

## CASE STUDY OF INCIDENT DUE TO POWER TRIPPING FROM INCOMER

**Sourav Chakraborty**, B.Tech (Elec. Engineering), SMISE

Email id: [souravc618@gmail.com](mailto:souravc618@gmail.com)

### ABSTRACT

Case study is procedure to describe details of incident to find existed gaps that was cause of result of accident. Case study of This Incident has been carried out to know the factor that created Incident. To Know Such Factor or cause of accident will help to prevent similar Future incident. A case study of tripping issue from incomer has been analyses of a oil plant operation. This Study will help to know the factor that can contribute accident and if know to such factor then management can take needful action to prevent such accident.

**KEYWORD:** Case Study of Tripping issue from Incomer, Electrical hazard, Failure, Results of Tripping, Electrical Hazard, Risk Control

### OBJECTIVE

Objective of case study is to identify main causes of tripping issue from incomer and ensure adequate measure to prevent similar future incident. Effective Case study play major role to aware to employees and prevent any similar future untoward happening.

### 1. Introduction

Case study is important parameter to know main cause of failure or incident and learn from such failure. Such Learning helps to prevent similar incident. Case study also helps to share and create awareness among employees. Majority of company always focuses to reporting incident, carry out investigation and ensure recommendation. These case study report can be share with employees. This is way to control work place risk and improve safety performance. In past, if company has been failed to identify existing potential source of harm within organization then this can cause of tripping.

## 1.1 Case Study

### REPORTING PROFORMA

#### 1.1.1 Incident Summary:

Company Name-ABC, Location- Najafgarh, Delhi handling Oil plant operation, tripping issue from incomer observed as a result production getting affected.

COMPANY NAME- ABC INFRASTRUCTRE & ENERGY SERVICES LTD, DELHI

Reporting By: - Sourav Chakraborty Reporting date: - 05.05.2021

Designation: - Manager Reporting time: - 16:00 hrs.

Department: - Maintenance Place: - Najafgarh, Delhi

**1.1.2 Brief description:** Incomer getting tripped several times due to overloading. Pump side no ACB getting tripped. Tripping was only occurring from incomer side. No relay activation in Pump side. Relay getting tripped in Incomer side. Change the load immediately but no effect in result.

**Time of Accident/Incident:** - 11:10 hrs.

**Location:** - Substation S/S-25

**Injured Person details:** - No injury

**Work permit Number/ Type:** - NA

**PPEs being used:** - Yes

**Any specific damage:** - Each time Production loss for 15 Mins.

**Type of Injury:** NA. No injury observed.

#### 1.1.3 Sequence of Event

- Line up for production batch line 1101
- Flow started through pump from process to tank farm.

- Suddenly MOV communication failed.
- No power in JB of MOV
- No communication with SCADA itself.
- Operator checked initially and found no power in MOV screen.
- Immediately operate the bypass line through manual gate valve.
- Production started through bypass line

#### 1.1.4 Possible Cause of Accident

- Communication failure due to signal cable fault.
- No communication with SCADA as loop cable failure with controller.
- MOV power failure due to cable fault.
- Proper rated fuse to use to avoid cable burn.
- By ingress moisture burn may occur

#### 1.1.5 Corrective Measure

- Provide training related to MOV operation.
- Provide refresher training to all operators.
- Review inspection program.
- Review work procedure.
- Periodic inspection to do.
- Proper checklist to maintain.
- Fuse rating and overloading condition to check.
- MOV error code to periodically check.
- Signal cable condition to check.
- Proper monitoring from feeder side.
- Cable insulation resistance value to check

## 2. Analysis

In above case-study we have seen that MOV failure occurred during operation and production losses observed. Possible root-cause analysis also taken into account and their mitigation technique for safer operation. Brief analysis of this as below mentioned:

- Proper checklist was not maintained.
- PM work not maintained properly.
- Communication cable was not properly tagged.
- No inspection of fuse rating.
- Cable IR value record was no there in previous.
- Monsson protection cover was no there properly.
- Lack of awareness observed related to this type of accidents.
- In a hurry word to be removed from this type critical area.

### 3. Recommendations

Following recommendations are below mentioned:

- Site in-charge to take site inspection and cross verify the critical location before starting of any job.
- Safety talks to be given to all operator on daily basis.
- Related topics to be covered in Daily TBT.
- Job safety analysis should be carried out.
- Operator must be well trained and fit.
- Inspection must be conducted periodically.
- Work related video-graphic training also recommended.
- Being aware of work-related Hazards.
- PM schedule to maintain.
- Maintaining to standards.

### 4. Conclusion

Tripping issue from incomer has been occurred and plant operation has been effected. If Repeatedly Tripping of incomer production has been suffer. So Need to identical potential risk and take adequate measure to avoid Tripping. Avoid Overloading, Always use standard cable & equipments. Need to carry out inspection regularly and take needful action whenever require.