

Practice Notes For Construction Managers
PNCM 4: Safety Management – First Issue, November 2003

(Index under: Project Management)

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PRACTICE NOTES FOR CONSTRUCTION MANAGERS

PNCM 4: SAFETY MANAGEMENT

1. Scope of this Practice Note

This practice note covers relevant regulations, guidance and code of practice for the implementation of safety management planning and practice.

2. Terminology

- **Safety Management (安全管理)**
means the management system functions connected with the carrying out of an industrial undertaking that relate to the safety of personnel in the undertaking, including:
 - i. the planning, developing, organizing and implementing of a safety policy; and
 - ii. the measuring, auditing or reviewing of the performance of those functions.
- **Safety Audit (安全審核)**
means an arrangement for:
 - i. collecting, assessing and verifying information on the efficiency, effectiveness and reliability of a safety management system; and
 - ii. considering improvements to the system.
- **Safety Review (安全查核)**
means an arrangement for:
 - i. reviewing the effectiveness of a safety management system; and
 - ii. considering improvements to the effectiveness of the system.
- **Registered Safety Auditor (安全審核員)**
means a person registered as a safety auditor under the F&IU (SM) Regulation who conducts or purposes to conduct safety audits.
- **Safety Review Officer (安全查核員)**
means a person who is appointed to conduct a safety review as required by the F&IU (SM) Regulation.
- **Safety Manual/ Safety Plan (安全手冊/ 安全計劃書)**
means a document setting out the specific occupational safety and health resources, responsibilities and procedures or practices for the organization.

3. Relevant Regulations, Guidance and Codes of Practice

- Factories and Industrial Undertakings (Safety Management) Regulation (hereinafter called “F&IU (SM) Regulation”)
- Code of Practice on Safety Management
- OHSAS 18001
- BS 8800
- AS/NZS 4360

4. Basic Requirements for Safety Management

a. Safety Management System

Under the F&IU (SM) Regulation, the safety management system is divided into 14 elements. The elements are briefly described as follows:

1. Safety Policy
a safety policy states the commitment of the contractor to safety and health at work.
2. Organisational Structure
a structure to assure implementation of the commitments to safety and health at work.
3. Safety Training
to equip personnel with knowledge to work safely without risk to health.
4. In-house Safety Rules
to provide instruction for the achievement of safety management objectives.
5. Inspection Programme
to identify hazardous conditions and for the rectification of any such conditions at regular intervals or as appropriate.
6. Hazard Control Programme
to identify hazardous exposure or the risk of such exposure to the workers and to provide suitable personal protective equipment as a last resort where engineering control methods are not feasible.
7. Accident /Incident Investigation
to find out the cause of any accident or incident and to develop prompt arrangements to prevent recurrence.
8. Emergency Preparedness
to develop, communicate and execute plans prescribing the effective management of emergency situations.
9. Evaluation, Selection and Control of Subcontractors
to ensure that subcontractors are fully aware of their safety obligations

and are in fact meeting them.

10. Safety Committees
to identify, recommend and keep under review measures to improve the safety and health at work.
11. Job Hazard Analysis
to evaluate job related hazards or potential hazards and development of safety procedures.
12. Safety and Health Awareness
to promote, develop and maintain safety and health awareness in a workplace.
13. Accident Control and Hazard Elimination
a programme for accident control and elimination of hazards before exposing workers to any adverse work environment.
14. Occupational Health Assurance Programme
a programme to protect workers from occupational health hazards.

b. Planning of the Safety Management System

- ✧ The management shall, in accordance with the nature of work, organization and culture, develop their safety management system.
- ✧ An initial status review shall be conducted by using existing management system to carry out preliminary hazard analysis to decide on priorities and objectives for hazard elimination and risk control.
- ✧ The following six-step shall be followed for developing, implementing and maintaining an effective safety management system:
 - i. Planning of the safety management system;
 - ii. Developing safety policy and safety manual to achieve the desired safety objectives;
 - iii. Organizing employees and resources to accomplish the safety objectives;
 - iv. Implementing the safety manual;
 - v. Measuring and conducting safety audits/reviews of safety performance; and
 - vi. Reviewing of the status of the safety management system periodically.

c. Developing Safety Policy and Safety Manual/ Safety Plan

- ✧ Establish safety policy to spell out the overall safety and health objectives and to commit to improve the safety and health performance.

- ✧ The management shall develop a safety manual/ safety plan to incorporate the results of planning for achieving the safety targets.
- ✧ The regulation requires that the contractor shall develop, implement and maintain a safety management system, according to the number of workers or the value of works.
 - i. There are 4 categories under the regulation as follows:
 - Group 1: A contractor of an aggregate of 100 or more workers in a day working in a single site or with a contract value of \$100 million or over.
 - Group 2: A contractor of an aggregate of 50 or more but less than 100 workers in a day working in a single site.
 - Group 3: A contractor of an aggregate of 100 or more workers in a day working in two or more sites.
 - Group 4: A contractor of an aggregate of 50 or more but less than 100 workers in a day working in two or more sites.
 - ii. Group 1 and Group 3 are required to develop, implement and maintain a safety management system which contains 14 elements and to conduct safety audit by Registered Safety Auditor every six months.
 - iii. Group 2 and Group 4 are required to develop, implement and maintain a safety management system which contains 8 elements and to conduct safety review by Safety Review Officer every six months.

d. Organizing for Safety Objectives and Implementing Safety Manual(s)/ Safety Plan(s)

- ✧ Allocate to a person at the top management level the responsibility for ensuring the development, implementation and maintenance of the safety management system.
- ✧ Allocate adequate resources for developing, implementing and maintaining the safety management system.
- ✧ Make arrangements for the formation and operation of safety committee for the implementation of safety manual(s)/ safety plan(s).
- ✧ Make arrangements and trainings for the effective dissemination of safety and health information to workers.
- ✧ Implement the safety manual(s)/ safety plan(s) to control risks identified and to meet legal requirements.
- ✧ Supervise and monitor to ensure the manual(s)/ plan(s) is/ are effectively implemented.

e. Measuring Safety Performance

- ✧ When the safety management system is set up, the safety performance shall be measured to check the activities are in compliance with the agreed safety commitment. Proactive monitoring, such as safety inspection shall be carried out by safety personnel at regular intervals.
- ✧ Safety committee shall be used to collect any feedback from each level of employees to improve the safety management system in operation.

f. Auditing and Reviewing of Safety Performance

- ✧ The existing safety policy and procedures shall be periodically reviewed in the safety committee to ensure its continuing effectiveness, efficiency and reliability.
- ✧ Internal safety audit shall be conducted to evaluate the effectiveness, efficiency and reliability of the safety management system.
- ✧ A Registered Safety Auditor (RSA)/ Safety Review Officer (SRO) shall be appointed to conduct a safety audit/ safety review at least once in each 6 months. The actions below shall be followed:
 - i. The RSA/ SRO shall submit a safety audit report/ safety review report to identify areas of success and identify areas requiring corrective action and improvement within 28 days after the safety audit/safety review;
 - ii. The contractor shall read and countersign the report;
 - iii. Assign a person to draw up an improvement plan within 14 days;
 - iv. Submit the report and improvement plan to the Labour Department within 21 days after receiving the report; and
 - v. Keep the report and the improvement plan for at least 5 years.
- ✧ Continuous review shall be carried out by the top management and the scope shall cover:
 - i. Overall performance of the safety management system;
 - ii. Performance of individual site;
 - iii. Results and recommendations of the safety audit/ safety review;
 - iv. Internal and external factors such as change of legislation, organization and technology;
 - v. Lessons learned from accident/ incident; and

vi. Reports of safety inspections and risk assessments.

5. Responsibility

a. Director or Contracts Manager shall:

- ✧ Ensure the implementation of the safety policy;
- ✧ Keep themselves abreast of prevailing safety laws and regulations;
- ✧ Ensure the development of the safety management system and allocate adequate resources to implement the safety management system;
- ✧ Be aware of safety performance on sites;
- ✧ Set the safety target(s) to achieve progressive improvement for all risk areas;
- ✧ Assist to organize the safety management committee and chair the meetings.

b. Project Manager shall:

- ✧ Monitor and ensure that all safety rules, regulations and practices are observed throughout their sites and workplaces;
- ✧ Ensure that the management is given timely advice on safety trends, developments and the latest safe working techniques as well as prevailing legislative requirements;
- ✧ Ensure that the safety policy, practices, and safety manual(s)/ safety plan(s) is/ are regularly reviewed;
- ✧ Assign duties and responsibilities to different level of employees in the project to ensure that the safety policy and safety manual(s)/ safety plan(s) is/ are effectively implemented;
- ✧ Convey feedback from site level to senior management;
- ✧ Be aware of safety performance on sites;
- ✧ Assess, monitor and enforce the safety performance of subcontractors;
- ✧ Ensure that the line management is appropriately and actively supported by a team of safety personnel.

c. Site Agent shall:

- ✧ Understand the requirements of the safety laws and other relevant

regulations on site;

- ✧ Familiar with and understand the safety policy, safety manual, safety plan, in-house safety rules and practices;
- ✧ Responsible for monitoring and supervision of site activities to maintain a high safety standard on site;
- ✧ Ensure that safety measures and considerations are being integrated into the planning stage of production processes, including those for subcontractor works;
- ✧ Assist to organize the site safety committee and chair the meetings;
- ✧ Monitor the safety performance of site employees and subcontractors and arrange to implement the recommendations of the safety reports.

6. Flowchart

Flow Chart for Safety Audit/Review on Safety Management System

