

In the Sound Shell we repaired and replaced the rows of coloured lights that went over the arch and tidied the wiring and fittings in the "Back Stage" area. Colonnade Lights were repaired cleaned and lamps replaced. Most of them had glass shades or globes and I don't remember having to replace any of them. Glass shades wouldn't last 5 minutes with today's vandalism, they even wreck plastic fittings. Most of these fittings had been up for 10 to 14 years.

The Fountain was a major job, everything was overhauled. The coloured flood lights were removed and taken back to the Powerhouse cleaned and painted with a bitumastic paint. Several coloured lenses had cracked due to being out of the water when the Fountain started up without sufficient water in the pond on top of the fountain to cover the lenses. Hot lenses and cold water mean big problems. To stop it happening again a delay was fitted so the pond was full of water before the lights came on. The last time I passed the fountain and it was not playing it looked as if they were feeding Town Supply Water into the pool to keep it full which would serve the same purpose.

The Drum Controller that controlled the light and water sequences was also taken back to the Power House and was repaired and modified. Contacts were cleaned and because of contacts arcing radio suppressors were fitted to stop interference on nearby radios.

The pump was overhauled, the oil in the Thrustor Water Valves was replaced and the lights under the lip of the fountain were repaired and new lamps fitted. Before we put the Flood Lights back the pool on the top of the fountain was tared to stop the water leaking into the inside of the fountain. After everything had been reassembled the fountain looked and preformed like new or probably better than new with the modifications that were made.

Some points of interest about the Fountain and other Illuminated Fountains. I understand that Tom Parker supplied only the workings of the fountain that cost 3,000 pounds. It cost the Borough Council another 5,000 pounds to build the actual Fountain. The first Illuminated Fountain in New Zealand was the Bower Fountain in Victoria Square in Christchurch. It is slightly smaller than the Tom Parker Fountain, having fewer flood lights. The workings of both the Bowker and the Tom Parker Fountain were imported I think from America and supplied by The National Electrical and Engineering Company (NEECO) a firm that amalgamated to form Mastertrade. NEECO also provided the workings for a much smaller fountain built before the war in Nelson I think it is called the Moller Fountain and it was in a small reserve in Haven Road.

The Mission Bay Fountain in Auckland was built I think in the 50s. and its workings were built in New Zealand and its operation is slightly different. The Auckland Fountain uses Solenoid Operated Water Valves that open and close quicker than the Thrustor Water Valves used on Napier's Fountain. The Thrustor Valves give the Napier Fountain a much smoother softer operation instead of the harsh operation of Auckland's Fountain. When Auckland's Fountain was built they claimed that it took 26 hours to go through its full sequence compared with the Napier and Christchurch Fountains of about 10 or 12 minutes. The reason for this was that Auckland had 2 Drum Controllers with different speeds, one to control the water and the other for the lights, whereas the other fountains had a single controller to control both operations. I did hear that the Tom Parker Fountain is now controlled with a P.L.C. but you would have to confirm that.

ELECTRICAL ACCIDENTS.

Between 1948 and 1950 the M.E.D. had three High Voltage Electrical Accidents two of which I was involved with. The first happened to **Mark Macer** the Line Superintendent and it happened before I joined the M.E.D. so what I know about it is what I was told by people who were there. **Mark** wanted to inspect something on the Transformer Pole in the Power House Yard, (15) in the Powerhouse Drawing, The 3.3KV. Feeder Switch supplying the transformer was isolated and **Mark** put an extension ladder up on the eastern side of the pole supporting the transformer and as he reached the top the ladder "seated" itself at the extension lock (the top half of the ladder dropped down slightly), which put **Mark** off balance. Whether by instinct or intention his arms went up and his wrists touched two of the 3.3KV phase wires which

were live with power fed back from the Clive Square Sub Station. **Mark** collapsed and observers thought he was dead. He slid down the ladder until his foot caught in a rung when he was about 6ft. from the ground and he fell the rest of the way. He landed with a thump, observers said the fall must have revived him. **Mark** was taken by Ambulance to hospital where he spent quite some time. His injuries were to his wrists and hands, where he suffered very bad Electrical Burns. Part of both wrists destroyed, the sides of both hands were badly burnt and he lost a finger. When he eventually got back to work he had to wear leather protectors to cover his wrists and hands both of which had restricted movement. He was literally "Grounded". He remained in a supervisory roll until his retirement. **Ray Matthews** will know when **Mark** retired.

My Accident. On the 4th. Of November 1949 it was my turn and from that day onward I reckon I have been living on "Borrowed time".

Claude Hands wanted to work in the cabinet of the Power Boards "D" Feeder, (the unconnected one), and I was instructed to isolate it and "Earth it out" with Earth Sticks on the blades of the Isolator Switch. This I did but then he found that the Earth Sticks were in the way so he told me to get some wire and bond the 3 blades together and use only 1 Earth Stick. I was doing this when the end of the wire I was using sprung out of my hand and touched a "Live" 11KV. terminal in the top of the cabinet. The switch exploded and I ended up under the 3.3Kv. Switch Gear, the fault tripped the 3 incoming feeders and the Fullagar tried to take the load then it also tripped and the M.E.D. Area was without power. Everybody rushed to see what had happened and I picked myself up and walked towards the Test Room I didn't even look back to see what I had done. Once they were sure I was O.K. and that it was O.K. to restore power the feeders were reclosed and **Clive Seton**, (the Operator on at the time), did his usual trick of putting the Fullagar on line by closing the Circuit Breaker without "Synchronising".

As for me I had a bad "Flash Burn" to my right hand, singed eyebrows and hair. I was fortunate not to get eye damage or burns from the molten copper from the wire I was using and also I had no "Electrical Burns". I was taken up to the Hospital and was told to go and see my Doctor the next day. When I returned to the Power House **Claude** told me to go and see the damage I had caused so I went down, took one look and promptly fainted. When I recovered I was made to lie down until **George Metcalf** took me home. He told my Mother what had happened and she just accepted what had happened until half way through dinner when she asked me what voltage it was and I said "11,000 volts" and she said "You might have been killed" and I said "Yes Mum" and left it at that.

The next day I went and saw my Doctor (Ted Morris) and he said I wasn't to go back to work for a month but he didn't stop me from going to a Guy Fawkes Party at the Sailing Club that Night. I was away from work for 3 weeks instead of 4 and heard no more about the accident apart from the fact that they had to replace the Isolator Switch because of the damage caused by the molten copper, see photo Appendix IIX. As for my hand well it healed completely and today you can't even see where the burn was. I was very lucky. A Photograph of the Isolating switch I wrecked is in the back pages.

The third accident was to **Claude Hands**. and it happened I think in June 1950. **Claude** and I were working on the western end of the 11KV. Metropolitan Vickers Switchgear (1) fitting a new Feeder Switch Cabinet to be used to upgrade the supply to the Clive Square Sub Station from 3.3KV. to 11Kv. We were bolting the new cabinet to the existing switchgear which was still "Live". because to isolate would have meant disconnecting power from part of the City. To get at the bolt holes we had removed the cover from the rear Isolating Switch and the switch was opened. Because **Claude** was short he was standing on a platform about 18inches, (450mm.) high using my 6inch "Crescent" spanner to hold the

bolts while I tightened the nuts in the new cabinet. We were separated by the open cabinet doors when there was an explosion. I knew immediately what had happened because I had heard the same sound 8 months before, the sound of an exploding switch. As I looked round the cabinet door I saw **Claude** collapsing onto the platform and I thought he was dead. He rolled off the platform onto the floor with a thump. I rushed over to him and started to turn him over for Schaefer Method Resuscitation and he resisted so I rolled him onto his back and held his head up until the Ambulance arrived to take him to Hospital where he spent about a month.

What had happened was that **Claude's** sportscoat sleeve had brushed against the open blades of the Isolator Switch which were "Back-fed" from the front buss bars, this had caused an 11Kv. 3 Phase "short" that caused the switch to explode. Apart from a small tag of cloth under his armpit the left sleeve of **Claude's** sportscoat had disappeared, his left arm and the left side of his face had bad "Flash" burns. The left side of his face was black with burns while the right side was unmarked, the demarcation line going exactly down the middle of his face in a straight line. He also suffered "Electric" burns to his left hand and left thigh where his leg was touching a relay case. Where he was holding my "Crescent" spanner in his left hand he had Crescent spelt backwards in "Electric" burns. Of the thigh burn, the mark on the relay was just a pin mark, there was a scorch mark on his trousers the size of a 5cent piece, yet shortly before **Claude** came out of hospital they removed a cone of burnt flesh the diameter of a 50cent piece.

During the two months **Claude** was away I took over some of his duties like issuing wiring permits, keeping the Consumer Register up to date and analysing the Operators Report Sheets.

I gave **Claude** the 6 inch spanner to remind him how lucky he was not to be killed.

OTHER POWERHOUSE STORIES.

Dr. Russell's Oil:- Dr Russell lived and had his consulting rooms in the two story roughcast house between Nelson Park School and McDonald Street and he had there an X-ray machine that required its Transformer Oil filtered so he brought the drum of oil to the Powerhouse to be filtered and I was given the job. He told us it was very special oil and that it was very expensive. Because of this the filters were replaced so that the oil was not contaminated with our "Cheap" oil. While I was filtering the oil I got called away for a couple of minutes only to return and find that a hose had split and oil was squirting all over the floor. Panic!!, what were we to do? I suggested to **Claude** that I contact my Brother who worked for Caltex and ask him if they stocked this very expensive oil? He checked through his information and phoned back to say there were only two types of Transformer Oil and neither was very expensive. We asked him to send us a tin and topped up **Dr. Russell's** drum. We told him what had happened and what we had done and also what we had paid for the oil, he was shocked and told us what he had been charged which was 10 times what we had paid. The X-ray company was working a racket. Needless to say any future oil he bought was from Caltex.

The Powerhouse Cat:- Soft hearted **Lee Thurston** befriended a stray kitten that made the Powerhouse its home, he would bring meat from his home and give it some of the "Smoko" milk. Being a kitten those of us in the Powerhouse enjoyed watching its antics. On one particular day I was in the Test Room testing meters and **Claude** had left his Test Lamp with two live Test Prods, (230 Volts), hanging over the back of his chair. The kitten came into the room hopped up on the chair and bit one of the Test Prods, it then took a swipe at the other Test Prod with its paw. The shock it received caused it to do a double summersault off the chair and hit the floor running, but its claws couldn't get a grip on the lino so it skidded on the spot for a couple of seconds before it rocketed 30yards down the Powerhouse. When it stopped it turned slowly with a bewildered look on its face and promptly repeated the operation including the double summersault. It didn't come back for a third go. I was the only one to see the first time but there was a good audience for the second go and we were all in fits of laughter and that kitten had 2 lives less. Not long after it lost its other 7 lives being run over in Faraday Street.