

HIGH POTENTIAL NEAR MISS RESULTING FROM AN ELECTRICAL FAULT



Introduction

Bachy Soletanche LTD were working on a Lewis' construction site undertaking grouting works at Marchlyn Bach reservoir.

On the 23rd June 2020, it was reported that a large flash and a bang was heard from the corner of the PRIF unit, where a bunch of cables were coiled and tied up. Nobody was injured but the operatives that witnessed the flash and bang were shook up.

Background

Whilst cleaning the pumps and mixer at the end of the shift on 23rd June 2020, there was a large flash and a bang inside the PRIF unit container. The site team reportedly found that 2 cores of a cable that were coiled up and cable tied in the corner of the PRIF unit had touched and created a short circuit.

These cables were in a place where there is normally a pump unit fitted. Once this had happened, the unit was immediately isolated from the generator and left for an electrician to make safe the next morning. The electrician arrived the next morning and found that these cables were left un-isolated, uncovered and dangerous to anyone who may have encountered them.

Findings

During the initial investigation into this event, it was found:

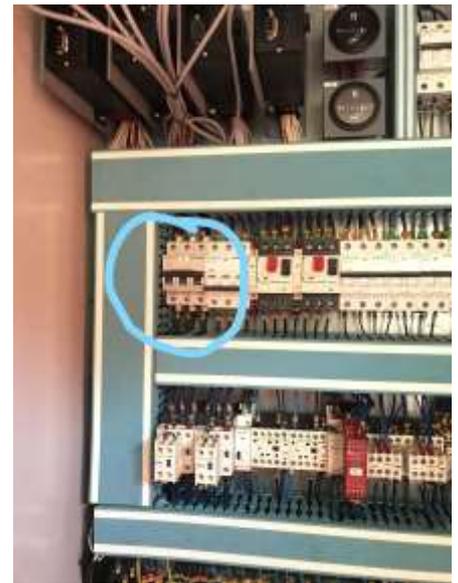
- The PRIF contains 6 no. PH pumps (or 3 no. PH2x5 pumps) which according to the site team are not normally all used.



B A C H A T S A F E T Y A L E R T .

There was a verbal request from a member of the site team for a 2x5 pump to be removed to create more space inside the PRIF container.

- To remove the pump, it had to be unbolted and have the cables removed. These cables become live as soon as the PRIF unit is switched on. When the unit had reached site, the cables were live and dangerous but coiled up in the corner of the PRIF container.
- At some stage, this coil of cables has been moved or pushed, resulting in 2 cores of that cable touching: creating a short circuit and a large flash/bang.
- There has been a serious lapse in concentration or poor judgement that lead to the cables not being correctly isolated and made safe.
- Electrician's SSOW have not been followed.



Actions following the accident

Following this accident, the following actions have been undertaken:

- Any other sites that could have been affected by similar issues were looked at across the business.
- The findings of the investigation have been briefed out across the company.
- Electricians have been re-briefed on their SSOW.

Recommendations

- Electricians must double check their work before signing it off as complete and safe.
- The process of electricians performing a general inspection of containers/units on site before use is to be looked at.
- Remind all staff about the dangers of Alpha state when performing critical work.

If you have any further questions regarding this alert, please do not hesitate to contact you line manager or the SHEQ department.