

Bangladesh Power Development Board

INTEGRATED MANAGEMENT SYSTEM (BASED ON ISO 9001:2015, ISO 14001:2015 & ISO 45001:2018 STANDARD)

INCIDENT REPORTING



1. Purpose

The purpose of accident investigation and reporting is to collect accurate, comprehensive and relevant information about an accident, to establish the true facts that contributed to the cause of the accident and to recommend and develop solutions to prevent recurrences into BPDB.

The scope of the accident investigation and reporting is to cover all accidents causing minor to major injuries, including fatality and near misses and communicate the results to all personnel relevant to the incident.

2. Scope

This requirement applies to all employees at workplaces under the management or control of Bangladesh Power Development Board (BPDB).

3. Terms and Definition

Accident - Work-related event(s) in which an injury or ill health (regardless of severity) or fatality occurred, or could have occurred

Fatality - Any work injury or occupational illness resulting in death of the individual irrespective of the intervening period.

III-Health - Identifiable, adverse physical or mental condition arising from and/or made worse by a work activity and/or work-related situation

Near Miss - Any accident which could have resulted in injury to persons or damage to plant or equipment or harm to the environment, or any activity, which if allowed continuing, could have the potential to cause an accident.

Serious Injury - An injury that compels the worker to be away from work for more than 20 days.

Minor Injury - An injury that compels the worker to be away from the work for more than 48 hours but less than 20 days.

Lost Time Injury - Any injury that compels the worker to be away from work in the shift in which the accident occurred or any length of time thereafter.

Abbreviations

BPDB - Bangladesh Power Development Board

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4. Roles and Responsibilities

• Head of Plant:

- Accidents and near misses are recorded and reported.
- Accidents and near misses are fully investigated and appropriately documented.
- Lessons learnt from those accidents are fully applied.
- Open and non-biased reporting and investigation is encouraged.
- The appropriate reports / pro-forma's are completed, sent to the BPDB office in Dhaka and to relevant authority or agency, within 24 hours (12 hours for risks belonging to categories A and B).
- Sufficient resources are provided to enable all necessary investigations to be carried out.

• Manager (Operation, Maintenance or equivalent)

- Conduct a preliminary assessment of accident and preserve conditions where practicable
- Obtain initial details of accidents or near-miss and complete initial accident notification form
- Complete a Summary Accident Analysis check sheet
- Determine the level of investigation required, in conjunction with line management
- Send initial details of accident to the Line Manager and HSE Engineer
- Send a completed accident/near miss report form to the Line Manager and HSE Engineer within 14 days.

• HSE Engineer

- Ensure that copies of accident reports and investigation reports are forwarded to the Management Appointee in the Head Office.
- Maintain an Accident Database and record event details
- Prepare and distribute health and safety bulletins as appropriate
- Review and provide feedback on accident/hazard reports and analyses
- Provide process support for investigation teams as required
- File and maintain all accident/hazard reports
- Do statistical analysis and produce performance and trending reports.

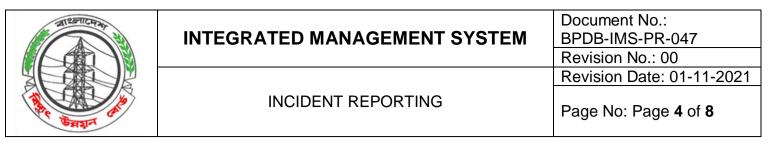
• All individuals of BPDB

- Notify all accidents and near misses they have witnessed to their Line Manager. The Line Manager will then report them to the Head of Plant/Head Office.
- Co-operate with accident investigators in identifying the situation leading up to the accident or near-miss and in identifying the causes of an accident.

5. Procedure

5.1 Accident Notification and Reporting to Stakeholders

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As per Factory Rule 2015,

- I. When there occurs in any factory an accident to any person which results in death or such injury that there is no reasonable prospect that he will be able to resume his employment in the factory within 20 days, such accidents shall may be, called in all communication as "Fatal" or "Serious", as the case may be, and the Chief Engineer/Manager shall give notice of the occurrence forthwith by telephone, telegram or special messenger to
 - a. Chief Inspector
 - b. Deputy commissioner
 - c. Inspector
 - d. Commissioner for Women's Compensation appointed under section 20 of the Workmen's Compensation Act, 1993 and
 - e. In the case of fatal accident only the Officer-in Charge of the police station within the local limits of which the factory is located.
- II. Reports by special messenger shall be in Form in the appendix of this document and those sent by telephone or telegram shall be confirmed within 24 hours by a written report in that Form.

5.2 Supplementary Reports of Accidents

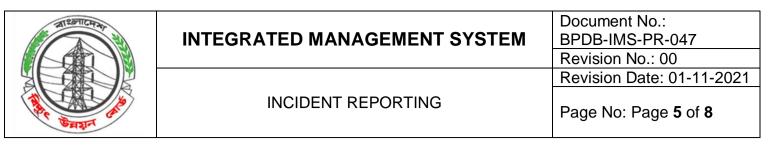
- 1. When an accident which has been reported to the Inspector as either "Serious" or "Minor" afterwards proves to be "Fatal", the Plant Head/Manager shall make the necessary correction in a supplementary report which shall be sent forthwith to the authorities mentioned in clauses (a), (b), (c) and (d) of rule 84.
- 2. When an accident which has been reported to the Chief Inspector and Inspector as "Minor" afterwards proves to be "Serious", or when one reported as "Serious" afterwards proves to be "Minor", the Plant Head/Manager shall make the necessary correction in a supplementary report which shall be send forthwith to the authorities mentioned in clauses (a), (b) and (c) of rule 84.
- 3. A final accident report shall be sent by the Manager of the factory to the Chief Inspector and Inspector (details investigation report along with summary report as per the prescribed form within one month from the date of occurrence of the accident.

5.3 Accident Investigation

5.3.1 Accident Analysis

Plant Head, with the support of HSE Engineer, have to define the scope and requirements of the investigation commensurate to the scale of the accident, and where necessary set up an investigation team of appropriate competence and seniority and appoint a team leader.

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As a general rule, a summary analysis is always conducted. If the accident is serious, a detailed analysis is conducted in addition to the summary analysis. The analysis purpose, type, scope, team members (where applicable) and responsibilities are specified in the flowchart in the Annex. Any change in the scope during the process shall only be made with the approval of the appointed Manager. The Head of Plant should provide the investigation team with all necessary resources to perform the investigation and define the timescales for the team to make report(s) to him.

The analysis report should be as short as practical to achieve its purpose and be accurate, honest and fair to all involved.

For all detailed reports, a draft report shall be submitted to the Plant. On receipt of the draft report the Plant Head shall review the contents of the report for accuracy and conformity to this procedure. The final report shall be directed to the Head of Plant for review and onward submission the Head Office.

5.3.2 Summary Analysis

This analysis is carried out by the Manager. (Operation/Maintenance SE) or equivalent with a trained investigator such as HSE Engineer. The purpose of the summary analysis is to determine the direct, indirect and root causes of the accident. The analysis must be reported internally and externally.

Guidance and advice regarding the method to use should be sought from the site HSE Engineer. However, for initial guidance a simple flowchart and guidewords to aid analysis are listed in the Annex.

5.3.3 Detailed Analysis

The investigation should be carried out in a structured manner to provide a chronological flowchart of the accident and a chronological description of how the accident occurred. The team must ensure that they consider all contributing factors and causal events. The report should address the following

- Assembling information: Information should be collected as soon as practical because some may be transient. Information on the general environment and the prevailing weather, immediately prior to, and during the accident, must be provided.
- **Preliminary statements and interviews:** The personnel involved with the accident shall be interviewed concerning the event. Should delays occur in the interview process, preliminary statements shall be taken by a local representative authorised to do so.

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- **Scene inspections:** As explained above, the scene must be preserved to prevent any disturbance or alteration. The investigator(s) shall:
 - Examine the physical layout of the equipment, system, and area involved in the event.
 - Conduct accident scene inspection.
 - Make a sketch of the area where required.
 - Take photographs wherever possible to document the scene of the event, damage to equipment, any related area contributing to the event.
 - Note the condition of equipment, the condition of the setting (i.e. lighting, cleanliness, noises, working space, etc.), status of tags, as well as other information pertinent to the analysis.
- Facility Records and Background Materials: The investigator(s) shall review procedures and such additional sources of information, which may be useful in analysing the event and recognising generic implications, including:
 - operating logs,
 - correspondence,
 - inspection reports,
 - meeting minutes,
 - procedures,
 - drawings,
 - QA trending information,
 - related accident and facility accident reports,
 - facility evaluations,
 - non-destructive examinations,
 - related studies and reports,
 - training records,
 - work requests,
 - equipment history records,
 - temporary modifications records,
 - technical / vendor manuals,
 - maintenance arrangements for hardware involved,
 - plant, machinery, hazardous substances and systems of work involved,
 - status of previous audits and review recommendations for location, in particular those pertinent to the accident,
 - Compliance with Permit to Work system, etc.
- **Related problems:** All potential generic or new concerns shall be identified (similar occurrences likely to cause an accident)
- **Interpretation of results:** From the collected information, the following points should be established:
 - the sequence of events leading up to the accident;
 - the response following the accident;

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- hours worked by personnel;
- manning arrangements;
- experience, qualifications, training and competency of personnel involved;
- the system of work involved.
- Detailed analysis methodology: Evaluation techniques should be used to evaluate the accident in a structured manner, to determine all the factors and causal events that contributed to the accident. They also provide a process for analysis of the potential root cause of the accident. Special skills / techniques / approaches are required for fraud and malpractice investigations. Guidance and advice regarding the method to use should be sought from the BPDB HSE Engineer. However, for initial guidance a simple flowchart and guidewords to aid analysis are listed. The list of guidewords contained in Annex should be used creatively to list all possible contributors to the accident and to identify and analyse those with the most material impact.
- **Developing Corrective Actions:** Both summary and detailed analyses should list / recommend corrective actions to eliminate the recurrence of the event. They need to be achievable, and the time frames for actions practical. They must also be prioritised, for example:
 - Essential high priority actions/re-instatement that must be complied with immediately, or prior to, continuation of the activity.
 - Should do medium priority actions that need to be implemented when constraints such as operations, production, personnel availability and budget permit.
 - Nice to have low priority actions to implement when the various constraints permit.

These actions, their prioritisation, their completion date and person in charge must be agreed during a meeting organised at the end of the investigations by the Plant Head. The meeting should be attended by the HSE Engineer, the investigation team leader and any other personnel identified as appropriate.

5.4 Action follow-up and feedback

i. Follow-up

The implementation of the corrective actions shall then be monitored to verify that plans are respected. The on-site HSE Engineer shall follow up with the concerned persons for implementation of recommendations. The HSE Engineer shall communicate the findings in a monthly report to the Head of Plant, who can distribute information that could benefit all other Assets.

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ii. Feedback

Feedback shall be provided by way of memorandum to those involved and other identified interested or affected parties.

5.5 Management Review

The management review requires input from the responsible manager at functional and asset levels to give comment and feedback on the accident report and Summary Analysis and thereby close out the report.

i. Summary analysis review

The HSE Engineer shall review the final report for the purpose of determining if the investigation was effectively conducted and consistent with the goals of the Accident Reporting and Analysis Procedure.

ii. Detailed analysis review

The Manager (Operation/Maintenance SE) shall schedule a meeting two (2) weeks after receipt of the final report for the team to brief the Chief Engineer and others as required for the purpose of determining if the investigation was effectively conducted and consistent with the goals of the Accident Analysis Standard.

6. References

ISO 45001: 2018 Standard

7. Appendix

- i. BPDB-IMS-FR-030 Notice of Accident
- ii. BPDB-IMS-FR-031 Final Report of Accident
- iii. BPDB-IMS-FR-032 Notice of Dangerous Incident
- iv. BPDB-IMS-FR-033 Monthly Report Register of Incident Accidents

8. Revision History

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