



SAFETY ALERT



INCIDENT	Hydrochloric Acid Spray to Face and Eyes A1-P3
SUBJECT	Hydrochloric Acid PVC Fitting Failed
INCIDENT DATE	27 January 2021
BUSINESS UNIT	Higgins Bitumen Manufacturing

WHAT HAPPENED?

On Wednesday 27th January at approximately 11am, the plant operator was manufacturing bitumen emulsion at the Napier Manufacturing Plant, this was the second batch for the day.

The operator was stationed in the plant control room from where the process is monitored. He noticed on the digital controls that the pH reading was not remaining stable. From the control room the operator attempted to adjust the hydrochloric acid pump feed to stabilize the pH levels, but this was unsuccessful.

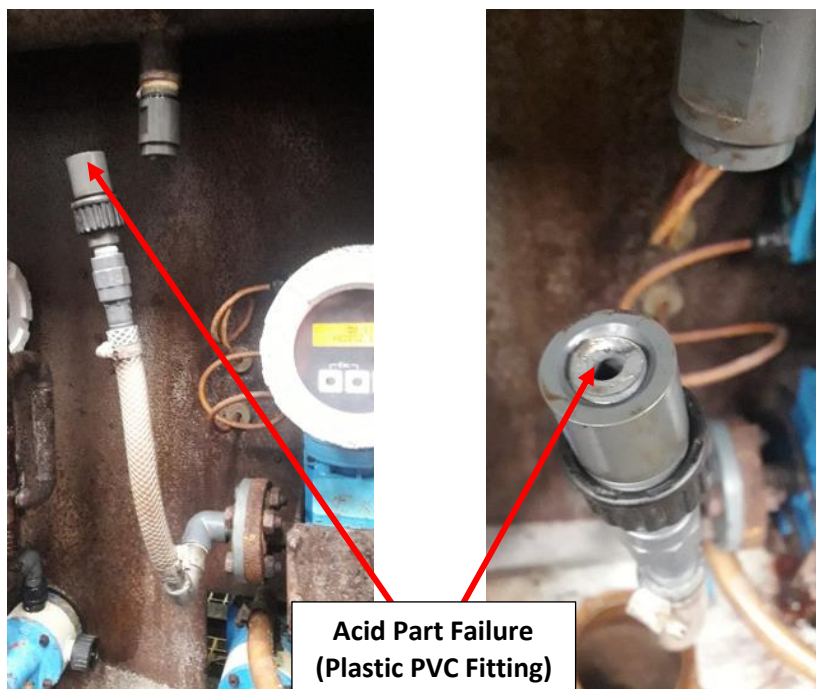
Because the pH levels would not stabilize, the operator stopped the manufacturing process by initiating the auto shutdown. The plant went through its automated shutdown and flushing sequence, the operator remained in the control room during this process which took approximately 2mins to complete.

The final stage of the shut down required the operator to leave the control room and manually close the feed valves from the additive supply tanks, which are located at the emulsion production line. The last additive valve to be closed was on the hydrochloric acid line.

As the operator knelt down to close the acid supply valve the non return PVC plastic fitting failed and sprayed hydrochloric acid on to the operators face and eyes. The estimated volume in the non return valve was between 20ml to 50ml.

The plant operator was not wearing safety glasses at the time of the incident, this was a breach of our site PPE requirements.

A quick and effective first aid response was executed with immediate eye and face wash treatment under the emergency shower. First Aid water was applied for 15mins, the operator was then taken to Napier City Hospital for treatment which included eye washing and showering. Following this he was then sent to Hawkes Bay Hospital for an eye examination by a specialist. He was released soon after with no permanent injury to his face or eyes.

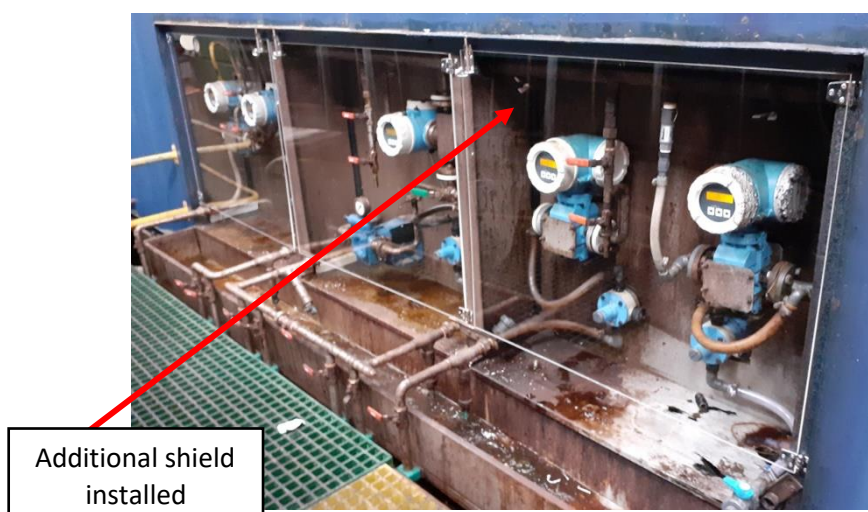


Photos: The PVC fitting broke releasing Hydrochloric Acid

A pre-start visual inspection was undertaken in the morning before production started, no visible acid pipeline leaks were identified.

WHAT ACTION HAS TAKEN PLACE ALREADY?

- First Aid Response Plan was followed to ensure the operator was treated instantly
- Higgins Management and EHS Support was notified about the incident
- After the initial hospital visit the operator was taken to an eye specialist for examination
- The operator was interviewed by Bitumen Manufacturing's Manager on the event
- Photos were taken of the incident scene and the failed component
- The operator completed post incident Drug & Alcohol test as per company policy
- Radar incident has been submitted (INCID-)
- Formal post incident safety meeting with the manufacturing team to re-emphasise expectations around following site mandatory PPE requirements.
- Additional shield installed to isolate the in-line metering components (As per picture below)
- ICAM investigation preparation has commenced



IMPORTANT REMINDER FOR ALL OF US (pre-investigation)

- **Mandatory PPE must be worn at all times.**
- **Ensure all first aid showers and wash stations are appropriately positioned and functioning.**
- **For fixed and mobile plant, it is important to have a preventative maintenance plan so timely proactive maintenance can be completed on high risk components minimizing risk of failure.**

FOR MORE INFORMATION, PLEASE CONTACT

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