

ACCIDENT AND INCIDENT INVESTIGATION PROCEDURE

Objective

- To identify root causes and effects of an accident
- To develop controls, define trends and prevent recurrence of the accident
- To minimize workplace accident, increase operation productivity and improved working environment.

Scope

All pipeline construction, modification, repairs, testing , commissioning and others gases pipeline contractor's activities.

Definition

Accident	~ undesired event giving rise to death, ill health, injury, damage or other loss
Incident	~ event that gave rise to an accident or had the potential to lead to an accident
Near Miss	~ an event where no ill health, injury, damage, or other loss occurs is also referred to as a 'near-miss'. The term 'incident' includes 'near-misses'.

Procedures

The following describes the process and condition for Accident Investigation

Accident and Incident Investigation Policy

- All incident must be reported, recorded and investigated by Project Engineer
- All employees must give their full cooperation and assistance to the Project Engineer wherever requested.
- All recommendation suggested by Project Engineer must be discussed, agreed and executed by the relevant action parties.

During accident and incident investigations, Project Manager must:

- Be sincere, objective and impartial
- Gather facts and isolate contributory factors
- Rectify corrective measures, targeted dates and action parties involved

Investigation Party

Accidents occurring can be categorized into and investigated by:

- Minor Accident - Relevant individual staff, Team Leader and Project Coordinator
- Major Accident - Investigation team comprising of Factory Manager, Project Engineer, Project Coordinator and Team Leader.

Investigation Procedure

There are 5 fundamental stages of investigation for an accident occurring, these include:

- 1) Unbiased accurate and full information gathering
- 2) Detail discussion, revision and analysis of witnesses statement
- 3) Accident causes identification
- 4) Corrective measures recommendation
- 5) Accident report documentation

Methodology of Investigation

<u>Information gathering</u>	Respond to the emergency promptly and positively Accident scene isolation and do not disturb evidence Use all kind of scene (sight touch, smell and hearing) to collect pertinent information. Take photos, sketches, diagrams of the accident site, if necessary Interview witnesses, effected parties to obtain facts (not opinions and assumptions) Isolate key contributory facts
<u>Events leading up to the incident</u>	System of work being carried on; Instruction given for the work; Variation from instruction or safe work systems; Workplace conditions such as lighting, floor surfaces, stair treads and handrails, Warning signs, temperature, weather if the incident occurred outside, etc; The exact location of the incident (with sufficient detail for the spot to be readily identified by somebody else reading the report); Materials in use or being handled; Type of transport or equipment in use.
<u>Facts of the incident</u>	State of the system and the actions that occurred at that moment; Persons directly involved, and those involved at a distance, if any; Tools, equipment, materials, fixtures directly concerned; Time of accident
<u>Relevant facts of what occurred immediately after the incident</u>	The injuries or damage directly resulting; The events leading to consequential injury or damage; The persons involved, including those rendering aid; Any problems in dealing with the injuries or damage such as no method for releasing a trapped person, a faulty extinguisher, isolation switch difficult to locate, and similar specifics.

Witnesses Interview

Interviewing witnesses to get statements is an important part of information gathering and fact finding.

There are 2 types of witnesses involved in accident:

- 1) Eye witnesses, personnel on scene
- 2) Circumstantial witnesses (Personnel who were not in scene but can contribute valuable information or references on establishing the chain of events)

Interview Techniques

There are certain useful techniques applicable for a successful interview.

The following elements form the basic approach:

- 1) Conduct the interview as soon as possible
- 2) Start interview by individual section first
- 3) Conduct interview in private at the workplace
- 4) Try to create a blame free environment
- 5) Put the interviewee at ease
- 6) Ask for interviewee's version of what happened
- 7) Don't ever ask leading question
- 8) Repeat interview's story as you understand it
- 9) Close interview section with appreciation notes
- 10) Be polite and reassuring

The best way to put an interviewee at ease is explaining to him/her that the main purpose of the interview is to:

- Identify root causes and not blame
- Achieve accident prevention with his/her assistance
- Find out the fact of accident

Accident and Incident Investigation Report

An investigation report should be completed to assist recording of those details for statistical analysis.

The report should contain the following:

- A summary of what happened
- An introductory summary of events prior to the accident
- Information gained during investigation
- Details of witnesses
- Information about injury or loss sustained
- Conclusions
- Recommendations
- Supporting material (photographs, diagrams to clarify) if any
- The date, and be signed by the person or persons carrying out the investigation.

The full details of every accident and incident, having been investigated, must be consolidated into a single file which should include the supervisor's investigation report witness statement, plants/diagrams/photographs, copies of medical certificates and insurance claim forms, copies of any notification made to the relevant statutory body (whichever is relevant).

All accidents and incidents should be reported to the Project Engineer.

Managers are responsible for assisting contractors and visitors in complying with company policy regarding accident reporting whilst on company premises.

Record

All accident and incident investigation data should be record in :-

- Accident and Incident Record Form
- Accident and Incident Report