Project Execution Plan

"CLIENT PROJECT"
Project, Construction & Design Management (PCDM)

IPS Project No: **9000 (Home Office)**
IPS Project No: **6000 (Site Office)**

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DISTRIBUTION RECORD SHEET

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2	IPS Senior Project Manager – TBA
3	"CLIENT" - Client Representative – TBA
4	IPS Construction Manager – TBA
5	IPS Project Services Manager – TBA
6	IPS SHE Manager – TBA
7	Principal Contractor Site Manager – TBA

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PROJECT EXECUTION PLAN AMENDMENT RECORD SHEET				
Item	**Description of Amendment**	**Issue Date**	**Inserts**	
			Date	**By**

Note 1 Recipients hand written entry is recorded on this page.

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On insertion of replacement pages, the pages being replaced should be disfigured with a cross (X), then removed and destroyed.

DOCUMENT ISSUE - STATUS RECORD

Document: Project Execution Plan

A revised copy of this record should be received with each complete document issue.

Subject	Page Nos.	Status	Date
Draft Document	All pages as detailed in Table of Contents Revision A	For Review & Comment	August 08

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1.0 INTRODUCTION

1.1 BACKGROUND

This Project Execution Plan (PEP) outlines the Project Construction and Design Management Systems and Processes to be implemented by IPS Management Team, on behalf of "CLIENT", for the successful completion of the "CLIENT" Project.

This PEP utilizes and integrates with other IPS Project Standard Procedures, Forms, Manuals and Systems.

"CLIENT", proposes to expand …….. *title of project and location*.

This will incorporate; ……*outline description of project incl. new works / upgrade of existing works / and "tie in" or interconnecting works.*

Brief description of proposed Project Management Team relationship ie IPS / "CLIENT" / Primary Contractor(s).

1.2 PCDM SCOPE & PROJECT OBJECTIVES

1.2.1 PCDM Scope

The Project, Construction and Design Management (PCDM) scope of services is fully defined as per Contractor Services Agreement (Contract No XXXX, dated) between Integrated Project Solutions (IPS) and "CLIENT". In summary, the project scope includes:

Management of Engineering scopes / detail design (by others),
Safety, Health & Environment (SHE) management, planning and interface with "CLIENT" requirements,
Employee relations & industrial relations management, planning and interface with "CLIENT",
Contract tendering, award and management. Purchase order issue and management,
Equipment and material procurement and expediting,
Cost control & management reporting,
Schedule control & reporting,
Construction management,
Commissioning management,
Performance acceptance testing, and
Hand-over to "CLIENT" Operations

1.2.2 Project Objectives

Project specific objectives include:

Complete the Project works with zero LTI's or MTI's,
Complete the Project in accordance with Safety, Health and Environmental Guidelines,
Earthworks, civil, structural, mechanical, piping, electrical, control etc, quality results to meet the Project Specification requirements,
Project cost at completion within CEA budget,
Complete construction in line with the approved Project Schedule, and minimal interruption to the "CLIENT" operations and maintenance activities.

IPS is responsible for the Project, Construction and Design Management of the Project, establishing and monitoring overall site safety, and delivering the project to the requirements of this Project Execution Plan (PEP).

"CLIENT" Project Director / Manager will be directly responsible for monitoring the performance of IPS and ensuring "CLIENT" and deliverables (document / drawing sign-offs) required for successful project outcomes are provided in a timely manner.

1.3 ORGANISATIONAL CHARTS

The integrated management organisation chart for the project is included as follows;

Figure 1 - IPS Project, Construction, Fabrication and Design Management, Generic SMP Construction Project Organisation Chart

FIGURE 1 (OVERLEAF)

2.0 PROJECT MANAGEMENT

2.1 PROJECT

2.1.1 Overall

Where possible, existing IPS project systems, management plans and procedures will be integrated with existing "CLIENT" documentation to minimise PCDM man-hours (during project feasibility and following Client Board approval). Where required, project specific procedures shall be prepared.

2.1.2 Safety Health & Environment

A Safety Health and Environment Management Plan shall be prepared for the project that recognises and incorporates the requirements of the "CLIENT" Safety Management Systems.

2.2 QUALITY

A Project Quality Plan (PQP) should be developed to define the management objectives and practices that are to be implemented to manage the Project. Where appropriate the plan should incorporate the requirements of the Client's Quality Management System.

2.3 EMPLOYEE RELATIONS / INDUSTRIAL RELATIONS

The construction contractor(s) will be required to develop employee relations management plans (ERMPs) and industrial relations (IR) policies and agreements for the construction of the project for review and approval by IPS and the "CLIENT" management team.

During construction, contractors and sub-contractors will manage ERMP / IR activities for their respective personnel. The contractors shall keep IPS advised of any related issues which may impact project delivery.

A specialist IR external adviser, acting on behalf of IPS / "CLIENT" will be appointed to monitor and oversee project ERMP / IR matters.

The necessity to ensure a safe working environment for the site cannot be overemphasised. The integrated management team and all contractors shall have on their respective teams, a management person with single point responsibility for safety.

2.4 DESIGN

The detail design works will encompass some or all of the following elements:

Earthworks,
Piling & Concrete works,
Structural Steel / Piping / Mechanical equipment,
Electrical and Instrumentation,
Buildings,
Miscellaneous roads and services,
Storage & infrastructure facilities,
Interconnecting works and tie-ins

The relevant design organisations will be required to complete detail Cost, Time and Resources (CTR) estimate sheets. These CTR sheets will clearly define design scopes, manhours, costs and the required deliverables. An example CTR sheet is provided in **Attachment 1.**

2.5 CONSTRUCTION

The construction scope of work may be packaged in line with the above generic discipline packages and either tendered or sole-sourced as deemed appropriate by the Integrated Management Team (IMT).

2.6 PRE-COMMISSIONING

A pre-commissioning management process based upon work packs and relevant sign-offs will be implemented. This process shall be developed by IPS and the "CLIENT" in consultation with the principal contractors and in accordance with "CLIENT" requirements. This process will ensure that materials and equipment perform as per design specifications.

Commissioning of process systems (incl. equipment / vessels etc) will be the responsibility of "CLIENT" Operations. Support will be provided by IPS Management team and Principal Contractor on an "as required & agreed" basis.

2.7 PROJECT CLOSE-OUT & HANDOVER

Project Close-out & Handover will incorporate the completion and signoff of process systems and equipment, as well as QAQC documentation compilation and handover.

Punchlisting of process systems and equipment installation will commence as part of the pre-commissioning process, with final punchlist signoff and system acceptance achieved following joint IPS / "CLIENT" management inspection of the works.

A Manufacturers Data Report (MDR) will be prepared for each construction package. MDR documentation will be compiled by the contractor during the progress of the works, and will be completed and issued to IPS / "CLIENT" management team for review at an agreed time following completion of the works.

Practical Completion of a works package will be achieved by the contractor following completion of all major Punchlist items, as per IPS Project Punchlist Procedure, and as agreed by IPS / "CLIENT" management team. Completion of minor Punchlist items will continue during pre-commission works, and will continue through dry commissioning, wet commissioning, performance acceptance testing (PAT) and through hand-over to "CLIENT" as necessary to effect the timely completion of the project and acceptance by "CLIENT" Operations.

Any defects will be repaired by the Contractor in accordance with their relevant contract and to the satisfaction of the IPS Senior Project Manager prior to the issue of a Certificate of Practical Completion.

Project Close-out will include:

- Completed and accepted MDR,
- Provision of "As-Built" drawings (to be prepared by the Contractor and approved by IPS / "CLIENT"),
- Discharge of bank guarantees and warranty administration,
- Completion of certificate of practical completion for each contract.

3.0 COST CONTROL

3.1 SUMMARY

3.1.1 Introduction

This section outlines the use of the IPS Cost Control System / Database, the Engineering Change Control Manager (ECCM) database and provides the IMT with the basis for a common understanding of those systems and the associated processes.

3.1.2 Work Scope Estimates

Work scope estimates are reviewed, amended (if required) and agreed (signed-off) by the IPS Senior Project Manager, "CLIENT" Project Director / Manager and other "CLIENT" management (if required) prior to being used in the preparation of the control budget.

All documentation associated with the work scope estimates is retained for reference throughout the project execution. An example of the detail IPS estimate sheet format is provided in **Attachment 2.**

3.1.3 Establishing Original Budget

Following "sign-off" of the project work scope and the associated cost estimates a baseline control budget is prepared for approval. Following approval, the budget is fixed for the duration of the project. Changes or amendments to the budget must follow the nominated IPS Change of Scope approval process (controlled using ECL Manager System – see appendix).

3.1.4 Budget Cost Codes

The budget will be coded to reflect the agreed Work Breakdown Structure (WBS) and Scope of Work and, if required, additional "CLIENT" project coding requirements (plant area, plant systems and / or accounting general ledger references).

The WBS normally supports a number of lower tier codes for detail work scope breakdown and discipline based work scope evaluation.

An example of the standard IPS project Phase and Discipline Codes structure is provided in **Attachment 3.**

3.1.5 Assets Register

Asset register codes can be included to provide asset register reports. The format and detail of these reports (if required) shall be agreed with "CLIENT" as the project develops.

3.1.6 Commitment of Budget Funds

Budget funds will be committed at the time of contract award or the issuing of a purchase order. The commitment of budget funds must be approved by the IPS Senior Project Manager and authorised by the "CLIENT" Project Director.

The cost control system is based upon a committed cost basis, whereby expenditure against the Budget is deemed to have been made at the time a contract is awarded, so establishing a commitment to incur future costs. Effective cost control requires that all commitments are recorded in the system at the earliest possible date. This is done once the Project Controls Manager registers the contract value upon contract award.

Each project commitment is registered in the IPS Cost Control System / Database with a unique cost code, or ATC (Authority to Commit) code.

3.1.7 Budget / Commitment / Actual - Project Cost Report

The Project Budget report includes the following;

(a) Original Budget value,
(b) Current budget value (including approved variation value);
(c) Current committed value;
(d) Actual expenditure;
(e) Forecast at completion value.
(f) Variance from original budget.

Refer to typical Project Budget report provided in **Attachment 4.**

3.1.8 Processing of Contract Details and Payments

Approval of contractor progress payments is via the **IPS Progress Payment Claim Form**. These are checked and verified for quantity, quality, contract terms and financial aspects by appropriate personnel staff from the Project team. The Progress Payment Claim is co-signed by the "CLIENT" Project Director ensuring that the certified value of work carried-out is in line with approved budget funds. Final approval for payment occurs following the signature of the "CLIENT" Senior Project Manager.

All payment details of contracts, purchase orders, etc. are recorded on the IPS Cost Control database.

The Cost Control database contains the original budget value, approved committed funds, values of approved variations and payment details.

The Progress Payment Claim Form is structured to follow the work scope and cost details nominated in the contract.

3.1.9 Project Construction & Design Management (PCDM)

The project budget includes an allowance for PCDM costs. The Senior Project Manager shall not approve payment of a progress claim for this budget item.

Progress Claims and accounts for the above items will be sent directly to the "CLIENT" Project Director for approval. IPS will provide with their Progress Claim a graph showing actual expenditure (dollars and man-hour) against budget estimate.

3.1.10 Financial Reporting

Each month, a copy of the Project Budget will be included in the Project Monthly Report. This report shall be provided to the "CLIENT" Project Director. The Budget Report will be presented at two levels. Firstly, a project summary and secondly a lower level, more detailed version showing the breakdown of individual budget line items. A full transaction report of individual budget line items is available if required from the IPS Cost Control

Database.

The Budget Report provides the current status of the original budget, current budget, committed, actual and forecast at completion values. Trends in the forecast at completion costs will be identified for review with the "CLIENT" Project Director.

A cash flow report will be provided showing budget and actual cash flow status.

3.2 BUDGET, CONTINGENCY AND COST CODING

3.2.1 Project Definitions and Documentation

Project definitions and documentation has been prepared, approved and issued via the contractual obligations between IPS and "CLIENT". The contract documents define the size, capacity, general character, schedule, etc, of the Scope of Works to be executed under the PCDM contract.

The content of the project detail design elements is to be frozen as soon as possible in the design process. Thereafter, the design scope shall not be altered from the defined (original) scope of Work unless the relevant Change of Scope is defined and approved.

3.2.2 Cost Coding of Scope of Work

Standard IPS and "CLIENT" cost coding will be followed as appropriate (per **Attachment 3)**.

3.2.3 Project Budget

Once approved the Project Budget is fixed, it shall form the baseline for the duration of the project. It is the point of reference for controlling and containing costs - by comparing commitments and actual expenditure with the approved Budget.

The approved Budget is made up of the following components:

(a) Original Budget

The original budget is based upon estimated costs of all engineering, procurement, supply, construction and commissioning to be completed under the approved Scope of Work for the project.

(b) Revised Budget

Any identified revision to the work scope or base cost data that has been costed and approved will be recorded as a budget overrun.

(c) Contingencies

(i) Approved budget revisions or variations will be deducted from or added to the budget contingency value only on approval of "CLIENT" Project Director.

(ii) The contingency is shown in the Budget as a single line item and is not to be considered as being automatically available for expenditure against any individual cost code item.

Contingency funds will be allocated in consultation between the IPS Senior Project Manager / Project Services Manager and the "CLIENT" Project Director.

3.3 COST COLLECTION FOR ASSETS REGISTER

Discussions shall be held with the "CLIENT" technical and project representatives to ensure cost items and cost groupings correlate with the proposed Asset Register. Costs such as Project Management and other Indirect Disbursements will need to be allocated over nominated assets on an agreed basis (typically at the conclusion of the project). The allocation basis shall be agreed with the "CLIENT" Project Director.

3.4 CHANGE OF PROJECT SCOPE AND BUDGET ALTERATION

The defined and approved original Scope of Work for the project and the corresponding original Budget are fixed for the duration of the project. A variation approval document will be prepared detailing the reasons for any change, the effect on project schedule and the cost impact. This document will be submitted to the "CLIENT" Project Director for verification and approval before the information is recorded in the project budget reflected as a trend.

Any project scope changes and variations will be controlled using the ECCM database system. A system overview is provided in **Attachment 5.**

3.5 AUTHORISATION OF FUNDS FOR COMMITMENTS

Approval for the commitment of funds shall be through **the IPS Authority to Commit (ATC)** process (or "CLIENT" equivalent). This document will contain details of the funds required for commitment - including original budget details, work scope, contract details and appropriate budget and cost code details.

The ATC will be approved by the IPS Senior Project Manager and the "CLIENT" Project Director. No project funds shall be expended without first obtaining a relevant approval (ATC).

3.6 REGISTRATION OF A COMMITMENT

The cost control system is operated on a committed cost basis, under which expenditure against the budget is deemed to have been made at the time of contract award or order placement, at which time, commitment is established to incur future costs. For effective control, all commitments to incur cost are taken up and recorded at the earliest possible time.

3.7 PROJECT COST CONTROL

3.7.1 Cost Report

The following reports (and others as necessary) may be generated from the Cost Control database**:**

(i) Summary Project Cost Report
(ii) Detail Project Cost Report

The Detail Report provides expenditure information at a specific component level.

The Summary Report gives an overall view of the Project Budget status and provides forecast at completion costs.

3.7.2 Comments on Budget

As the project proceeds and actual details become available (design, equipment procurement, fabrication, construction, etc.) the Senior Project Manager and the Project Controls Manager will provide comments in the

Monthly Report as to how the defined estimate (budget) compares to the actual details with notes on the reasons for differences or deficiencies. For example, additional costs incurred against one cost code item for a Contractor to accelerate their work may in fact be due to delays and inefficiency of an earlier Contractor covered by another cost code item.

3.7.3 Commitments

Commitments are entered into the Cost Control System only after contract award or order placement and only when the appropriate documentation (ATC) is received.

3.7.4 Forecast at Completion

The proper assessment of costs is the most important activity in establishing a reliable system of cost control and in accurately predicting the final project cost. Forecast at completion is intended to identify already committed costs, "to be" committed costs (contracts / orders yet to be awarded), anticipated work scope changes / price escalation and any pending or unresolved scope changes or variations to existing contracts.

3.7.5 Expenditure

Payment for all contract expenditure and procured items will be approved by Progress Payment Claims. This includes payments considered by the client to be part of the Capital Cost of the project. In this event the client transmits the information to the Project Manager to enable expenditure to be included in the overall cost reporting.

Project expenditure usually also includes "Owner's Costs. A number of "Owners Costs" are being tracked by "CLIENT" outside the current PCDM scope of responsibility for cost control and reporting (Interest During Construction – IDC. Albeit capitalised interest is included in the IPS budget reporting).

The "CLIENT" may decide to run their existing accounting systems for the project in parallel with the IPS Cost Control System. This enables a check and balance of one system versus the other.

3.7.6 Scope Change / Variation Approval

When a contract scope change or variation has been checked and accepted as valid, a Variation Approval form is raised and submitted to the IPS Senior Project Manager and the "CLIENT" Project Director for approval.

Details of the variation are entered in the ECCM database and are tracked through to approval and issue of the variation.

The Senior Project Manager can approve the issue of the Variation if it has a value less than $25,000.00 (value limit to be confirmed by "CLIENT"), and there are sufficient unused committed funds available in the budget against the contract. (or purchase order).

For variations with a value in excess of $25,000.00 approval from the "CLIENT" Project Director is required to sign before commitment.

If, through the approval of a variation, the contract value becomes greater than the approved budget committed value then the variation will not be approved until additional funds have been approved.

3.8 PROJECT FINANCIAL REPORTING

3.8.1 Monthly Report

A monthly project report will be prepared which will include details of the current budget status. Budget reports (including cash flow) will be provided in summary and detailed format. In addition details of pending, approved and anticipated variations or scope changes in the form of trend notices will be provided complete with known or estimated values. A detail narrative on the budget, contract and procurement status will also be included.