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TOOLBOX TALKS

Different System Response than Expected, Possible Danger

Understanding how the system should respond when performing operations is critically important for many tasks within the renewables industry.

All too often things do not go as planned, either during construction or operations.

A few hours after a scheduled outage, the site tripped offline. A technician was dispatched to the site and was instructed to reset the site. After the site was reset, minutes later there was a subsequent trip, and the site was offline again. This



was not an expected system response, and the technician did the right thing to leave the site offline and reach out to management and engineering support.

Since the outage had been performed by a travelling team that specializes in substation

and high voltage maintenance, they were contacted about the trip and immediately returned to the site. During the scheduled outage, there was a Pad-Mount Transformer (PMT) that had indications of potential bushing failure and that transformer's bushing was replaced during the outage. Since the team identified the issue due to the incorrect repairs on the transformer bushings, they made the appropriate repairs to get the site back online.

Human Performance Tool- Understanding System Response

One powerful human performance improvement tool is understanding the system response prior to performing an action, when taking the action, and for ensuring that the desired response was achieved when the action was taken. If not, there could be additional dangers or risks that could impact the system components or put you or other workers in harm's way. In Stop – Think – Act – Review or using the STAR method we know that understanding the expected system response and understanding what could go wrong or what might happen is the best way to operate safely.

There was a real possibility that had the technician continue to reset the site multiple times that the transformer could have catastrophically failed resulting in significant dangers to the onsite personnel and the site equipment. Since the technician was not expecting the site to trip offline, the questioning attitude and pausing when unsure proved to be valuable.

Have you ever performed an action, expected an outcome, and did not get the expected response? What happened?