

PETRONAS TECHNICAL STANDARDS

HEALTH, SAFETY AND ENVIRONMENT

GUIDELINE

EMERGENCY DRILL AND EXERCISE PLANNING

PTS 60.0111

APRIL 2011



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PTS Circular 2011



PTS No:	60.0111
PTS Title:	Emergency Drill and Exercise Planning

This new PTS **60.0111 - Emergency Drill and Exercise Planning (April 2011, Revision 0)** has been developed to provide guiding principles and minimum requirements in planning emergency drills and exercise for crisis management preparedness and mitigation

This PTS also includes PETRONAS Lessons Learnt and PETRONAS Best Practice for the subject matter **Emergency Drill and Exercise**.

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REVISION HISTORY

Date	Version	Description of Updates	Author
Apr '11	Original		GHSED

PREFACE

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ACKNOWLEDGEMENT

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FOREWORD

Experience and data show that drills and exercises are the most practical, efficient, and cost effective way to prepare for disasters and crises. The aim for this guideline is to develop a progressive exercise program, a long-term approach in which exercises are planned, conducted, and evaluated as building blocks to competency in crisis management. There are two principal benefits of such a program. First, people practice their role and gain proficiency in managing crisis. Second, the coordination among responders and local emergency response agencies is improved. These benefits arise not from exercising alone, but from evaluating the exercise and acting upon those results. An exercise has value only when it leads to individual and/or collective improvement

This Emergency Drills and Exercise Planning Guideline is designed to provide guiding principles and minimum requirements in planning emergency drills and exercise for crisis management preparedness and mitigation.

Information provided in this guideline includes:

- Types of emergency drills and exercises
- Roles and responsibilities of drill / exercise participants
- Drills and exercises planning cycle
- Post exercise activity

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1.0 DEFINITIONS AND ABBREVIATIONS

BIA

Business Impact Analysis

BU

Business Unit

COMCEN

Communication Centre

CSD

Corporate Security Division

CST

Country Support team

CSP

Country Support Plan

Drill and Exercise

Drill and exercise constitute one of the basic components of emergency preparedness. They both refer to enactment, under the assumption of a mock scenario, of the implementation of the response actions to be taken during an emergency:

Drill - Limited in scope and intended to test a limited aspect of the response capability.

Exercise - Comprehensive activity and aimed at testing the whole response organisation, including communication and intervention with off-site response organisations.

Emergency Plans

Emergency Plans encompass, but not limited to the following:

- i. Group Contingency Planning Standards (GCPS)
- ii. Emergency Response Plan (ERP)
- iii. Oil Spill Response Contingency Plan (OSRCP)
- iv. Country Support Plan (CSP)
- v. Security Risk Management Contingency Plan (SRMCP)
- vi. Group Crisis Management Plan (GCMP)
- vii. Business Continuity Plan (BCP)
- viii. Human Resource Response Plan (HRRP)

ECC

Emergency Control Centre

EMT

Emergency Management Team

ERP

Emergency Response Plan

ERT

Emergency Response Team

GCMP

Group Crisis Management Plan

GCMT

Group Crisis Management Team

GCPS

Group Contingency Planning Standards

GHSED

Group Health, Safety and Environment Division

HR

Human Resource

IPIECA

International Petroleum Industry Environmental Conservation Association

OCMT

OPU Crisis Management Team

OPU

Operating Unit

OSRT

Oil Spill Response Team

PIP

Pre Incident Plan

Scenario

A hypothetical situation or event sequence simulating events that precipitate an emergency or crisis

2.0 INTRODUCTION

PETRONAS Group of Companies is constantly exposed to potentially hazardous incidents because of the nature of its business. Inadequate foresight and preparedness in emergency response and crisis management can have significant consequences on the organisation. To stay in business, it is vital for PETRONAS to maintain a high level of preparedness for all kinds of emergencies. Ineffectively managed emergencies may result in injury and fatality, environmental damage, asset damage and tarnished reputation.

The purpose of these guidelines is to provide an understanding of exercises and drills. It provides the foundation for building effective exercise programs and developing high quality exercise activities. PETRONAS as a Group will be able to plan and enhance its capability in facing any emergency or incident as per figure 1 below.



Figure 1: Emergency Preparedness & Crisis Management Programs

3.0 DRILL AND EXERCISE OBJECTIVES

This document provides guidelines to PETRONAS Group on planning and conducting individual exercises and the development of exercise programs based on the Three-tiered Response Concept outlined in GCPS. The objectives of conducting drills and exercises are to:

- i. Test validity of emergency plans using the PIPs based on credible scenarios identified in risk assessment / CIMA reports / HEMP Register.
- ii. To share lessons learnt among PETRONAS Group where applicable.
- iii. Provide hands-on experience with the procedures, facilities and systems.
- iv. Familiarize response personnel with equipment, methodologies and approaches to controlling an emergency.
- v. Networking with authorities to ensure efficient response
- vi. Satisfy regulatory requirements.
- vii. Identify areas for improvement.

4.0 EMERGENCY DRILLS AND EXERCISE CATEGORIES

Emergency response exercises allow responders to become fully familiar with the procedures, facilities and systems used during an actual emergency. The three-tiered emergency drill and exercise categories are defined as Table 1 below:

• Mobilization of ERT • Mobilization of in-house first response equipment	Tier I	Tier II	Tier III	Tier III MKN Level 1 (Malaysian Domestic Operation)
• Mobilization of EMT at ECC • Unification of Command with authorities at Incident Site • Mobilization of response equipment from external responders / mutual aids				
• Unification of Command with authorities at Site and ECC / UCC				
• Transfer of Command to Authority				

Table 1: Three-tiered Emergency Response Exercise Categorization

The Emergency Plan and the overall capability to integrate between neighbouring OPUs / BUs, relevant authorities and stakeholders will be tested by one of the following methods:

4.1 Orientation

This is a low-stress, informal discussion in a group setting with little or no simulation. It is used to provide information and introduce emergency resources i.e. people, equipment, facilities, plans and procedures. Generally applied for orientation and training to new personnel.

4.2 Tabletop Exercise

Provide a convenient method of introducing emergency responders to possible scenarios, situations and to discuss approaches in problem solving. It is effective for determining adequacy of current procedures. It also includes notification and communication drills.

4.3 Functional/Field Mobilization Exercise

This exercise simulates an actual event or scenario and is designed to test the selected functional elements, emergency resources and communications.

4.4 Full Scale Exercise

A full scale exercise is a simulated emergency event conducted as close to reality as possible. It involves full deployment of internal and external emergency resources.

4.5 Frequency of Exercises and Drills

Frequent drills and exercises are essential to ensure teams and individuals maintain awareness and proficiency. The frequency of the exercise activities should be adjusted to meet the requirement of the roles and responsibilities as well as the function to be exercised. The following exercise frequencies are recommended:

Type of Exercises/Drills	Frequency
Notification & Communication	1 in 6 months
Drills for ERT (based on Pre Incident Plan)	1 in two months for each shift
Tabletop	Annually
Functional / Field Mobilization Exercise	Annually
Full Scale Exercise	1 in three years.

Table 2: Exercise Frequency

5.0 EXERCISE PARTICIPANTS

5.1 Exercise Coordinator

The Exercise Coordinator is the individual charged with primary responsibility for all phases of design, development, performance and evaluation of an exercise activity. The responsibility extends to oversight, review and approval of all design and development activities. The coordinator also serves as the overall lead for conducting the exercise and ensures that control, evaluation and simulation activities are carried out appropriately. The coordinator works closely with the designated lead controller to solve problems and support effective conducting of the exercise.

5.2 Facilitator

Facilitators help lead the group discussion to ensure all relevant issues and questions from the scenario are raised and explored. Facilitators also lead the debrief discussion and action planning session where players identify action items.

5.3 Controller

Controllers monitor the flow of the drill or exercise. The role of a controller is to make certain that the activities are conducted in accordance with the scenario, timeline and within the established scope and parameters.

5.4 Simulators

Simulators assume the roles of any person, organization, agency, or service that would normally interact with the responders during an emergency or crisis situation. In acting out these roles, they present postulated problems or developments in an appropriate sequence during the course of the exercise, to drive the flow of activities and test the resilience of the responders.

5.5 Players

A Player is any member of the response organisation participating in a defined role drill or exercise.

5.6 Evaluator

Evaluators are responsible for observing player actions and evaluating the effectiveness of those response actions based upon emergency plans, good business management practices, defined objectives and associated response requirements and evaluation criteria. Evaluators must be competent and understand the expected response to ensure effective evaluation.

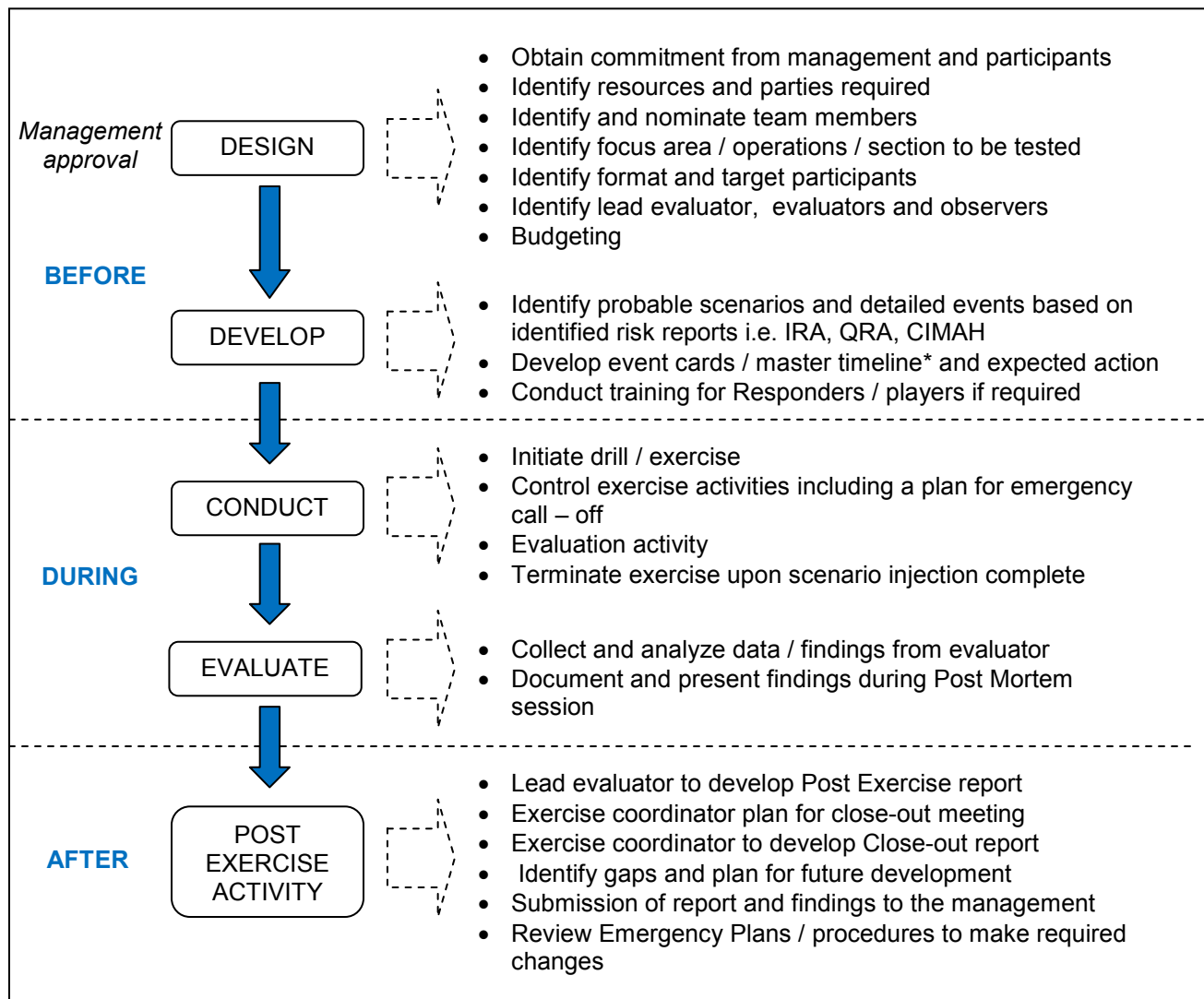
5.7 Observer

Observers are invited guests / visitors who have no official role in the conduct of the exercise activity, though they are sometimes asked to submit their observations and insights from the activity. They are typically invited in order to encourage shared learning opportunities.

Refer to Appendix A, which details roles and responsibilities of exercise participants. Appendix B provides evaluation forms for designated Evaluators and Appendix C provides guidance in areas to be evaluated.

6.0 EXERCISE PLANNING ACTIVITIES

The process of creating and staging an exercise includes a lengthy sequence of tasks that occurs in three phases i.e. before, during and after the exercise. It will include a cycle consisting of design, develop, conduct, evaluate and post exercise activities.



* Sample of event injection cards and master event timeline is available in Appendix D-1

Figure 2: Exercise Cycle

To ensure commitment for all exercise activities, the exercise coordinator shall:

- i. Solicit top management support.
- ii. Prepare directive signed by top management as per sample attached in Appendix D-2.
- iii. Determine resource needs i.e. manpower, teams and equipment.
- iv. Obtain commitment for critical dates i.e. responder training, briefing to authorities, players and evaluators, table top and actual exercise and close-out meetings
- v. Form an exercise design team. For Tier II and Tier III exercises, the design team may include members from respective Business Unit and Group Emergency Management Department, GHSED. An external member from the authorities may also be invited to ensure effective coordination during implementation. As a guide the overall exercise preparation checklist is attached in Appendix D-3.
- vi. Develop a timeline. A sample of an exercise planning timeline is depicted in Appendix D-4.