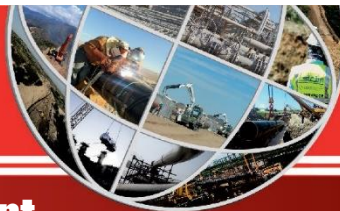


# SAFETY Alert



**PREPARED BY: Corporate QHSE Dept.**

N° 11/2022 Date: November 2022

**OBJECT: ELECTRIC ARC BETWEEN SIDEBOOM AND OHPL**

## DESCRIPTION

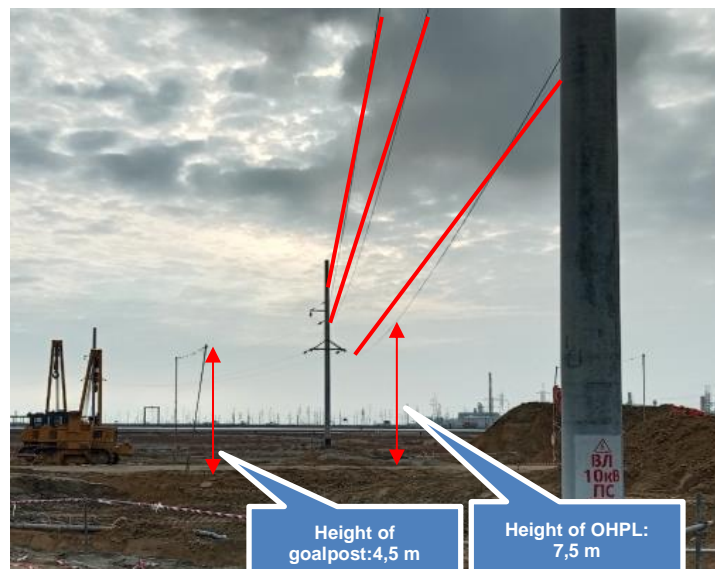
In a cloudy and humid day, a sideboom was travelling under a High Voltage Overhead Power Line (10 kV) when an electric arc between the boom and the power line occurred. The Supervisor and other witnesses of the incident confirmed that no contact between the sideboom and the power line occurred. The work was immediately suspended and the preliminary investigation started.

## POTENTIAL CONSEQUENCES

High potential (HIPO) consequences near miss due to the possible electrocution of Sideboom Operator and personnel in the surrounding;

## INCIDENT CAUSES

- Inadequate or missing guards or barriers: the safety distance between the goal post in place (height of 4,5 m) and the OHPL (7,5 m) was approximately 3 m. As per standards En 50110-1:2013 and CEI 11-27 the distance from an OHPL with a voltage of 10 kV shall be  $\geq 3,5$  meters (see table beside).
- Risk Assessment / JSA not adequate: the JSA did not consider that the bad weather condition could increase the hazardous area around the high voltage cable.
- Inadequate risk perception / risk underestimated: personnel did not recognize the risk of electric arc caused by travelling under the OHPL during bad weather and did not evaluate an alternative travel route.



Voltage = $U_n$ (kV)	Safe Distance (m)
$U_n \leq 1$	3
$1 < U_n \leq 30$	3,5
$30 < U_n \leq 132$	5
$132 < U_n$	7

Safety distances from active parts of unprotected or insufficiently protected electric lines and electrical systems to be followed during the execution of non-electrical works, net of the space needed to perform the activity, the equipment used and the materials handled, as well as from lateral skidding of the power line due to the action of the wind and drops in altitude due to thermal conditions.

\*Attachment IX of the Legislative Decree 81/08

## CORRECTIVE AND PREVENTIVE ACTIONS

**Measures adopted to mitigate consequences and prevent recurrence of similar incidents:**

- Develop a specific Toolbox Talk and Safety Alert to be shared with the entire workforce.
- Activity risk assessment shall include the safe distances from the overhead power line and related goal post's height.
- JSA shall consider the weather condition in relation to the activities in proximity of OHPL.
- Evaluate the opportunity to install Height Restrictor in all the heavy equipment working under or nearby the OHPL.

## RECEPTION BY THE PROJECT

**WHICH ACTIONS IDENTIFIED TO BE IMPLEMENTED IN THE PROJECT:**

**Project Manager:**

Signature:

**HSE Project Manager:**

Signature: