

PETRONAS TECHNICAL STANDARDS
HEALTH, SAFETY AND ENVIRONMENT

CONTRACTOR HSE MANAGEMENT
(GUIDELINE)

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PREFACE

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AMENDMENTS RECORD SHEET

Chap No.	Section No.	Description	Issue No.	Date	Rev No.	Date	Approve by: (initial)
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SUMMARY

This document identifies and describes the activities associated with the management of contractor HSE by OPU / JV within the formal framework of a contract, both prior to and after award. The specific objectives and mandatory requirements for each phase are stated, and thereafter guidelines are provided as an aid to achieving the objectives. The appendices provide illustrative examples of guidelines for the principal features of each phase. The extent to which these guidelines are applied will be influenced by the scale and HSE criticality of the contracts.

Management of Contractor HSE sets out guidance on how to achieve the same or higher HSE standards as those required by OPU / JV for their own operations. It is based on a planned approach with attention being paid to the early project phases. This is to provide early awareness of the HSE issues that need to be included by the Contract Holder in the tender documents. It is targeted principally at Contract Holders and personnel tasked with planning HSE in contracts, with tender preparation, evaluation and subsequent contractor management. It contains the following chapters:

1	Introduction	A basic introduction to the objectives, background and scope of coverage.
2	Overview	An overall picture of the sequence of phases involved, planning the work, the HSE issues involved and the links with HSE MS.
3	Planning and Invitation to Tender	The main steps necessary in the OPU / JV definition of HSE requirements in the contract and the prequalification of contractors.
4	Tender period	The HSE proposals expected in the contractor's bid in response to the tender documents and the clarification of these proposals.
5	Bid evaluation and contract award	The assessment of the contractor's HSE Plan against the required criteria.
6	Mobilisation	The contract kick-off, assessment of the contractor's HSE performance during the mobilisation phase and pre-execution assurance
7	Execution	The HSE monitoring and supervision of the contractor during contract execution.
8	Demobilisation	The HSE monitoring of the contractor during demobilisation.
9	Close-Out	The reporting and feedback of OPU / JV and contractor HSE performance.

1 INTRODUCTION

1.1 OBJECTIVES OF THIS DOCUMENT

The overall objectives of this document are to:

- Define the minimum HSE objectives to be met at each stage of a contract
- develop a strategy for proactive management of Contractor HSE
- highlight the benefit of effective proactive approaches, particularly prior to tendering and mobilisation
- describe a planned approach to Management of Contractor HSE that will ensure a continuing improvement in HSE performance for all contractor activities
- describe the role and responsibilities of key personnel in contractor HSE management.

1.2 OBJECTIVES OF MANAGEMENT OF CONTRACTOR HSE

The overall objectives of Management of Contractor HSE are:

- high contractor HSE standards

All contractor activities carried out on behalf of OPU/JV should achieve the same or higher HSE standards as those required by PETRONAS for its own operations.

- adherence to hazards and effects management process (HEMP)

All hazards to the health and safety of the contractor's personnel, PETRONAS staff and the public, to the environment and to the assets of the contractor, PETRONAS or public should be:

- identified, assessed systematically and eliminated where possible
- controlled through formal procedures and planning methods
- covered by contingency plans in place to deal with identified consequences of potential loss of control.
- mutual HSE awareness

Both the contractor and the Contract Holder should be mutually aware of both parties' minimum obligations to achieve the above and these obligations should be within mutually agreed contractual terms.

- means to monitor the contract HSE management

The means to monitor the contract HSE management system should be mutually defined, understood, accepted and agreed by both parties as contractually binding.

- equal attention to H, S and E

Equal attention should be paid to health and environmental matters as well as safety.

- controls in place for hazards and effects management

The controls necessary for the management of hazards and effects should be in place and working. Where they are not, this should be speedily remedied or in extreme cases, work should be stopped.

1.3 BACKGROUND

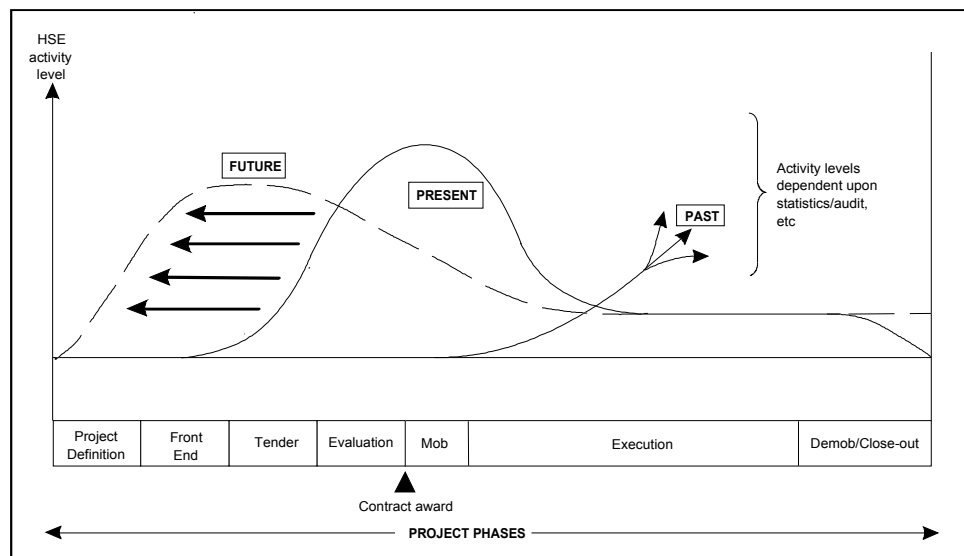
Over 80 per cent of PETRONAS activities depend on contractors to carry out a wide variety of works throughout the world. The majority of these activities are carried out in and around workplaces of relatively high risk. Efforts to achieve the required HSE standards must often overcome problems of language, culture, inhospitable environments whilst meeting the laws and regulations of the various countries in which PETRONAS operates.

The past approach to Management of Contractor HSE has tended to concentrate on monitoring/control of HSE activity after contract award, where reactive measures in response to incidents and audits predominated. More recently the emphasis has shifted to the earlier phases of tender evaluation and mobilisation. In line with a more proactive approach this document aims to provide guidelines that give even greater emphasis to 'upfront' HSE management by focusing increased attention on the initial project phases.

This HSE activity phasing is represented in Figure 1.1.

'Partnering' arrangements with contractors are now more familiar. These longer term contracts with the responsibility for meeting shared common objectives emphasise the need for early identification of clear HSE objectives from the onset and inclusion of these in the contract.

Figure 1.1 HSE activity phasing for contracts



1.4 SCOPE

This document covers health, safety and environmental issues for all types and forms of contract services, including but not limited to the following:

- drilling
- design and engineering
- well services
- fabrication
- diving
- construction
- NDT/inspection
- commissioning services
- seismic
- marine transportation
- land transportation
- air transportation (fixed wing and helicopter)
- marine assistance
- catering
- office services
- chemicals supply
- environmental services (e.g. waste management)
- residential area services
- security
- specialist services
- vendors (service engineers).

The extent to which each of the phases shown in Figure 1.1 is applicable will depend on the type of contract services under consideration. In turn, this will influence the

extent to which the full details of the guidelines presented in Chapters 3 through 9 may need to be applied.

2 OVERVIEW

2.1 CONTRACT PHASES AND HSE PLANNING

The influence and inclusion of HSE issues in the preparation of tender and contract documents and the subsequent HSE management of a contractor can be described within the context of an identifiable series of phases:

- planning and invitation to tender
- tender period
- bid evaluation and contract award
- mobilisation
- execution
- demobilisation
- close-out.

The chapters of this document follow this chronological sequence of events in contractor management. Each of the phases and the corresponding key HSE contract activities are shown in summary in Figure 2.1 and expanded in detail in subsequent chapters. The detailed guidance in the appendices follows the standard set of headings for HSE management with a further heading to cover those general issues of the work activities themselves.

2.2 PLANNING FOR HSE: TIMING

The main HSE targets of each phase together with the way in which the HSE activities are divided between the OPU / JV and the contractor are shown in Table 2.1.

The emphasis on HSE considerations in the early phases is for the following reasons:

- to improve contract HSE definition and awareness
- to provide early identification of HSE issues for inclusion in the tender documents
- to provide a framework before contract award for continued performance of HSE to agreed standards in subsequent execution
- to (re)confirm that contractors can fulfil HSE obligations, partly based on past HSE performance.

2.3 PLANNING FOR HSE: SCOPE

There are two main points to be considered in determining the application of HSE issues:

- the extent of the HSE coverage required.
- the importance of specific HSE issues.

Figure 2.1 Management of Contractor HSE: overall flowchart

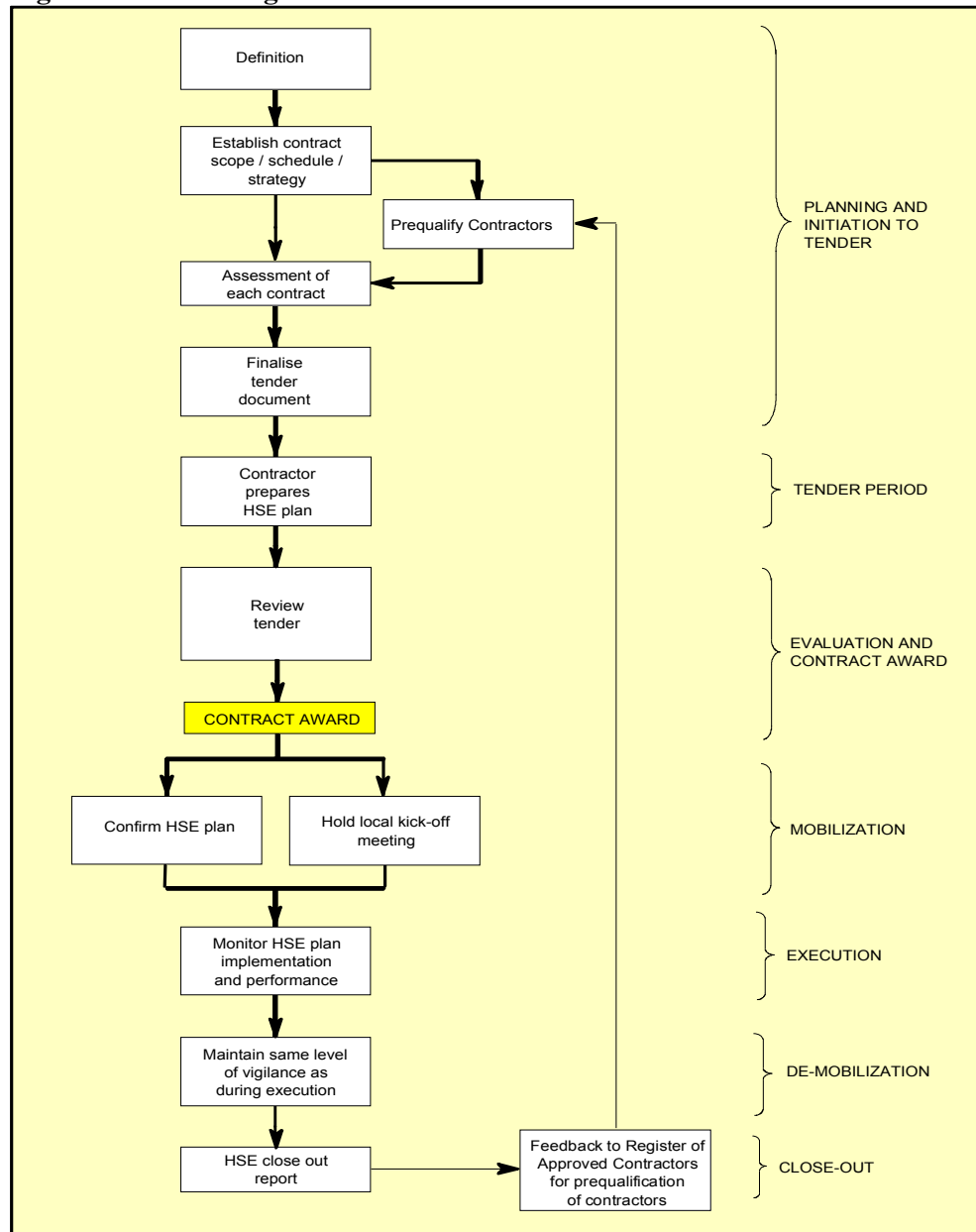


Table 2.1 Management of Contractor HSE: key targets and OPU and contractor activities

Phase	Target	OPU / JV	Contractor
Planning and Invitation to tender	Major hazards identified with assurance that they can be managed Confirmation of major hazards with outline targets criteria and methods for control Confirmation that (prequalified) contractors can achieve targets Review of contractors previous HSE record HSE tender evaluation criteria specified and agreed with Tender Board	Qualitative HSE assessment of the work HSE sensitivities Hazard identification / quantification Health risk assessment Environmental impact assessment HSE policies and approach OPU/JV/contractor dialogue	OPU/JVcontractor dialogue Respond to prequalification Discuss HSE responsibilities and staffing
Tender period	Contractor preparation of HSE Plan in accordance with OPU / JV criteria/ HSE Case input	Respond to clarification requests Meetings Site visits	Prepare contract HSE Plan Clarification requests Meetings Site visits
Evaluation and contract award	Confirmation that contractor HSE Plan will meet OPU/JV criteria Agreement with contractor on methods to be used, performance measurement criteria and audit/review strategy	Evaluate bids Clarifications Meetings Finalise contractor's HSE Plan	Respond to clarifications Meetings
Mobilisation	Confirmation that contractor's HSE Plan has achieved pre-execution targets	Kick-off meeting Confirm contractor's HSE Plan activities Supervision Pre-execution audit	Kick-off meeting Confirm contractor's HSE Plan activities Supervision Induction Training Meetings Inspection Pre-execution status achievement

Execution	Assurance and verification that contractor systems are performing in line with contractor's HSE Plan Milestone reviews	Supervision Meetings Promotion of HSE issues HSE performance review Investigation of incidents Assurance	Supervision Inspection Induction Training/Drills Meetings HSE performance review Investigation of incidents Assurance Correction of defects
Demobilisation	Management of final activities	Supervision	Supervision
Close-Out	Analysis and feedback of OPU / JV and Contractor HSE performance	Close-out report Feedback for future contract HSE Plans/clauses	Close-out report and feedback (to own management)

The material presented in the remaining chapters of this document is sufficiently extensive and detailed to cover large contracts, for example, major engineering / procurement / construction contracts, which involve significant elements of all the phases outlined above in 2.1. The appendices similarly contain further details that could be relevant to such a contract and, in some circumstances, all of the items listed may need to be considered.

For small contracts, and those where the extent of planning work is much less, the need for such a comprehensive coverage will be correspondingly reduced. However, even for small or short duration contracts, HSE planning must not be ignored or treated superficially. In such cases, the work is likely to include the use of basic practices (e.g. scaffolding, welding, excavating, erecting formwork, etc) and the contractor should be able to demonstrate good general HSE management in each of these basic practices. In addition, the contractor should be able to understand and carry out hazard assessment when these practices are put together in different combinations, particularly in association with the hazards of the workplace (e.g. working in confined spaces, over water, etc) and live plant (e.g. presence of H₂S, isolating electrical systems, etc).

Preparations for contracts, large or small, must include the same systematic process of hazard identification, assessment, control and recovery, together with the evidence that a system is in place to manage these hazards. In a major project this HSE Plan will be a comprehensive document and form a large part of a HSE Case. In the other extreme, e.g. for the one-man contract undertaking a simple repetitive task, a short pro forma completed to show that the hazards are recognised and understood is likely to be adequate.

2.4 MANAGEMENT OF CONTRACTOR HSE AND HSE MS

In an OPU / JV HSE Manual, Part 1 presents the elements of the OPU / JV's management system as they apply to HSE and Part 2 the detailed breakdown of

business processes into the HSE-critical activities. For an operation-specific situation, these two parts are translated into a demonstration of the HSEMS in action (as part of an HSE Case). Where such operations require contracted work or services, the HSE Case must show how the OPU / JV manages contractor HSE and how the contractor achieves HSE management of his own workforce and his subcontractors.

Major contractors providing services to OPU / JV must be able to demonstrate that they already have an HSE MS and are prepared to contribute to HSE Cases. Whilst it is not intended that their HSE MS should be identical to that of the OPU / JV, it should exhibit the same degree of application and assurance of safe operations, without damage to health and the environment. A contractor familiar with the guidelines on HSE Management Systems in PTS 60.0101 and who uses these as the basis for his management system should be able to align immediately with this requirement.

Smaller (minor) contractors, who may not have formalised systems, must still have a basic understanding of managing HSE in their operations and be prepared to provide a simple but effective system.

Service contracts are often used as a means of executing work. Initially such contracts often have no defined scope beyond a general description of the services, skills, plant, etc that the contractor must be able to provide. However, the ability of the contractor to manage HSE on a job-by-job basis is an essential requirement. For example, he should be able to make hazard assessments, apply and enforce controls to manage residual HSE hazards and effects, apply local HSE legislation correctly, respond effectively to emergency situations, etc. **All these elements must be demonstrated prior to contract award.**

In OPU / JV operations, the HSE-critical activities represent those activities for which the principles of hazards and effects management must be applied and documented as part of the HSE MS. For work contracted out, these same principles should be applied to the activities carried out by the contractor. Detailed guidance on HSE management of hazards and effects in a specific business area (e.g. drilling, maintenance, construction, transport services, etc) can be found in the PTS 60.0401 Hazards and Effects Management. General contractor HSE management principles, (such as his approach to hazard assessment, use of PPE, HSE inspection of plant and equipment, etc), are included in this document.

Throughout this document, reference is made to the 'HSE Plan' which essentially defines the combination of the HSE MS and a description of how the HSE-critical activities are to be managed. The term 'HSE Plan' has deliberately been retained for a wider understanding of management of contractor HSE, particularly with smaller contractors. An important element of the HSE Plan is to show how the OPU / JV and the contractor intend to link their organisations for the purpose of HSE management of the contract. It should be recognised that in many situations, particularly for larger contracts, this HSE Plan will effectively form a significant part of a full HSE Case.

By the OPU / JV clearly defining what is required, the contractor can then provide the necessary details of his system and show how he intends to fulfil the HSE requirements. The way that this occurs in a typical contract is shown in Figure 2.2. Guidelines for headings and contents for an HSE Plan for major contracts are given in Appendix IV, with those for smaller contracts, such as office services, in Appendix V.

2.5 HSE CASE JOINT PREPARATION

In major projects or projects in a critical area, it is necessary to combine the contractor and OPU / JV elements to form an effective overall HSE MS and HSE Case for the planned operation. To achieve this it is necessary:

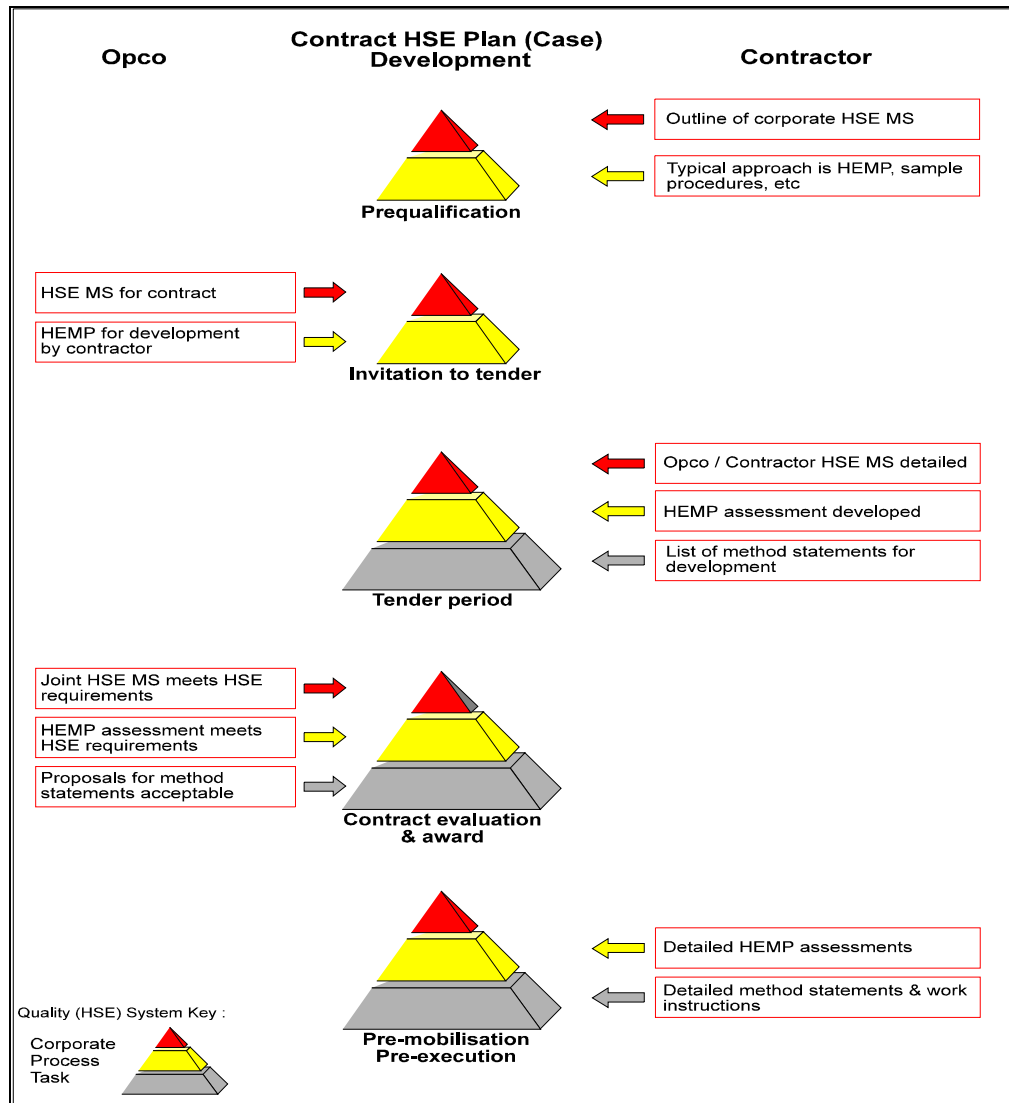
- for the contractor to identify the hazards and hazardous operations it will encounter
- for the Contractor to describe his HSE MS and how he will manage the HSE-critical activities identified
- to complete the HSE hazards and effects register and activities catalogue with the contractor ensuring that this is compatible with that of the OPU / JV
- to complete the HSE Case with joint input
- to prepare a monitoring and assurance plan
- to assess the HSE Case and contractor HSE MS.

Typically, the various parts of an HSE Case, which is jointly prepared by contractor and OPU / JV, might be expected to have relative input from the two parties as follows:

Table 2.2 HSE Case Components and Contractor-OPU / JV Input

HSE Case Components	Percentage input	
	Contractor	OPU / JV
Introduction and Management Summary	50	50
Operations HSE MS	80	20
Activity Catalogue	70	30
Operations Description	90	10
Hazards and Effects Analysis	70	30
Remedial Work Plan	50	50
Conclusions and Statement of Fitness	50	50

Figure 2.2 Development of Contract HSE requirements



Clearly the above will vary significantly from contract to contract. The degree of delegation will ultimately require the sanction of the final signatory of the statement of fitness who must satisfy himself on behalf of the OPU / JV that all appropriate aspects have been considered and action taken.

3 PLANNING AND INVITATION TO TENDER

3.1 OBJECTIVES

The HSE activities carried out during the planning and invitation to tender phase fall under the following headings:

- determine the HSE impacts on scope, schedule and strategy for the contracts required
- assess HSE content of each contract
- confirm suitability of contract scope, schedule and strategy against HSE assessments
- prepare HSE-related contract documents
- prequalify potential contractors for HSE suitability, having reviewed their past HSE performance
- prepare the outline contract with appropriate milestone hold points.

Ahead of any defined contract scope, OPU/JV contractor dialogue may be considered to discuss possible contractor involvement, especially the technical and other difficulties that might influence HSE performance. Clearly at this stage no discussion on cost issues is appropriate.

The sequence of activities is shown in Figure 3.1.

3.2 OUTLINE SCOPE OF WORK OR SERVICES

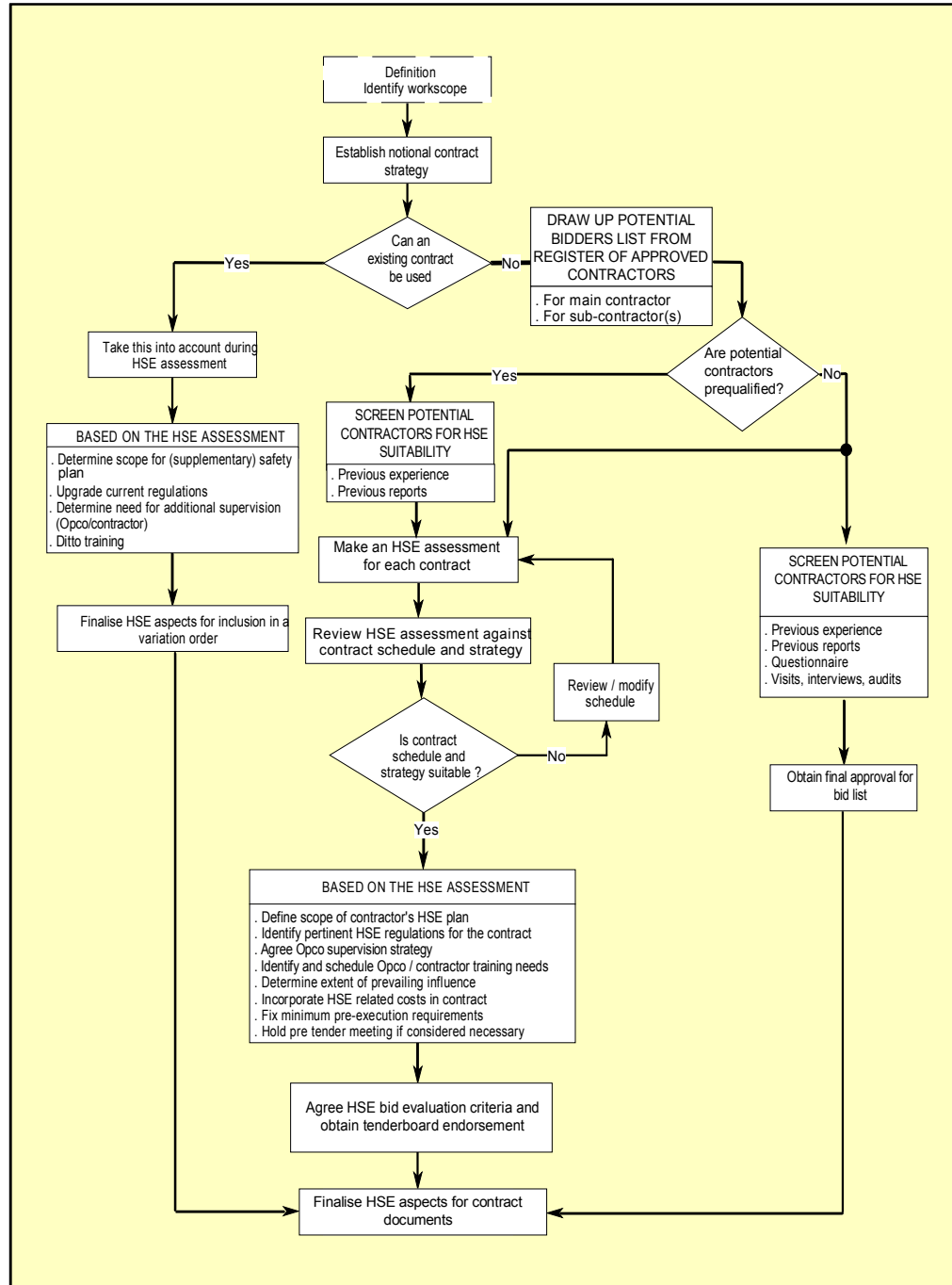
The starting point for the planning of contractor HSE management is the definition of work or services in sufficient detail to identify the major hazards and HSE impacts. This should be determined from a separate appraisal of the business area and activities themselves and would include aspects such as:

- type of activities
- location of site(s) and the workplace
- timing and sequence
- personnel
- plant and equipment used
- materials and consumables.

Experience gained from previous projects should be utilised by reference to:

- close-out reports from similar projects
- formal records of previous HSE performance by contractors on similar projects
- similar activities in relevant and/or nearby countries
- HSE audits carried out in recent years on relevant activities
- general background information on planned areas of operations.

This definition should include an HSE management system deriving specific tasks and targets with clear deliverables by the contractor and, where relevant, the OPU / JV.

Figure 3.1 Management of Contractor HSE flowchart: planning

It should therefore address these issues; which are the main elements of an HSE MS:

Leadership and commitment	Define how senior management set personal examples, demonstrate involvement and participation, communicate to employees, etc on HSE.
Policy and strategic objectives	Draw up the policy statements on HSE that are to be observed.
Organisation etc	Define the formal structure for organisation, allocating resources, defining communications and responsibilities on HSE issues between the OPU / JV and the contractor, setting minimum competence levels and training requirements in HSE expected on the project for OPU / JV and contractor staff and specifying documentation control.
Hazards and effects management	Describe how hazards and effects are to be identified, assessed, controlled and how recovery in the event of loss of control will be carried out.
Planning and procedures	Describe how the controls for hazards and effects management are to be implemented, develop a comprehensive listing of HSE standards and procedures applicable to the project, describe change management proposals and emergency response procedures
Implementation and Monitoring	Define how HSE performance is monitored, the criteria for HSE performance and how corrective action is to be taken
Assurance and Management review	Define the basis under which internal and external HSE assurance and management reviews will be conducted

3.3 CONTRACT SCOPE, SCHEDULE AND STRATEGY

The contract scope identifies those project activities that may be contracted out. For each contract, a short but comprehensive description of the work should be produced, from mobilisation to demobilisation.

A contract schedule should be derived with due consideration of the HSE issues involved, paying particular attention to allow adequate time for mobilisation/demobilisation. This evaluation may well highlight HSE issues that require special emphasis in later contract phases.

The contract strategy adopted can be the single most important strategic management decision of a project. The factors to be considered in formulating strategy include:

- number of contracts (and hence the number of OPU/JV–contractor interfaces)
- availability of suitable existing contracts (e.g. service, call-off, etc)
- contractor resources and skills
- OPU/JV supervision resources and skills

- OPU/JV/contractor responsibilities
- local environment
- project schedule
- competitive situation
- rules and regulations of the host country
- prevailing influence

Prevailing influence allows the OPU/JV to impose its own HSE requirements. In contrast, negligible influence only allows the imposition of relevant national HSE legislation.

The interface between OPU/JV and contractor is an area that needs careful review and clear definition. The following two examples illustrate the problem:

Example 1: a small contractor uses OPU/JV-owned mobile access equipment for electrical modifications on various sites. Responsibility for ensuring the maintenance of the equipment and the competency of the personnel using it should be defined.

Example 2: An EPC contract for the expansion of a plant requires the new facilities to be brought on stream with no interruption to production on the existing plant. The OPU/JV/contractor interfaces are likely to be complex on start-up and the scope must specify the format and type of detail required for the start-up stage.

A primary consideration in determining strategy is the extent to which project management is relinquished to the contractor. For HSE issues this will be particularly important for those aspects associated with project organisation and communications.

Additional details on contracting strategy can be obtained by reference to Principles of Project Management (Ref. **Error! Reference source not found.**).

Contract strategy should consider provisions for delay or forfeit of contract payments pending results of HSE audit findings and satisfactory completion of action items. Non or late submission of key HSE Plans and documents should be linked to contract payments.

3.4 CONTRACT HSE ASSESSMENT

A structured, formal HSE assessment should be developed for each anticipated contract. The details should be formally recorded with future actions identified and, wherever possible, action parties nominated. This will comprise elements of the HSE management system, together with aspects associated with the particular activities of the work, described in 3.2 above.

The main objective of the formal assessment is to generate a plan that incorporates all OPU/JV and contractor HSE aspects relevant to the contract workscope. This plan will ultimately provide the framework for the contractor's HSE Plan.

The main headings of the assessment are:

- carry out HEMP for HSE

Follow the process of identifying, assessing and controlling hazards and establishing methods for recovery in the event of loss of control. If the contract relates to a development project then the HEMP process will be underway and the hazards already identified will be added to those identified as project-specific and included in the project hazards and effects register. If the contract relates to a common or recurring activity then the Contract Holder can access the hazards and effects register for that activity.

- identify the applicable HSE laws and regulations and OPU/JV regulations and standards
- identify the OPU/JV's HSE project organisation/interfaces and define supervision requirements, roles and responsibilities (see Appendix III for key personnel)
- examine carefully areas where critical time schedules and resource limitations may call for extra attention to HSE
- determine communication needs including scope and schedules for meetings
- identify minimum induction and training requirements: for both OPU/JV and contractor, prepare a training schedule, paying particular attention to training needs for exceptional activities.

Whilst major hazards associated with the operational phase of the project will have been identified earlier, the assessment at this stage will build up the level of detail and should involve the people who will participate in the project.

The suitability of the notional contract scope, schedule and strategy should then be confirmed against the HSE assessment.

It may be appropriate to have dialogue with potential bidders as a further means of ensuring comprehensive coverage of HSE issues in the contract HSE assessment.

3.5 CONTRACT HSE SPECIFICATION

The HSE assessment results may now be translated into a specification for inclusion in the tender as follows:

- define the scope of the HSE Plan and in particular the hazards to be addressed
- identify the HSE regulations and procedures for the contract
- define the OPU/JV contractor interfaces and the OPU / JV supervision strategy
- identify and schedule OPU / JV and contractor training requirements
- determine the minimum 'pre-execution' requirements.

Appendix IV and V provide guidelines for defining the requirements of an HSE Plan for major and small contracts respectively (refer to 2.4).

The tender HSE documentation should be compiled, with due attention to the following:

- OPU / JV responsibilities

It is the OPU / JV responsibility to confirm that the tender documents comprehensively cover the HSE requirements for the contract. It is inappropriate to assume that the contractor already knows the issues. Time must be spent to make comprehensive, clear and concise tender documents. Knowledge about hazards already identified by the OPU / JV must be passed on to the contractor.

- Minimum requirements

The hazardous activities that need to be addressed by the contractor should be listed by the OPU / JV. Selection of these activities should be based on due consideration of the known exposure and frequency presented by these hazardous activities.

- Contractor responsibility

The contractor must have independent responsibility for his own HSE Plan, but documents must make clear provision for the OPU / JV to perform HSE assurances to confirm compliance.

- Contractor reporting

The contractor must report to the OPU / JV on HSE performance.

- Contractor performance

The documents must include provision for the OPU / JV to suspend work if the contractor does not observe the HSE requirements and, in particular at mobilisation, to withhold permission to start execution and hold payments until a satisfactory pre-execution audit has been achieved.

- Special HSE provisions

Where special HSE provisions are to be provided, the documents should specify these clearly and identify where the contractor is to price for them.

In preparing his bid, the contractor must demonstrate compliance with such requirements by preparing his own HSE Plan within the OPU / JV framework. Contractors must be allowed the freedom to use industry HSE Standards, e.g. those of the International Association of Drilling Contractors (IADC) or International Association of Geophysical Contractors (IAGC), OGP, ISO, API etc., if they are equivalent to or exceed the OPU / JV standards. The OPU / JV must ensure the availability of expertise and resources to evaluate the alternatives proposed. The tender documents must permit the flexibility for the contractor to take on ownership of his HSE responsibilities under the contract, with the OPU / JV retaining the ability to manage the contract effectively. Short lead times for tender preparation could compromise the establishment of a sound basis for HSE management.

The following aspects should be considered:

- use standard contracts, where possible
- ensure adequacy of document coverage
- make the documentation appropriate for the contract without unnecessary bureaucracy
- specify any constraints on the methods of working
- identify where concurrent OPU / JV operations could be impacted
- take account and state the limits of the OPU / JV prevailing influence.

This last aspect is of special concern in mobilisation and demobilisation phases. Influence can be exerted by ensuring that these phases are adequately covered in the HSE Plan. In some instances the ability to exercise influence may be limited (for example when work is being carried out in a yard or factory where only a small percentage of the contractor's workload is for the OPU / JV)

3.6 CONTRACTOR PREQUALIFICATION

The general practice in OPU / JV for selecting contractors is through the competitive tendering process. In the prequalification stage, potential contractors are screened to establish that they have the necessary experience and capability to undertake the contract in question. Only those meeting the necessary HSE criteria should be

included on the prequalified list. A formal historical record of the HSE performance of all contractors previously employed should be maintained by the OPU / JV for use at prequalification.

Prequalification is usually achieved by issuing a standard format document for the contractor to complete, supported where necessary by historical performance records. It may be necessary to review the content before issue and to add or emphasise requirements specific to the contract.

Of special importance is the management by contractors of their subcontractors and the need for the main contractor to demonstrate his understanding and commitment to having full responsibility in this area.

Appendix I provides guidelines for an HSE prequalification questionnaire. This questionnaire is directed towards establishing the status of the contractor's HSE MS.

A points system method, which minimises subjective judgement, may be used to evaluate contractors' submissions. Contractors who achieve a predefined acceptable score will then be judged to have met the HSE precontract requirements. Appendix II provides guidelines for a points evaluation system.

OPU / JV should aim to be fully satisfied that contractors, eventually invited to bid, can perform the work to the required HSE standards.

When prequalifying new or unknown contractors, it will generally be necessary to arrange for inspection visits to the contractor's base site (with particular emphasis being placed on ensuring that the contractor has the resources and management structure to meet the OPU / JV HSE standards). Where considered necessary, the contractor's existing sites should be audited to verify that he is achieving the HSE standards proposed for the new contract.

Exclusion of a contractor from a bid list may be necessary as a result of his unsatisfactory HSE record. However past performance may not necessarily reflect recent efforts by contractors' management in HSE towards improvement in performance i.e. embarking on the HSE journey but not yet there. The person assessing the tender submission must be familiar with the hazards embedded in the contract and the respective management process to assess the capability to operate at the desired standard. Where the contractor has been assessed lacking, the contractor should be clearly informed of the deficiencies in his HSE management performance and that inclusion in subsequent bid lists will require improved HSE performance.

Contractor prequalification as described above is necessary for large or specialised contracts where new contractors or existing contractors must be vetted with respect to their capabilities to manage HSE matters against a particular scope of work. For more routine contracts it is likely that an OPU / JV will maintain a 'Register of Approved Contractors' whereby contractors are registered once considered capable of undertaking certain types of work effectively including the management of the HSE aspects. The contractors are initially reviewed or prequalified in a manner similar to that described above. Once the OPU / JV is satisfied that the contractors have the

necessary systems in place to manage certain types of contracts satisfactorily they are permitted to bid for these. It is important to maintain an OPU / JV -wide system that can record up-to-date details on the HSE performance of these contractors on contracts awarded to them. This system should also prompt the initiation of periodic HSE reassessments of contractors who have not been successful in bidding to ensure that HSE information is current.

In a large OPU / JV, where a contractor may be working for a number of functions, it has been found necessary to assign a focal point within the OPU / JV to oversee the activities of that particular contractor in terms of work undertaken, resources available, potential overcommitment. The focal point will be fully familiar with the contractor's structure, the intended spread of resources and ultimately his HSE performance. He is also in a position to provide OPU / JV management with an assessment of status before commitment to any particular strategy involving that contractor.

Where there is a policy to encourage small local contractors to develop and these contractors have little or no background in HSE Management then a plan to overcome the shortcomings must be developed. Such a plan may require additional supervision, more explicit procedures or additional training. The HSE requirements must be met before work commences. The scale of the contract and the exposure must be matched accordingly. Again, the details of the progress of such contractors should be recorded.

4 THE TENDER PERIOD

4.1 OBJECTIVES

The HSE activities carried out in the tender phase fall under the following main headings:

- contractor's preparation of his HSE Plan to OPU / JV framework
- OPU / JV responses to contractor's HSE clarification requests

Copies of queries and replies should be circulated to all contractors.

- clarification meetings

These may be held with contractors individually or in groups and all such meetings should be recorded by the OPU / JV.

- site visits by contractors (as necessary).

All meetings and visits should be recorded by the OPU / JV. The lead times for tender response should be sufficient for tenderers to provide a sound basis for HSE management.