central Coast's Cooranbong airport and land on the beach on Frazer Island and see if we could book into the hotel there. However the beach had rivulets coming down from the forest making landing there a risk, so we decided to push onto Maroochydhore via flying along the very long beach on the east coast of Frazer. This was around 100km long and we flew at 50 feet above the water's edge, not entirely legal but interesting. Landing at Maroochydhore we rang up a hotel on the coast nearby, an eight story resort hotel, booked in and they picked us up and we had a very nice dinner in their restaurant on the top floor overlooking the beach. Next morning we pushed onto Great Keppel Island (GPI) and coming towards the island, I could see the airport and noticed a departing plane, so I decided to land in the same direction he was taking off, rather than over flying the airport and checking out the windsock.

A \$1.6 Billion Toy to Play With^{xi}

Ken Thornton

It's a brisk Monday morning, beginning a fresh week at Eraring. As I pull into the parking lot, I can't help but reflect on the passage of time. How many years has it been since I first embarked on this journey? The initial stint commenced in November 1979 – a staggering 44 years ago. That tenure persisted for a solid 28 years. A brief second chapter unfolded for six months in 2013, just before the transition to Origin. And here I am in 2024, as part of a two-year contract. My task has been to advise on what should happen to over three decades (pre-2013) documentation.

I swipe my card at the Main Gate, contemplating the changing faces within these familiar walls. There must be individuals here now who weren't even born when I stepped onto this site in late 1979. In June 2023, 105 out of Eraring's 200 personnel were born after November 1979.

During Eraring's 42nd operational year in 2024, I remember the early days. In November 1979, the station was in its infancy, with the Admin building's foundations and the towering #1 stack reaching a modest 10 meters. The boiler/turbine building stood as skeletal steel, housing the colossal concrete turbine plinth, while the fabric filters had yet to grace the bare ground.

The station's temporary main office, nestled amidst the bush on the eastern side of Construction Road, was a cluster of portable buildings. Though Construction staff from the Electricity Commission were already on-site, Generation (Production) staff were relatively green. Alan Shields, the Assistant Power Station Superintendent, had barely six months under his belt. Jack Maher, the Power Station Superintendent, a mere two months. John Marshall (Efficiency Engineer) and Peter Smith (Electrical Engineer) preceded me by a mere fortnight. I am not sure when Mechanical Engineer Frank Walsh arrived.

My assignment, alongside six or seven Charge Engineers (Shift Managers) gradually arriving throughout 1980, was monumental – to research, write, and publish a complete set of Operator Manuals from scratch. Sixty-eight distinct chapters of technical text and drawings awaited creation. A formidable task, especially for anyone familiar with translating Japanese technical documents into English. On top of that, preparations for the inaugural Operator training school in mid-1981 were underway.

The first group of Operators trickled in late 1980, with Alan Fitzgerald leading the way in September. Early to mid-1981 saw about 20 individuals joining the initial school, including John Woodward, Bob Ogden, Volka Baumgart, and Tony Chambers. Fast forward to 2024, and Ann Theodore and I stand as the sole survivors from those early days, both having left and returned.

Reflecting on that initial Operator school, memories flood back. It was held in what now constitutes the western portion of the main Admin Building. The Operators were predominantly from Vales Point and Munmorah, and at 16 weeks, the school seemed interminable. Notably, assessment papers bore no names, only student numbers – a practice inherited from Vales Point. Operators were keen on avoiding assessment marks influencing shift allocations.

For those present during construction, nostalgia undoubtedly colours memories of those days. Being part of a project constructing Australia's largest power station was invigorating, especially one marked by numerous Australian, if not world, firsts. Exploring the inner workings of equipment rarely opened for a decade or more, walking through the tunnel destined to carry cooling water to Myuna Bay, witnessing the caissons floated and sunk in Dora Creek, declining a ride to the top of #1 stack, and

unravelling the complexities of the Siemens CLC (forerunner to DCS) were all cherished experiences. Attending Toshiba or IHI Christmas parties became a tradition, though the Lake's prawn population might have dwindled as a consequence. However, the memory of a tragic day in 1983, when two colleagues from the Chemical section lost their lives on the Ash Dam, casts a sombre shadow.

By the mid-1980s, after years of unbroken Operator Station schools, I could navigate the location of every fuse, switch, power supply, valve, motor, pump, and damper an Operator needed to know. Yet, in the early 2000s, reviewing a 'live' Permit to Work for an Ash and Dust Makeup Pump proved challenging. It took me 15 minutes to locate the elusive pump, eventually resorting to asking an Operator, someone I had trained years before. It underscores the old adage – 'use it or lose it.'

The early 80s were a whirlwind of activity and excitement. Working alongside colleagues from previous stations and those new to Eraring, it was a time of camaraderie. As someone who still carries the Operator spirit, those were the golden days of 'playing' with the \$1.6 billion 'toy' the Electricity Commission was constructing for us.



Transformer Bays, March 1982, (ECNSW 13507)

Was Unit 2 In Service For The Official Opening Of The Station?^{xiii}

The journey from synchronizing the first unit on 22 March 1982 to the operational milestone of the fourth unit on 17 April 1984 culminated in an official opening ceremony on 29 June 1984. While aimed at celebrating technological and collaborative success, this event masked the nuanced reality of the plant's operation and the personal stories of those involved.

The venue, the main warehouse, was transformed for the occasion, bringing together employees, their families, contractors, and a distinguished official party, including Frank Brady, the ECNSW's General Manager, and NSW Premier Neville Wran. The narrative presented was one of complete success, with all units claimed to be fully operational at full load.

Yet, the full operational status has been cast in doubt in at least one instance. Forty years after the event, the Power Plant Operator on Unit 2 at the time has suggested that, contrary to the official statement, only three units were in service, and Unit 2 was out of service.^{xiii} In a moment of improvisation, technicians had been directed to adjust Unit 2's MW meter to suggest it was also operating at full load, ensuring the station appeared fully functional to the visiting officials.

Parallel to these orchestrated presentations, the event also saw moments of personal defiance and individuality. George McCulloch, responsible for Unit 1, chose to disregard the formal dress code of a necktie, perhaps as a statement of his political and personal beliefs, resulting in an ironic and memorable encounter with Premier Neville Wran.

Eraring Coal Conveyors Construction

Graham Hankin

Back in Eraring construction days, one of the contracts I managed was the Coal Handling Plant Stage 1 which involved the overland conveyors, stacking out conveyors, the inclined conveyors (2A and 2B) and the bunkering conveyors (1A and 1B).

The handover date had arrived where the CHP contractor was being granted access to level 8 for the connection of the inclined conveyors to the steelwork of the main building.

I was informed by our Construction Assistant Resident Engineer that the handover procedure involved inspecting the condition of the bolted connections where the inclined conveyor structure was being attached.

This inspection involved the ARE and myself walking out along the main beam to the last column, a distance of about 10m with no fall protection or harness.

Vertigo took over, the inspection was hair-raising and unforgettable.

Shearwater

Greg Johnstone

Greg reports that he saw a picture on Facebook of a Shearwater that brought to mind an incident at Eraring. When down in the Ash Plant one night we found a distressed Shearwater. A cardboard box was found, and the bird was placed in a quiet spot to hopefully recuperate. The box ended up in the main control room. Later that night, a strange smell emanated from the meal room, and it was found that one special operator had decided to bake it and see what kind of a meal it would produce. Apparently not a gourmet experience.

Typing Pool Industrial Action

Terryl Frazer

The Electricity Commission / Pacific Power was the target for diverse industrial dispute over the years – the 35 hour week campaign; asbestos embargos; demarcation issues; work-place restructuring; introduction of new technologies you name it! One of the more ‘unusual disputes’ involved the Eraring Typing Pool.

Flash-back . . . the Typing Pool??? Before the introduction of computers and associated peripherals, all formal printed material in Power Stations (apart from engineering drawings) emanated from the Typing Pool. In many ways, it was the ‘hub’ and ‘nerve centre’ of the establishment.

During the early 80’s. the Eraring Typing Pool was established along traditional lines, with five stenographers appointed, and the usual array of equipment – typewriters (one of which was electric – that’s progress!!), telex machine, messy Gestetner printer, and so on.

The ladies collectively decided that with the volume of printed material required to establish the new Station – operating and maintenance manuals, method sheets, masses of formal correspondence, the Daily Operating Instructions, personnel records, et al – an off-set printer would be a worthwhile addition to their facilities. Repeated appeals to Station management failed to attract a positive response.

There was only one way to pursue the matter! Take industrial action! Withdraw their services and so they did! Mid-morning, they left the site and relocated to the Toronto Hotel, for a casual lunch, to enjoy the pleasant outlook over Lake Macquarie, and to hope that their action would lead to a favourable outcome.



Toronto Hotel, Victory Parade, Toronto.

The consequences of this ‘affirmative action’ were not immediately apparent to most of the site – apart from the Operators. The Daily Operating Instructions that day were hand-written and

photocopied, highlighting the industrial action that had been pursued. It is reported that the Operators as a group applauded the stand taken by the Typing Pool staff!

Alas – this extreme action – which took great courage and soul-searching at the time – did not produce the desired result. It was some considerable time thereafter before technological advances progressed to the Typing Pool, and ‘modern’ printing capability was acquired.

Eraring Coal Conveyor Commissioning

Graham Hankin

The commissioning of the first unit involved daily commissioning meetings managed by PJ Lawley using a very complex commissioning program that was displayed on a very big whiteboard. Three coloured pens and a wet rag were his essential tools. The program showed a best before date for filling the coal bunkers for the first time.

My responsibility was to commission the conveyors according to the program.

The coal belts had been operated remotely without coal without any major problems however the real test was to load the conveyor system with coal.

The contractor had all hands on deck for this operation just in case the belt tracking and training idlers needed to be adjusted.

The plough feeders placed the coal 2A conveyor without a problem.

The coal then went up the incline onto the 1A bunkering conveyor.

Much to our relief, the belts were tracking ok.

Then the coal went up and through the first tripper and onto the second.

The coal didn't like this idea and pushed the conveyor belt dangerously close to the side of the steel frames.

If the belt had been damaged or torn at this stage, it would have added weeks to the commissioning program.

I didn't hesitate and pulled the trip wire to avert a disaster.

The next morning, at the commissioning meeting, I reported that we had put the first coal into the bunker as planned and also announced that this was achieved by our inspector and I ceremoniously shovelling 2 small amounts of coal into the bunker.

Eraring Turbine Upgrade Testing

Graham Hankin

20 years after taking a redundancy from Pacific Power, I had the fortune to return to Eraring for the 4 x 720MW upgrade project. I was the Turbine Upgrade Project Manager and Steve Shawcross was the Turbine Upgrade Technical Manager. The project was completed on time and within budget.

We knew that the new Turbine rotors and rewind Generator stator had a design capacity greater than 720MW. Steve and I thought it would be a good idea to actually know what was the MW capacity of the new beast.

A very small post commissioning committee was established to undertake the Generator capacity test. The committee was comprised of an operator representative, a system control manager, a generator upgrade electrical engineer, Steve, and myself.

The unit had been operating effortlessly at full load - 720MW for a few days. The test program was launched one morning after a cup of tea and a Tim Tam. At about 10:30, the Eraring engineering team met with the shift manager and presented the program. The shift manager then contacted System Control to authorise the load changes. System Control thought it best if Eraring first reduced load on the other units. They also wanted to know how long the test was scheduled for.

The capacity test was very simply. Raise the unit load from 720MW to 730MW, monitor the Generator stator winding temperatures and stator cooling water temperatures until they stabilised. When the temperatures had stabilised, check the design curves in the manual and be confident that the stator was still within its new design limits.

The electrical engineer was then consulted along with the unit operator and the shift manager and the next load increase was agreed. The load was increased in 10MW steps, and the same stabilising checks were carried out until we got to 780MW.

At 780MW, we decided that the load increase should only be 1MW per minute. Without much fanfare, we decided that 800MW would be a good target to finish on and as it happened it was nearly time for afternoon tea.

Toe Drain Tragedy – The Death Of Two Chemists

Ken Thornton and Bob Porter

While several people sadly lost their lives at Eraring during construction and later, the deaths of chemists Paul Bayl and Stewart Gibbins on November 2, 1983, were particularly tragic for their families, friends, and work colleagues. In November 2023, 40 years on, this sad event was remembered with flags flown at half-mast.

Paul had been with the Commission for eighteen years and Stewart for five. Their deaths highlighted the need to be aware of the hazards associated with confined spaces.

Operations Assistant Phil Turner remembers this tragedy as "one I will never forget."^{xiv} Phil recounts that on the day, chemist Gordon Deans rushed into his office saying that Paul and Stewart had fallen into a toe drain pit out onto the ash dam. "I immediately rang the Charge Engineer." Charge Engineer Norm Whipp remembers the day slightly differently, but only that he was in a meeting with Assistant Power Station Superintendent Alan Shields when Phil burst into the room to inform them of the incident.^{xv}



The Eraring Ash disposal pond was created by an earth-fill dam, formed across the valley adjacent the Myuna Bay Lake Macquarie shoreline. The dam featured an underground toe-drain along the ‘outboard’ perimeter (blue arrows), that collected any seepage through the dam wall, and diverted it into the nearby Crooked Creek (red arrow). A series of pits along the dam wall gave access to this drain - these were about 15 metres deep, with two intermediate landings, and accessed via vertical ladders.

The Station Chemists were required to sample the toe-drain flow, and establish whether any leeching of ash and dust disposal into the external waterways was occurring.

On 2nd November 1983, Paul Stewart descended into one of the pits to gain samples - Colin Gwynn also a member of the group. Paul and Stewart were overcome by the oxygen-deficient atmosphere in the pit, both collapsed during their descent, and both died by asphyxiation. Colin was fortunate in becoming aware of his colleagues’ demise before entering the pit - else there might well have been a third fatality.

This disastrous event had a profound impact on Eraring staff so early in the life of the new Station. Naturally, there was an intense investigation into the fatalities, with an internal panel working in close collaboration with WorkSafe Occupational Health And Safety experts. Extensive monitoring and sampling of the atmosphere in all the pits was conducted over several weeks, to understand the mechanism that created the fatal conditions.

These pits (of concrete construction) were newly built, and were in “pristine” condition. There was an assertion by one of the WorkSafe representatives that “If he’d been called upon to enter the pit, he would have done so without any reservation.”

The investigation came to the following conclusion. The earth-fill dam had been formed by scouring the surrounding terrain to obtain the necessary fill. This included a considerable quantity of vegetation.

Embedded within the dam wall, this vegetation began to progressively decompose, generating carbon dioxide.

And it was established that the dam wall was aspirating . . . warming up during the daytime expelled carbon dioxide; cooling down overnight drew in a fresh supply of oxygen to 'fuel' the decomposition process . . . and so the daily cycle continued.

Our two Chemists became unknowing victims of this process.

One of the corollary outcomes of the tragedy was the development of detailed Confined Spaces procedures, not just applicable to the Power Industry - but adopted as statutory requirements in industry generally. In this context, perhaps many more lives have been saved by the application of these precautionary procedures.

Red Bellied Snake In The Control Room

Norm Whipp

Norm recalls that in the mid-1980s, he could have had someone on his shift suffer a red-bellied snake bite in the meal room!^{xvi} One of his operators was down "inspecting" the CW screens one night shift when he noticed a snake with its head stuck in a soft drink can that had come up on a rotating screen and landed in the sluice trough along with the occasional prawn and other debris. Intrigued as to why this snake had drowned in such a manner, he brought it back to the PCR meal room to show the other folks. The unfortunate snake was withdrawn from the can, where, upon inspection, a dead mouse was found. The crew formed the opinion that the snake had chased the mouse into the can but jammed its head in the can. Snake and mouse had ended up in the inlet canal to the rodent's and reptile's demise.


Duty must have called because the occupants went out on the plant and left the animals and the can in the sink for later disposal. Someone returned to the room sometime later and discovered that the mouse had been the only fatality in this story. Alan "Fitzie" Fitzgerald's skills as a snake handler were pressed into service, and all's well that ends well. However, Norm did wonder later in the shift, when told the story (which did not make it into the Shift Manager's log), how he would have handled the paperwork in the case of snakebite or if the snake had disappeared within the PCR complex.

Eraring Cooling Water System Commissioning

Bob Porter



Condenser Cooling Water for Eraring is pumped from Lake Macquarie into a high-level canal (yellow arrow). It is syphoned from the high-level canal to the Unit Condensers (blue arrows), and discharged into the low-level canal (red arrow). This flows into the outlet canal (green arrow), and drops into an underground tunnel (red circle) which flows about 2 kilometres to the Myuna Bay Lake discharge.

There is an overflow weir  which transfers surplus water from the high level canal to the outlet. The underground tunnel has several vertical vents distributed along its length.

When the cooling water system was commissioned, (prior to any generating unit commissioning), the flow was directly from the high level canal, via the overflow weir to the outlet canal . . . into the tunnel and back to the lake. This resulted in considerable aeration of the flow as it cascaded over the weir, and dropped into the tunnel.

Commissioning was very quickly brought to an abrupt halt when it was discovered that the countryside adjacent the first two or three tunnel vents was blanketed in a thick white coat of foam, which was oozing through the undergrowth, and finding its way to the lowest point, where it proceeded to accumulate. This 'lowest point' coincided with the Rocky Point Road access to the Station . . . the only way in or out!

This accumulation was at least 2 metres deep and extended for 100 metres or more - certainly sufficient to engulf any vehicle that attempted to pass . . . and there were a couple!

ScienceDirect explains : "Liquid foams consist of gas bubbles which are closely packed within a liquid carrier matrix. Coalescence of the bubbles is hindered by the presence of stabilising agents, which may be low molecular weight surfactants, polymers, proteins, nano-particles, or their mixtures." Clearly, the Lake Macquarie cooling water contained some of these agents . . . probably significant protein presence from Lake marine growth, and a contribution from the Cooranbong Sanitarium factory discharging waste into Dora Creek! (It was 1980, don't forget!).

An investigation to mitigate the foam problem was triggered, with availability of anti-foam agents a prime focus. It was established that yoghurt processing required the use of food-grade anti-foam - so a likely candidate, from an environmental perspective. But the cost of dosing the huge volume of water in sufficient concentration to inhibit foaming was prohibitive - let alone the environmental prospect of discharging copious quantities of this additive into the Lake.

There was a 'light bulb' moment . . . it was air ingress that was causing the foaming, not the water. So a trial was conducted dosing the air sucked in from the drop into the outlet tunnel. Anti-foam was injected via a fine spray above the 'discharge funnel' - and foam generation ceased immediately! Magic!

The temporary rig was quickly replaced with a permanent anti-foam injection system, and the Station commissioning programme continued! The ramifications of not finding a solution to this unexpected phenomenon would have been both severe and embarrassing!

It has been confirmed that the introduction of anti-foam to the air ingress into the tunnel is still a requirement to enable Eraring to operate!

Diver Dies After Entering The CW Inlet Canal

An operator's job is important and sometimes stressful, but few instances could be considered traumatic. One such occasion was the incident on Unit 4 in January 1988 when a diver drowned trying to clean the trash bars on the unit's high-level canal inlet.

On this particular day, the task was for a diver to clean the High-Level canal trash bars. The flow of water through the trash bars for a unit at full load (both main condensers passes in service) would have been too strong to allow the diver to enter the water. The flow would increase further due to the high differential across the weed-enveloped trash bars.

One main condenser pass was to be taken out of service to reduce the flow. This would have required a reduction in load but would reduce the water flow through the trash bars sufficiently to allow the diver to enter the water.

This procedure was successfully followed for Units 1 and 2 the previous week and Unit 3 earlier in the day. Unit 4 PPO was waiting to be notified that the diving team was ready to work on his unit. He then, as instructed by the Daily Operating Instruction (DOI), would have taken one main condenser pass out of service, thus reducing the flow. It is unclear why Unit 4 PPO was not informed that the diving team was about to work on his unit or why the diver entered the canal. The high water flow pushed him against the trash bars, where he became trapped and eventually drowned.

Bayswater



Bayswater, September 1987 (ECNSW CN82.0141)

A Popular Place To Visit

Peter Jackson

Bayswater was always the flagship of the E.C.

Tourists were encouraged to visit and over 10,000 visitors came every year.

International dignitaries lined up to see Bayswater and at times Bob Patterson had a full time job showcasing the engineering excellence. Heads of State from Vietnam, China, Malaysia and most Asian countries visited Bayswater as well C.E.O.s of major utilities from Europe and America. Federal police security was occasionally required.

But the visit that caused the most excitement was the request by a Fashion magazine to do a major photo shoot of (female) models wearing swimsuits in a power station environment.

I was certainly willing to cancel some industrial operator negotiations to help out, but Bob in his wisdom thought this one was not for senior managers i.e. old farts.

So a list of all the young single male engineers was collated (yes, that does sound sexist) and a winner was decided on merit. Strict protocols were developed, safety zones had to be established and rules such as hard hats, hi-vis jackets and steel capped boots had to be relaxed. Actually the non-wearing of any (safety) clothing at all had to be approved.

I never saw the photos so I'm not really sure how it all went as I was too busy negotiating with operators.

Bayswater Water Supply

Peter Melhuish

Another snippet of potential interest concerns the water supply for Bayswater power station. Water was to be pumped out of the Hunter River, which then required replacement water for Singleton, so Glennies Creek dam was built. Also, to keep the station running in times of drought, a small weir was built on the Barnard River to divert water into a holding pond, and a pumping station was constructed to pump water over the range and into the headwaters of the Hunter River. This water would then be harvested by the Commission's pumps as it flowed down the river. This was not only to keep Bayswater going but to maintain the water level in Lake Liddell as needed.

The Black Art Of Finding Condenser Leaks

Peter Jackson

I was only recently appointed to Bayswater Power Station and was keen to familiarise myself with the plant configuration. So I allocated an hour a day to wander around the plant, learning its layout.

This day I was investigating the C.W. system, recognising that finding condenser tube leaks in the Bayswater fresh water Cooling Tower system was quite different chemistry to the Central Coast salt water lake cooling system.

I came across a door in the basement of the condenser well which was unique in my experience. It was dark, wet and creepy but I pushed on. The door opened with a little force and the room beyond was in darkness. I turned on my flashlight (no iPhones with torches in those days) and as my eyes adjusted to this new light, I realised I was in a cable tunnel room about 4x3 metres. The walls appeared to have drawings on the concrete which looked like wolves and devils, quite amateur. The ledges had a number of black candles, well used and in their half-life. The floor had some strange circular and triangle

symbols drawn from chalk. I knew that finding condenser leaks was a bit of a black art but this was going a bit too far.

I was faced with a number of possible reactions.

Was I the first to discover this occult altar, or had wiser persons walked away silently?

Do I setup a CCTV for entrapment or not risk enraging the gods?

Do I get the GSF to do a high pressure water cleanup or seek a priest for holy water and an exorcism?

As they say in that B,S&T song “I know there ain’t no heaven and I hope there ain’t no hell.”

What would you do?

Organisational Restructure

Peter Jackson

A textbook case of implementing Organisational Change

Whoever said you should never mix work and pleasure obviously doesn’t play golf.

This story goes back to 1990 when I was appointed Production Manager, under Bob Patterson as the station Manager and Chris Darling as the Engineering Manager. All three of us were new appointments and it was a very exciting time.

Within the first few weeks a decree came down from Sydney that every power station had to restructure so that there was only 3 layers of management. Bayswater had five.

In particular, the foremen had 2 layers of authority structure. The Junior and Senior foremen structure had been in place for years on the Central Coast and had been inherited at Bayswater. It did have many benefits but the new world now promoted the single team leader concept. So it was time to disband the junior foreman position.

I decided to assemble all foremen into a large room, perhaps 20-25 persons.

I explained the decree, the benefits and the challenges. Certainly no one would be demoted but no more junior foremen appointments would occur.

The delegate at the front was Eli Serhan. A thoughtful, well respected and experienced foreman. He was also an excellent golfer.

On behalf of the group he said, words to the effect, that I had only just arrived at Bayswater, I didn’t understand how it functioned, everyone was proud to work in the best power station in the State, what gives me the right to walk in, fundamentally change an excellent working system, all based on some theoretical H.R. experiment.

Hmm. Good point. The moment of truth. The next words I spoke had to be well considered. Loyalty, trust, respect ...all these had to be earned.

These days, when a crisis hits, my wife has a great saying. “What would Jack Reacher do?”

At that moment, I thought “What would Rohan Hall do?”. Rohan was a wonderful mentor for me; a brilliant negotiator and I had witnessed him defuse many a tense meeting.

So, after a long pregnant silence I responded:

“Well Eli. I’ll tell you what gives me the right. I hit a hole in one on the second at Singleton last week with John Marcheffer and Bob Patterson as witnesses. Any more questions?”

After an even longer silence, Eli responded.

“What club did you use?”

Pickering Nuclear Power Station – Ontario Hydro

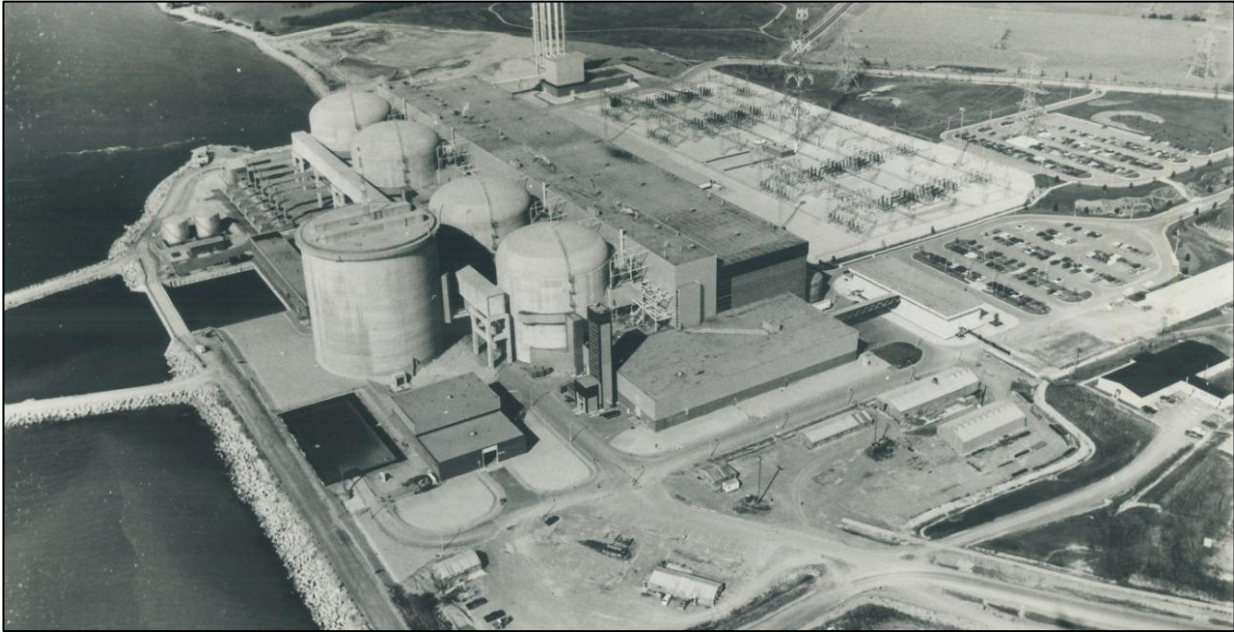
Thomas Bunn and Ken Thornton

In 1970, Thomas Bunn was an Assistant Power Plant Operator at Munmorah. At that time, the ECNSW was involved with the Federal Government and the Australian Atomic Energy Commission in the early investigation of establishing a nuclear power station at Jervis Bay. Alone among his contemporaries, Thomas saw this as an opportunity to get in on the ground floor of a new form of power generation in Australia. Thomas’s application for a Leave of Absence to work in a Canadian nuclear facility was rejected because the EC thought he was too valuable as an Operator.

He had more success with his application to the nuclear division of Ontario Hydro, although he was required to be interviewed in Canada. The interview lasted ten minutes, and he was asked when he could start. This further highlights the quality of training provided by the EC compared to international power companies. At that time, Pickering had 4 x 540 MW units, each powered by a CANDU pressurised heavy water reactor.

As Jervis Bay was deferred in June 1971 by the Federal Liberal Government, and later cancelled the Whitlam Labor government, it seems Thomas’s commitment to nuclear power waned because, by

1973/1974, he was an APPO at Collinsville in Queensland and a year later a Power Station Electrician at Wallerawang.



Pickering Nuclear Power Station, Ontario Hydro (Getty Images)

The following is a fictional look at a shift in a nuclear power station.

The heavy blast door sealed behind me with a firm, mechanical finality, muffling the sounds of the world outside. As I stepped into the control room of the nuclear power plant, the atmosphere hit me like a wave—an intoxicating mix of sterile precision, low hums of machinery, and the subtle tension that came with overseeing the unimaginable power within the reactor vessel.

The room was bathed in a soft, artificial light, with rows of monitors glowing in shades of green and blue, punctuated by the rhythmic blinks of status indicators. A massive control board stretched along one wall, a dizzying array of switches, dials, and screens. Each one told a story—core temperature, coolant flow, radiation levels—layers of data that painted a picture of the reactor's health.

John, the shift supervisor, glanced up from his station, his face a study in calm vigilance. "You're just in time for the status check," he said, motioning me toward a workstation. I nodded, already feeling the gravity of the environment. Every movement and decision here carried the weight of responsibility, not just for the plant's operation but for the safety of the surrounding community.

As I settled into the chair, it seemed designed to anchor you—to make you feel the importance of your role. The screens before me displayed real-time telemetry: the reactor's power output was steady at 1,200 megawatts, a testament to the precision engineering behind the plant. Lines of code scrolled on a secondary monitor, software running diagnostics on systems that had to function flawlessly.

"We're starting a turbine load adjustment," John said, his voice steady but firm. It was a routine manoeuvre, but "routine" was an illusion in the nuclear world. Every action, no matter how practised, demanded focus and double-checking. My role was to monitor the coolant flow rate and temperature during the process, ensuring the reactor remained in a stable state.

"Valve adjustment in progress," said Sarah, the reactor operator seated across from me. Her tone was calm, but her eyes were laser-focused on her screens. A subtle beep echoed through the room—a reminder to verify a key parameter.

I scanned my display. The coolant flow remained steady, but a slight uptick in core temperature caught my eye. "Temperature's climbing by 0.3 degrees," I reported.

"Expected during load adjustment," John confirmed without looking up. "Keep an eye on it."

Minutes stretched into what felt like hours as we monitored the parameters. The turbine adjustment was completed smoothly, and the room seemed to exhale as one. But no one relaxed—this was a job requiring constant vigilance.

I glanced at a poster on the far wall during a rare lull. It was an emergency procedure flowchart, its steps burned into every operator's mind. The words "Preparedness Saves Lives" at the top were a stark reminder of the stakes.

When the shift ended, I stepped out of the control room into the corridor, feeling the weight of the experience settle on me. The world outside the plant seemed more mundane than the precise, high-stakes environment I had just left. But that was the point—our work in the control room allowed life to continue outside these walls.

Except for the technical differences, this scenario could have been in an EC coal-fired station of the 1970s.

Not Site Specific

Are You a ‘Power Station Tragic’?^{xvii}

Ken Thornton

Is this you?

Individuals becoming power station tragics are deeply interested in power plants. While this may seem like a niche interest, it holds a unique allure for those captivated by the intricate workings, historical significance, and technological marvels associated with power plants.

Here are some key reasons why people become power plant tragics.

First, power plants, no matter from which era, are engineering marvels featuring complex machinery, turbines, generators, and control systems. Enthusiasts are drawn to the technical aspects and marvel at the precision and innovation of power generation.

Then there is their historical significance. Power plants have played a vital role in shaping the modern world. They have powered industries, cities, and entire economies. Understanding the historical development of power plants and their impact on society can be a compelling study area.

ECNSW stations from Vales Point A to Mt Piper present a very functional appearance with their open boiler skeleton structure. However, some people cite earlier stations for their architectural beauty. These are not just functional structures but also architectural masterpieces. Wangi’s earlier-era brick facade offers design and aesthetics, combining form and function. It can be appreciated by those with an eye for architectural beauty.

In an era of growing environmental concerns, stations such as Vales Point, Eraring and Bayswater are denigrated for their emissions. Some power plant tragics may be particularly interested in exploring and advocating for sustainable and environmentally friendly energy generation methods.

Many power plant enthusiasts actively preserve and restore historical power plants. They work to ensure that these sites are recognized for their cultural and historical value. Some research and write histories of power stations. Others work to restore them, if not to their former functionality, then at least to present a glimpse of their glory days. For example, White Bay Power Station in Sydney was constructed between 1912 and 1917 and was decommissioned in 1985. A representative slice of plant, including a turbine-generator and control room, was retained. In 2021, the NSW Government committed \$100M to a conservation and repair project to ensure the heritage integrity of the building is maintained.^{xviii}

Like-minded individuals often form communities and online forums to discuss power plants, share knowledge, and exchange stories. These communities provide a sense of belonging and the opportunity to learn from others who share their passion. Such community groups include the Monthly gathering of Delta Operators, *New Eraring Champions*, a Facebook Group, and a monthly meeting of former Eraring people.

For some, an interest in power plants may be rooted in nostalgia for when these facilities played a more prominent role in their local communities and daily lives.

In essence, becoming a ‘power station tragic’ is driven by a combination of factors, including a fascination with technology, an appreciation for history, a love for architectural design, and a desire to connect with others who share similar interests.

Morisset To Newcastle – 1950’s Route

Thomas Bunn – narration adapted.

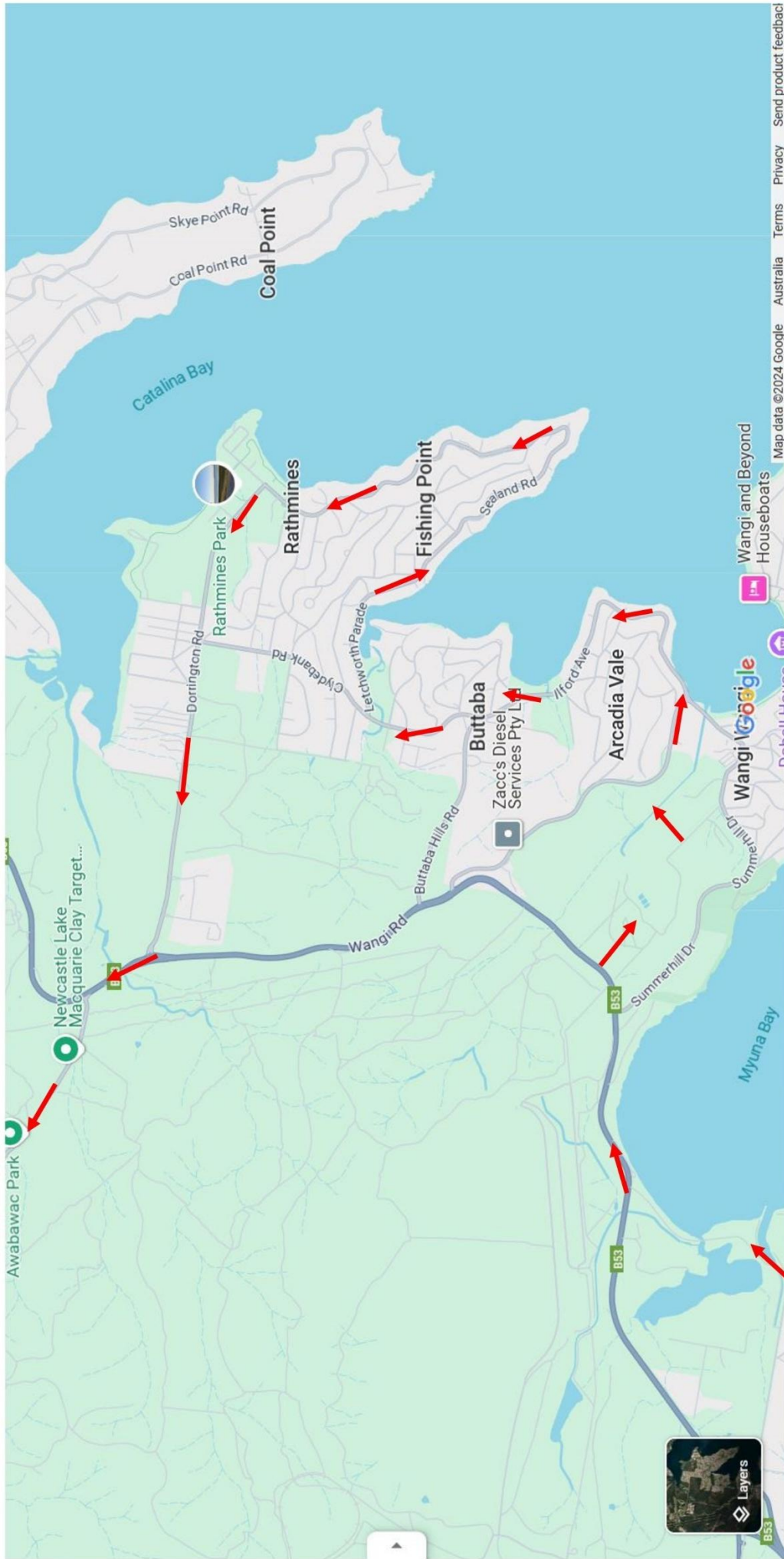
(Editorial Note : It is often easy to overlook the progress and developments that have occurred during our lifetime. None more so than the relative ease of transportation these days. The following article highlights this fact – a presentation derived from a Thomas Bunn narration of the 1950’s route to travel by car from Morisset to Newcastle. Central Coast people in particular will relate to this, relative to the present trip, either via Main Road 217 though Toronto, Glendale, Jesmond, or via the M1 Motorway and Newcastle Link Road).

If tracing the following sequence of maps turns out to be too laborious, then skip forward six pages to “Backroads To The Steel City”, - a Ken Thornton narrative, generated via ChatGPT from the Thomas Bunn text. That might be more to your liking!

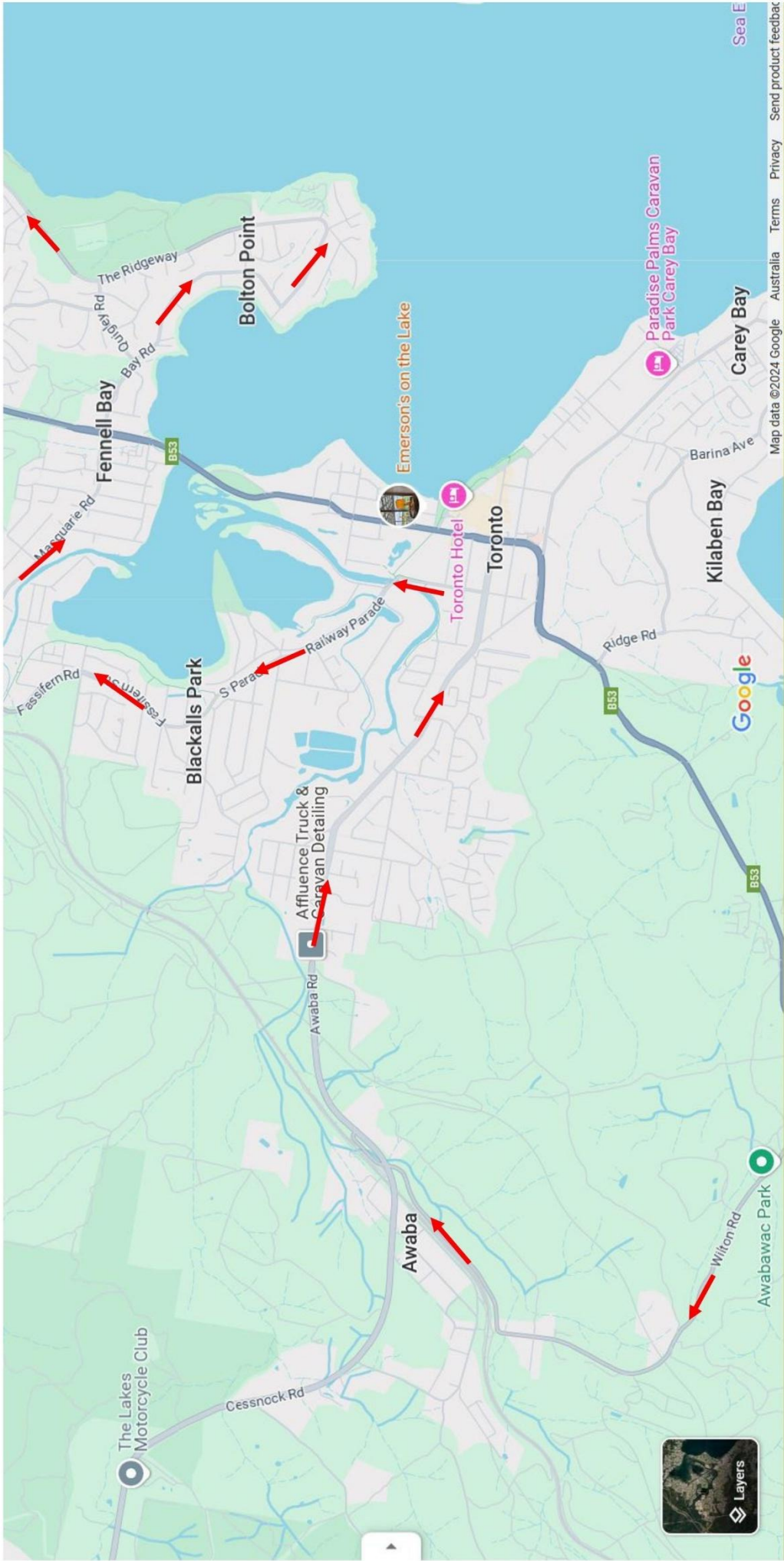
During the recent (November 2024) Construction Division annual reunion, the conversation turned to Power Station development over the years, and in particular, Tom Bunn recounted the route that had to be negotiated back in the 1950's to drive from Morisset to Newcastle. This narrative highlighted the extent of development in the region during "our lifetime" – and we thought it worth recording. Follow the trail on the following maps



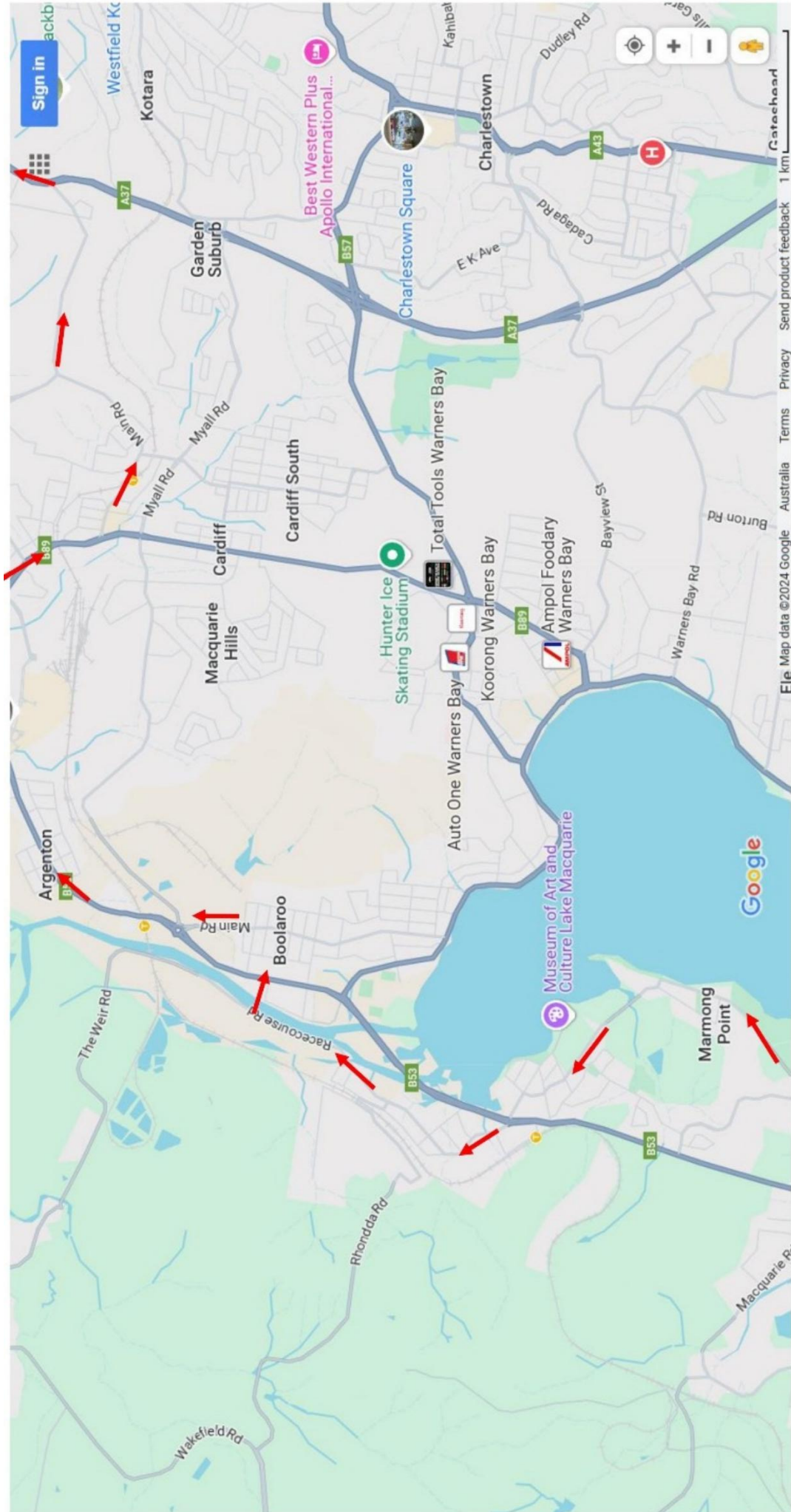
Morisset Station via Station Street to Newcastle Street; thence Kahibah Street into Stockton Street; turn right onto Freeman's Drive towards Cooranbong; turn right onto Newport Road towards Dora Creek; under rail bridge and zig-zag through Dora Creek onto Dora Street; turn left onto Awaba Road and then right onto Border Street; at Eraring, left into Payten Street and across what is now the Eraring Outlet Canal



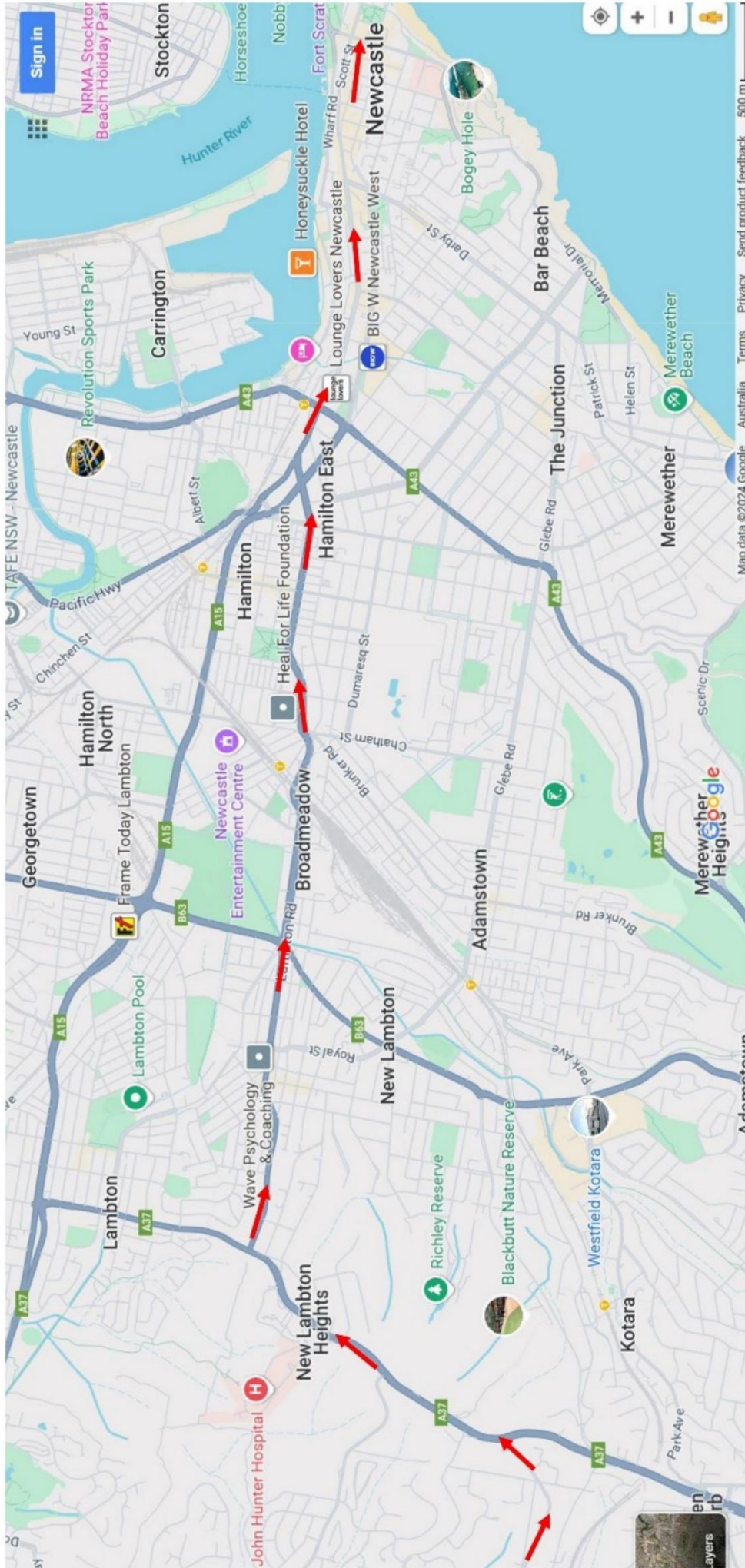
. cross bridge joining Whitehead's Lagoon with Myyuna Bay; and turn right onto Wangi Road. Turn right onto Wangi Point Road (the now disused road into Wangi Power Station); the 'old road' then turned left behind the Wangi Power Station Clearspan Store, and crossed a Wangi Creek weir, before turning right onto Donnelly Road. Left onto Alexander Parade, becoming Ilford Avenue. Onto Clydebank Road (via Southampton Avenue in those days), and then right onto Letchworth Parade, to do the Fishing Point loop back into Rathmines. Through the southern Rathmines RAAF Base Gate (at Rathmines Shops) and left from Stilling Street into Dorrington Road and past the second RAAF Gatehouse. Dorrington 'morphed' into Wilton Road through Awaba, and



... then under the Railway line to turn left onto Cessnock Road towards Toronto. Left into Cook Street, and left again onto Railway Parade (towards Fossilfern). Through Blackall's Park and Fennell Bay via Fossilfern Road, Macquarie Road, Bay Road through to Bolton Point. Via Middle Point Road to the Ridgeway and through to Marmong Point;



..... after Marmong Point continue through to First Street Teralba – becoming York Street and then Racecourse Road. Turn right over a now-absent bridge into Second Street, Boolaroo – and thence left into Main Road. Main Road becomes Lake Road through Argenton to Glendale. Turn right into Main Road, Cardiff, which continues over the railway line at Cardiff Station up to Lookout Road (near Blackbutt Reserve).



..... from that point, not much has changed to the present day along Lookout Road past John Hunter Hospital; turn right into Russell Road, which becomes Rugby Road, then Lambton Road and Tudor Street; meeting up with Hunter Street – which was two-way traffic all the way through to Newcastle Beach.

Supplementary Information

- A rail bridge across Dora Creek on the main northern railway line was built in 1887. In 1887, the bridge was opened to rail-only traffic on one line only. It was not until July 1910 that the line was duplicated. Local road traffic continued to be impeded by the lack of a road bridge. The campaign for a road and foot bridge continued into the early 1950s, but was repeatedly declined as government departments had other expenditure priorities. It was not until the completion of the new rail bridge in 1958 that the conversion of the old rail bridge to a road bridge was achieved.
- Hence the 'deviation' through Cooranbong from Morisset, to get to Dora Creek.
- Fennell Bay Bridge
Opening on 23rd of August 1902, the first Fennell Bay bridge was a wooden composite truss bridge that was in active use for 65 years. It was not until issues regarding width and traffic congestion that the second bridge was constructed



New Bridge – completed ~1967



From Toronto Side



From Booragul Side

Remnants of the original bridge can be seen on the eastern side of the new bridge.

Watkins Bridge Over Cockle Creek – from Teralba to Boolaroo



Cockle Creek Bridge – circa 1970.

Backroads To The Steel City

A journey through the 1950s Hunter by car and memory

They set off not long after dawn, with a thermos of tea in the glovebox and the Sunday roast wrapped tight in butcher's paper on the back seat. The Chev was an old thing even then—pre-war, noisy in second gear—but reliable. It had carried them through years of shortages, fuel coupons, and summer dust storms. By the 1950s, it was still their workhorse on the backroads from Morisset to Newcastle, through a region changing so quickly it sometimes felt unrecognisable from one year to the next.

Morisset in those years was a quiet railway town, better known for its mental hospital than for anything resembling a main street. The station stood as a portal to Sydney, but the real pulse of life came from the bush and lake nearby. They rolled down Station Street, past the low buildings and weatherboard homes, and turned onto Newcastle Street. At Kahibah and Stockton, the road veered right onto Freeman's Drive—a lifeline south to Cooranbong.

Thomas Bunn was at the wheel, his pipe resting unlit on the dash. He knew every twist in the route, every blind bend and makeshift bridge, because for much of his life he'd travelled them not for leisure, but for work. As a man involved in the construction and maintenance of power stations, he'd watched the whole region rise with steel and coal.

They passed through Cooranbong, a Seventh-Day Adventist stronghold where dairy cows still outnumbered cars. The turnoff onto Newport Road led toward Dora Creek, a sleepy hamlet clinging to both sides of the creek that shared its name. The railway had always taken priority here. The bridge across Dora Creek was originally built for trains in 1887, and for decades there was no reliable road crossing. Local people had pleaded for one, but governments had other priorities—schools, hospitals, wars. It wasn't until the completion of a new railway bridge in 1958 that the older one could be converted for road use. Until then, travellers zig-zagged their way through Dora Creek like water around rocks.

Awaba Road, Border Street, and then Payten Street took them into Eraring, then still a remote lakeside area known more for fishing than electricity. But change was coming. The region was humming with anticipation. The New South Wales government was investing in coal-fired power, and land at Eraring had already been surveyed and mapped for potential development. Years later, Eraring Power Station would rise like a giant on the edge of the lake—Australia's largest. But in the 1950s, the land was still quiet.

At Whitehead's Lagoon, they crossed the narrow bridge and turned right onto Wangi Road. Wangi Wangi was a village undergoing its own transformation. In 1956, construction began on Wangi Power Station, a monumental project designed to meet the rapidly growing electricity demand of postwar New South Wales. As Sydney's suburbs sprawled and factories multiplied, the need for reliable power was

urgent. The choice of Wangi, perched on a peninsula of Lake Macquarie, was strategic: deep water for cooling, nearby coal mines, and rail access.

Thomas pointed out the Clearspan Store, where materials for the station were stacked, sorted, and assembled. The old road dipped behind the station site, now crawling with workers in singlets and sun hats. They crossed the weir over Wangi Creek, and turned onto Donnelly Road—gravel spitting behind them. Then onto Alexander Parade, Ilford Avenue, and Clydebank Road.

The roads around the lake were a patchwork of shortcuts and community knowledge. Local drivers knew every dogleg turn and single-lane bridge. At Fishing Point, they looped through Rathmines, entering through the southern gate of the old RAAF base. The war had only ended a decade earlier, but the site still carried its military imprint. Hangars and boat ramps stood like relics, reminders of the Catalinas that once launched from the lake's surface in search of submarines.

They passed through Stilling Street, Dorrington Road, then Wilton Road, reaching Awaba once more. Beneath the railway line again, and then left onto Cessnock Road toward Toronto. Coal was inescapable here—the town pulsed with it. Mines fed the fires of nearby power stations. Men worked underground by night and drank at the hotel by day.

The road took them into Cook Street, then Railway Parade toward Fassifern. This was industrial heartland now. Every few kilometres, a coal siding or power station appeared—like Balmoral, Cockle Creek, or the looming presence of Zig Zag Colliery, a reminder of how completely the Hunter had been reshaped by the coal economy.

The car rattled through Blackalls Park and Fennell Bay, crossing the 1902 timber truss bridge—still in use, still groaning under the weight of growing traffic. The new bridge wouldn't come until 1967, and even then, it would carry the burden of connecting a region still catching up with its own population boom.

Macquarie Road, Bay Road, Bolton Point, Middle Point Road, and finally the Ridgeway. At Marmong Point, they were nearly there. The lake narrowed and gave way to the mouth of Cockle Creek. They crossed to Teralba, onto York Street, Racecourse Road, and then across Watkins Bridge into Boolaroo—a heavy industrial town under the shadow of Cockle Creek Power Station and the Pasmenco Smelter.

Lake Road led to Argenton and then Glendale. Cardiff was the last hurdle, the car bouncing over the railway line near the station. Then the slow rise to Lookout Road, where the city finally revealed itself.

By the time they reached Blackbutt Reserve, Newcastle was no longer a rumour on the horizon. They turned into Russell Road, Rugby Road, Lambton Road, and Tudor Street—names that hadn't changed much since the trams ran here. Then came Hunter Street.

In the 1950s, Hunter Street was still the spine of the city. It was two-way, lined with department stores, milk bars, haberdasheries, cinemas, and seagulls. Coal ships moved through the harbour with slow authority. Cranes lifted cargo in a constant rhythm. The steelworks glowed in the distance, and the city, for all its soot and salt, felt alive.

Thomas parked the car near the beach and stretched his legs. It had taken most of the morning, but it didn't matter. The drive was more than a route. It was a record of how far they'd come—not just in miles, but in years. Every bridge, every new power line, every widened road marked the slow transformation of a region that once lived quietly by its lakes, but now powers a state.

Career Memorabilia Highlights

Doug Smith

Fresh out of University in 1967 – with only a brief Christmas work experience sojourn at Wangi previously – I began my Electricity Industry career at Munmorah. Transfer to Transmission Division occurred within a couple of years, with several career progressions taking me to major Transmission Centre, before 'jumping ship' to join Prospect Electricity, and then involvement from 1992 until 2007 retirement with the establishment and development of the Electricity Market, and associated National Quality Standards.

Reminiscing on these engagements has unearthed many highlights, which I trust are worthy of inclusion in this Memoirs exercise. In compiling these memories, I thankfully recall a career of great opportunities and interest and am grateful for the satisfaction and rewards of working in the Industry.

Recollection: Munmorah No 1 Boiler explosion: a monumental happening! My desk in the Efficiency Office had a view of the Switchyard and the Boiler Mill areas. I heard a very loud BOOM

one morning and recall massive clouds of dust swirling into the HV Yard and through the Mill area – No. 1 Boiler had just become ‘slightly rounded’ on all four sides while on load; in brief, a control instrumentation ‘interruption’ had caused boiler combustion to be extinguished then excessive pulverised fuel input occur, and explode on contact with the ‘superheated boiler tubes’.

I vividly remember seeing Efficiency Engineer Doug Swain disappearing into the Turbine Hall, which was completely filled with a very thick pf dust cloud – masks were not in vogue in those days, so all personnel in the area would have been exposed to this ‘adverse atmosphere’. Naturally, an investigation was launched, and I spent time on the investigating team. Leeds and Northrup also had critical input. The repairs took nearly six months, and the boiler remained ‘slightly distorted’ for the rest of its life. Fortunately, no one was injured, so the episode and consequential contractual resolution did not attract widespread publicity.

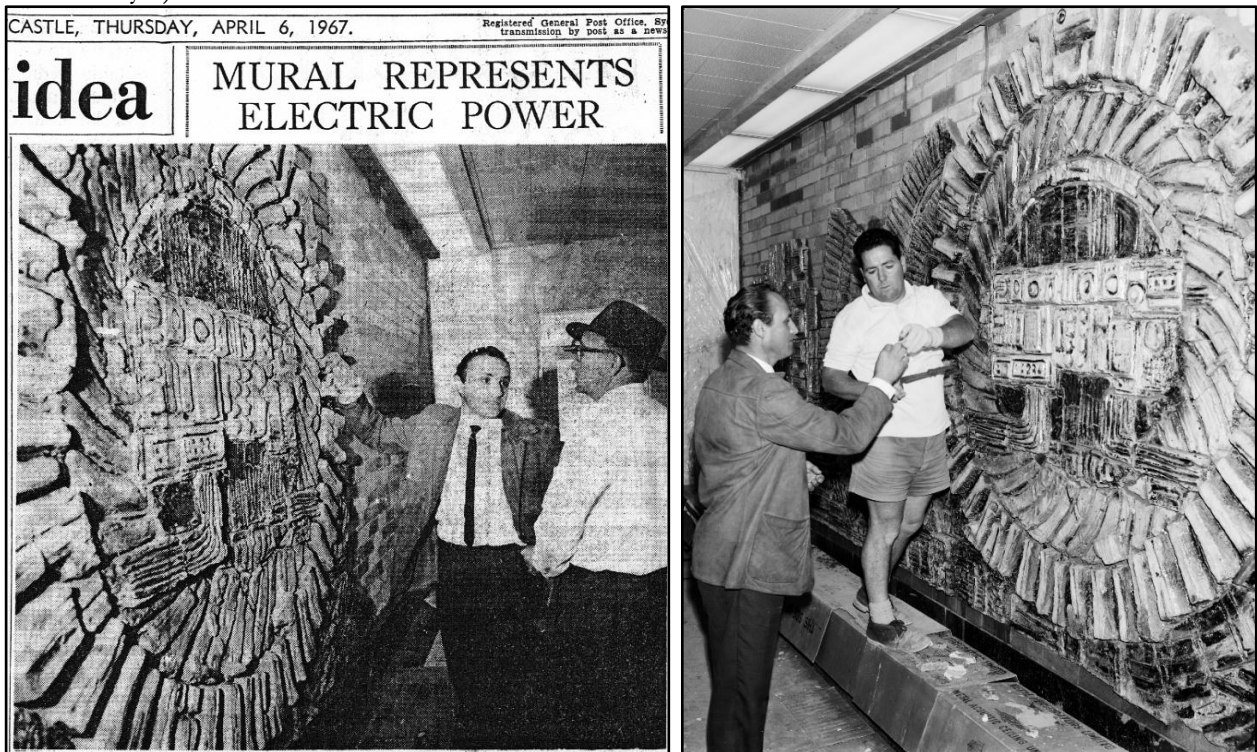
Memory: CEGB London: I took part in some circuit analyses of the 400kV supply to London to assess whether the earth fault could be reduced by operating the System with the Delta (third) windings of the Transformers left open-circuit. Measurements of fault currents resulted from deliberate short circuits to earth on a line of the 132kV system could never happen here!

Memory: During routine protection maintenance, faults were detected with a very old-design protection relay that was in use throughout the 330kV network; such faults could have led to delayed fault clearance times and very serious consequences for the NSW Power System. These relays were replaced very quickly.

Memory – Sydney West: For a period, Sydney West Mains staff were under constant threat of being sacked by the highly-pressured CEO should there be a system fault caused by a tree or should any property owner complain to him that a Patrolman had left the property gate open during an easement patrol. We just had to live through it.

Memory: Munmorah Mural: I have a particular memory of the Mural's artistic representations of the generation and transmission processes. The switchyard was very cleverly done. Almost 60 years later, one wonders how approval for the original expenditure for the Mural was obtained and whether approval for such decoration would be given these days. At that time, money for artistic expression of this type would not have been easily obtained. Maybe someone who was very unimpressed with various Power Station entrances in those days made the case that Munmorah just had to be better.

(Editorial Note: Newcastle Morning Herald of 6th April 1967 featured a front-page article that included the fact that: “The relief mural, which cost \$5,900, contains almost 800 pieces of glazed terra-cotta.” And “Network” May 1967 records that: “The final design of the Mural was developed by Mr Gino Volpato of Sabemco Pty. Ltd. from a theme prepared by S. E. and A. Branch Mr. Alex MacGilvray.”)



Artist Gino Volpato supervising the building of the Munmorah mural, April 1967 (ECNSW 07129)

Memory – Gosford 132 kV Supply: Another period of political pressure from the CEO concerned the old supply to Gosford from Kuringai Substation. A new Gosford 132kV Substation could not be connected because a recalcitrant landowner living adjacent to the site would not permit a 132kV connecting line to be installed over his property. The tenuous 132kV line from Kuringai, spanning the Hawkesbury River, had to be patrolled daily for months to ensure its integrity!

Memory – Bunnerong Sand Hills Transmission Line: In 1988-89, my Sydney West Mains group Overhead Transmission Lines Section undertook the construction of a small 132kV Transmission Line across the Bunnerong Sand Hills from the old Power Station site to the new Substation – it is still standing.

Construction of the “new” 132kV Substation at Bunnerong in the mid 1980’s required a new 132kV Transmission Line to Bunnerong Power Station 132kV Switchyard. Tenders were called for its construction to Transmission Division Head Office design. Sydney West Overhead Mains Section submitted a competitive offer to carry out the construction and won the job. As newly appointed Mains Engineer at Sydney West, my contribution to this project was largely encouragement and managing the budget to control costs.

The new 132kV line was relatively short, requiring only ten concrete poles across a very deep sandy easement, with the conditions resembling quicksand. This environment was indeed unique and very challenging. Each concrete pole weighed over five tons and was approximately eight metres in length. It required a foundation at least three metres deep and two metres in diameter in this deep sand. A round corrugated galvanised “tank” was located at each pole site. As the Post Hole Digger’s rotating screw extracted sand, the “tank” lowered itself into the hole. This activity continued until the required depth was achieved. On completion of each hole, a pole was transported to the “tank” and held vertical by a crane while concrete was poured and set.

The transport fleet required for the project comprised a large Post Hole Digger; Concrete Trucks; heavy trucks delivering transmission line conductors, storage wheels, and 132kV porcelain insulators; thick steel plates to form a “track” across the sand to each site to prevent any of this equipment becoming bogged in the “quicksand” during operation.

This Transmission line is now over thirty-five years old and still standing. Its design and construction were an outstanding Transmission Division achievement that deserved a special recognition event that never occurred. Indicative of the times!

Memory – High Voltage Metering: Introduction of the Electricity Market created a competitive environment amongst Generators, and the need for accurate metering of high voltage electricity transmission. The National Standards Laboratory played a role along with other stakeholders in the development of High Voltage Metering Quality Assurance standards. As a consequence of my involvement in this process, I worked closely with Lawyers, particularly in relation to the Metering Code. The benefits of input by a good Lawyer quickly became evident; but governance of Market implementation in general and “The Code” in particular appeared to consume massive funding, with money for Lawyers seemingly unlimited. I never saw their accounts and no-one questioned politicians to my knowledge.

Miscellaneous Snippets And Recollections

Tony Booth

A layman’s view of a power station would certainly recognise the need for mechanical, electrical, operational and administrative staff. But when I saw the advertisement for a Chemical Technical Officer, I had to make an enquiry via Station Chemist, Lew Drummond.

“What on earth did chemistry have to do with a Power Station?” As those who have worked in the industry well know, there is plenty of chemical involvement on the plant - Chemical Control of all phases of the steam-water circuit throughout the main boiler and turbine system, the performance of the Demineralising Plant, coal and oil analysis, and a huge range of Environmental monitoring of the cooling water inlet and outlet canals, ash dam discharge and the adjacent Tuggerah Lakes systems. There was also an onsite station for daily air quality monitoring, a weather station, and a host of other testing performed both in and out of the Laboratory.

This diverse range of chemical activity involved interfaces with staff at all levels - there were many good men and women, with a wide range of skills, knowledge, and experience, and it was great to work with them.

There was a sense of pride in the place, and you had the impression that you were on a big ship, and it was an honour to be a part of the crew in its halcyon days. I witnessed a good example of this spirit

one day when out on the plant. I noticed a jet of liquid spraying high into the air from a pump at floor level on No 3 unit. I was about to make a run to the Foreman's office to report it, when I saw one of the mechanical fitters, Allan Johnston, who happened to be passing by on his way to another job. He quickly assessed the situation (the liquid was fuel oil), located the missing nut which had blown out under pressure and replaced it in the body of the fuel oil pump stemming the flow. Bravo, Allan. There were many other similar incidents over the years.

Between 1975 – 1988, I performed relief work at other sites, including 5 stints at Tallawarra, and also Wallerawang, Wangi Wangi and Pymont. All were older sites by then, and it was interesting to get first-hand experience of the earlier technology and the good and dedicated people involved. But one always appreciated the return to Munmorah “headquarters”.

At Tallawarra it was amazing to see the operators crank one of the A station 30 MW units up to 38 Megawatts (there was a racehorse called 37 Megs running around in country Victoria a few years ago - no doubt some connections there from staff at one of their old units!). It was also gratifying to be involved in the research into suitable materials for fabric filters in the pilot plant at the site - the result being a reduction of particle emissions at future plants, including Munmorah. However, one memorable and disappointing recollection was the taste of onion in a finger bun I'd ordered from the canteen for morning tea. The canteen was run by “retrained” staff clearly with marginal kitchen hygiene practices – I never ordered one again, but at least the salad sandwiches were alright!

There was a good working environment in the Chemical Section at Munmorah, especially in the early days with many names that come to mind of distinctive characters and very capable and committed personnel. I vividly remember a very steep learning experience when filling in at the lunchtime card school for fiercely contested games of 500 (slam no trumps was a regular defensive call as the game was always “plus or minus 500”!).

There was one rather disconcerting experience in the laboratory – it was Thursday December 28, 1989, and at around 10.30am I was sitting on a stool using the balance to weigh a coal sample. Then suddenly there was a huge “bang” and the whole building started shaking - a big worry when you're on the third of three floors. The shelf on the bench to my left started swaying from side to side – also a worry because it contained glass bottles of some very corrosive acids, which miraculously did not fall.

This scenario was the Newcastle earthquake, as felt some 50 km. south. As the shaking continued, I worked out an escape plan – if the building started to collapse, I would climb through the window on my right onto the balcony and “go down with the ship”, but “jump ship” just before landing. Thankfully it didn't come to this – after what seemed like an eternity but was only 30 seconds or so, the shaking stopped. After checking that others in the laboratory were OK, we emerged to see what had happened. We had no idea what it was until much later – and discovering the terrible tragedy in Newcastle.

The Sports And Social Club certainly helped to enhance staff relationships, and get to know fellow workers. There were some good Social Club events over the years, with widespread camaraderie, especially at the annual smokos. I still recall Johnny Garfield - a classic comedy act who had us all “pissing ourselves laughing”, while Johnny Pace And Harriet brought a new dimension to the smoko scene, with Johnny doing the ‘stripping’ on one notable occasion.

We enjoyed bus trips to State of Origin (including getting saturated trying to find the bus after the one where Michael O'Connor kicked the winning conversion from the sideline in driving rain); there were keenly contested Salaried vs Wages Cricket matches, and a couple of notable EC of NSW Games weekend, with Cricket, Surfing, Bowls, Golf and other sports catering for representatives and participants from all NSW Power Stations. A highlight was my good mate Peter Dedden winning the Surfing event. It was also fun to be part of the lunchtime activities like touch football and volleyball (our laboratory / instrument technician team was called the “Butcher's Pricks” after the Māori Wrasse in the aquarium).

Our Munmorah volleyball team was “The Pythons” (after the Monty Python crew), and miraculously we managed to beat the much-fancied Vales Point team in the grand final of the very first Central Coast competition in 1978. Fellow T.O. Glenn Hepplewhite was a class player, and the rest of us were just there to make up the team, but we caught onto it and well done to all the others involved, including Frank Mieszala, Brian Keating, David Kirkup, Paul Wheelahan, Greg Cox, and co. We partied long and hard that night!

Most workplaces accrue safety near-misses. . . . thankfully, most without significant consequences. In this context, I recall an unusual but alarming near-miss that occurred one day. I was riding the pushbike we were issued with to travel around the site (sure beats walking) and heading out to the Ash Dam to take some samples at the discharge. Hooting along the road on the wall of the dam, I

encountered a red-bellied black snake, which shaped up to strike as I approached and sped past. It had been sunning on the other side of the track, and I think it got more of a shock than I did!

I have never regretted by decision in 1971 to leave AIS, Port Kembla and take up the position at Munmorah. It was the best job in the best working environment that I could ever imagine.

Paul Jackman Memorial Units, Port Macquarie.xix

Since the 1970s, many power industry people and their families have enjoyed a holiday at the Paul Jackman Memorial Units in Port Macquarie. The on-site swimming pool and nearby Flynn's Beach make this an ideal place to unwind or chase after your kids.

Paul Jackman, 18, was a Junior Clerk with the Electricity Commission when he lost his life in heavy surf at South Narrabeen Beach in December 1969. As a beltman, Paul was trying to rescue a swimmer in difficulties. His line became entangled in thick seaweed, and he was dragged under between the beach and the man he was trying to save.²⁹⁶

For those unfamiliar with this facility, the Paul Jackman Units are self-contained holiday accommodation located in Swift Street Port Macquarie. A ballot is conducted annually to allocate units to members. Unallocated Units are then available on request for both current and retired members.



Paul Jackman Memorial Units, Port Macquarie, 2021 (Keith McBurney)

(Editorial Addition : Refer - [Port Macquarie Units – Energy Employee’s Welfare Fund](#)

Eligibility to make a reservation of one of the Paul Jackman Units requires that “you are either a current or retired member of the Energy Employees Welfare Fund. Those that have left an energy generator for other employment are not considered a current or retired member.”).

Generation Business Units

Peter Smith

Before the Electricity Market started in the mid-90s, there was a several-month internal trial market. Pacific Power broke the power stations into three groups, basically similar to the geography of Central Coast, Western, and Hunter Valley power stations. They were called GEN1, GEN2, and GEN3. A rumour was started by some wags that privatisation was about to start and that Transfield, which was originally an Italian-financed transmission construction company, wanted to acquire one of these groups and intended to name it: " GEN ITALIA"!!

One day long ago, in a kingdom far away...

lived a great and powerful king.
But he had one weakness — he was
afraid of the dark...

So for many years thousands of slaves did nothing but keep his palace lit brightly with smoky turpentine torches that left black marks on his walls and ceilings.

One day when the king was riding, he met a strange looking man called *En Ig Neer*, who promised the king that he could light up the palace by magic, using invisible forces of his own...

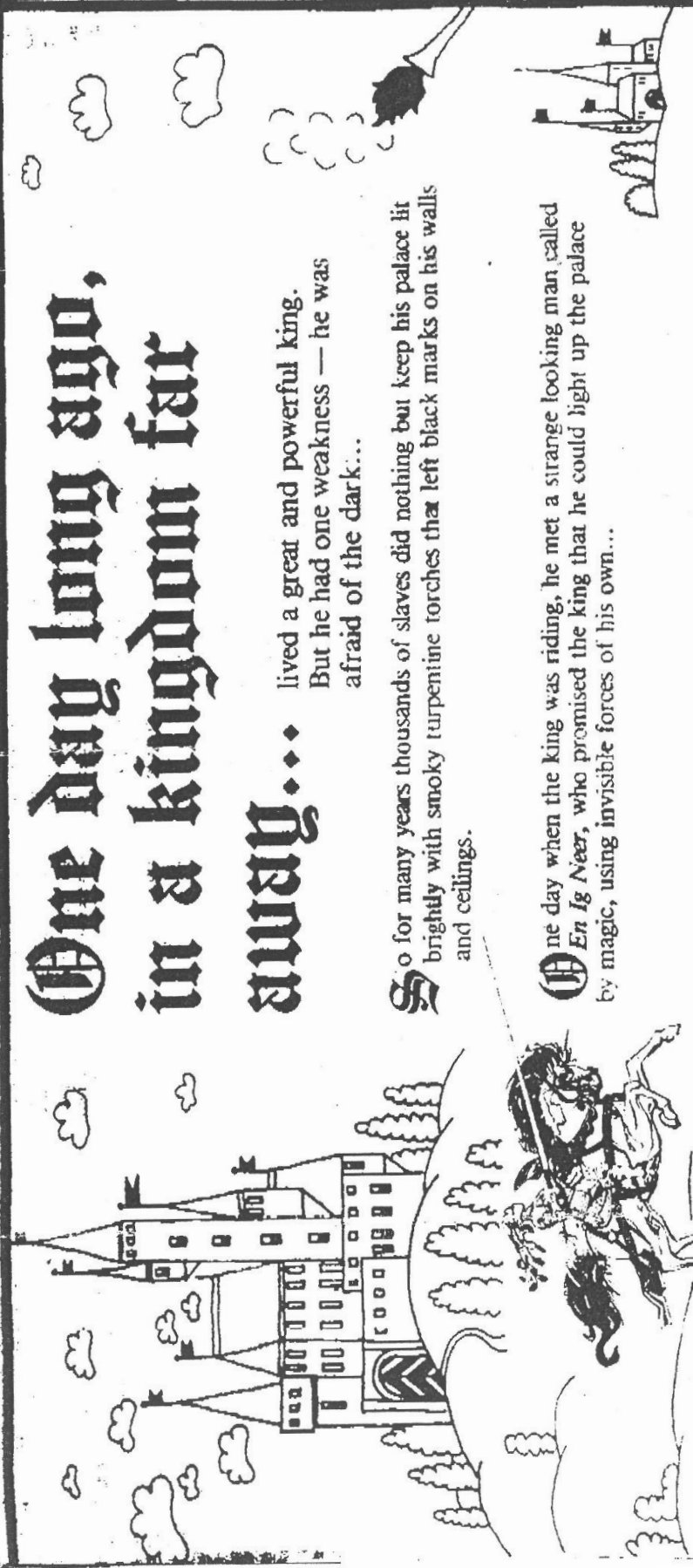
Today *En Ig Neer*'s magic force is used everywhere by all of us. It's called electricity. With the flick of a switch, we can call on this magic energy, undreamed of only a few decades ago and have easy access to power which a king's ransom could not have bought in that far away kingdom.

The efforts of scientists, engineers, coal miners and just plain workers down the decades have replaced the dirty turpentine torches with clean, efficient electricity. For over 30 years our people have been applying, refining and improving the bundle of knowledge, skill, technology and experience which, today, is called the Electricity Commission.

Like *En Ig Neer* we light up your life by making this magical force in clean modern power stations so your County Councils can bring you light, heat and power at the touch of a switch.

Electricity Commission

We light up your life



One day recently, in a tall tower far removed from reality...

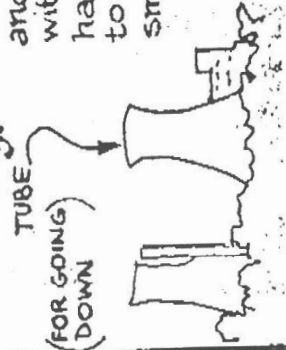
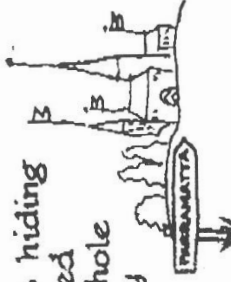
lived a great and powerful band of En-ig-neers and Ad-mini-stra-tors, who had one weakness; they lived in a magical fantasy world....

For many years thousands of "just plain workers" did nothing but keep the tall tower lit by faithfully patching up & operating ancient & under-maintained machinery which left black marks all over the beautiful countryside.

One day when the most important Ad-mini-stra-tor was hiding in the luxurious tower a strange looking man called Ker-mit demanded that he continue to keep the whole kingdom lit but, by using magic invisible forces, greatly reduce the cost.

The En-ig-neers & Ad-mini-stra-tors used a new magic force called Corporate Strategy, which would increase their numbers, and formed new divisions until the tall tower was bursting. With the stroke of a pen, meanwhile, they banished many just plain workers and decreed that those remaining must work twice as hard at more than one job.

For over 30 years the just plain workers have been applying their knowledge, skill, technology and experience to keep the kingdom lit, while those living in the tower were concerned with safeguarding their comfortable conditions. Recently some of the plain workers have retired and, because they are not being replaced, soon there may not be enough to keep the machines going. Then the tall tower may have to be lit with smoky turpentine torches.



Electricity Commission
We belong in the dark ages.

Sports And Social Clubs.xx

In ECNSW/Pacific Power times, Workplace Sports and Social Clubs have long been a popular feature of employees' extracurricular activities. From an employer perspective, they helped promote employee engagement and motivation. This aspect is very important in regional locations where employees and their families are new to an area. The clubs were typically created and run by employees, but often, the employer offers financial assistance. In many respects, clubs help support employees' emotional and physical well-being. A great appeal is that they allow staff and their families to engage with others in similar circumstances and participate in activities they might not otherwise have considered or have found the time to take up.

From the Electricity Commission's early days, employees at most sites formed a Sports and Social Club. Individual clubs organised events that were available to members. At the same time, each year the E.C. Employee League / Pacific Power Association of Sports and Social Clubs would accept the offer of a single Club to organise the Annual Games weekend. Local events and the Games weekend were financed by Club members, with the E.C. providing financial assistance to the latter.

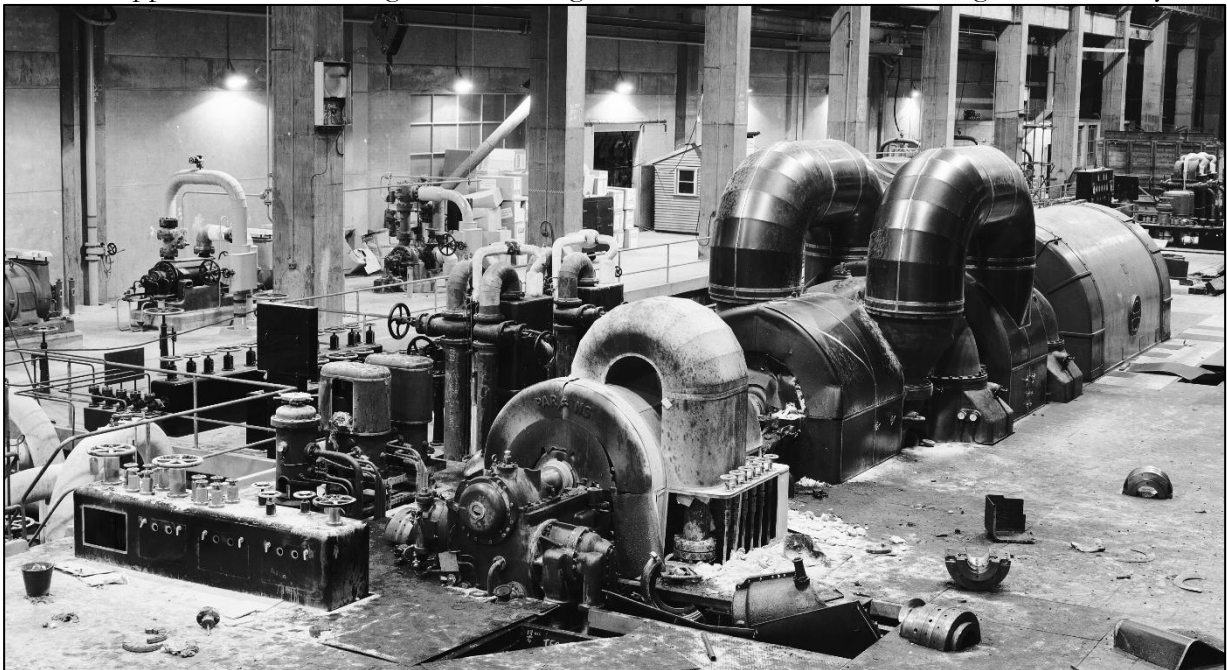
Major Plant Incidents

Since its inception in 1950, Electricity Commission establishments have experienced their 'fair share' of major plant incidents. Some of these have been "lost in antiquity" – others are reported in more detail in other contributions to this publication.

The following schedule provides brief coverage of many of these major incidents.

Wangi Power Station

No. 2 Unit Turbine governor failure and overspeed debacle. 9th December 1957. The high pressure turbine was ripped from its bearing, tossed through the turbine house wall, landing in the switchyard.



Wangi Power Station No. 2 Turbine Failure, 9 December 1957, 01376 (ECNSW)

White Bay

Not long after (~1958), No. 2 Unit at White Bay suffered a similar occurrence, with major components subsequently recovered from the adjacent public thoroughfare.

These two events would surely have created a degree of anxiety within the fledgling Electricity Commission and probably explain the strong focus on governor settings and overspeed testing at all Stations since!

Vales Point

December 1963 – Vales Point Unit 1, Mill 1A pulverised fuel line explosion. Pulverised fuel in the line ignited at the burner box, and quickly burnt back along the cast iron fuel supply line – eventually "exploding", with consequent shattering of the cast iron components.

Eraring**Fabric Filter Cell Fire**

(~1983) with a complete cell of some 1200 filter bags destroyed. A major concern was the composition of the combustion products – likely to be more than slightly hazardous to health!

Munmorah**Munmorah No. 1 Unit Boiler Explosion**

1967 – a consequence of disconnection and then shortly thereafter reconnection of the fuel supply signal to the auto-control system – so air flow rapidly reduced, ignition lost, then airflow rapidly restored – and the build-up of unburnt p.f. coming into contact with hot surfaces triggering an explosion. Slightly buckled structural components bore witness to the occurrence for the rest of the Station's life!

4B Mill Fire And Explosion

A similar episode to the Vales 1A Mill incident, except the p.f. flow was alight all the way back to the Mill Classifier, and the fire spread to myriad cable trays running through the basement.

LP Turbine Stellite Blade Tip Failure.

Bob Porter

The extremity of the leading edge of the last row LP turbine blades featured a brazed stellite shield, to inhibit blade erosion at the 'wet' end of the turbine. The stellite bond failed on one LP rotor, and the stellite fragments 'bouncing around' the discharge hood quickly dislodged most of the stellite on all the remaining blades. Much of the 'stellite storm' – travelling at supersonic speed – impinged the top rows of condenser tubes a couple of metres below, causing massive salt leak, and of course a unit trip. The immediate solution was two-fold – progressively remove the stellite from all seven remaining LP last row blades (and suffer accelerated erosion, short term), and plug the top two rows of condenser tubes in all condensers, so that a repeat failure would not trigger salt leaks. Eventually, last row blades on all turbines, were replaced with modified stellite shield design and attachment.

Clinker Formation

Bob Porter

The high heat flux region of the Munmorah boiler combustion chambers initially resulted in metal temperatures that exceeded the ash fusion temperature of the coal supplied at the time. The result was adherence of the liquid ash to the furnace walls where it would gravitate down to "cooler" portions, solidify, and remain bonded to the metal tubes. This build up would continue to grow until the mass was greater than the bond would support, and giant clinker would plummet into the ash hopper below. Moderately sized clinkers would be quenched in the hopper – and posed problems then in negotiating the sluiceway, and being 'digested' by the ash pumps. But the bigger issue was the 'large buggers' that bridged the throat of the ash hopper, and held up everything that subsequently followed. Many of these required a unit outage for explosive removal. The solution was to line about a 10 metre band of the furnace high heat flux region with refractory, to inhibit the ash melting process. This had the added benefit of increasing heat carry-over to the superheater pass, enhancing final steam temperature!

Liddell**The First Attempt.^{xxi}**

Ken Thornton

So far, it was like any large electricity-generating unit start. However, this was not a routine exercise. Liddell's first 500 MW generator to be connected to the New South Wales electricity network is being prepared for service. The myriad of pre-start checks have been completed. The condensate-feedwater system and a multitude of other systems are in service. The boiler is producing steam to drive the turbine-generator towards the required 3000 revolutions per minute.

The control room is not large, especially compared to those at Vales Point or Munmorah. It is divided into two sections, the central part, where all the controls are and a wide passage at the rear, which is a viewing area for visitors. Two small windows look out from the control area to the turbine floor. The predominant colour is light green. A low suspended ceiling consists of acoustic tiles with opaque white sections lit by fluorescent lights. Usually, the control room is staffed by a team of six white overalled operators.

The control panel faces the turbine floor and is divided into two sections, one for each generating unit; a 10 cm high strip of thin Perspex separates the two. Each panel or Unit Control Board (U.C.B.) has a myriad of switches, buttons, gauges, lamps, and annunciator alarms needed to manage the

generating unit. The respective sidewalls of the control room have the switches, buttons and indicators for each generating unit's auxiliary plant.

On this day in early April 1971, the small number of white overalled Operators are outnumbered by expectant onlookers - Construction engineers and Electricity Commission managers and engineers. All stand back from the Unit Control Board to allow the P.P.O., Rod Drummond, to move to various control stations. Rod's supervisor, Charge Engineer Stan Butel, stands close if his advice is needed. Both have placed many generating units in service at other power stations. Yet, both are mindful of the importance of what is happening.

Rod quietly monitors many critical parameters, but none so important as the boiler steam pressure and the turbine speed. The pressure is what it should be, and the speed slowly increases through 2900 towards 3000 RPM.

Two Assistant Power Plant Operators (APPO) are waiting to go out onto the plant if the P.P.O. should need them. The Charge Engineer quietly asks if all the start-up Job Sheets have been completed. The P.P.O. nods that they have.

At the rear of the Control Room, Bill Eddy, the Power Station Superintendent (P.S.S.), is waiting to witness this important event. To him, the operators appear very calm. There are no raised voices. The P.P.O. is going about his job in a measured manner. On a couple of occasions, he consults the Charge Engineer for advice. He seems to have everything under control; he knows where he is in the start-up procedure. He looks to the Charge Engineer with raised eyebrows as if to say, 'OK, we are near 3000 RPM; I am going to synchronise it now.' The Charge Engineer gives a barely perceived nod.

The Synchroscope is energised. It indicates when the frequencies of the two electrical systems, i.e., the generator and the state network, are aligned. When there is no difference, the synchroscope pointer will be in the vertical position.

The speed of the turbine generator is slightly below what it should be. The P.P.O. adjusts the throttle valves to admit more steam to the turbine. The speed increases. The anticlockwise rotation of the Synchroscope slows and reverses. As the speed slowly nears 3000 RPM, the Synchroscope slowly approaches the 10 to 12 position. The P.P.O. is waiting for it to slowly move through the 5 to 12 position. When it does, he presses the push button to close the circuit breaker to connect the generator to the state network.

Everybody in the Control Room expects the circuit breaker to close. It does.

But the unit does not deliver electricity to the network.

The instant the circuit breaker closes, a thunderous bang is heard from the plant. The building and the floor shudder.

Unbeknown to those in the Control Room, the generator received a severe electrical jolt at that instant. (It was later found that the connections were 180° out of phase.)

The P.P.O. only knows that the synchronising exercise has failed and does not know why. He knows that he must now make the generating unit safe. Had the systems that had to shut down done so automatically? Had those systems crucial to the safe run down of the turbine remained in service or started as required?

To the ashen-faced people at the back of the Control Room, the quiet calm of a few seconds ago is replaced by alarms sounding and alarm annunciators flashing.

"Will somebody go and see what is going on?" the P.P.O. asks. "On my way," one APPO replies as he and others rush out the door to go and assess the situation out on the plant.

Generator Failures (Part 1)

Ken Thornton

The Electricity Commission entered its fourth decade with a sense of optimism engendered by the prospect of a decade of the construction of 6,600 MW of new generating capacity. The basis for the optimism, and with it the challenge for the 1980s, was the prospect of electricity sales maintaining the momentum of previous years. The annual changes in electricity sales, while not at the high levels of 1964 (15.4 per cent) or the 10.7 per cent of 1970, was a respectable 7.3 per cent in 1980.^{xxii} Similar annual changes were forecast for the coming decade, especially with the anticipated energy requirements of two new aluminium smelters and an upgrade to a third. Based on a projected eight per cent annual increase in sales, the equivalent of one 660 MW generating unit needed to be commissioned each year to 1984, then increasing to over 1,000 MW in each of the following years to 1990. For a power engineering organisation committed to providing a reliable supply and one that prided itself on its engineering expertise, a construction and commissioning program of this magnitude was viewed as daunting but a challenge that could nevertheless be achieved.

The EC's optimism was challenged in 1981 by the failure of three of the four 500 MW generators at Liddell within eight months. These were not 'normal' failures, such as boiler tube leaks or a turbine bearing with higher-than-normal vibration levels. Instead, each generator failed because of the more serious problem of insulation breakdown within the end winding support structure of the generator stators. The EC attributed these failures to inadequacies in the system of insulation used in the original design.^{xxiii} The initial Liddell unit to fail (#3) occurred on 26 March 1981. Normally, the loss of a single generating unit would have been covered by other ECNSW generating units and NSW's allocation of Snowy Hydro output. However, at that time, two Munmorah units (each of 350 MW capacity) were out of service due to boiler tube hydrogen embrittlement issues. The ECNSW progressively drew down on its share of the Snowy's short-term water resources to meet demand. By early June 1981, the Snowy could not continue supply, resulting in the gazetting of power restrictions in late June. This situation was further exacerbated in November 1981 with the failure, in similar circumstances, of two additional 500 MW Liddell generators. Additional power restrictions were imposed for twenty days in December 1981 and twenty-six days in March/April 1982.^{xxiv} To assist in alleviating these restrictions, older generating units at Pyrmont, White Bay Power Stations in the Sydney CBD, and Muswellbrook and Koolkhan Power Stations in regional NSW were rehabilitated and recommissioned.^{xxv} An additional 300 MW was commissioned with the purchase of twelve 25 MW Emergency Gas Turbine generating units.^{xxvi} This desperate period of power restrictions was alleviated with the commissioning of the first 660 MW unit at Eraring in March 1982.

While assigning poor design of the English Electric generators as the root cause of the failures, the EC's maintenance procedures, particularly those at Liddell, were the subject of an inquiry by the NSW Ombudsman. Apart from the Ombudsman's finding of an inadequate generator inspection program, the redeeming feature for the organisation was that the failures were not of its design.

Arguably, the 1982 Ombudsman's inquiry was the first time the ECNSW's engineering management processes had been openly questioned by the government, the public and external commentators. Of the decade's major inquiries, it had the narrowest terms of reference. These did not extend to determining the causes of the generator failures nor to form conclusions on design or manufacturing defects allegations. The Ombudsman was only empowered to investigate allegations of the ECNSW's inadequate generator inspection and maintenance procedures at Liddell. The Ombudsman concluded that the Commission's decision not to follow the generator manufacturer's rigorous inspection procedures was justified.^{xxvii} He did, however, note that the Commission had erred in not consulting the manufacturer concerning this decision and failed to implement an alternate inspection and maintenance program. While the Ombudsman was unable to inquire into the actual causes of the failures, the Commission conducted its own inquiry, which was supplemented by several investigations by independent consultants. Weaknesses in the design and materials used in the failed components were identified. Not surprisingly, the Commission considered these weaknesses the leading cause of the failures.^{xxviii}

The Liddell generator failures, the inability to fuel Eraring Power Station with open-cut coal, and certainly the 1986 inquiry into generation planning halted three decades of engineering and political autonomy and heralded increased political scrutiny. It also heralded in an era when supply reliability was no longer the organisation's primary KPA. Production and business efficiencies became the norm.^{xxix}

Generator Failures (Part 2)

Peter Smith

My recollection is that there was a generic weakness in the insulation materials, a tar-based or early epoxy-based insulation material that had air voids or something similar that failed progressively due to corona in the voids under electrical stress at specific high-stress points in the windings, maybe the "knuckles" where the demin cooling water (stator water) entered the hollow coil sides of the windings. The new stators had vastly improved epoxy resin insulation with zero voids.

You could always ring Ian Stuart about the poor check procedures that missed the wiring error that allowed the out-of-phase synch!

From that commissioning error, ever afterwards, we do an actual live phase out across an open isolator in the switchyard to prove the correct phasing of the generator output to the system, i.e. we leave a generator's 3-phase isolator open but energised on the yard side, and excite the generator to full output volts on no load with the generator circuit breaker closed. If phasing is correct, you will get nil volts across the open isolator. You do this with an electronic detector on a fibreglass insulated pole that shows either voltage or no voltage via an on/off light either voltage/no voltage.

Unit 4 Fabric Filter Passes Structural Failure – 2004

Keith Harvey

As early as 2002, several methods were trialled to remove the increasing dust build-up in the dust disposal pipelines. By December 2003, a successful method had been established to resolve this problem. For Units 3 and 4 this involved using 3/4 Dust Plant to pump clean water through the pipelines as a flushing medium. During the period of such flushing, the dust had to be diverted to the Unit 3/4 Ash Plant.

On the night of the failure, dusting proceeded normally on both Units 3 and 4. Not known at the time, however, the dusting of 4D pass did not progress normally due to low ejector vacuum. Excessively high dust levels in the 4D pass dust hoppers overloaded the supporting steel structure. The collapse of this pass led to the failure of 4E. Unit 4 subsequently tripped from 480 MW.



Unit 4 Fabric Filter Pass structural collapse (Keith Harvey)

Closure - Hazelwood And Yallourn E

Victoria's Yallourn E Power Station ceased production in January 1989, and Hazelwood in 2017. These two Victorian power stations are acknowledged through verse and song. These evoke similar thoughts that many may be feeling about closures in NSW.

Hazelwood

The sudden closure of Victoria's Hazelwood Power Station in 2017 prompted Unit Controller Danny Boothman to pen lyrics and music to express how he felt about the station and his nearly three-decade association.^{xxx}

Hazelwood was a brown coal-fuelled thermal power station in Victoria's Latrobe Valley. Built between 1964 and 1971, the 1,600 MW power station comprised eight 200 MW units. On 3 November 2016, Engie, Hazelwood's owner, announced that the power station and the associated substantial brown coal open-cut mine would be closed at the end of March 2017, giving the workers and local communities only five months' notice.

Search YouTube for 'Danny Boothman: The Hazelwood Song.'

The Hazelwood Song

For many years, she produced the power, a beacon in her time
 The power she made would light the way in your house and in mine
 The valley survived the gift of light by the holes we dig in the ground
 But the time has come to say goodbye after more than a fifty-year run

So, let's all have a drink to Hazelwood, lift your glasses high.
 Let's all have a drink to Hazelwood. It's sad to watch the old girl die.

Now all of us who work here now are unsure of what we we'll do
 But we won't give up because we're made of good stuff,
 we'll do what we have to do
 When the dredges stop, and the fires go out, the Turbines cease to spin
 We'll all have to deal with the winds of change if the winds are blowing again

Let's all have a drink to Hazelwood, lift your glasses high.
 Let's all have a drink to Hazelwood. It's sad to watch the old girl die.

Let's all have a drink to Hazelwood, lift your glasses high.
 Let's all have a drink to Hazelwood. It's sad to watch the old girl die,
 it's sad to watch the old girl die.

Danny Boothman, May 2017

Yallourn E

I stand alone on the turbine floor
 I stand alone on the turbine floor, no other sound but mine.
 The rows of turbines sit before me, with dust on their once proud shine.
 I see the gauges with zero faces, charts that sit with dried-up ink.
 The valves that wait with tarnished handles, the stairs that hear no sound of feet.

Then memory brings to me the rumbles, the sounds from the flowing steam.
 And every station became alive with faces there I had seen.
 Stories then came back to me of old timers in their prime
 Punching the clinker, the coal dust rain, the polished brass midst smoke and grime.

Lives were built from within this place, back through time and time before.
 And men were wed and their children grew and they too walked this floor.
 From photo, magazines and files I've seen a legend unfold,
 Learned of men who had the vision and worked towards the goal

I stand alone on the turbine floor, no other sound but mine.
 Like those who've walked this floor before me,
 I am the history of this place in time.

Neville J Peckman – January 1991 ^{xxxi}

Nicknames

The Black Prince	Jim Byrnes
Sandshoe Sid	Sid Howes,
Ron, The Ranger	Ron May,
Kookaburra (Protected Species)	Len Hutchinson
Jockey Jack	Jack Maher, Eraring Power Station Superintendent
Laurie Low-loader	Laurie Thompson, Eraring PPO and Shift Manager
Lefty	Gary Comyns, Eraring Operator
Sludge	Gary Marskil
Dribbles	Paul Hamilton
Snapper	Don Nicholls, Vales A Stn. Instrument Foreman Vales Point A station.
Squeaker	Chris Elliot, Vales. Boilermaker, later an Inspector.
Herman	Phil Atkins, Vales A Stn. Electrician.
Bucky	Bob Buchanan, Vales A Stn. Electrician.
Gorky	Glen O'Rielly, Vales A Stn. Electrician.
Red Dog	Neil Hall, Vales A Stn. Instrument fitter.
Golden Pen	Bob Porter
Mother Superior	Helen Rostron, Vales Typing Pool Supervisor
Crowy	Bob Cromack, Vales A Stn. Instrument Foreman Vales Point A station.
Big Pete	Peter Grant, Munmorah Operator and, worked in the Operations Section.

Little Pete Peter Sieffert, Munmorah Fitter and worked in the Operations Section.
 Jock Strap Richard (Dick) Carrier - Liddell Operator He was commonly called by that nickname outside of work too. One day when some kids were playing backyard cricket in Muswellbrook, the home of a many Liddell and Bayswater staff, a ball was hit over the fence into Dick's backyard. An innocent youngster went next door to retrieve his ball and asked, "Can we have our ball back please Mr Strap?"

Epilogue - Electricity Commission Of NSW - 75th Anniversary

Bob Porter

The Electricity Commission of NSW was established on 22 May 1950 by the Electricity Commission Act 1950 to take control of power generation in the State. The Commission acquired the power stations and main transmission lines of the four major supply authorities: Southern Electricity Supply, Sydney County Council, the Department of Railways and the Balmain Electric Light Company. The Commission was responsible for the centralised co-ordination of electricity generation and high-voltage transmission in the State.

Formation of the Electricity Commission of NSW was an element of the post-war reconstruction. The need for this action was driven at least in part by the critical shortage in generating capacity, and the frequent occurrence of black-outs, electricity 'rationing' and notorious 'brown-outs' affecting a broad cross section of the community. Until then, power generation and distribution in the state involved a variety of authorities. Between 1936 and 1952, Sydney County Council was responsible for electricity generation and distribution in the City of Sydney, and operated Bunnerong and Pyrmont Power Stations until they were transferred to the Electricity Commission in 1952. In 1953, the commission acquired the White Bay Power Station from the NSW Government Railways. Under the Balmain Electric Light Company Purchase Act 1950, the Commission acquired Balmain Power Station.

After the takeover of the generation functions by the Electricity Commission, the Sydney County Council and other municipal county councils became distributors of electricity only.

Between 1950 and 1960, the Commission more than tripled power capacity in the State, from 490 to 1800 megawatts. At first, this involved completing the expansion of Bunnerong, White Bay, Balmain, and Pyrmont power stations, and constructing new power stations already designed by the Department of Railways: Tallawarra near Port Kembla (1954), Wangi, at Lake Macquarie (1956), and Wallerawang, near Lithgow (1957).

Subsequent power station development led to construction of Vale Point (1963-1966), Munmorah (1967-1969), Liddell (1971-73), expansion of Vales Point (1978-1979) and Wallerawang (1976, 1980), Eraring (1981-1984), Bayswater (1987- 1989) and Mount Piper (1993). The system boasted a capacity of more than 12,000 MW at its peak (including the NSW share of Snowy Mountains Hydro capacity).

In the early 1990s, Australian state governments began to deregulate state owned monopoly electricity commissions in order to promote competition, customer choice and potentially cheaper electricity. The Commission adopted the trading name Pacific Power in 1992. The Electricity Commission was corporatised in 1995 as Pacific Power (Australia).

In 1992, the coal mines owned and operated by Pacific Power were split off into a new government organisation called ELCOM Collieries or Powercoal. In 2002, Centennial Coal acquired Powercoal, to become the largest independent supplier of coal for power generation in the state. Currently, Centennial operates five coal mines and exports approximately 40% of its coal. The balance supplies fuel to approximately 40% of the State's coal-fired electricity.

In 1995, the high voltage electricity transmission network was split off into a new government organisation called TransGrid. TransGrid was corporatised in December 1998,

In 1996, two new electricity generating entities were split off - Delta Electricity and Macquarie Generation. In 2000, the remaining power stations were transferred to a new entity, Eraring Energy, and the consulting business Pacific Power International was sold to Connell Wagner.

Pacific Power was wound up in 2003.

Wallerawang 'A' Station was decommissioned in 1986, followed by 'B' Station in 1990.

Vales Point 'A' Station closed in 1989, turbines were removed in 1997, and buildings and boilers demolished in 2011-2014.

Munmorah was decommissioned in 2012 and eventually demolished from 2016 - 2019.

In May 2012, the O'Farrell Liberal government passed legislation to sell the State-owned generators. In July 2013, Energy Australia acquired, from Delta Electricity, Wallerawang and Mount Piper Power

Stations. In November 2014, Energy Australia announced that it would permanently close Wallerawang due to ongoing reduced energy demand, lack of access to competitively priced coal and the power station's high operating costs. It was demolished in 2021.

In September 2014, the government sold Macquarie Generation to AGL Energy including the Bayswater and Liddell Power Stations. In April 2015, AGL announced that it intended to close the Liddell Power Station in 2022, and the process was complete by 2023. The remaining asset of Delta Electricity, Vales Point 'B' Station (capacity of 1,320 megawatts), was sold in November 2015 to Sunset Power International.

In December 2015, a consortium called NSW Electricity Networks won a 99-year lease of TransGrid's transmission network. From 2016, equity in the high-voltage distribution network has been traded to consortia of institutional investors on a 99-year lease basis.

So 75 years on from its inauguration, the Electricity Commission Of NSW is but a distant memory. Ownership of the generation and high-voltage transmission assets by 'the people of NSW' has long since ceased to exist, with billions of dollars of capital applied by Governments of both persuasions to operational expenses. The vertically integrated organisation once had an employee base of some 12,000 people, and undertook design, construction, operation, and maintenance of the entire state generating stations, and the high voltage network.

Over the last 30 years, EC of NSW and its successor entities have 'morphed' into numerous private ownerships, each responsible for a relatively small proportion of the entire "system".

Given the approaching retirement of several of the remaining generators (over the next 10 years), and the seeming absence of sufficient reliable base-load power capacity to replace them, could there be a "light-bulb" moment, akin to that which occurred in the late 1940's? "This distributed and deregulated arrangement of the electricity generation and transmission industry is not working. Will we form the Electricity Commission of Australia, to control the integrated Eastern State system, with a charter of securing reliable and economical electricity supply?" Deja-vu!

We hereby acknowledge the 75th Anniversary of the Electricity Commission of NSW – an institution that ranked amongst world leaders in electricity generation and distribution – and the many thousands of people who were responsible for it gaining that status.

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ⁱⁱ Thornton, Ken. *Munmorah Power Station: Tuggerah Lakes N.S.W.* Rathmines, NSW 2017.

ⁱⁱⁱ Kelvin House was one of number buildings in Sydney's CBD that housed various sections of the Electricity Commission. It was only from the late 1970s that all sections were housed in the one location on the corner of Park and Castlereagh Streets.

^{iv} Thornton, Munmorah Power Station: Tuggerah Lakes N.S.W.

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The End

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