

SAFETY LEARNING TEAM

Customer Utilities – Hot Line Hold

June 2021

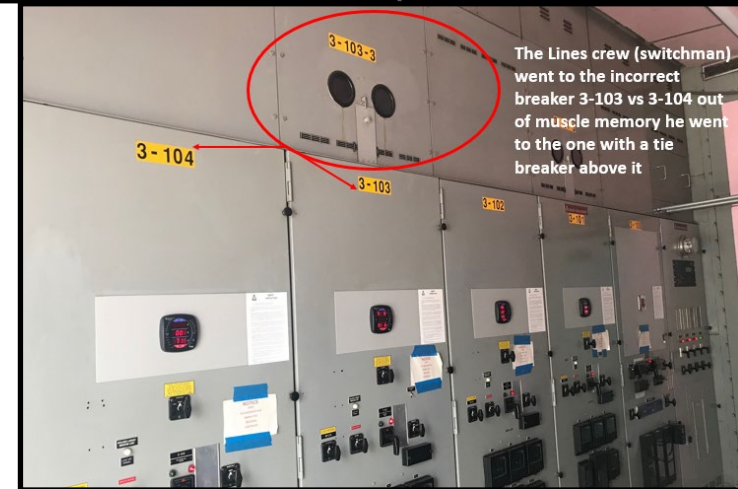
INCIDENT COMMUNICATION – (Close Call – HLH on wrong breaker 2021/06/09)

LEARNING / SHARING	Date / Time:	6/9/2021 (1:54pm)			Location:	College 1 Substation	Dept.	System Ops/Line Ops						
	Employee	X	Contractor			Unknown								
Incident Classification	SIF-A		SIF-P		LWD		RWD		MT		FA		CC/NM	X

(SIF = Serious Injury or Fatality Actual or Potential; LWD = Lost Workday; RWD = Restricted Workday; MT = Medical Treatment; FA = First Aid; CC/NM = Close Call/ Near Miss)

Description: (Include key information that describes the incident and type of treatment provided that triggered the classification.)

On Wednesday June 9, 2021 a 4-person line crew replaced a normal open switch on 9th st. In order to complete the work, the line crew was required to put a Hot Line Hold (HLH) on breaker 3-103 and check open 3-103-3 to confirm that it is open. After the work was completed in the field HLH 3-103 was released. While the crew was traveling to the next location of work, the crew discovered cross arm repair work that was needed. This work would require the line crew to place a HLH on breaker 3-104. When the lineman physically conducted the switching, he inadvertently put a HLH on 3-103 instead of the 3-104 breaker. This was not discovered by the crew until after the work was completed and the HLH was removed. This work was completed using energized work methods and at no time were employees exposed to additional hazards based on this error.



Category <i>(i.e. LOTO, Confined Space, Electrical...)</i>	➤ Electrical, Hot Line Hold
--	-----------------------------

Performance Mode and Key Error Trap(s)	➤ Procedure-based
---	-------------------

Critical Steps (CS) that contributed to the event	<ul style="list-style-type: none"> ➤ CS – Tie Switch was shared with two breakers. ➤ CS – Turned away from breaker to move ladder and turned back around to incorrect breaker.
Contributing Factors (CF)	<ul style="list-style-type: none"> ➤ CF – unusual configuration of breaker and tie switch in this control house. ➤ CF – Unplanned activity. ➤ CF - Returning back to the same substation and same Tie switch 3103-3 but a different breaker. ➤ CF – System operations was handling an abundance of uncommon issues when the switching initially occurred.

System Gap(s) (SG) Failed Barrier(s) (FB) Causal Factor(s) (CF)	<ul style="list-style-type: none"> ➤ SG – Unusual configuration in control house that was not easily identified creating error precursor opportunities. ➤ FB- Oversight at system operations missed the error when switching initially occurred. ➤ CF- Abnormal conditions (switch configuration and Sys ops workload at time of error).
--	---

Critical Control(s) <small>Indicate if effective – Did we fail safe?</small>	➤ The work was completed in a manner to protect employees.
--	--

List Potential Improvements/Controls Layers Of Protection (LOP)

- Update labeling to be in line of sight and identify the tie switch is for both breakers.
- Utilize HPI tools such as STAR (Self – Checking) to verify correct equipment whenever there is a potential of confusion. Including excess distractions.
- Install one line diagrams in the control houses.

Key Learnings to Communicate

- Communicate unique configurations to crews and plan 3 way communication with operations when working on these breakers.
- Discuss Live GIS and potential benefits.
- Expand training on HPI tools that could help support system operations.

SAFETY LEARNING TEAM

Customer Utilities – Hot Line Hold

June 2021

Recommended Opportunities for Improvement

- **Verify** all substation labeling is in good line of sight/ eye level. If any are not; replace or install additional labeling in the eye level vicinity
- **Replace** or **update** labels in College substation to be more visible at eye level.
- **Install** a sign or placard near the tie switches to indicate it is for both breakers. This needs to be addressed at both College 1 and Leavenworth 1
- **Install** laminated one-line diagrams in all houses
- **Share** reminder of unique configuration substations at look-ahead meetings
- **Discuss** live GIS and how it would assist in breaker designation.

**SAFETY
LEARNING TEAM
Customer
Utilities – Hot
Line Hold
June 2021**

HPI Principles

Through continual learning, we constantly improve the defenses that protect us from the errors all of us can make

- 1** We all make errors – it’s a matter of when, not if
- 2** These errors follow a recurring pattern, and are predictable and manageable
- 3** Curiosity drives us to examine our practices and learn from our errors
- 4** As employees, we are the solution, not the problem
- 5** Excellence is not the absence of failure, but the presence of process and defenses