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TOOLBOX TALKS

Procedure Use and Adherence

Clean energy projects are very complex and have varying levels of designs that create operational challenges for construction, operations, and maintenance personnel. Since the industry is still growing and has rapidly advancing technologies there is often a lack of procedures or procedures that may require critical reviews or revisions.

Human Performance Tool



Utilizing a step-by-step procedure read using three way communication and verification by circling the task to be performed, checked off and initialed as each task as it is completed. This is a very important tool to utilize to ensure that we do not miss a critical step.

By doing this, it also allows for the review of the accuracy of the procedure to identify the opportunity for improvement to ensure field operations have a procedure that is not only safe but can be utilized for newer and less experienced technicians as the industry continues to grow.

Performing steps in sequence vs. concurrent activities

Sometimes there are instances where many activities are happening concurrently. This can be a particularly dangerous time for critical steps due to the complexities of clean energy projects and the operations and maintenance of those sites.

During the pre-job briefing there should be a clear understanding of the critical steps that would have potentially hazardous situations that would require more stringent focus on the steps being performed and how those are managed amongst teams or personnel performing steps.

A team was performing maintenance work on a combiner box on a solar field. During the activity a lightning standdown occurred and activities were halted until the storm passed. Once the storm

passed the team preparing to restart operations and restart their procedure. As the team was going back to work the team decided to start the remaining activities concurrently and got outside the normal sequence.

As this occurred the team failed to remove the safety grounds from the power conversion system (PCS) and reenergized the combiner box causing a ground fault and subsequent failure of the PCS. Using procedure in sequence after the weather disruption and not restarting the activities concurrently could have avoided this failure.

What critical steps are you performing in which procedure use in sequence is required?

Where may you be at risk of a failure or error where concurrent activities are taking place that may result in skipping or missing a critical step?

