



# MONTHLY ELECTRICAL INCIDENTS

**ASP Manufacturing**

**June 2023**



**Dates: 9, 14, and 25 June 2023**

**Location: Various – Western Port CPL4 Entry and Springhill ZAL1 Exit Coil Car**

**Reference: i2311346 and i2312853, i2318247 - Static Electric Shocks**

During the month of June, there were 3 Static Shock Incidents recorded across two BlueScope sites. Two incidents occurred at the Springhill ZAL1 Exit Coil Car, and one at Western Port's CPL4 Entry Coil Field. In each instance, operators had received static electric shocks after coming into contact with the steel coil they were performing normal duties on. Control measures to eliminate Static Shock had been installed in the past, but had either failed or were not being used at the time.

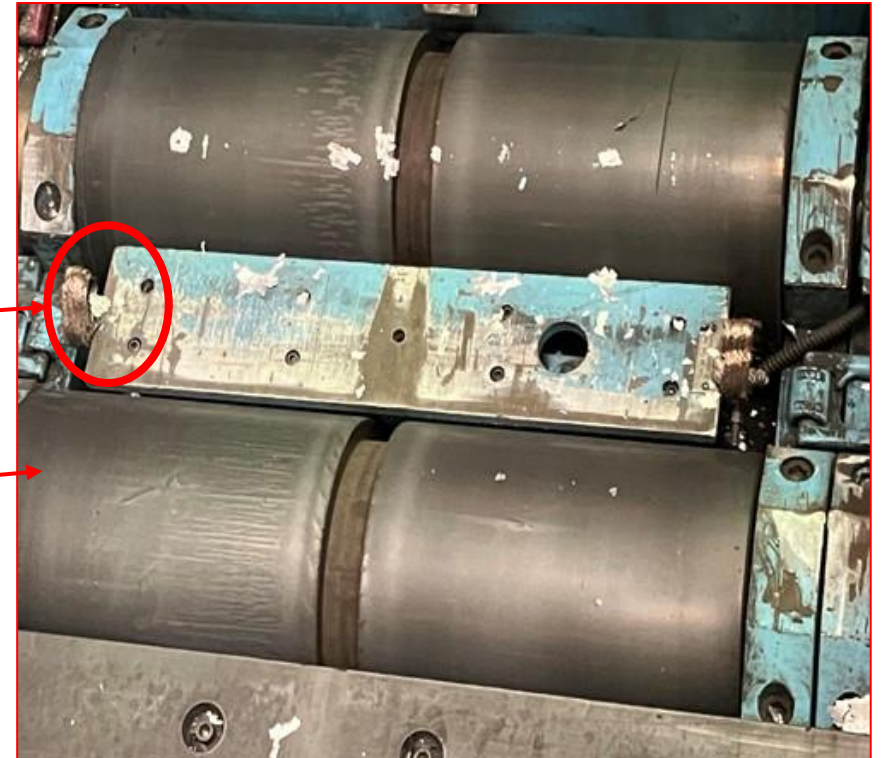
At Western Port - metal earth straps on the coil saddles, were removed in the past, as wrapped product had not been processed for a while. At the time, the straps were in poor repair and deemed a trip hazard. The addition of plastic stretch wrapping to the CPL4 input coils has resulted in static electric charge build up again. When the operator touched the coil they received a Static Shock. There is a plan in place to have earth straps reapplied to the unpacking coil saddles.

At Springhill – ZAL1 Exit Coil Car has an anti-static magnet as well as earthing tails on the coil car to eliminate the hazard. For both incidents, the coil car tails were found to be squashed down and not touching the metal coil. Tails were lifted to rectify the issue & new operators trained in the use of these and the anti-static magnet.

- Anti-Static Safety Devices require maintaining and regular instruction on their use.
- All Static Shocks should be reported, and those affected assessed by our Medical Professionals at the time of the event.

ZAL1 Exit Coil Car – Earthing Tails, that were found to be bent over and not contacting the coil.

Coil sits here on insulated blocker rolls



**Date: 2<sup>nd</sup> June 2023**

**Location: No.2 Blower Station, 33kV Switch Room, Port Kembla**

**Reference: i2307902 – Cable cut incorrectly**

Electricians were in the process of relocating a UPS in a high voltage switch-room from the ground level up to the top level. This involved the disconnection and re-routing of the cabling, with some cables requiring extensions by connecting to new sections of cable.

The job was completed and handed over for commissioning. During commissioning it was noticed that the UPS alarms had faulted. This 48 Volt circuit was checked, and the Zero Volts conductor was found to be open circuit.

The cables in the basement were checked and it was found that the cable with the Zero Volt core had been cut. This cable was part of the group board isolation, so it was not energised when it was cut, nor was it identified during subsequent point-to-point tests as it was not part of the scope of testing for these works.

The only cutting activities that may have been undertaken in and around the area where the cut cable was found are believed to have been to remove cable ties. It is assumed that the cable may have been inadvertently cut during the process of removing one of these cable ties.

- Care must be taken when cutting cable ties, especially around other cables. In this instance, all surrounding cables were isolated at the time.



Cut cable

Multiple cables on rack, after several were removed



Close up of cut cable



**Date: 6<sup>th</sup> June 2023**

**Location: BlueScope Distribution Hub (ex- Stainless Site), Unanderra**

**Reference: i2309288 – Main Earth Bar not bolted**

Whilst connecting a temporary generator for a site wide power outage bars of the Main Earth Bar inside the Main Super Form Board were found overlapping but not bolted to the transformer earth pile side busbar. This could have possibly resulted in CFS3 in warehouse 1 not being correctly earthed.

Work stopped, and the connection was correctly bolted before re-establishing power. This issue had likely been present for many years and was missed during previous board overhauls.

- During commissioning, verification of the earthing system is required (AS/NZS 3000, refer to Section 8.3.5)
- It is important to do regular maintenance on all Distribution Boards (Electrical Safety Manual, 1.4.22.1)



Main Super Form Board

The unbolted section of Earth Bar

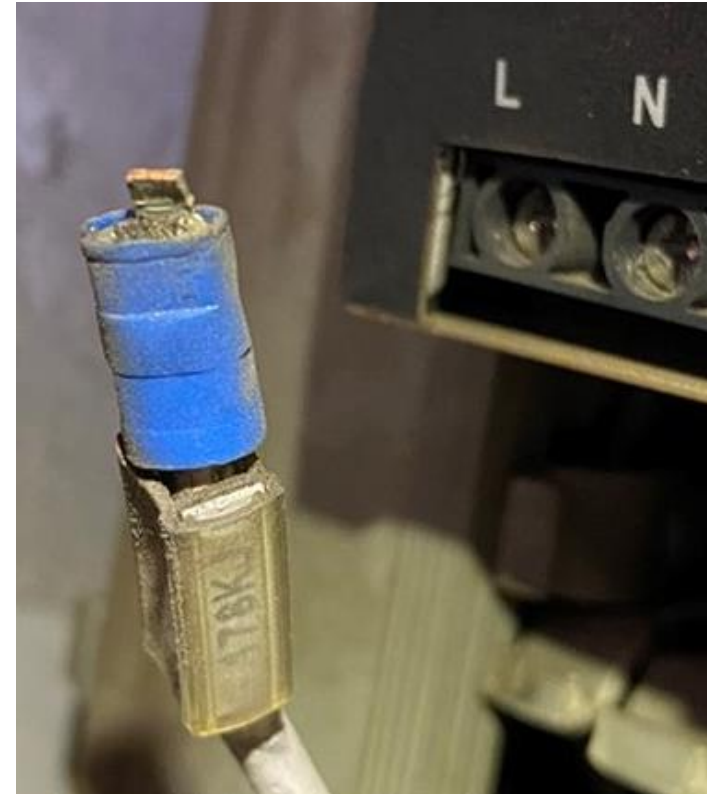


Crane 4 at Western Sydney Service Centre lost power during normal operations. An electrician isolated the supply circuit breaker and checked the wiring, they found a crimp lug at the power supply end was broken off, possibly due to fatigue. They removed the broken lug and re-terminated with a new one. Crane restarted without further issue.

- Some faults are not always visually obvious. Regular maintenance where the integrity of each connection is checked is key.



The supply terminations



Close up of broken lug

Whilst inspecting the Gallery switchroom 230 Volt DC flat back switchboard, a "paper" cup could be seen laying between the main positive and negative busbars on the rear of the board. There appeared to be no evidence of liquid in the cup and no evidence of shorting between the conductors. The board was isolated, verified and locked out, and then the cup was removed safely.

- People entering or working in a switchroom, must be aware of all electrical hazards and the housekeeping practices required in those areas.



Back of DC Panels



Close up



Electricians were asked to disconnect and make safe a septic tank pump and float switch. After removing the float switch lid, they observed it had a Mercury filled glass bulb. They safely disconnected the switch and returned it to Electrical Services for it to be disposed of properly.

- A reminder that we still have old electrical equipment on site that contain hazardous materials (E.g. Mercury, Asbestos, PCB's), and proper handling and disposal needs to be considered.
- Reference : Management of waste material DIV-AR-RS-01.



The septic tank area



The Mercury Switch