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**Signature of EDT Originator**

**Authorized Representative for Receiving Organization**

**Design Authority/Cognizant Manager**
FINANCE AND SUPPLY MANAGEMENT PROJECT EXECUTION PLAN

Dawn E. Adams, Fluor Daniel Hanford Co.
2355 Stevens, MSN G1-21
Richland, WA 99352
U.S. Department of Energy Contract DE-AC06-96RL13200

EDT/ECN: 625376 Org Code: 48000
B&R Code: EW7001000 UC: 900, UC-2000
Charge Code: HAN688-40 Total Pages: 252, 235

Key Words: HAN DI 2000, FINANCE, SUPPLY, PROJECT EXECUTION, TECHNICAL PROCESS, COST, OBJECTIVES, PRIORITIES, ASSUMPTIONS, DEPENDENCIES, CONSTRAINTS, SCHEDULE, STAFFING PLAN, PROCESS MODEL

Abstract: As a subproject of the HAN DI 2000 project, the Finance and Supply Management system is intended to serve FDH and Project Hanford major subcontractors with financial processes including general ledger, project costing, budgeting, and accounts payable, and supply management process including purchasing, inventory, and contracts management. Currently these functions are performed with numerous legacy information systems and suboptimized processes. The current systems are ...
FINANCE AND SUPPLY MANAGEMENT

PROJECT EXECUTION PLAN

January 31, 1998
Rev. 0

Approved by:
Dawn E. Adams, BMS Project Manager

12/9/1998
Date
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1.0 INTRODUCTION

The Finance and Supply Management project, a subproject of the HANDI 2000 project is managed by Fluor Daniel Hanford (FDH) for Fluor Daniel Hanford and Project Hanford major subcontractors. The Finance and Supply Management Project Execution Plan is the overall planning document governing the implementation of the PeopleSoft and Indus Passport finance and supply management modules. This plan supports the HANDI 2000 Project Execution Plan and is intended to provide specifics at the subproject level. This Project Execution Plan presents the content specified within the CM-3-10 Software Practices and ANSI/IEEE Standard 1058.1-1987 System Project Management Plans.

This section of the Project Execution Plan (PEP) will provide an overview of the project and the system product, a list of project deliverables, the plan for development and evolution of the PEP.

1.1 OVERVIEW

As a subproject of the HANDI 2000 project, the Finance and Supply Management system is intended to serve FDH and Project Hanford major subcontractors with financial processes including general ledger, project costing, budgeting, and accounts payable, and supply management processes including purchasing, inventory and contracts management. Currently, these functions are performed with numerous legacy information systems and suboptimized processes. The current systems are inefficient, costly to maintain, use dated technology, have year 2000 compliance issues, and are independent in nature. This replacement project is intended to combine the system processes and data to have a more integrated business process and managed data solution.

1.2 PURPOSE

The overall objectives of the Finance and Supply Management subproject are to:

- Replace existing legacy systems with commercial-off-the-shelf (COTS) application software
- Implement the maximum number of modules by October 1, 1998
- Reduce the costs of locating and reconciling data
- Adopt most widely-applied commercial business practices
- Reduce the costs of maintaining the legacy system software and hardware environment
- Improve data integrity by elimination of manual collection process
1.3 SCOPE

This project is sponsored by the FDH Chief Financial Officer and Acquisitions organizations and is funded by General and Administrative Funds. The project is intended to follow a two phased approach. Phase I scope includes the general ledger, budgeting, project costing and accounts payable finance functions, and purchasing, contracts management and inventory supply management functions. Phase II will be comprised of asset management, billings and receivables. Phase I includes integration with Primavera’s P3 scheduling tool.

1.4 DELIVERABLES

The Finance and Supply Management project will develop deliverables as defined by CM-3-10 “Software Practices” as applicable. The set of deliverables for the overall project include a Finance and Supply Management Project Execution Plan, which includes a general Configuration Management Plan, an overall system Test Plan, and other supporting documents that are deemed necessary for the management and control of the overall project.

Successful execution of the activities described in the Finance and Supply Management Draft Mobilization Plan (Attachment C) is required for full project implementation. A definitive detailed resource loaded implementation plan will identify key dates that must be met to achieve the documented goals. Specifically, the following key dates are being tracked from the original conceptual baseline plan:

Project Planning
FDH Approval to Proceed 08/14/97A
DOE Funding Approval 09/09/97A

Infrastructure
INDUS & P/S Test Accept. Complete 12/11/97A
Receive Integration S/W 03/05/98

Finance Phase I & Supply Management
Business/Report Requirements Defined 12/03/97A
Refine/Adapt Prototypes Complete 05/28/98
Production Ready 10/01/98

Finance Management Phase II
Phase II Evaluation TBD
Business/Report Requirements Defined 10/20/98
Refine/Adapt Prototype Complete 12/23/98
Production Ready 04/12/99

2.0 PROJECT ORGANIZATION

This section of the PEP will describe the project organizational structure, identify organizational boundaries and interfaces, and define individual responsibilities for the various project elements.
2.1 PROCESS MODEL

The major activities and phases of the implementation of the Finance and Supply Management project will follow a high-level outline which is referred to as a Life Cycle Methodology. The life cycle described here is a revision to the preferred life cycle outlined in the CM-4-2 Quality Assurance Manual and the CM-3-10 Software Practices Manual, as well as the ANSI/IEEE Software Engineering Standards Manual.

The typical life cycle begins when the decision is made to develop a system and ends when the system is no longer in use. Some phases will slightly overlap others, and all rely on each other's successful completion. They are described below:

- **Concept** - This phase includes the initial feasibility study and overall system requirements, usually resulting in the issuing of a work request. The initial feasibility study was conducted for the HANDI 2000 project in which Finance and Supply Management functions are included.

- **Requirements** - Software development is planned and the requirements, including functional and performance capabilities are defined and documented. The primary milestone is the satisfactory completion of the software requirements review. Functional requirements were identified and documented in the Request for Proposal used to acquire the COTS Indus Passport and PeopleSoft software solution for HANDI 2000. User business requirements documentation is being developed for the Finance and Supply Management systems.

- **Design** - The design phase expands on the requirements that have been defined, and creates actual working plans for software components, interfacing functions, and system flow processing. The primary milestone is the satisfactory completion of the software design review. The design phase will be conducted from Business Process Improvement sessions, a methodology applied with proven success using the Indus ABACUS implementation methodology. This approach engages user subject matter experts in a disciplined facilitated session, to walk through the software product to define user business requirements, and perform the functional and requirements fit/gap analysis. The results serve as the basis for the system implementation.

- **Implementation** - Report Definitions are accomplished in this phase, as well as interface data elements. Implementation includes prototyping the software product from design specifications to completion of unit testing and preparation for systems testing. The primary milestone is the test readiness review and test/acceptance plan. Data migration and control table loading is included.

- **Test** - The software product is evaluated to determine whether or not requirements have been satisfied. Testing is closely monitored and documented. The primary milestone is the successful completion of testing.

- **Installation** - The software product is integrated into its operational environment and tested in this environment to ensure that it performs as required. Installation may be combined with the Test Phase, so all documented testing takes place under actual conditions in which the system will run.
**Operation/Maintenance** - The software product is employed in its operational environment, monitored for satisfactory performance, and modified as necessary to correct problems and to respond to changing requirements.

**Retirement** - Support for the product is terminated. The system may be replaced or archived.

### 2.2 ORGANIZATIONAL STRUCTURE

The project organization chart follows:

#### 2.3 ROLES AND RESPONSIBILITIES

**Fluor Daniel Hanford** - Responsible for supporting the Finance and Supply Management Project, and supporting cross-organizational departments needs as necessary.

**Business Sponsors** - Responsible for ensuring priority for the project remains high enough to staff and fund the project adequately. Responsible for supplying subject matter experts when necessary.

**Finance and Supply Management Project Director** - Responsible for ensuring the resulting system meets the strategic requirements of Fluor Daniel Hanford. Provides a senior executive management presence on the project. Supports the quick removal of barriers and issues resolution. Coordinates with the executive project sponsor.
Finance and Supply Management Project Manager - Responsible for budgeting, schedule, and resource management, related to the project design and implementation. Responsible for the overall system design, coding, implementation, testing, integration and overall quality of the system deliverables. Directs the Information Technology, Finance and Supply Management project teams in work assignments and serves as the primary point of contact between the project director, project implementation teams, and HANDI 2000 Project. Resolves business/technical issues with business owners, sponsors and HANDI 2000 Project management.

Project Administrative Controls and Support Staff - Responsible for developing the project baseline schedule, and reflecting status as reported by the project management team. Responsible for defining purchase requisition statements of work, tracking contracts, reporting actual costs against baseline budget, and analyzing cost abnormalities. Responsible for developing communications materials, and supporting project team management in the execution of the communications plan. Responsible for providing general clerical support. Responsible for coordinating the Finance and Supply Management training program in context with the HANDI 2000 strategy.

Finance Business Owner Team Lead - Responsible for the Finance designing, configuring, coding, implementation, testing, and overall quality of the system deliverables. Leads the Finance project team in work assignments and serves as the primary point of contact between the user organization, finance business sponsors, and Finance project implementation team.

Supply Management Business Owner Team Lead - Responsible for the Supply Management design, coding, implementation, testing, and overall quality of the system deliverables. IT Team leads the Supply Management project team in work assignments and serves as the primary point of contact between the user organization, supply management business sponsors, and Supply Management project implementation team.

Information Technology Team Leads – Responsible for the completion of tasks relating to infrastructure, software coding, systems management, system interfaces, data migration, report development and legacy systems retirement, as well as assist in the prototyping phase and definition of reports. Provide leadership to the technical support team as they service the HANDI 2000 Project team and related subprojects. The IT team members should be heavily engaged with the Product Technical Consultants in a transfer of knowledge to support a successful implementation and in order to maintain the COTS system.

Finance and Supply Management Project Team Members - Responsible for designing, configuring, coding, unit and integration testing and overall quality of the system deliverables. This includes subject matter experts, business representatives, and core team members. The team members will serve as sub-team leads, or serve on sub-teams, and will represent a majority of the required business functions of the application. Tasks also include the formulation of deliverable documents as well as installation and deployment of the product.

Product Technical Consulting – Responsible for providing implementation leadership based on knowledge of COTS products and implementation experience. Work with project team management and members to guide implementation and transfer knowledge.
This section of the PEP specifies management objectives and priorities; project assumptions, dependencies, and constraints; risk management techniques; monitoring and controlling mechanisms to be used; and the staffing plan.

3.1 MANAGEMENT OBJECTIVES AND PRIORITIES

**Project Management** - Adequate planning disciplines and controls will be employed to assure that commitments are successfully achieved in a timely and cost effective manner. Management will be kept fully informed of the project status and progress.

**Product Quality** - Appropriate procedures and resources will be utilized to ensure that system configuration and performance capabilities satisfy the specified user needs and expectations, i.e.;

- structured development methodology (life cycle)
- qualified technical staff and subject matter experts
- proper project support
- applicable system documentation
- suitable hardware/software configuration.

3.2 ASSUMPTIONS, DEPENDENCIES, AND CONSTRAINTS

Incremental to the assumptions as documented in the HANDI 2000 Project Execution Plan, the following assumptions were made in the baseline planning for the Finance and Supply Management project:

- The Finance and Supply Management systems will be designed and implemented within the context of the HANDI 2000 project objectives.

- Adequate funding will be provided to complete the development and implementation.

- The priority will remain high enough to keep subject matter experts and key technical resources assigned to the project.

- There are 17 identified legacy systems that may require interfaces to the new systems.

- Most finance historical data will not be migrated to the new system.

- There is a parallel process ongoing for desktop upgrades.

- The Finance and Supply Management project will remain on course, even if the HANDI 2000 strategy has to be sub-optimized.

- The Finance and Supply Management team will obtain third party support in implementing baseline software products.
• The new Finance and Supply Management system will be configured to meet the needs of Hanford Projects.

### 3.3 ACCEPTANCE CRITERIA

Acceptance of the Finance and Supply Management implementation will be based on reviews and approvals of all deliverables as defined in Section 1.4 of this document, including all documentation and formal acceptance of the completed system.

Detail acceptance criteria will be defined in the Test Plan. The testing process will simulate actual processing conditions using test data as well as actual data. Acceptance of the completed system will be based on the results of this process.

### 3.4 RISK MANAGEMENT

A number of potential development risks have been listed below. The degree of occurrence of any of these risks could impact the timely completion of the project.

- Business processes are not agreed to in timely manner.
- PeopleSoft and Indus integration product is not completed on schedule.
- Finance and Supply Management project funding is decreased or withdrawn.
- Finance and Supply Management detailed implementation plan requires more funding than is approved in the Annual Work Plan.
- FDH and/or Lockheed Martin Services, Inc. (LMSI) key analysts leave or become unavailable due to other commitments.
- Major changes occur to the scope of Finance or Supply Management requirements.
- Major customizations are required of the PeopleSoft and/or Indus Passport baseline products to support the Finance and Supply Management requirements.
- Hardware/Software technical difficulties adversely affect progress in the development.

HANDI 2000 Project Execution Plan documents the plan to mitigate these and other identified project risks (see Attachment A).
3.5 COMMUNICATION PLAN

This project will follow the communications strategy as defined in the HANDI 2000 Project Execution Plan (Attachment A). Emphasis will be placed on maintaining a single set of reference data for the project, and that each project team member knows what information resources are available, and where and how to access current project status information. As communication agents of the project, each project team member is responsible to always address questions quickly and professionally.
Following is a communications matrix as defined for the Finance and Supply Management project.

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<th>INTENDED MESSAGE (what)</th>
<th>FREQUENCY (when)</th>
<th>MESSAGE OBJECTIVE (why)</th>
<th>RESPONSIBLE PRESENTER</th>
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<td>Staff Meetings</td>
<td>Informal status—what's happening that relates to target audience</td>
<td>Bi-weekly</td>
<td>Keep organizations involved &amp; updated</td>
<td>Assigned team member</td>
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<td>DOE Division Directors</td>
<td>Formal status—project performance; issues to success; accomplishments</td>
<td>Monthly</td>
<td>Obtain support from DOE where needed; Keep DOE briefed on project status</td>
<td>DOE POC/ Paul Mendez/ Andy Wirkalla</td>
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<td>Both</td>
<td>Everyone on site</td>
<td>Formal status—how does this project affect the target audience; where to seek more information; etc.</td>
<td>At least monthly via HANDI Mandy</td>
<td>Gain site support; get general user on board; provide method for general user to participate</td>
<td>Mamie Ross</td>
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<td>FM</td>
<td>End users/Field analysts</td>
<td>Informal status—how does this project affect field analysts directly; how to participate/provide input</td>
<td>Bi-weekly to start Weekly as near implementation</td>
<td>Gain target user support; encourage participation</td>
<td>Paul Felts/Finance Team</td>
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<td>WIMS (Warehouse Inventory Management System) Users: - Power users - Material coordinators - Everyday users - Warehouse Management - PHMC Senior Mgmt</td>
<td>Formal/Informal: how does this project affect WIMS users directly; how to participate/provide input</td>
<td>Monthly, or more frequently based on feedback</td>
<td>Gain target user support; encourage participation</td>
<td>Shari Bulsema</td>
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<td>SM</td>
<td>PIDS users - Acquisitions - Material coordinators - Site users</td>
<td>Formal/Informal: how does this project affect PIDS users directly; how to participate/provide input</td>
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<td>Mike Taylor</td>
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<td>Interested future users or stakeholders</td>
<td>Project scope; status; implementation strategy; issues; organization</td>
<td>Post on WEB; Update when information is available</td>
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<td>Project Sponsors Project Review</td>
<td>Formal project performance status; issues; resource needs near term</td>
<td>Monthly—Second Thursday of each month</td>
<td>Ensure project sponsor needs are met and sponsors get information they need</td>
<td>Dawn Adams; Paul Felts; Chris Hopkins; Brian Isaacs; Kris Whiteaker</td>
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<td>Informal—resource and support needs; current decisions/issues; near term activities</td>
<td>Bi-weekly</td>
<td>Ensure major subcontractors are aware of near term resource requirements and impacts</td>
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<td>Project status review</td>
<td>Monthly</td>
<td>Promote teaming</td>
<td>Dawn Adams</td>
</tr>
<tr>
<td>Both</td>
<td>CTS with progress, problems, and training materials</td>
<td>Implementation roles/responsibilities; support plan</td>
<td>As necessary</td>
<td>Ensure CTS is ready to support production environment</td>
<td>Brian Isaacs</td>
</tr>
</tbody>
</table>
3.6 ACQUISITION PLAN

This project will support the acquisition plan as documented in the HANDI 2000 Project Execution Plan to the degree the infrastructure is established to meet the needs. In the absence of a contract to support Phase 2, “procure the services of a third party to fully implement the procured solution in multiple solution sets”, the project management will leverage the original software contract and initiate separate acquisition to acquire adequate resources to support technical product consulting needs. The Finance and Supply Management project will confine acquisition of hardware and software to required components for Finance and Supply Management, while supporting the HANDI 2000 architecture.

3.7 MONITORING AND CONTROLLING MECHANISMS

3.7.1 Project Control

The monitoring and controlling of the Finance and Supply Management project progress and adherence to the PEP will be accomplished by several means; peer reviews and walkthroughs, deliverable reviews, schedule control using P3, and regular project status reviews and reports. FDH executive sponsor and stakeholder project status reviews will be scheduled at least monthly throughout the project implementation, and project team management will meet frequently weekly to review the project progress and monitor and control the project.

More detailed project control mechanisms may be defined (as needed) for each of the life cycle phases as those phases are approached within each module, but in general:

- The Project Manager will keep project sponsors, management and stakeholders fully informed of the project status and progress with regular status reports summarizing the budget status, progress of assigned tasks, and an overall evaluation of project implementation.

- The Communications resource will be responsible for developing presentation material for special interest target groups, ensuring the communications are consistent, serving as project librarian to control the project documentation configuration, and supporting the communication needs of the Finance and Supply Management team leads.

3.7.2 Change Authority

Requirement scope changes, design baseline changes, and code baseline changes will be documented, evaluated, and approved or disapproved by the HANDI 2000 Charge Control Board.
prior to installation. Detailed records of change will document the project scope change. Documentation shall be maintained for both approved and disapproved change requests.

3.7.3 Status Reporting

Monthly status reports will summarize the project status, current project activities, and outstanding issues. Monthly status reports will summarize the budget status, progress of the project, and an overall evaluation of project development.

3.8 STAFFING PLAN

Hanford Site resources to be assigned to the project must be business and/or system subject matter experts. The team will be augmented with external resources to consult on the PeopleSoft and/or Indus Passport products integration and COTS implementation process. The Finance and Supply Management Project Leads have been trained in the technical areas and will function as technical contributors as well as project leads.

The Finance and Supply Management Project staffing plan has been broken down as follows:

<table>
<thead>
<tr>
<th>Project Role</th>
<th>Resource Type</th>
<th>FTE</th>
<th>Company</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Management</td>
<td>Project Director</td>
<td>1</td>
<td>FDH</td>
</tr>
<tr>
<td></td>
<td>Project Manager</td>
<td>1</td>
<td>FDH</td>
</tr>
<tr>
<td></td>
<td>Integration Lead</td>
<td>1</td>
<td>Indus</td>
</tr>
<tr>
<td></td>
<td>Information Technology Lead</td>
<td>3</td>
<td>LMSI</td>
</tr>
<tr>
<td>Project Support</td>
<td>Project Controls</td>
<td>1</td>
<td>FDH</td>
</tr>
<tr>
<td></td>
<td>Budget/Contract Analyst</td>
<td>1</td>
<td>FDH</td>
</tr>
<tr>
<td></td>
<td>Clerk/Secretary</td>
<td>1</td>
<td>FDH</td>
</tr>
<tr>
<td></td>
<td>Communications</td>
<td>1</td>
<td>LMSI</td>
</tr>
<tr>
<td></td>
<td>Training Coordinator</td>
<td>2</td>
<td>FDH</td>
</tr>
<tr>
<td></td>
<td>Technical Writing</td>
<td>1</td>
<td>LMSI</td>
</tr>
<tr>
<td>Team Membership</td>
<td>Finance Core Team</td>
<td>6</td>
<td>FDH</td>
</tr>
<tr>
<td></td>
<td>Supply Management Core Team</td>
<td>6</td>
<td>FDH</td>
</tr>
<tr>
<td></td>
<td>Information Technology Team</td>
<td>12.5</td>
<td>LMSI</td>
</tr>
<tr>
<td></td>
<td>Indus Product Consulting</td>
<td>3</td>
<td>Indus</td>
</tr>
<tr>
<td></td>
<td>PeopleSoft Product Consulting</td>
<td>5</td>
<td>Deloitte &amp; Touche</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>45.5</td>
<td></td>
</tr>
</tbody>
</table>

4.0 TECHNICAL PROCESS

This section of the PEP will specify the technical methods, tools, and techniques to be used on the project. In addition, the plan for software documentation will be specified.
4.1 METHODS, TOOLS, AND TECHNIQUES

An overall system life cycle development methodology will be employed to ensure the efficient delivery of the best information technology solution for the Finance and Supply Management project. As stated previously, the development procedures used as the guidelines for this methodology are specified within CM-3-10 Software Practices SP-3.1 Development Management and by IEEE standards for software development.

Development Software

The Finance and Supply Management project will implement PeopleSoft Commercial version 7.0 and Indus Passport version 6.0 using the Oracle database management system, and Unix operating environment. The software configuration is described in more detail in the HANDI 2000 Configuration Management Plan (see Attachment B).

Technical Reviews

HANDI 2000 Technical Review - to review proposed customizations of the PeopleSoft or Passport baseline products for impact assessment, alternatives assessment, and preliminary recommendation.

HANDI 2000 Change Control Board - to review proposed customizations of the PeopleSoft or Passport baseline products and grant final approval or disapproval.

Production Readiness Review Board (PRRB) - to review Finance and Supply Management before implementation in the user environment to ensure all stakeholder interests have been addressed and that communication to the user community has been accomplished.

4.2 SOFTWARE DOCUMENTATION

All Finance and Supply Management documentation items will be maintained in separate files and organized into directories. Finance and Supply Management documentation files will reside in a dedicated share area on an HLAN fileserver. Update authority of Finance and Supply Management documentation files will be fixed to project team members only.

4.3 CONFIGURATION CONTROL

Changes to the baseline configuration or scope of the Finance and Supply Management project will be controlled, documented, evaluated, and approved before executing. Changes to the existing software and hardware, data, and business processes will be managed according to the HANDI 2000 Software Configuration Management Plan (see Attachment B). This document follows guidelines as described in section SP-6.2 & SP-6.3 of CM-3-10.
5.0 PROJECT COST AND SCHEDULE

5.1 WORK BREAKDOWN STRUCTURE

The Finance and Supply Management work breakdown structure has been organized to show the relation to the schedule listed in Appendix A. The list of WBS activities and descriptions follow. The detailed implementation plan, due January 26, 1998, will detail the implementation using the Indus ABACUS methodology. Attachment C, Finance and Supply Management Draft Mobilization Plan, illustrates the mapping of the current baseline project to Indus ABACUS activity set and describes each task in great detail.

5.1.1 Project Startup

Document the business case, define the scope, obtain funding, identify team sponsors and members, develop the project organization, define roles and responsibilities, and develop the project execution plan, configuration management plan, data management plan, and communications plan.

5.1.2 Infrastructure Preparation

Define infrastructure requirements, acquire hardware, software, and technical consulting resources as necessary to support the Finance and Supply Management subproject in context with HANDI 2000 requirements. Define team desktop resources required to implement the project. Develop a desktop management plan to support the scope of this subproject.

5.1.3 Financial Management Phase I

Implement the first phase of Finance Management to include General Ledger, Budget, Project Costing and Accounts Payable.

5.1.4 Supply Management

Implement the Supply Management functions to include Purchasing, Inventory, and Contracts Management.

5.1.5 Financial Management Phase II

Implement Phase II of Finance Management to include Accounts Receivable, Billings (if applicable), and Asset Management.
5.1.6 **Project Control**

Provide project management leadership. Perform day to day project management functions to track progress against planned schedule, actual costs against budget, and control work scope. Resolve conflicts/issues quickly to promote a rapid implementation. Coordinate with HANDI 2000 project configuration control to maintain specified controls and assure necessary integration.

5.2 **BUDGET AND RESOURCE ALLOCATION**

Funding was approved 9/9/97 based on a conceptual estimate. The conceptual estimate was developed using an hourly rate of $45.50 for internal Fluor Daniel Hanford personnel, $100.00 for LMSI personnel, and a rate of 7% for MPR. A detailed estimate follows.

<table>
<thead>
<tr>
<th>Finance/Supply Management Baseline Conceptual Estimate</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fiscal Year</strong></td>
<td><strong>Cost Element</strong></td>
</tr>
<tr>
<td><strong>FY97-98</strong></td>
<td><strong>FDH Labor</strong></td>
</tr>
<tr>
<td></td>
<td><strong>LMSI Labor</strong></td>
</tr>
<tr>
<td><strong>Hardware</strong></td>
<td><strong>HP Server</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Storage Units</strong></td>
</tr>
<tr>
<td></td>
<td><strong>2 NT Units</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Telecom. HW</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Vendor Setup</strong></td>
</tr>
<tr>
<td></td>
<td><strong>2nd HP Server</strong></td>
</tr>
<tr>
<td></td>
<td><strong>2nd HP Setup</strong></td>
</tr>
<tr>
<td></td>
<td><strong>High Availability</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Shadow Server</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Proj. Team Desktop</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Other support HW</strong></td>
</tr>
<tr>
<td></td>
<td><strong>MPR (7%)</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal - Hardware</strong></td>
</tr>
<tr>
<td><strong>Software</strong></td>
<td><strong>Indus/Finance&amp;HRMS</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Oracle Seat Licenses</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Oracle Tools</strong></td>
</tr>
<tr>
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<td><strong>Data Load Tools</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Unicenter</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Support Tools</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Crystal Rpt Writer</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Passport Tng. Tools</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Other Tools</strong></td>
</tr>
<tr>
<td></td>
<td><strong>MPR (7%)</strong></td>
</tr>
<tr>
<td>Fiscal Year</td>
<td>Cost Element</td>
</tr>
<tr>
<td>-------------</td>
<td>--------------------------------------</td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal - Software</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Consulting</strong></td>
</tr>
<tr>
<td></td>
<td>G/L Consult/BPI</td>
</tr>
<tr>
<td></td>
<td>Budget Consult/BPI</td>
</tr>
<tr>
<td></td>
<td>Proj Cost Consult/BPI</td>
</tr>
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<td>AP Consult/BPI</td>
</tr>
<tr>
<td></td>
<td>Integration Consultant</td>
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<tr>
<td></td>
<td>SM Lead Consultant</td>
</tr>
<tr>
<td></td>
<td>Purch/Inv./Contr Mgmt.</td>
</tr>
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<td>FM/SM Proj. Direction</td>
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<td>Intermac Catalog Trng</td>
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<tr>
<td></td>
<td>MPR (7%)</td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal - Consulting</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Other</strong></td>
</tr>
<tr>
<td></td>
<td>Travel/Training</td>
</tr>
<tr>
<td></td>
<td>Occupancy</td>
</tr>
<tr>
<td></td>
<td>LMSI Support</td>
</tr>
<tr>
<td></td>
<td>Site Services</td>
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<tr>
<td></td>
<td><strong>Subtotal - Other</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Total FY97-98</strong></td>
</tr>
<tr>
<td>FY99</td>
<td><strong>FY99 Total</strong></td>
</tr>
<tr>
<td>FY97-99</td>
<td><strong>TOTAL PROJECT</strong></td>
</tr>
</tbody>
</table>
The budget reflecting a spread across fiscal years broken down by cost element follows:

<table>
<thead>
<tr>
<th>Cost Element</th>
<th>FY97 (000's)</th>
<th>FY98 (000's)</th>
<th>FY99 (000's)</th>
<th>Total Project (000's)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDH Labor</td>
<td>$-</td>
<td>$1.4</td>
<td>$.3</td>
<td>$1.7</td>
</tr>
<tr>
<td>LMSI Labor</td>
<td>$-</td>
<td>2.4</td>
<td>$.3</td>
<td>2.7</td>
</tr>
<tr>
<td>External Consulting</td>
<td>.1</td>
<td>1.5</td>
<td>.1</td>
<td>1.7</td>
</tr>
<tr>
<td>Software</td>
<td>3.2</td>
<td>1.3</td>
<td>$-</td>
<td>4.5</td>
</tr>
<tr>
<td>Hardware</td>
<td>.4</td>
<td>.9</td>
<td>$-</td>
<td>1.3</td>
</tr>
<tr>
<td>Other Services</td>
<td>$-</td>
<td>.3</td>
<td>$-</td>
<td>.3</td>
</tr>
<tr>
<td><strong>TOTAL BUDGET</strong></td>
<td><strong>$3.7</strong></td>
<td><strong>$7.8</strong></td>
<td><strong>$.7</strong></td>
<td><strong>$12.2</strong></td>
</tr>
</tbody>
</table>

The budget reflecting a spread across fiscal years broken down by WBS element follows:

<table>
<thead>
<tr>
<th>WBS Element</th>
<th>FY97 (000's)</th>
<th>FY98 (000's)</th>
<th>FY99 (000's)</th>
<th>Total Project (000's)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Startup</td>
<td>$-</td>
<td>$.9</td>
<td>$-</td>
<td>$.9</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>3.7</td>
<td>2.3</td>
<td>$-</td>
<td>6.0</td>
</tr>
<tr>
<td>Finance Phase I</td>
<td>$-</td>
<td>2.5</td>
<td>$-</td>
<td>2.5</td>
</tr>
<tr>
<td>Supply Management</td>
<td>$-</td>
<td>1.5</td>
<td>$-</td>
<td>1.5</td>
</tr>
<tr>
<td>Finance Phase II</td>
<td>$-</td>
<td>.1</td>
<td>.4</td>
<td>.5</td>
</tr>
<tr>
<td>Project Management</td>
<td>$-</td>
<td>.5</td>
<td>.3</td>
<td>.8</td>
</tr>
<tr>
<td><strong>TOTAL BUDGET</strong></td>
<td><strong>$3.7</strong></td>
<td><strong>$7.8</strong></td>
<td><strong>$.7</strong></td>
<td><strong>$12.2</strong></td>
</tr>
</tbody>
</table>
5.3 SCHEDULE

The overall project is conceptually estimated to take 18 months to complete, assuming adequate budget and resources are made available. An overall integrated project schedule reflecting the approved conceptual baseline implementation plan is Appendix A.

6.0 GLOSSARY AND TERMS

AS-IS - The product of a process to baseline an existing process; to identify and document performance gaps in process cost, cycle time, product quality, and organizational and technological issues, all in order to develop process improvement opportunities.

Baseline - The original plan (for a project, a work package, or an activity) plus or minus approved changes. Usually used with a modifier, e.g., cost baseline, schedule baseline, performance measurement baseline, etc.

Business Process - A set of logically related tasks performed to achieve a defined business outcome.

Business Process Improvement - A process that redesigns work processes to take advantage of the best business practices around which the COTS software is designed.

Change Control - Change control is the process by which changes to the technical, cost, and schedule baselines are managed.

Configuration Management - An integrated management process and program that establishes consistency among requirements, basis, functional configuration, physical configuration, and documentation-allocates requirements and maintains and controls consistency throughout the life of the product as changes occur.

Control - The process of comparing actual performance with planned performance, analyzing variances, evaluating alternatives, and taking appropriate corrective action as needed.

HANDI 2000 - FDH Project with the scope of implementing a COTS enterprise resource planning solution and identifying and resolving the Hanford site year 2000 issues.

Other Hanford Contractors - DOE contractors that are not part of the PHMC Team.

PHMC Team - FDH and its subcontractors.

Product - Indus Passport and PeopleSoft integrated COTS software.
Project - An activity or series of activities related to the accomplishment of a clear goal, with a beginning, a middle, and an end to the efforts, and with defined lines of authority and responsibility, scope of work, and budget with change control.

Site - Synonymous with ‘Hanford’. Use of these terms shows FDH’s involvement in Hanford activities to the extent authorized by the PHMC.

Subproject Managers - Project Managers, responsible for full implementation of assigned software modules.

TO-BE - A product of the business process improvement process by which business rules are defined and Indus Passport and PeopleSoft implementation methodology is set.

Year 2000 Issues – For decades, expensive data storage was minimized by storing the Year as two digits (97) without the century, instead of four digits (1997). As a results some computer store the Year 2000 date as 00. Many computer systems will interpret 00 as the Year 1900 rather than the Year 2000 resulting in unpredictable behavior or inoperability.

7.0 REFERENCES

ANSI/IEEE, Software Engineering Standards Manual,

ANSI/IEEE, Standard 1058.1-1987, System Project Management Plans,

CM-3-10, Software Practices Manual,

CM-4-2, Quality Assurance Manual,

SP-3.1, Development Management
APPENDIX A

PROJECT SCHEDULE
<table>
<thead>
<tr>
<th>Date</th>
<th>Activity Description</th>
<th>Status</th>
<th>Progress</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1968-01-01</td>
<td>Sample Activity 1</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>1969-02-01</td>
<td>Sample Activity 2</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>1970-03-01</td>
<td>Sample Activity 3</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>1971-04-01</td>
<td>Sample Activity 4</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>1972-05-01</td>
<td>Sample Activity 5</td>
<td>0</td>
<td>0</td>
<td></td>
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<tr>
<td>1973-06-01</td>
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<td>0</td>
<td>0</td>
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</tr>
<tr>
<td>1974-07-01</td>
<td>Sample Activity 7</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>1975-08-01</td>
<td>Sample Activity 8</td>
<td>0</td>
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<td>1976-09-01</td>
<td>Sample Activity 9</td>
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<tr>
<td>1977-10-01</td>
<td>Sample Activity 10</td>
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<td>0</td>
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</table>

Note: The table above is a simplified representation and does not reflect the actual content of the document.
<table>
<thead>
<tr>
<th>Date</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/1/84</td>
<td>Project Kickoff Meeting</td>
</tr>
<tr>
<td>2/1/84</td>
<td>Project Team Formation</td>
</tr>
<tr>
<td>3/1/84</td>
<td>Project Plan Development</td>
</tr>
<tr>
<td>4/1/84</td>
<td>Project Review of Plans</td>
</tr>
<tr>
<td>5/1/84</td>
<td>Project Implementation</td>
</tr>
<tr>
<td>6/1/84</td>
<td>Project Testing - Final Report</td>
</tr>
<tr>
<td>7/1/84</td>
<td>Project Delivery Report</td>
</tr>
<tr>
<td>8/1/84</td>
<td>Project Closeout - Final Report</td>
</tr>
<tr>
<td>9/1/84</td>
<td>Project Completion</td>
</tr>
<tr>
<td>10/1/84</td>
<td>Project Follow-up</td>
</tr>
</tbody>
</table>

The diagram shows the project timeline with key milestones and phases.
<table>
<thead>
<tr>
<th>Activity</th>
<th>ID</th>
<th>Description</th>
<th>Start</th>
<th>End</th>
<th>Month</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>600</td>
<td>0</td>
<td>Get Information</td>
<td>24 Jan 1989</td>
<td>28 Jan 1989</td>
<td>Jan</td>
<td>1989</td>
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<tr>
<td>601</td>
<td>0</td>
<td>Initial Meetings prepared</td>
<td>29 Jan 1989</td>
<td>30 Jan 1989</td>
<td>Jan</td>
<td>1989</td>
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<tr>
<td>602</td>
<td>0</td>
<td>Analyze Needs</td>
<td>31 Jan 1989</td>
<td>01 Feb 1989</td>
<td>Feb</td>
<td>1989</td>
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<td>603</td>
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<td>Prepare Draft of Contract</td>
<td>02 Feb 1989</td>
<td>03 Feb 1989</td>
<td>Feb</td>
<td>1989</td>
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<tr>
<td>604</td>
<td>0</td>
<td>Receive Drafts &amp; Comments</td>
<td>04 Feb 1989</td>
<td>05 Feb 1989</td>
<td>Feb</td>
<td>1989</td>
</tr>
<tr>
<td>605</td>
<td>0</td>
<td>Finalize Draft of Contract</td>
<td>06 Feb 1989</td>
<td>07 Feb 1989</td>
<td>Feb</td>
<td>1989</td>
</tr>
<tr>
<td>606</td>
<td>0</td>
<td>Issue Drafts to Users</td>
<td>08 Feb 1989</td>
<td>09 Feb 1989</td>
<td>Feb</td>
<td>1989</td>
</tr>
<tr>
<td>609</td>
<td>0</td>
<td>Issue Final Drafts to Users</td>
<td>14 Feb 1989</td>
<td>15 Feb 1989</td>
<td>Feb</td>
<td>1989</td>
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<tr>
<td>610</td>
<td>0</td>
<td>Receive Final Feedback and Comments</td>
<td>16 Feb 1989</td>
<td>17 Feb 1989</td>
<td>Feb</td>
<td>1989</td>
</tr>
</tbody>
</table>

**Table Notes:**
- **Activity:** Describes the action being taken.
- **ID:** Unique identifier for each activity.
- **Description:** Detailed explanation of the activity.
- **Start** and **End:** Dates when the activity begins and ends.
- **Month** and **Year:** Month and year of the activity.

**Diagram:**
- The diagram represents the timeline and sequence of activities with dates and months.

**Figure:**
- The figure illustrates the project's timeline with specific dates and months marked along the timeline.
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| 1016 | 10/10/90 | 10/10/90 | Train Managers Committee To Enthusiast
| 1039 | 10/10/90 | 10/10/90 | Publish Training Requirements To Man.
| 1035 | 10/10/90 | 10/10/90 | Define Training Requirements (Design Features)
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**Diagram Details:**
- **Date:** Various dates ranging from 5/6/88 to 6/30/88.
- **Activities:** Various activities related to process changes.
- **Process Changes:** Includes various process change descriptions.
- **ID:** Unique identifiers for each activity.

**Table Notes:**
- The table and diagram are part of a process change tracking system for a specific project or organization.
ATTACHMENT A

HANDI 2000 PROJECT EXECUTION PLAN
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INTRODUCTION

The HANDI 2000 project will meet some of the major objectives and goals of the PHMC Management and Integration Plan HNF-MP-00, Revision 11, by integrating the major Hanford business processes and their supporting information systems. It will establish industry-standard work processes through business process enhancement and implementation of a set of integrated commercial off-the-shelf (COTS) enterprise resource planning (ERP) software products. This integration will reduce operating costs, improve productivity, and improve overall process integrity, and thus free more resources to focus on the site mission.

Business processes that will be affected are Project Management, Work Management, Financial Management, Supply Management, Human Resources, and Environmental, Safety, and Health.

The HANDI 2000 Project Execution Plan (PEP) included herein is the management level execution plan, that provides the overall structure and project direction for the HANDI 2000 project. This document with supporting subproject plans, and a companion vendor's implementation project plan will be used for project control and planning. Supporting subproject plans should be consulted for details about the individual portions of the project.

In some cases information in this plan will also be found in a subproject plan. Where conflicts exist between a subproject plan and this plan, this plan will take precedence. Whenever conflicts are noted, the Project Director and Subproject Manager should be promptly notified to resolve the conflict and to correct the appropriate plan.

The HANDI 2000 Project Director as assigned by FDH, is responsible for the preparation, review, approval, issuance, use, and revision of project specific management documents that create policy, establish plans, and prescribe work. The responsible Subproject Manager is accountable for ensuring that the document is technically correct and that implementation meets requirements, promotes safety, is cost effective, and reflects the applicable industry best practices.
PROJECT SCOPE

The scope of this project includes improving core business processes, identification, assessing and remediation of system Year-2000 (Y2K) issues, and implementing the Financial and Budget, Supply Management, Project Management, Human Resources and Payroll, Action Tracking, and Document Management of the Passport/PeopleSoft Enterprise Resource Planning software system. Future HANDI 2000 systems such as Work Management and Safety and Compliance module will be included as they are approved for implementation.

Deliverables for each module to be implemented include:

- Placing operational ERP software modules into production processing (e.g., backup, recovery, operational procedures, cost recovery/billing)
- Retiring legacy systems whose functionality is replaced by Indus Passport/PeopleSoft functionality
- Migrating necessary and sufficient data to the ERP software
- Train the trainer programs (hands-on classroom or computer based)
- Establishing a configuration control process to ensure continued managed process and data integrity
- Project management and project reporting

Project Objectives:

The objective of the HANDI 2000 Project is to implement an integrated information resource management product set to recognize a positive return on investment within 3 years of implementation. The return on investment will be achieved through the integration of information, use of a common technology architecture, gained efficiencies in work processes, and the declining mortgage for maintaining the legacy software applications and interfaces at Hanford. The strategy is to use an integrated set of commercial off-the-shelf information technology products, and adopt widely applied industry work processes. Aligned with the DOE-RL Corporate Management Information Strategy, the HANDI 2000 Project will be managed with appropriate management control maintaining a focus and balance in three specific areas where a case for action exists:
1. Redesign affected work processes through business process improvement.
2. Implement commercial off-the-shelf technology for application and standardize the desktop and central computing platform and operating environment
3. Define and control the data that is processed and interfaces between applications.

Key Result Areas:

To reduce maintenance, interface, and systems support costs for information resources.

To adopt widely accepted commercial industry business practices at Hanford

To have all mission critical systems with year 2000 vulnerabilities converted where possible to upgraded ERP type software by 1999

Improve operational discipline and overall data integrity

Reduce cost of data reconciliation
PROJECT BASIS

The HANDI 2000 Project was planned and is proceeding on the following basis which provides the foundation for this Project Execution Plan (PEP) and its subordinate subproject plans. If any of the conditions in this baseline change, the project will need to be replanned or reviewed.

Basis:

This project is organized modularly and each process area will have its own case for action. This is to confirm the business needs for a module before resources are expended for implementation.

The HANDI 2000 system will serve PHMC Team companies. Enterprise companies are encouraged to implement compatible software in that they will be required to interface with the HANDI 2000 software in the prescribed formats.

Commercial off-the-shelf software (COTS) software will be utilized for all future system needs to minimize future maintenance and integration costs. Customization of the baseline software will be severely discouraged and controlled by a change board.

Critical systems with year 2000 vulnerabilities will have priority considerations for replacement or remediation.

The integration of the software components (Indus Passport, PeopleSoft, and Primavera) will be supplied and maintained by a single integrating vendor.

Implementation of HANDI 2000 will be consistent with other site plans, including the Management and Integration Plan, and the Information Resource Management Plan, etc.

Funding will be provided for continuous implementation (i.e. without interruption until completion of each module) within the bounds of the yearly budgeting cycle.

Required resources (people, hardware, and facilities) will be available when needed. The project will be limited to existing PHMC Team facilities (i.e. no new locations are identified for this project).

The business case (financial justification White Paper) for implementing HANDI 2000 was calculated from ERP software vendor estimates of savings applied to projected Project budgets.

Required site infrastructure elements (network, desktop PC's, and etc.) will be available (based on FY98 annual work plan) and will support the HANDI 2000 schedule implementation/requirements.

ERP software technology is proven information technology, which can be applied to Hanford for...
a minimum of five to ten years. The long-term cost of residual mainframe computer operations for out-of-scope software systems was not considered in evaluating the business case.

The transformation to the HANDI 2000 integrated system will be a phased approach as systems are replaced and redundant systems are eliminated. Interim interfaces may be required to maintain system integrity throughout implementation phases. Parallel systems operations will be determined on a case-by-case basis for each module.
PROJECT CONTROLS

Estimates

Fluor Daniel Hanford (FDH) will prepare cost estimates for the project life cycle and for Annual Work Plans (AWP) to obtain funding approval and manage the project. FDH will prepare a detailed cost estimate for each project during its implementation and execution phase.

Cost

The HANDI 2000 schedule, scope and budget will be managed with FDH management baseline control discipline, controlled by HANDI 2000 Project Integration and Controls.

Schedules

Fluor Daniel Hanford will develop a master schedule (see: work plan section) for the project containing the overall milestone requirements. To assist the initial development of the project, a front-end schedule will be utilized to follow and control the early work. During the front-end period an Integrated Resource Loaded Schedule and CPM Project Control Schedule will be developed for the execution of the project. Milestones will be established and will be controlled within established thresholds.

Staffing and Progress

This schedule will be resource loaded. This will enable physical progress and staffing plans to be generated for the project.

Project Reporting

The HANDI 2000 project will report progress, status and performance consistent with the requirements of Performance Reporting, HNF-MD-018.
PROJECT MANAGEMENT APPROACH

The HANDI 2000 project management approach is highly integrated throughout all phases of implementation, while ensuring the final architecture meets the vision of commercial off the shelf software and commercial business practices. The approach is time phased to provide the return on investment within three years, and incorporates the issues of year-2000 impacts and yearly funding restraints.

Project Direction and Support:
- HANDI 2000 will be managed as a project, coordinated through the FDH Project Direction Group
- HANDI 2000 software modules will be implemented in a phased approach, and each module must provide a business case
- One vendor will be responsible for integrating all of the software modules
- HANDI 2000 implementation schedule will integrate the Year 2000 (Y2K) implementation plan
- Configuration control will be applied to module configuration data elements and business flow preferences
- A change board will maintain strict change control requirements for ERP Commercial of the Shelf (COTS) software applications and business practices
- A standard set of integrated common data elements will be developed for all HANDI 2000 software applications and business practices
- A common acceptance criteria will be used for each module prior to turn over to the process owner
- Other Hanford Prime Contractors (PNNL, Bechtel, and HEHF) will be accommodated for information requirements feeds supplied by these companies as they currently exist
- The integrity of existing information interfaces and data feeds to Other Hanford Contractors (PNNL, Bechtel, etc.) will be maintained

Project Management:
- Primavera (P3) is the site scheduling tool to be used by PHMC team, and will be integrated into the Integrated Site Baseline
- The HANDI system will be used to report performance, until HANDI 2000 systems are fully evaluated for applicability and implementation
- HANDI 2000 project management software modules will be implemented with Work Management if both are approved for implementation
- Beginning FY 99 PeopleSoft Financial will feed the performance module for the P3 schedule and performance measurement process
Human Resources

- Existing PeopleSoft Human Resources Functions will be upgraded to the current version of the finance and supply management system to be implemented

Work Management:

- If approved for implementation, Work Management modules will be piloted before Sitewide implementation; the pilot will be Tank Waste Remediation System (TWRS) Project.
- Action Tracking, including deficiency tracking system (DTS) will be implemented for all of the PHMC Team.
- HANDI 2000 Project will provide facilitation for business process improvement redesign (AS-IS/TO-BE); impacted business units will provide staff to perform redesign, and implementation support.
- Engineering Change Control (future), Document Management, and Labor Entry (future) modules will be implemented for all of the PHMC Team.

Financial & Supply Management

- PeopleSoft Financial and Indus Passport supply management system will be implemented for all of the PHMC Team.
- The financial and supply management system will be implemented to cut-over at the beginning of fiscal year 1999.
- Implementing supply management module may require operating parallel supply management system for a period of time to be determined by the implementation team.

Environmental, Safety, & Health

- A business case will be developed for each module prior to implementation.
- Personnel Qualification module will be implemented in conjunction with work management, due to their strong inter-dependencies.

Year 2000 (Y2K)

- Y2K non-compliant system renewal and or replacement will be prioritized by highest risk.
- Major Sub-Contractors will be responsible for assuring their systems and equipment are Y2K compliant.
- Y2K project progress will be reported separately to Department of Energy Headquarters (DOE HQ) each quarter.
- Each system or equipment will be evaluated through a certification process regardless if it is Y2K compliant.

Business Process Improvement

- Process redesigns will be integrated, the business processes will adopt business practices inherent to the COTS software.
WORK BREAKDOWN STRUCTURE DICTIONARY

The Work Breakdown Structure (WBS) for HANDI 2000 represents the project management approach and scope of the project. The WBS for each subproject reflects the deliverables and accountability to ensure project success.

1.1 Project Direction & Support

1.1.1 Project Direction
Organize the project management and support team; define membership, roles and responsibilities, interface relationships, and charters. Develop a project plan which documents the HANDI 2000 project implementation strategy, assumptions, project integration, Y2K integration, and management controls, and includes a total project resource loaded implementation schedule.

1.1.2 Project Integration
Provide management support, project planning and scheduling, and program control. Develop a communications plan for the project. Refine and validate the project schedule after the vendor-facilitated workshop. Define requirements of integration; hold subprojects accountable to deliverables satisfying these requirements.

1.1.3 Project Configuration Control
Ensure information and technology integration within the project. This element includes the technical support to establish hardware and software infrastructure requirements, and acquire required hardware and software, and the technical support for installation, and initial training. This task also includes the planning for legacy systems migration. The configuration management program is developed within this element to provide common management controls, discipline, and tools throughout the HANDI 2000 functional implementation phases.

1.2 Project Management Modules

1.2.1 Project Controls
Provide project management leadership. Perform day to day project management functions to track progress against planned schedule, actual costs against budget, and control work scope. Resolve conflicts/issues quickly to promote a rapid implementation. Coordinate with HANDI 2000 project configuration control to maintain specified controls and assure necessary integration.
1.2.2 Project Management Module
The implementation detail for the Project Management modules is provided in the original Baseline Change Request submittal, "Enterprise Resource Planning Project, ERP-97-001, as Attachment 2, "Fluor Daniel Hanford Site Scheduling System & Standards Implementation Plan", dated April 16, 1997.

1.2.3 Project Integration
Coordinate the teams involved with implementing project management modules, and integrating the project scheduling software (P3).

1.2.4 HANDI System
This element is to provide for coordination and integration of the HANDI system effort with the HANDI 2000 effort.

1.2.5 P3 Conversion
This element is to coordinate the P3 conversion from PX with the HANDI 2000 effort.

1.3 Work Management

1.3.1 Project Controls
Provide project management leadership. Perform day-to-day project management functions to track progress against planned schedule, actual costs against budget, and control work scope. Resolve conflicts/Issues quickly to promote a rapid implementation. Execute the data management plan, develop a case-for-action and where the business case exists, redesign the work process and implement appropriate PASSPORT Work Management modules. Coordinate with HANDI 2000 project configuration control to maintain specified controls and assure necessary integration.

1.3.2 Work Management (If approved for implementation)
Work Management module implementation. Implementation to include installation, business process improvement, testing, training, and start-up.

1.3.3 Engineering Change Control (If approved for implementation)
Engineering Change Control module implementation. Implementation to include installation, business process improvement, testing, training, and start-up.

1.3.4 Document Management
Document Management module implementation. Implementation to include installation, business process improvement, testing, training, and start-up.
1.3.5 Action Tracking
Action Tracking module implementation. Implementation to include installation, business process improvement, testing, training, and start-up.

1.3.6 Labor Entry and Reporting (If approved for implementation)
Labor Entry & Reporting functions as they relate to work management implementation. Implementation to include installation, business process improvement, testing, training, and start-up.

1.4 Financial & Procurement Modules

1.4.1 Project Start-Up
Document the business case, define the scope, obtain funding, identify team sponsors and members, develop the project organization, define roles and responsibilities, and develop the project execution plan, configuration management plan, data management plan, and communications plan.

1.4.2 Infrastructure Preparation
Define infrastructure requirements; acquire hardware and software as necessary to support the Finance and Supply Management subproject in context with HANDI 2000 requirements. Define team desktop resources required to implement the project. Develop a desktop management plan to support the scope of this subproject.

1.4.3 Financial Management Phase I
Implement the first phase of Finance Management to include General Ledger, Budget, Project Costing and Accounts Payable.

1.4.4 Supply Management
Implement the Supply Management functions to include Purchasing, Inventory, Contracts Management and Accounts Payable.

1.4.5 Financial Management Phase II
Implement Phase II of Finance Management to include Accounts Receivable, Billings (if applicable), and Asset Management.

1.4.6 Project Control
Provide project management leadership. Perform day to day project management functions to track progress against planned schedule, actual costs against budget, and control work scope. Resolve conflicts/issues quickly to promote a rapid implementation. Coordinate with HANDI 2000 project configuration control to maintain specified controls and assure necessary integration.

1.6 Human Resources Module
1.6.1 Project Controls
Provide project management leadership. Perform day-to-day project management functions to track progress against planned schedule, actual costs against budget, and control work scope. Resolve conflicts/issues quickly to promote a rapid implementation. Coordinate with HANDI 2000 project configuration control to maintain specified controls and assure necessary integration.

1.6.2 PeopleSoft HR System
Upgrade the current HR PeopleSoft software and work processes to integrate with the other HANDI 2000 products.

1.6.3 Payroll
Payroll module implementation. Implementation to include installation, business process improvement, testing, training, and start-up.

1.6.4 Time & Labor
Time & Labor implementation. Implementation to include installation, business process improvement, testing, training, and start-up.

1.6.5 Pension Administration
Pension Administration module implementation. Implementation to include installation, business process improvement, testing, training, and start-up.

1.6.6 Benefits Administration
Benefits Administration implementation. Implementation to include installation, business process improvement, testing, training, and start-up.

1.7 ES&H Modules (If approved for implementation)

1.7.1 Project Controls
Document the business case, define the scope, obtain funding, identify team sponsors and members, develop the project organization, define roles and responsibilities, and develop the project execution plan, configuration management plan, data management plan, and communications plan. Coordinate with HANDI 2000 project configuration control to maintain specified controls and assure necessary integration.

1.7.2 Personnel & Qualification Data
Personnel & Qualification Data module implementation. Implementation to include installation, business process improvement, testing, training, and start-up.

1.7.3 MSDS
MSDS module implementation. Implementation to include installation, business process
improvement, testing, training, and start-up

1.7.4 Equipment Tag Out
Equipment Tag Out module implementation. Implementation to include installation, business process improvement, testing, training, and start-up

1.7.5 Total Exposure/Health Physics
Total Exposure/Health Physics module implementation. Implementation to include installation, business process improvement, testing, training, and start-up.

1.7.6 Emissions Tracking
Emissions Tracking module implementation. Implementation to include installation, business process improvement, testing, training, and start-up

1.8 Year 2000

1.8.1 Impact Identification
Identify applications and equipment systems and infrastructure components with potential Year 2000 impacts. This identification includes risk ranking of the mission essential impacts. Information will be gathered during this phase for the assessment phase to assist in understanding the skills and tools needed to perform remediation and related technical infrastructure needs.

1.8.2 Assessment
Detailed assessments will gather sufficient information about a ‘project’ to determine what type of solution (repair, replace, or eliminate) should be implemented. The assessor will divide the work effort into manageable units and provide a plan for remediation and implementation.

1.8.3 Remediation
Remediation is the actual work involved in modification or conversion of a system or component for Year 2000 compliance. Remediation utilizes system development methodologies to remediate and migrate the compliant solutions into the client’s production environment. Testing methodologies support thorough unit, system, integration, and acceptance testing.

1.8.4 Compliance Certification
Certify that PHMC remediation projects meet compliance standards and requirements. All identified components must function effectively up to and into the next century. The validation process involves complete system testing, including the associated infrastructure, equipment and external interfaces that are identified as components of the system. Certification ensures that compliance efforts are documented and can be validated. Certification is accomplished independent of remediation so that proper controls can be maintained.

1.8.5 Project Planning & Control
Project control and support encompasses the activities of overall project management and integration, project planning and control, maintaining a Year 2000 data repository, project document control, educate, raise visibility and appraise site of Year 2000 efforts and status, providing a controlled environment for assessment and remediation, and technical consulting. Project reporting will follow the formats for Hanford direct projects. Coordinate with HANDI 2000 with regards to legacy system disposition and replacement system implementation plans.
WBS Structure

1. **HANDI 2000 Project**
   
   1.1 **Project Direction & Integration**
      1.1.1 Project Direction
      1.1.2 Project Integration
      1.1.3 Project Configuration Control

   1.2 **Project Management Modules**
      1.2.1 Project Controls
      1.2.2 Project Management Module
      1.2.3 Project Integration
      1.2.4 HANDI System
      1.2.5 P3 Conversion

   1.3 **Work Management Modules**
      1.3.1 Project Controls
      1.3.2 Work Management
      1.3.3 Engineering Change Control
      1.3.4 Document Management
      1.3.5 Action Tracking
      1.3.6 Labor Entry & Reporting

   1.4 **Finance & Supply Modules**
      1.4.1 Project Start-up
      1.4.2 Infrastructure Preparation
      1.4.3 Financial Management Phase I
      1.4.4 Supply Management
      1.4.5 Financial Management Phase II
      1.4.6 Project Control

   1.6 **Human Resources**
      1.6.1 Project Controls
      1.6.2 PeopleSoft HR System
      1.6.3 Payroll
      1.6.4 Time & Labor
      1.6.5 Pension Administration
      1.6.6 Benefits Administration

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1.7 ES&H
1.7.1 Project Controls
1.7.2 Personnel & Qualification Data
1.7.3 MSDS
1.7.4 Equipment Tag Out
1.7.5 Total Exposure/Health Physics
1.7.6 Emissions Tracking

1.8 Y2K
1.8.1 Impact Identification
1.8.2 Assessment
1.8.3 Remediation
1.8.4 Compliance Certification
1.8.5 Project Planning & Control
The organizational plan represents the structure required to fully execute the 1998 scope of work described in the HANDI 2000 PEP. This organization aligns with the sub project concepts of the work breakdown structure where each sub project has a budget and schedule baseline to measure progress and performance. Each sub project manager will have accountability in meeting the objects of the work plan.

The Project Director has the responsibility to maintain integration between all of the sub projects to preserve the overall HANDI 2000 architecture. This function ensures the final HANDI 2000 system will fully integrated for current transitional and final systems. The sub project managers have full responsibility and accountability for their scope of work. This includes schedule, budget and quality issues. In addition, they have full responsibility for integration of their functional system to existing systems. Executive Sponsors provides management oversight for each subproject based on their functional responsibilities. This allows each subproject to receive timely decision making and guidance.
The change board will have responsibility to approve all changes to the HANDI 2000 cots software. This ensures the costs for implementation will be maintained within the allocated funds and the long term advantages of COTS. This change board will change membership as the functional focus of the scope of work for implementation changes and evolves.
## Responsibility Assignment Matrix

### Legend
- **A:** Accountable
- **S:** Scope Change Authority
- **R:** Review
- **P:** Participant
- **I:** Information

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<tr>
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<th>HANDI 2000 Project Director</th>
<th>HANDI 2000 D&amp;I Deputy Director</th>
<th>BPI/Communications Director</th>
<th>Work Management Subproject Manager</th>
<th>Action Tracking &amp; Document Mgmt</th>
<th>Business Management Subproject Manager</th>
<th>Project Management Subproject Manager</th>
<th>Year 2000 Subproject Manager</th>
<th><strong>ES&amp;H</strong> Subproject Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1.1 Project Direction</td>
<td>A</td>
<td>S</td>
<td>P</td>
<td>I</td>
<td>I</td>
<td>I</td>
<td>I</td>
<td>I</td>
<td>I</td>
</tr>
<tr>
<td>1.1.2 Project Integration</td>
<td>R</td>
<td>S</td>
<td>A</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td>1.1.3 Project Configuration Control</td>
<td>R</td>
<td>S</td>
<td>A</td>
<td>P</td>
<td>I</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
</tr>
</tbody>
</table>

### 1.2 Project Management Modules

| 1.2.1 Project Controls            | R                           | S                             | P                           | P                                | A                             |                                   |                                   |                               |                               |
| 1.2.2 Project Management Module   | R                           | S                             | P                           | I                                | P                             | P                                | P                                | A                             | I                             |
| 1.2.3 Project Integration         | R                           | S                             | P                           | P                                | P                             | P                                | P                                | A                             | I                             |
| 1.2.4 HANDI System                | R                           | S                             | R                           | P                                | I                             | P                                | A                                | I                             | A                             |
| 1.2.5 P3 Conversion               | R                           | S                             | R                           | P                                | I                             | I                                | I                                | A                             | I                             |

### 1.3 Work Management Modules

| 1.3.1 Project Controls            | R                           | S                             | R                           | P                                | A                             | P                                |                                   |                               |                               |
| 1.3.2 Work Management             | R                           | S                             | I                           | P                                | A                             | P                                | I                                | I                             | I                             |
| 1.3.3 Engineering Change Control  | R                           | S                             | I                           | P                                | A                             | P                                | I                                | I                             | I                             |
| 1.3.4 Document Management         | R                           | S                             | I                           | P                                | P                             | A                                | I                                | I                             | I                             |
| 1.3.5 Action Tracking             | R                           | S                             | I                           | P                                | P                             | A                                | I                                | I                             | I                             |
| 1.3.6 Labor Entry & Reporting     | R                           | S                             | I                           | P                                | A                             | P                                | P                                | I                             | I                             |

### 1.4 Finance & Supply Modules

<p>| 1.4.1 Project Start-Up            | R                           | S                             | I                           | P                                | A                             |                                   |                                   |                               |                               |
| 1.4.2 Infrastructure Preparation  | R                           | S                             | I                           | I                                | I                             | A                                | I                                | I                             | I                             |
| 1.4.3 Financial Management Phase I | R                           | S                             | I                           | P                                | I                             | I                                | A                                | I                             | I                             |
| 1.4.4 Supply Management           | R                           | S                             | I                           | P                                | I                             | I                                | A                                | I                             | I                             |
| 1.4.5 Financial Management Phase II | R                           | S                             | I                           | P                                | I                             | I                                | A                                | I                             | I                             |</p>
<table>
<thead>
<tr>
<th>Legend</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: Accountable</td>
</tr>
<tr>
<td>S: Scope Change Authority</td>
</tr>
<tr>
<td>R: Review</td>
</tr>
<tr>
<td>P: Participant</td>
</tr>
<tr>
<td>I: Information</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1.4.6 Project Control</th>
<th>R</th>
<th>S</th>
<th>R</th>
<th>A</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>1.6 Human Resources Modules</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.6.1 Project Controls</td>
</tr>
<tr>
<td>1.6.2 PeopleSoft HR System</td>
</tr>
<tr>
<td>1.6.3 Payroll</td>
</tr>
<tr>
<td>1.6.4 Time and Labor</td>
</tr>
<tr>
<td>1.6.5 Pension Administration</td>
</tr>
<tr>
<td>1.6.6 Benefits Administration</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1.7 ES&amp;H Modules</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.7.1 Project Controls</td>
</tr>
<tr>
<td>1.7.2 Personnel &amp; Qualification Data</td>
</tr>
<tr>
<td>1.7.3 MSDS</td>
</tr>
<tr>
<td>1.7.4 Equipment Tag Out</td>
</tr>
<tr>
<td>1.7.5 Total Exposure/Health Physics</td>
</tr>
<tr>
<td>1.7.6 Emissions Tracking</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1.8 Y2K</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.8.1 Impact Identification</td>
</tr>
<tr>
<td>1.8.2 Assessment</td>
</tr>
<tr>
<td>1.8.3 Remediation</td>
</tr>
<tr>
<td>1.8.4 Compliance Certification</td>
</tr>
<tr>
<td>1.8.5 Project Planning &amp; Control</td>
</tr>
</tbody>
</table>

** ES&H Project personnel yet to be identified
STAFFING PLAN

Fluor Daniel Hanford, Inc. will utilize the centralized project concept under one Project Director solely responsible to both Department of Energy and Fluor Daniel Hanford management for the planning, organizing, directing, and coordinating of the project. Matters relating to the execution of this project will be coordinated with Department of Energy Project Manager.

As the works develops, personnel will be mobilized full time on the project.
## WORK PLAN

### HANDI-2000 PROJECT WBS SUMMARY SCHEDULE

<table>
<thead>
<tr>
<th>Activity Description</th>
<th>FY 98</th>
<th>FY 99</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milestones</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Award Software contract</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complete Y2K Inventory</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Finance Phase 1 Cut-over</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Y2K Hardware Complete</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Y2K System Complete</td>
<td>(FY00)</td>
<td></td>
</tr>
<tr>
<td>Y2K Complete</td>
<td>(FY00)</td>
<td></td>
</tr>
<tr>
<td>1.1 Direction &amp; Integration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Site Infrastructure Strategy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shared Data Tables PM, Act Trk, F&amp;P, HR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Balance of Data Tables</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data Table Reset</td>
<td></td>
<td></td>
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<tr>
<td>Shared BPI for PM, Act Trk, F&amp;P, HR</td>
<td></td>
<td></td>
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<tr>
<td>Balance of BPI's</td>
<td></td>
<td></td>
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<tr>
<td>BPI Reset</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.2 Project Management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project Management Module</td>
<td></td>
<td></td>
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<tr>
<td>Project Integration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HANDI System</td>
<td></td>
<td></td>
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<tr>
<td>PJ Conversion</td>
<td></td>
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<tr>
<td>1.3 Work Management Modules</td>
<td></td>
<td></td>
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<tr>
<td>Work Management</td>
<td></td>
<td></td>
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<tr>
<td>Engineering Change Control</td>
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<tr>
<td>Document Management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Action Tracking</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Labor Entry &amp; Reporting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.4 Finance &amp; Supply Modules</td>
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<td></td>
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<tr>
<td>Project Start-up</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infrastructure Preparation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Management Phase I</td>
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</tr>
<tr>
<td>Supply Management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Management Phase II</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.6 Human Resources</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PeopleSoft HR System</td>
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<td></td>
</tr>
<tr>
<td>Payroll</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time &amp; Labor</td>
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<td></td>
</tr>
<tr>
<td>Pension Administration</td>
<td>(FY01)</td>
<td></td>
</tr>
<tr>
<td>Benefits Administration</td>
<td>(FY00)</td>
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<tr>
<td>1.7 E&amp;S&amp;H</td>
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<tr>
<td>Preliminary Assessment</td>
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<tr>
<td>Personnel &amp; Qualification Data</td>
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<tr>
<td>MSDS</td>
<td>(FY01)</td>
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<tr>
<td>Equipment Tag Out</td>
<td></td>
<td></td>
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<tr>
<td>Total Exposure/Health Physics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emissions Tracking</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.8 Year 2000</td>
<td></td>
<td></td>
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<tr>
<td>Impact Identification</td>
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<td></td>
</tr>
<tr>
<td>Assessment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Remediation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compliance Certification</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Pending Approval:

- Pending Approval
ESTIMATED COST

Cost represented in this table are estimates from ERP white paper updated with 1997 estimated accruals, FY 1998 HANDI 2000 Annual Work Plan and subproject project execution plans (PEP).

Table: HANDI 2000 Project Estimated Cost by WBS Element ($1M)

<table>
<thead>
<tr>
<th>WBS</th>
<th>Description</th>
<th>FY 97</th>
<th>FY 98</th>
<th>FY 99</th>
<th>FY 00</th>
<th>FY 01/2</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Project Direction and Integration</td>
<td>$0.4</td>
<td>$1.2</td>
<td>$1.3</td>
<td>$1.3</td>
<td>$1.1</td>
<td>$5.2</td>
</tr>
<tr>
<td>1.2</td>
<td>Project Management Modules</td>
<td>$0.0</td>
<td>$0.4</td>
<td>$1.1</td>
<td>$0.0</td>
<td>$0.0</td>
<td>$1.5</td>
</tr>
<tr>
<td>1.3</td>
<td>Work Management Modules</td>
<td>$0.0</td>
<td>$0.8</td>
<td>$7.9</td>
<td>$2.6</td>
<td>$0.0</td>
<td>$11.2</td>
</tr>
<tr>
<td>1.4</td>
<td>Finance &amp; Supply Management (*)</td>
<td>$3.4</td>
<td>$11.5</td>
<td>$0.7</td>
<td>$0.0</td>
<td>$0.0</td>
<td>$12.2</td>
</tr>
<tr>
<td>1.6</td>
<td>Human Resources Modules</td>
<td>$0.0</td>
<td>$1.2</td>
<td>$0.4</td>
<td>$0.3</td>
<td>$2.1</td>
<td>$4.0</td>
</tr>
<tr>
<td>1.7</td>
<td>ES&amp;H Modules</td>
<td>$0.0</td>
<td>$0.2</td>
<td>$2.2</td>
<td>$1.5</td>
<td>$2.7</td>
<td>$6.7</td>
</tr>
<tr>
<td>1.8</td>
<td>Year 2000 (FDH Only)</td>
<td>$1.2</td>
<td>$4.7</td>
<td>$1.7</td>
<td>$1.0</td>
<td>$0.0</td>
<td>$8.7</td>
</tr>
<tr>
<td></td>
<td>Total HANDI-2000 Estimates</td>
<td>$5.0</td>
<td>$19.9</td>
<td>$15.3</td>
<td>$6.7</td>
<td>$5.9</td>
<td>$49.5</td>
</tr>
</tbody>
</table>

Basis for Estimate:
FY 97 estimates based on FY 97 estimated accruals
FY 98 estimates based on FY 98 HANDI-2000 AWP
FY 99 - FY 02 WBS 1.1, 1.6, 1.7 estimates based on ERP estimates, per FDH-9756097AR2, 7/18/97
FY 99 - FY 00 WBS 1.2 estimates based on Project Management PEP
FY 99 - FY 00 WBS 1.3 estimates based on Work Management PEP
FY 99 - FY 00 WBS 1.4 estimates based on Finance & Supply Management PEP
FY 99 - FY 00 WBS 1.8 estimates based on Y2K PEP
* Submitting BCR to reallocate $3.4M of scope for FY 98 that was spent in FY97;
  not included in 1.4 Finance & Supply Mgmt total to avoid counting twice.
** Year 2000 Non-FDH cost funded by the major projects (TWRS, SNF, ect.), source Y2K PEP
RISK MITIGATION PLAN

Risk Management

Risk Management is the process of identifying areas of risk that can negatively impact a project and taking the necessary mitigation actions to reduce the risk to ensure a successful project.

The following identifies the risks to be mitigated for the HANDI 2000 Project:

<table>
<thead>
<tr>
<th>Type</th>
<th>Risk</th>
<th>Mitigation</th>
</tr>
</thead>
</table>
| Technical  | Legacy data will initially still be on the mainframe and must be accessible for some time - possibly years | Study the three major alternatives:  
• Mapping and migrating the old data to a new, but smaller servers  
• Out-source the storage and mainframe services, without maintaining full legacy systems  
• Archive data in readable format with access tool for ready access |
| Technical  | Incomplete integration - not all of the interfaces between Indus Passport and PeopleSoft modules have been written and tested by the vendor | • Vendor contractually warranties integration - have the vendors committed to demonstration integration for payment  
• Phase approach will allow evaluation of technology and performance by module |
| Technical  | PeopleSoft and Indus personnel both are said to be somewhat "stove piped in their areas of experience and expertise | Required vendor personnel experience in multiple modules |
### Risk Management Table

<table>
<thead>
<tr>
<th>Type</th>
<th>Risk</th>
<th>Mitigation</th>
</tr>
</thead>
</table>
| Technical| Inadequate desktops - PHMC Teams current desktop PC's are not powerful enough to run the new systems | • A site plan to upgrade desktops hardware and software is underway, but separate funding status is uncertain, upgrading must be integrated with plans for all proposed new software  
• Overall site architecture to be developed by 12/97  
• Align desktop allocation to phased implementation ensuring resources are available to those who need them first |
| Technical| Package experience - Only one site has similar software (i.e., Indus/PeopleSoft) combination up and running. (Several more will have before Hanford completes implementation) | Partner with other locations, including other first tier contractors at Hanford, in support groups to share experiences in implementation |
| Technical| As each step in the migration process is executed, one or several legacy systems will be rolled into transition status and data interfaces with the legacy systems will be upgraded to the new scenario. Parallel processes, production validation, and the changing workloads for hardware, software, and people will have to be conducted efficiently and effectively so business continuity and module/data integrity can be maintained. | Detailed planning aligned with business process improvement TO-BE results, to minimize process disruptions. Use of a knowledge base that identifies system and data interactions and their relationships to business processes. |
| Technical| Customizing control - customizing the baseline ERP software beyond user options, will defeat the anticipated cost savings and delay the implementation | • Implement a change control board  
• Resist the temptation by redesigning process  
• Identify strong executive sponsorship |
<p>| Technical| Decisions made early in the implementation of ERP software, for example, facility naming conventions established in the prototype Deficiency Tracking System, will dictate implementations of later modules. The owners and stakeholders of facility data risk losing control of their information and subsequent control of key processes. | Stakeholder identification and coordination prior to establishing shared data in the ERP software database. |</p>
<table>
<thead>
<tr>
<th>Type</th>
<th>Risk</th>
<th>Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical</td>
<td>More than one system and data set will be replaced by a single module</td>
<td>Business process improvement with participation and buy-in by affected</td>
</tr>
<tr>
<td></td>
<td>and/or data set. In the ERP software environment, these processes and</td>
<td>stakeholders, down to the level of identifying controlled data items and</td>
</tr>
<tr>
<td></td>
<td>organizations will share module and data definitions. There is a risk:</td>
<td>process elements with an open-ended implementation to meet process-specific</td>
</tr>
<tr>
<td></td>
<td>• Individual needs being lost in the defining the new AS-IS process.</td>
<td>needs.</td>
</tr>
<tr>
<td></td>
<td>• Organizations will continue their legacy information systems, with</td>
<td></td>
</tr>
<tr>
<td></td>
<td>associated maintenance and operations costs and defeating the premise</td>
<td></td>
</tr>
<tr>
<td></td>
<td>that economies can be achieved with ERP software implementation of</td>
<td></td>
</tr>
<tr>
<td></td>
<td>one process, one system.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Centralization of the process and meeting the needs of all</td>
<td></td>
</tr>
<tr>
<td></td>
<td>constituents can lead to overkill solutions for processes and</td>
<td></td>
</tr>
<tr>
<td></td>
<td>organizations simply tracking their specialized actions.</td>
<td></td>
</tr>
<tr>
<td>Technical</td>
<td>Other Hanford Contractors serve as process users, data providers,</td>
<td>• Define boundaries of the data managed centrally by the ERP software.</td>
</tr>
<tr>
<td></td>
<td>and operators, under contractual arrangements with the PHMC Team</td>
<td></td>
</tr>
<tr>
<td></td>
<td>and other Hanford organizations. Their roles with respect to the</td>
<td>• Devise a mutual interest scenario that supports usage by more than</td>
</tr>
<tr>
<td></td>
<td>ERP software are currently undefined, except where they are funded</td>
<td>PHMC Team members and define data stewardship, funding, and process</td>
</tr>
<tr>
<td></td>
<td>for specific tasks. Data scopes and process responsibilities should</td>
<td>management tools to allow sharing the system.</td>
</tr>
<tr>
<td></td>
<td>be defined in terms of the PHMC responsibilities, yet useful</td>
<td></td>
</tr>
<tr>
<td></td>
<td>information can be lost when scoping down the information included</td>
<td></td>
</tr>
<tr>
<td></td>
<td>or the processes supported by the ERP software.</td>
<td></td>
</tr>
<tr>
<td>Financial</td>
<td>Scope changes resulting in escalating cost</td>
<td>Formal change control board will control changes in scope and funding</td>
</tr>
<tr>
<td>Financial</td>
<td>HANDI 2000 funding priorities will change as annual PHMC budget</td>
<td>Phased approach is based upon funds available and deliverables by year, and</td>
</tr>
<tr>
<td></td>
<td>priorities change</td>
<td>the subproject level (business area)</td>
</tr>
</tbody>
</table>
### Risk Management Table

<table>
<thead>
<tr>
<th>Type</th>
<th>Risk</th>
<th>Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial</td>
<td>HANDI 2000 is close to the margin on the Integrated Priority List (IPL) and an easy target for funding cuts</td>
<td>• Place higher priority to HANDI 2000 Project on the IPL&lt;br&gt;• Focus on business areas that will give an early and high return on investment&lt;br&gt;• Break into business area components to reduce risk total risk</td>
</tr>
<tr>
<td>Personnel</td>
<td>Pain of culture change too high, creating resistance, schedule delays, and cost overrun</td>
<td>• Strengthen DOE/PHMC Team management alignment and support&lt;br&gt;• Communicate the benefits of the new system to the individual users</td>
</tr>
<tr>
<td>Personnel</td>
<td>Jobs will be eliminated as legacy systems are retired and processes are improved, if users relate the technology changes with job jeopardy this will slow acceptance and full implementation</td>
<td>• Retrain or re-deploy personnel into mission essential projects&lt;br&gt;• Personnel who work on implementation will gain new skills</td>
</tr>
<tr>
<td>Personnel</td>
<td>LMSI personnel familiar with PeopleSoft and INDUS is a potentially limiting resource</td>
<td>• Begin now searching for more talent - either as employees or contract personnel.&lt;br&gt;• Develop a package or individual incentive for those who stay through completion&lt;br&gt;• INDUS will provide local support&lt;br&gt;• Leverage the partnership between Indus and PeopleSoft</td>
</tr>
</tbody>
</table>
COMMUNICATION PLAN

Overview

The following outlines the communication activities proposed for the project that will integrate the PHMC Team business processes through business process improvement and through implementing a business wide integrated data system, HANDI 2000. This plan covers the overall project. Individual subprojects may draft their own communications plans to supplement and complement this plan. HANDI 2000 is an extensive redesign of major business processes at Hanford beginning in August 1997 and continuing to full implementation in about four years.

Audience(s)

- PHMC Team companies employees
- Hanford Site employees
- DOE-RL officials
- Other interested parties

Strategy

The overall strategy is to provide all interested audiences with significant information to

- Help them understand the rationale for the HANDI 2000 implementation
- Keep them informed of progress
- Engage affected parties involvement
- Ease the transition to new work processes and tools for Hanford site employees

Philosophy

COMMUNICATION IS THE GREASE, NOT THE PRODUCT

Project Mangers need to manage their projects. Beyond providing status-reporting presentations to project sponsors, they should not spend their time doing presentations. A well-informed communication person can perform this activity.

CREATE ONCE AND RE-USE (Outlined standards)

Create presentations using a standard master with only HANDI 2000 logo and re-use for specific needs rather than re-develop.

IT IS MORE IMPORTANT TO BE TRusted THAN LIKED
Communication must tell the truth rather than "sugar coat" the message. This relates primarily to problems encountered during implementation and reductions in-force related to project.

**ACTIONS SPEAK LOUDEST**

Face-to-face communication is generally the most effective way to share information. It is important to realize that all interactions, including informal ones are communication opportunities.

**KEEP THE TEAM ON THE SAME PAGE**

Sharing progress, problems, and successes amongst team members helps develop consistency in the informal messages picked up by others. This consistency helps increase trust.

**EVERYONE IS A COMMUNICATOR**

To those not part of the implementation every person on the implementation team is seen to have responsibility to provide information.

**Message(s)**

The general messages are:

- **HANDI 2000 description:** The HANDI 2000 system is a comprehensive set of functional applications integrated through a common database and containing core information needed to run a company.

- **Drivers:** Year 2000 problems / Over 600 systems / Move from inefficient and complex work processes to commercial standards / Obsolete legacy technology / Reduce IRM costs / Accelerate cleanup

- Implementation will require a significant effort from employees and will not be without impact to our ongoing operations.

- Employees will be updated regularly about project activities and "What's in it for me".

- Who, What, Where, When, Why, and How
Background

HANDI 2000 will be implemented in phases as the PHMC Team business processes undergo business process improvement redesign. Human Resources is already on a HANDI 2000 compliant system. Action Tracking, Financial, and Supply Management will be the first processes to be redesigned and implemented by the HANDI 2000 project.

Sensitivities

- Integrating business processes with HANDI 2000 is a difficult concept to visualize and its very complexity will necessitate crisp, concise communications.

- Any change can be stressful for employees and result in their "going to ground" and resisting implementation.

- Management of expectations will be important, both for the client and for employees (don't want to overstate the capabilities of HANDI 2000).

- It will be important to develop a shared vision at the senior management level if continuous support is expected.

- Implementation will be long and difficult; many will lose interest.

- HANDI 2000 will reduce costs therefore some employees will be displaced from their current functions. They should be treated with compassion and respect. They should be given every opportunity to be retrained and relocated.

Media

- Face to Face (2-Way)
- Brochure
- E-mail
- Presentations (1-Way)
- Events
- Posters/Charts
- Newsletter
- Letter/Memo
- Activities
- Web page
PROCUREMENT PLAN

The HANDI 2000 Project will use and has used commercial procurement practices to ensure the timely completion of schedule.

The overall approach is to utilize a limited competitive procurement for a full Enterprise Resource Planning solution from a single integrating vendor.

A short list was developed based on recent competitive procurement at other DOE sites.

Vendors on that short list had demonstrated a technical capability to meet DOE requirements at competitive prices. They were invited to put together teams to provide us with a total solution.

Acquisition was divided into two phases:

**Phase 1:** Procure the software and integration products necessary to address our needs. Consisted of a base capability for finance and supply with options for Work management and ES&H capabilities. Vendor contracted to deliver and install the software. Also procured limited vendor technical support to assess our environment, recommends an implementation path forward and supports technical planning.

**Phase 2:** Procure the services of a third party to fully implement the procured solution in multiple solution sets. The initial solution set consists of the financial system and a new supply-chain process. Alternatives to be considered include utilizing the selected vendor, contracting through LMSI, utilizing the services of a different existing Hanford subcontractor and obtaining the services of an outside consulting firm other than the selected vendor.

The vendor selected in phase 1 will be responsible for providing an integrated set of software capable of meeting the functional requirements set forth in the procurement.

The vendor selected in phase 2 will be responsible for implementing the purchased solution, working in conjunction with PHMC personnel. The scope of work includes facilitating development of work processes by PHMC personnel to utilize the new capabilities, assisting PHMC personnel in establishing software table structures and loading data from existing systems, and directing the efforts of all subcontracted activities.

Due to the urgency of Y2K efforts, and a general lack of a competitive resource base, the procurement of Y2K tools and equipment will primarily be sole-sourced.
DATA MANAGEMENT

The HANDI 2000 Data Management activity supports effective installation and use of ERP software in the areas of data definitions, information system migration to the ERP software, data migration from legacy information systems, active interfaces with external information systems, and ongoing data stewardship. Policy, procedural, and information technology techniques will be used to achieve specified data requirements. Data management is conducted under the Configuration Management Plan.

Scope and Deliverables

Data management activities will deliver, or actively support the delivery of, methods for

- Capturing and interpreting business data requirements.

- Coordinating the development of common ERP software-based data definitions and standards among multiple organizations, processes, and information systems that create or use the data.

- Migrating existing data from multiple sources in accordance with data upload specifications.

- Responsible data stewardship by creators and users of data such that data quality is known and maintained at the level needed.

- Managing data configuration, including definition, quality, traceability, relationships, timing, accessibility, and formats to meet the needs of affected organizations, products, and external interfaces.

Strategy

Data management will be conducted as a component of the HANDI 2000 Configuration Management Plan.

Data standards to meet stakeholder and ERP software requirements will be implemented across the PHMC Team using Chief Information Officer (CIO) procedures. HANDI 2000 requests for specific policy or procedure changes will be brought to the Site Data Management Core Group, under the CIO, for evaluation and implementation.
Hanford data management principles will be followed:

- Manage data and information from a business perspective
- Collect data only once.
- Establish and enforce data standards
- Share data, based on need.
- Control and protect data and information.
- Actively pursue information quality.

Data management processes will be standardized across the project and consistent with PHMC Team processes. HANDI 2000 standards based on Indus methods will be adopted by each business process module.

The Indus Business Process Improvement (BPI) process will surface data needs and conflicts for the ERP software products, thus identifying areas where data needs management outside a single business process.

Integration and business unit representatives will team to address data needs, processes, and standards. Representatives of the integration team will attend all product business process improvement (TO-BE) sessions to ensure data standards and interface requirements are met.

Data management methodologies and tools that are not specific to ERP software will be established in the IRM change management process under the authority of the IRM Change Board.
CONFIGURATION MANAGEMENT

Introduction

HANDI 2000 project consists of several major subprojects running in a combination of parallel and sequential implementations. The ERP software purchases from Indus and PeopleSoft each runs on top of its own physical Oracle database. These two physical databases are cross-referenced and synchronized through an integration product supplied by Indus. The project planning software purchased from Primavera runs on top of a proprietary database. This database will also be cross-referenced and synchronized through an integration product being developed for us by Indus. This vendor-supplied integration will provide us with a single logical database where data is shared by all applications.

Because data is completely shared and processes are typically intertwined, effective configuration management is crucial for successful implementation.

Scope

All new proposed IRM applications that could impact the HAND-2000 Projects and any modifications to the baseline software. All HANDI 2000 subprojects are required to comply with the configuration management process.

Stewardship

Because information will be used by many different business functions, the concept of unilateral ownership of data is counterproductive. Many different constituencies will need to be consulted in establishing data structures, contents, and controls. However, with a data system of this complexity decision by committee is unproductive.

Each data element and business function will have a steward. A steward is expected to manage his assigned elements in the best interest of all stakeholders by being aware of their needs and implementing decisions that best support the overall business needs. Each data element and business function will be documented along with one steward and one or more stakeholders.

Process

The project configuration control function will maintain a complete list of data elements, business processes, assigned stewards and stakeholders.

All changes, additions, or deletions to the production HANDI 2000 system will require the authorization of the assigned steward. The Project Configuration Control function will oversee
the effectiveness of overall integration and control. It will reconcile discrepancies or shortcomings as necessary.

Change Control for HANDI 2000 will use existing PHMC methods and procedures, with one major exception: All proposed changes to the baseline ERP software will be disposition by the HANDI 2000 Change Control Board. The HANDI 2000 Change Control Board will comprise the following members:

- HANDI 2000 Project Director, Chair: Fumio Otsu
- Project Control Director: Ed Penn
- Chief Information Officer: Harry Sterling
- DOE-RL Chief Financial Officer: Alice Murphy
- Director of Business Process Alignment: Marnie Ross

This board does not replace existing boards but is in addition thereto.

**Change Management**

This section describes a project-level change management process for HANDI 2000, which is described consistent with change control as presented in the M&I Plan.

Section 6.3 "Configuration Management" of the M&I Plan states:

"Baseline Change Boards control Changes to the integrated baseline at three different levels: the project level, the Site level, and the RL level. Authority limits will be established at the project and Site levels in consultation with RL."

The project-level change process established to manage the HANDI 2000 integrated baseline operates in accordance with the *Configuration Management Plan* (FDH 1996).

The HANDI 2000 Change Management process is owned and managed by the HANDI 2000 Project Director through the HANDI 2000 Change Control Board. The process works in conjunction with the PHMC Change Control Board for baseline change requests (BCR) against Annual Work Plans (AWPs), including associated modifications to Performance Agreement (PAs).
Baseline Change Requests

The HANDI 2000 Baseline has technical, schedule, and cost components. Changes in cost, schedule, and technical work scope are the basis for a BCR. These change requests address changes within the annual work plan. When a BCR exceeds the authorized threshold, it is approved by the HANDI 2000 Change Control Board and forwarded to the PHMC Team Site Baseline Change Control Board. The Chief Information Officer will evaluate all changes approved by the HANDI 2000 change board whether they should be submitted through the IRM change management process.

HANDI 2000 ERP Software System Baseline Changes

All proposed changes to the baseline software will be addressed to the HANDI 2000 Change Control Board. Any HANDI 2000 ERP software system that requires any programming changes to the software that would have an impact on the functionality of other integrated software modules or implementation of new customized revisions must be approved by the HANDI 2000 Change Control Board. Prior to presenting changes to the change board all requests will be reviewed by a HANDI 2000 Technical Review Board. That board will forward a recommendation to the HANDI 2000 Change Control Board that addresses the following points:

- Recommendation to approve/disapprove
- Assessment of technical merit of proposal
- Assessment of validity of cost, schedule, and risk projections
- Identification of possible alternatives outside the control of the project team

The overall flow of the software change process is shown in the following diagram.
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Change Request Process for Baseline Software

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Problem Tracking and Resolution

Central to effective configuration management is the identification, tracking and resolution of anomalies, commonly referred to as “bugs.” Any observed system or process behaviors that are unexpected will be reported and tracked through a common process. Reported problems will be assessed to determine their nature and categorize them for action. Problems that relate to improper understanding or implementation of the product will be referred to the process design teams for correction. Problems that relate to our internal setup and operation of the software will be referred to the technical support organization for correction. Problems that relate to incorrect or inconsistent behavior of the software will be referred to Indus for resolution. During the implementation phase, Indus is the prime contractor for the total solution and all problems will be reported and resolved through them. As the implementation phase comes to completion, ongoing problem reporting and resolution processes will be established with the individual vendors: Indus, PeopleSoft and Primavera.

System Integration

Technologies that have a potential to be replaced or interface with HANDI 2000 ERP software must be evaluated for integration with HANDI 2000 ERP software. Initial screening of the IRM application for impacts on the HANDI 2000 Project will be conducted by the IRM Change Control Board, those that have a potential for impact will be forwarded to the HANDI 2000 Change Control Board for disposition.
SYSTEM INTEGRATION AND ADMINISTRATION PLAN

Introduction

HANDI 2000 consists of eight distinct subprojects addressing major business functions. Each of the eight functional areas will be implemented as business cases are developed that demonstrate an appropriate need. Some functional areas, especially the downstream activities, may include additional scope as the business case is developed. For example, the Exposure subproject emphasizes the importance of tracking and managing radiation exposure for the PHMC scope of work, but there are additional environmental, safety and health functions such as material safety data sheets, emission tracking, etc. that may also be incorporated as the business case is developed. The eight functional areas are:

- Human Resources
- Program Planning
- Finance
- Action Tracking
- Supply Chain
- Work Management
- Document Management
- Exposure

The major integration issues to be managed are the overall coordination of the subproject activities, integration of the commercial products from three different vendors, and integration of external applications with the finished product.

Program Logic

The overall program logic is illustrated on the following eight logic diagrams. Interconnections and dependencies are noted as connection points on each diagram. The program logic allows executive and project management to see the interaction and dependencies of the various project activities. It forms the basis for making scope and performance tradeoffs, supports analysis of impacts resulting from schedule, budget or organizational issues, and serves as the upper-level planning tool from which subordinate schedules and budgets are structured.

All project planning, budgeting and performance measurement will trace back to the underlying program logic. If scope changes become necessary, they will be incorporated first into the program logic and then propagated into the detailed planning.
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Finance Program Logic

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Action Tracking Program Logic

Sheet 4 of 8
Supply Chain Program Logic
Document Management Program Logic

Sheet 6 of 8
Work Mgmt Program Logic
Integration Product

Central to the HANDI 2000 implementation strategy is vendor accountability for product integration. The contract placed with Indus includes their responsibility for integrating the commercial software provided by Indus, PeopleSoft, and Primavera. Indus' integration approach is to provide an integration product that maps like data between the three products. Indus provides the physical and logical linkages; the project establishes the user-defined data structures, loads data, and establishes the frequency of synchronization between databases.

External Integration

There are a number of existing applications that will not be replaced by HANDI 2000 but do interact with applications being replaced. In many cases these interactions are not well documented. As the detailed implementation is developed for each subproject, the analysis of the as-is condition and the design of the to-be state will establish integration requirements for external applications.

All of the commercial products being utilized support external integration via programming "hooks" known as Application Programming Interfaces (APIs). It will be the responsibility of the owners of the external applications to develop corresponding linkages from their applications to the HANDI 2000 APIs.
VENDOR SPECIFIC DOCUMENTS

Site Survey

Implementation of enterprise-wide software has a potential impact on many areas of the Information Systems infrastructure. The Indus site survey is used to identify the technical requirements of, and potential technical impediments to, a successful implementation. The survey examines the present and planned network, desktop hardware and software strategy, existing server capacity, and technical skill sets of employees working to implement and maintain the system.

The Site Survey generates a list of technical issues that may impact the implementation and identifies steps that must be taken toward the resolution of each.

Sizing Study

System performance is one of the prime factors for satisfaction with any application software. It is especially important in the case of an enterprise-wide application such as HANDI 2000. Indus is contracted to conduct an assessment of our environment to develop an accurate projection of the production transaction load. From that transaction load projection, hardware requirements can be forecast and appropriate steps taken to insure that the required hardware is in place in time for the production rollout.

Mobilization Plans

The Mobilization Plan provides vendor recommendations regarding organization, resources and schedule. It forms the basis for starting early activities while the detailed planning proceeds. The Mobilization Plan is an overview of the implementation process that addresses the scope of the implementation so that it fits our specific environment.

It also identifies assumptions governing overall conduct of the implementation effort. These include the inter-relationship of reengineering and software installation, the premise that a baseline product strategy is being followed and the human engineering (ability to absorb change) aspects of complex enterprise system installations.

Key Elements of this plan are:

- Description of processes used in implementation
- Clear scope statement with responsibilities clearly assigned
- Preliminary schedule
- Preliminary estimate of budget
Mobilization plans have been prepared for the following aspects of the project:

- Finance and Supply Chain
- Work Management
- Project Management
- Integration

**Product Documentation**

Product documentation is provided on CD-ROM media by the vendors. The following CD’s have been provided:

- Abacus 3.1 – Documentation of the Indus product implementation methodology
- Passport Baseline Documentation Release 6.0.1 – Product descriptions for each module, data models, system administration guide, technical support workbenches, data migration information, and product specifications.
- PeopleSoft Version 7 – Hypertext walkthroughs of product functions, report structures, and training guides.
- Passport-PeopleSoft Integration – Advance copy of the specification and default values for the integration product linking Indus Passport with PeopleSoft Financials.
PROJECT CLOSEOUT

Closeout Activities

The project is composed of several sequential subprojects; these closeout activities are iterative for each subproject with a final closeout for the overall project. Closeout consists of three phases: Establishing an ongoing operations capability with will receive functional responsibility for the finished product; conducting acceptance testing and actually turning the product over; and closing out the residual project functions. The closeout planning will be completed as part of the detailed process definition. Process redesign will not be considered complete until the acceptance and closeout process is documented.

Establish Ongoing Operations Capability

This phase of the closeout establishes the organizational responsibility for accepting and operating the finished product. It is completed when the following four activities are complete:

- Establish ownership for the continuing funding and operation of the HANDI 2000 system.
- Move configuration control for the system from the project into the operations unit.
- Establish any needed contractual relationships with the individual software suppliers (Indus, PeopleSoft, and Primavera) for ongoing maintenance and support.
- Turn training resources over to the owner in order to support ongoing training activities.

Acceptance/Turnover

This phase of the closeout consists of the project and the owner establishing the acceptance criteria for product turnover, developing a mutually agreeable test and acceptance process, executing the test, resolving discrepancies and agreeing to turnover.

Closeout

During this final phase of the project, the product has been turned over to the owner and the project personnel closeout the following residual activities:

- Closeout all contracts for product delivery, support and installation.
- Complete all project records and place them in appropriate records storage.
- Release any remaining temporary staff.
- Reassign any permanent staff to new assignments.
HUMAN RESOURCES PLAN

Introduction

The purpose of this plan is to describe the processes and the facilities to be used in deploying and training personnel affected by the work process changes resulting from the HANDI 2000 project to help them transition to the work environment resulting from those changes.

Areas covered by this plan:

- Structure of new work environment
- Development of job descriptions
- Job application and selection process
- The People Center
- Communication
- Use of the ABACUS training survey
- Philosophy of training for the HANDI 2000 project
- Schedule for development of the training plan
- Contents of the plan

STRUCTURE OF NEW WORK ENVIRONMENT

The re-engineering associated with implementing an unmodified COTS system creates a new work structure. Rather than managers monitoring the work of a functional area, there will be owners of processes that cut across several functions. Process Owners will be senior individuals with the accountability for all aspects of their process, from end to end.

Processes are those activities that produce an output that achieves the company's mission. Finance, procurement, work management are not processes. They are functions that contribute to the success of processes. The business processes that were built into the software that HANDI 2000 is comprised of are crosscutting.
The result will be a matrixed organization as depicted in the example below:

**Typical Current Work Structure**

**Work Structure After Process Redesign**

**DEVELOPMENT OF JOB DESCRIPTIONS**

The business process improvement sessions facilitated by the software vendor are the beginning of re-engineering. From the BPI sessions and the resolution of issues arising from them, the new work process emerges. As the new work process is clarified, job descriptions can be written for the new positions.

**JOB APPLICATION AND SELECTION PROCESS**

Once the job positions needed for by the new work processes are identified and the job descriptions written, the people currently working in the area will have to apply for the new positions. The old jobs literally will be abolished under the re-engineered system. The Human Resources (HR) Department will be involved, adding new "attributes" into traditional, technical job descriptions. Initiative, judgment, teamwork skills, leadership, decision-making ability, and customer focus are to be added to job description for non-bargaining unit positions (positions where employees are not represented by unions). Even for bargaining unit positions where job descriptions stay the same, personnel's work scope will change to include helping to prepare work packages instead of simply executing work packages.

HR involvement in designing the new job descriptions will specifically be focused on four areas: selection, compensation, performance measurements, and re-deployment of excess workers. Salaries will be placed in "broad bands" for the new positions, so that in no cases will people's individual salaries immediately change. Bands may be as simply as management, professional, salaried non-exempt, and bargaining unit.
New job positions will be posted in a "People Center" newsletter and at some ancillary locations. The application time will be limited to two weeks, with only current employees from a specific area able to apply for the new positions. Applicants will be asked to list their first, second and third choices for placement on teams. Employees will be encouraged to list not just jobs most closely fitting their current job, but additional jobs that might use skills not previously recognized or exercised. A Selection Committee will be chosen to review the applications and to pick people for each of the positions. The Selection Committee should consist of a HR representative, the HANDI 2000 Re-engineering Director, the Director of the functional area, the Process Owner and one or two other related individuals. The interviewing and selection process will take approximately two weeks.

**THE PEOPLE CENTER**

A "People Center" will be established, initially in 2355 Stevens, to address the substantial changes that are anticipated from the full HANDI 2000 implementation. People Center's have been successfully used in re-engineering efforts at PUREX and B-Plant.

The magnitude of the changes approaching employees necessitates some positive steps be taken to address the changes. A Task Team consisting of an organizational development specialist, a communications specialist, and representatives of many job categories (management, exempt, salaried non-exempt, and bargaining unit). The key missions for the Center will be communications and job placement information and services. The crucial difference between the People Center and traditional HR services will be that the Center will be available well before people are officially issued notices of impending termination, providing direct access to all Human Resources services; timely information about the project, site and external information; and by giving employees opportunities to help prepare themselves for employment at the completion of the project. Placement efforts for people whose work will actually end will be
aimed outward in a widening circle first on the Hanford Site, then in the Hanford region, and then in the larger Pacific Northwest region.

To enable the People Center to function optimally it will be staffed full-time (but on a rotational basis) so that employees can have access to it whenever they feel most anxious. The anticipated benefits of the People Center are enhanced project stability; giving employees access to accurate information about the Hanford Site and about HANDI 2000; providing employees access to career pathing tools; sharing information to enable employees to make intelligent career decisions; allowing employees a place to talk and a person to talk to; providing confidential counseling; and limiting or preventing unfounded rumors. The Center should offer HR Job Placement services (Internet connections and other computer links, voice mail services, points-of-contact lists from local agencies, forms, procedures, union contacts and contracts, union seniority lists); assistance in writing resumes; books, audio tapes and video tapes on the interview process; bibliographies of resources from the local college and university; and contact with coordinators and specialists in Employee Concerns (a grievance program), organizational development, and communications.

COMMUNICATION

A People Center newsletter, or column in existing HANDI 2000 newsletters, will be started immediately. Also in view of people's different learning styles, Employee Meetings should be held on a monthly basis with employees in the affected areas so that people could hear the project news verbally. All employee bulletins will also be used to provide specific information.

THE TRAINING PLAN

As BPI sessions end and larger group re-engineering occurs it will be necessary to provide people with ongoing training in how to function in new modes. Training, based on DDI vendor-supplied, commercial modules will be used in the four fields of teaming skills, communication skills, leadership, and problem solving. Additionally, a self-directed video course will be available to assist process teams to understand their work culture and basic roles and responsibilities that may act as a "Team Start-up Kit".

USE OF THE ABACUS TRAINING SURVEY

The ABACUS training survey is a template that will be used for developing the training plan. Then the template is followed and the survey complete, the training plan document will be developed. The ABACUS template training survey is attached.

PHILOSOPHY

There are four areas that will be addressed in the training plan:
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- Job skills/software/job process training
- Transition/change/stress management training
- Teaming/cultural skills training
- Management leadership training

Each of these areas is important and must be considered essential for a successful transition.

SCHEDULE FOR DEVELOPMENT OF TRAINING PLAN

Completion of the training survey and writing of the training plan should take approximately 4 weeks. Concurrent with that activity, determination of the appropriate DDI courses will occur and be included in the final plan.

CONTENT OF THE PLAN

The plan will contain information about:

* Facilities and infrastructure
* Method of delivery
* Levels of training
* Outline for education plans (types of classes, curricula, end-user programs)
* Communication plans
* Post implementation and ongoing support
GLOSSARY AND TERMS

AS-IS - The product of a process to baseline an existing process; to identify and document performance gaps in process cost, cycle time, product quality, and organizational and technological issues, in order to develop process improvement opportunities.

Baseline - The original plan (for a project, a work package, or an activity) plus or minus approved changes. Usually used with a modifier, e.g., cost baseline, schedule baseline, performance measurement baseline, etc.

Business Process - A set of logically related tasks performed to achieve a defined business outcome.

Business Process Improvement - A process that redesigns work processes to take advantage of the best business practices around which the ERP software is designed.

Change Control - Change control is the process by which changes to the technical, cost, and schedule baselines are managed.

Configuration Management - An integrated management process and program that establishes consistency among requirements, basis, functional configuration, physical configuration, and documentation, allocates requirements and maintains and controls consistency throughout the life of the product as changes occur.

Control - The process of comparing actual performance with planned performance, analyzing variances, evaluating alternatives, and taking appropriate corrective action as needed.

HANDI 2000 - FDH Project with the scope of implementing an enterprise resource planning solution and identifying and resolving the Hanford site year 2000 issues.

Enterprise Resource Planning (ERP) - Integrated software packages purchased from Indus and PeopleSoft.

Integration - determining all the interactions between the diverse functional and organizational aspects of site activities, and unifying as a whole by incorporating those interactions into planning, decision making, and execution.

Other Hanford Contractors - DOE contractors that are not part of the PHMC Team.

PHMC Team - FDH and its subcontractors.

Product - Indus Passport and PeopleSoft integrated software.
Project - An activity or series of activities related to the accomplishment of a clear goal, with a beginning, a middle, and an end to the efforts, and with defined lines of authority and responsibility, scope of work, and budget with change control.

Site - Synonymous with 'Hanford'. Use of these terms shows FDH's involvement in Hanford activities to the extent authorized by the PHMC.

Subproject Managers - Project Managers reporting to the H2K Project Director, responsible for full implementation of assigned ERP software modules.

TO-BE - A product of the business process improvement process by which business rules are defined and Indus Passport and PeopleSoft implementation preferences are set.

Year 2000 (Y2K) Project - FDH Project with the scope of mitigating the site's year 2000 issues

Year 2000 Issues - For decades, expensive data storage was minimized by storing the Year as two digits (97) without the century, instead of four digits (1997). As a result, some computer systems store the Year 2000 date as 00. Many computer systems will interpret 00 as the Year 1900 rather than the Year 2000 resulting in unpredictable behavior or inoperability.

Customizations - items considered customizations to the PeopleSoft and Indus baseline products:

Modifications to vendor supplied software:
- Adding, removing or changing executable code
- Removing or changing SQR code
- Removing or changing reports generated from within the software package

Modifications to the user interface:
- Adding new menu items or changing vendor supplied menu items
- Adding new panels or changing vendor supplied panels
- Adding, removing or changing fields on a panel
- Adding a Passport rule to a panel

Modifications to the database:
- Adding or removing a table in the database
- Adding or removing a field in a table
- Changing the attributes of a field
Modifications to data values:

- Using a field for which it was not intended
- Changing default values for a field *
- Adding or changing data input edits

Items not Considered Customizations to the Baseline Products:

- Reports developed by user organizations
- Reports, including SQR or Crystal Reports, created for the customer by LMSI or other services providers
- Adding user defined fields or values to a delivered database process *
- Setting standard product preferences and setup parameters *

* Configuration Control of User Configurable Parameters

As part of the baseline products, undefined database fields are provided to allow organizations the flexibility of capturing data needed to support business processes without making changes to the database structure. Many of the fields are provided with default values that can be configured by the implementing organization. The products also allow the implementing organizations to select options for process flows and overall system configuration. Establishing the values and preferences for these types of options is not considered customization.

Once those decisions have been made however, the implementation comes under configuration control. Further changes, while not considered customizations, do require the concurrence of the change board.
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<tr>
<td>ANSI/IEEE</td>
<td>American National Scientific Institute/Institute of Electrical and Electronic</td>
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<td>BMS</td>
<td>Business Management System</td>
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<tr>
<td>CCB</td>
<td>Change Control Board</td>
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<tr>
<td>COTS</td>
<td>commercial off-the-shelf</td>
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<tr>
<td>DOE</td>
<td>U. S. Department of Energy</td>
</tr>
<tr>
<td>DOE-RL</td>
<td>U.S. Department of Energy-Richland Operations Office Engineers</td>
</tr>
<tr>
<td>FDH</td>
<td>Fluor Daniel Hanford, Inc.</td>
</tr>
<tr>
<td>HLAN</td>
<td>Hanford Local Area Network</td>
</tr>
<tr>
<td>HRIS</td>
<td>Human Resource Information System</td>
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<tr>
<td>LANMAS</td>
<td>Local Area Network Material Accountability System</td>
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<tr>
<td>LMSI</td>
<td>Lockheed Martin Services Incorporated</td>
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<td>MSDS</td>
<td>Material Safety Data Sheet</td>
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<td>OSSP</td>
<td>Organization Standard Software Practices</td>
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<td>PHMC</td>
<td>Project Hanford Management Contract</td>
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<td>PP</td>
<td>PassPort</td>
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<td>PR</td>
<td>Problem Report</td>
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<td>PRRB</td>
<td>Production Readiness Review Board</td>
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<td>PS</td>
<td>PeopleSoft</td>
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<td>SCMP</td>
<td>Software Configuration Management Plan</td>
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<td>SCR</td>
<td>System Change Request</td>
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<td>SEI/CMM</td>
<td>Software Engineering Institute/ Capability Maturity Model</td>
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<tr>
<td>TRB</td>
<td>Technical review Board</td>
</tr>
<tr>
<td>VDD</td>
<td>Version Description Document</td>
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DEFINITIONS

Baseline: A bounded set of uniquely identified Configuration Items, which constitute the software product baseline either from an overall development or a Commercial off the Shelf (COTS) product. The software product baseline thereafter serves as the basis for further development of the software product.

Configuration Item (CI): The basic unit of software configuration management. This could be any life cycle document, source code module(s), various libraries, utilities etc., which in the aggregate comprise "the system".

COTS Customization: Any approved change to a COTS baseline software package/product to satisfy a specific need that can not be met by changing system options, user options, or business processes not mandated by law or policy above the level of Department of Energy-Richland, Washington (DOE-RL). Refer to Appendix B, HANDI 2000 Customization Guidelines.

HANDI 2000 Change Control Board (CCB): The primary purpose of the CCB, is to review and direct the HANDI 2000 business and funding requirements, associated policies for the site, and retain final authority to approve/disapprove System Change Requests.

HANDI 2000 Production Readiness Review Board (PRRB): The primary purpose of the PRRB serves to ensure changes to, or implementation of a new/modified Hanford system will not adversely impact any other production system and/or the Hanford Local Area Network (HLAN).

HANDI 2000 Project: The Hanford Data Integration Year 2000 Project is an integrated comprehensive set of functional applications containing core information required to support the Project Hanford Management Contract.

HANDI 2000 Technical Review Board (TRB): The primary purpose of the Technical Review Board is to ensure Fluor Daniel Hanford, Inc. (FDH) and Lockheed Martin Services Inc. (LMSI) standards for software development and controls are upheld during any system change or implementation.

Production: Pertaining to the status of a given system once it has entered the operation and maintenance phase. Production status is granted after customer acceptance and implementation is complete.

Project Management Organization: The FDH organization that has ownership responsibility for the software, with LMSI technical support.
System Change Request (SCR): The SCR document specifies changes desired/requested to resolve a system problem, add, modify, or delete functionality, or improve performance. An SCR is the initial identification of proposed changes to systems and must be agreed to by the customer before review by the TRB or commencement of change implementation activities.

Software Configuration Management: A set of management disciplines within the context of the system engineering process that applies technical and administrative direction and surveillance. It identifies and documents the functional and physical characteristics of a product, controls changes to those characteristics, and records and reports on the change process and implementation.
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1.0 INTRODUCTION

The Hanford Data Integration 2000 (HANDI 2000) Project is an integrated and comprehensive set of functional applications containing core information necessary to support the Project Hanford Management Contract. It is based on the following commercial-off-the-shelf product solution with commercially proven business processes. The system will reduce the number of legacy systems maintained today and absorb key systems identified that have Year 2000 issues. This includes systems that support finance, supply, chemical management/Material Safety Data Sheet (MSDS), human resources, and payroll activities on the Hanford Site. The PASSPORT\(^1\) (PP) software is an integrated application for Accounts Payable, Contract Management, Inventory Management, Purchasing, and MSDS. The PeopleSoft\(^2\) (PS) software is an integrated application for General Ledger, Project Costing, Human Resources, Payroll, Benefits, and Training. The implementation of this set of products, as the first deliverable of the HANDI 2000 Project, is referred to as Business Management System (BMS) and MSDS.

1.1 PURPOSE

The Software Configuration Management Plan (SCMP) describes the configuration management and control environment for HANDI 2000 for the PP and PS software as well as any custom developed software. This plan establishes requirements and processes for uniform documentation control, system change control, systematic evaluation, and coordination of HANDI 2000. This SCMP becomes effective as of this document’s acceptance and will provide guidance through implementation efforts and, as a “living document”, will support the operation and maintenance of the HANDI 2000 systems.

1.2 SCOPE

The SCMP covers software configuration management, configuration identification, configuration change control, configuration status tracking, and configuration audits. The SCMP applies to the PP, PS, and custom application software and supporting documentation of HANDI 2000. The SCMP and associated procedures apply to all BMS and MSDS modules, external system interfaces, as well as future HANDI 2000 modules. Excluded are vendor software products required to maintain the system servers, workstations, and telecommunications equipment in operational status.

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\(^1\) PASSPORT is a trademark of INDUS International, San Francisco, California.
\(^2\) PeopleSoft is a trademark of PeopleSoft, Inc., Pleasanton, California.
This section is an overview of the management structure and its responsibilities governing the HANDI 2000 project.

2.1 ORGANIZATIONAL STRUCTURE


2.2 ORGANIZATION ROLES AND RESPONSIBILITIES

Fluor Daniel Hanford, Inc. is the organization driving the HANDI 2000 project. Within Fluor Daniel Hanford, Inc. is the Chief Information Officer, Hanford Business Systems, and Internal Audit. Their responsibilities are explained in Sections 2.2.1, 2.2.2, and 2.2.5.

Lockheed Martin Services, Inc. is the organization that provides the technical expertise for the HANDI 2000 project. It’s responsibilities are explained in Section 2.2.3.

INDUS International, Incorporated is the organization in charge of integrating the software for the project. It’s responsibilities are explained in Section 2.2.4.

2.2.1 Fluor Daniel Hanford CIO Organization

The responsibility of the FDH CIO organization is as follows:

- Establish and communicate PHMC Information Management policy;
- Broadcast HANDI 2000 approved standards;
- Communicate approved changes for current site standards;
- Arbitrate resolution of HANDI 2000 data issues impacting DOE-RL and Site Contractors.

2.2.2 Fluor Daniel Hanford Business Systems Organizations

The Fluor Daniel Hanford Business Systems Organization’s responsibilities are as follows:

- The FDH Finance organizations are responsible for the HANDI 2000 Financial modules, financial business processes, as well as financial data and information.
- The FDH Acquisition and Chemical Management organizations are responsible for the HANDI 2000 Supply modules, acquisition and supply business processes as well as supply data and information.
The FDH Personnel Service organization is responsible for the HANDI 2000 Human Resource modules, human resource business processes, as well as human resource data and information.

The FDH Training organization is responsible for the HANDI 2000 Training module, training business processes, as well as training data and information.

The FDH Personnel Accounting organization is responsible for the HANDI 2000 Payroll module, payroll business processes, as well as payroll data and information.

2.2.3 Lockheed Martin Services, Incorporated

Lockheed Martin Services, Incorporated responsibilities are as follows:

- Provide the system technical staff for the HANDI 2000 Project
- Responsible for the HANDI 2000 software and hardware maintenance and operation
- Lifecycle support the HANDI 2000 business systems as required by FDH.

2.2.4 INDUS International, Incorporated

INDUS International, Incorporated is the focal point for the PP and PS software integration. This contractor shall ensure that the integrated products are comprised of the appropriate vendor software release levels, and are ready for production installation, and will fulfill any and all contractual obligations under contract MJC-SBB-A34602.

2.2.5 Internal Audit

The FDH Internal Audit is responsible for providing independent review of all financial, managerial, and internal control aspects of PHMC Operations.

2.3 PERSONNEL ROLES AND RESPONSIBILITIES

Software Configuration Management will be a collaborative effort between FDH, LMSI, and INDUS International personnel. The primary responsibility of assuring configuration control is met belongs to the FDH system owners. Refer to HNF-1984, Finance and Supply Project Execution Plan (Adams 1998) for HANDI 2000 Project roles and responsibilities.

2.3.1 Project Director

The Project Director is responsible for the following:

- Clarification of project needs and requirements
- Provides authority and interface with FDH, LMSI, and COTS personnel pertaining to
unresolved issues

- As a member of the HANDI 2000 Change Control Board, represents business processes and assesses any impacts to those processes based on submitted change request(s).

2.3.2 Project Manager

The Project Manager is responsible for the following:

- Ensures the functional and technical staff is available for the support and maintenance of HANDI 2000
- Ensures the System Change Request (SCR) process is employed/used in all software enhancement, maintenance, and application activities
- Participates in the analysis of an SCR to determine estimates of time, resources, system impact and business impact
- Determines recommended SCR/maintenance work groupings constituting version updates and/or new versions of software and documentation.
- Participates on the HANDI 2000 Technical Review Board (TRB) for review and recommendations of SCRs to the Change Control Board (CCB)
- Coordinates all approved modifications and enhancements to the system
- Coordinates peer review for coding and system testing
- Coordinates availability and use of users as system testers with functional leads
- Conducts functional lead review and approval of test results.

2.3.3 Functional Lead

The Functional Lead is responsible for the following:

- Verifies that all changes adhere to the test criteria and meet the intent of the SCR
- Monitors and reports the status of the SCR
- Assigns SCR numbers and maintains the SCR log
- Communicates change requests to the TRB through the use of an SCR
- Participates in creation of overall test process definition and scripts
- Performs tests required to substantiate that the change is performing as specified
- Coordinates implementation of the SCR with the HANDI 2000 Production Readiness Review Board (PRRB).

2.3.4 User Representative

The User Representative is responsible for the following:

- Participates in testing the SCR
- Participates in verifying and recording system test results
2.3.5 INDUS Integration Vendor

The INDUS Integration Vendor will work to the work scope outlined in their contracts. Refer to FDH contracts MJC-SBB-A346022, September 10, 1998 and G956631J73, March 31, 1998.

2.3.6 Software Engineers/Business Analysts

The Software Engineers/Business Analysts responsibilities are as follows:

- Participates on the HANDI 2000 Technical Review Board
- Participates in the estimates for hours, cost, and schedule for an SCR
- Maintains the HANDI 2000 application software and supporting documentation associated with changes
- Works approved SCRs
- Assists process owners in the development of test plans to verify requested modifications perform as defined
- Performs Unit Testing and Integration Testing on changes to ensure they are error free and meet the criteria defined in the applicable SCR
- Serves as technical consultants relative to any HANDI 2000 technical issues
- Interfaces with the organization responsible for the Hanford Local Area Network (HLAN) and any network issues relative to the HANDI 2000 and Data Center operations
- Assists FDH Project Manager with the SCR implementation preparation for the PRRB
- Plans for and implements commercial product version upgrades and maintenance releases
- Documents system changes and maintains a history of the changes.

2.3.7 Database Administrator

The Database Administrator is responsible for the following:

- Participates or have representation on the HANDI 2000 Technical Review Board
- Participates in the estimates for hours, cost, and schedule for an SCR
- Serves as technical consultant relative to any HANDI 2000 technical issues
- Interfaces with the organization responsible for the Hanford Local Area Network (HLAN) and any network issues relative to the HANDI 2000 and Data Center operations
- Creates the databases
- Controls the databases
- Sets up operational system and database level security

2.3.8 Data Administrator

The Data Administrator is responsible for the following:

- Management of documentation configuration control
• Interfaces with the FDH CIO organization
• Participates in data issue resolution
• Focal point for coordination and control of data integrity
• Provides input on long term data/information planning/needs
• Provides input for data archival and retrieval
• Establishes standards and guidelines for data naming conventions, technical nomenclature, and integration
• Responsible for the data management tool set (Glossary of Terms, Data Dictionary, INDUS DM tool, Data Model(s), and so forth).

2.3.9 Operations Administrator

The Operations Administrator is responsible for the following:

• Creates production operational test process definitions and procedures
• Creates production network and operational test environment
• Performs production operational testing
• Performs production backup and recovery processes
• Monitors production system performance.

2.4 HANDI 2000 SOFTWARE CHANGE CONTROL BOARDS

There are three boards concerning software change control. When a System Change Request or a Problem Report (SCR/PR) is generated, the first board to review the SCR/PR is the HANDI 2000 Technical Review Board. After the Technical Review Board ensures the criteria have been met, the SCR with recommendations is forwarded to the HANDI 2000 Change Control Board. The Change Control Board retains the authority to approve/disapprove the SCR. If the SCR is approved and the work is complete, the PRRB has the responsibility to approve/disapprove implementation. Refer to Appendix D, HANDI 2000 Board Members for further information.
2.4.1 HANDI 2000 Technical Review Board

The primary purpose of the Technical Review Board (TRB) is to ensure FDH and LMSI standards for software development and controls are upheld during any system change or implementation. There are representatives from the U.S. Department of Energy, Richland Operations Office (DOE-RL), FDH, LMSI and INDUS International Incorporated. When the TRB is satisfied the change package has met the criteria listed below, it is forwarded to the Change Control Board for action. The TRB forwards the package with a recommendation for each request. The TRB shall review the SCR(s) when the initial estimate reveals a change in work scope or cost to the customer. The TRB examines the SCR(s) to ensure the following objectives:

- Business needs are clearly documented
- Requested change is clearly stated
- Costs and impacts are well documented (including potential "Accounting Changes" and associated program impacts)
- Alternatives have been adequately explored
- Appropriate configuration management and quality assurance activities were planned
- Dollar estimates provided were obtained through appropriate channels
- Estimated man-hours are reasonable.

The TRB will also review the SCR just before implementation to ensure:

- Planned activities were accomplished
- The SCR documentation is complete
- Unit tests were comprehensive
- Unit and acceptance test environments were as accurate as possible
- Unit and acceptance test plans were comprehensive.

2.4.2 HANDI 2000 Change Control Board

The primary purpose of the CCB, is to review and direct the HANDI 2000 business and funding requirements, associated policies for the site, and retain final authority to approve/disapprove System Change Requests. The members that comprise this board are representatives from DOE-RL and FDH and will meet as required. The CCB reviews the requested changes with the following objectives:

- Evaluate whether or not the need justifies an action
- Concur that alternatives were adequately evaluated
- Consider alternatives beyond the scope and control of the technical review team
- Determine whether or not the need justifies the impact of making the change
- Approve/disapprove the SCR.
2.4.3 HANDI 2000 Production Readiness Review Board

The primary purpose of the PRRB serves to ensure that changes to or implementation of new Hanford systems will not adversely impact any other production system and/or the Hanford Local Area Network (HLAN). The representatives on this board are from FDH and LMSI and will meet as required. This board reserves the right to deny implementation approval to any individual, team, or department, which cannot demonstrate that adequate preparation has been accomplished. Refer to LMSI OSSP Production Readiness Review Board for further information.

Not all of the items listed may apply to all changes.

- Acceptance test plan is complete
- Communications plan to conduct intergroup coordination with network administrators is addressed
- Identify the vehicle and responsible party for alerting end users to pending modifications to their system and an indication of down time, if applicable
- Coordinate change with LMSI Customer Technical Service, and if appropriate, conduct specialized training to enable customer service to better support the customer and end-user
- Adequate planning is in place to restore systems to their prior implementation configuration in the event of an unexpected failure
- Verification that proper communication with external and internal data systems have been accomplished and the system is prepared to send or receive a modified or new file.

2.5 IMPLEMENTATION

The LMSI software engineers, database administrators, and operations administrators establish the baseline of a configuration item. It will be documented in the SCR and/or COTS documentation. The remaining project configuration items are turned over to LMSI database administrator and/or the operations administrator immediately before implementation. The LMSI software engineers, database administrators, and operations administrators, with support from the COTS representative, have the responsibility for defining, with the initial Version Description Document (VDD), the first baseline for the system. Once established, the VDD is the responsibility of the LMSI organization and is updated based on changes to the system by way of the SCR process. Refer to HNF-2795, Production Rollout Plan (McKay 1998a) for further information.

2.6 POLICIES AND PROCEDURES

The SCMP has been developed using the standards documented in the American National Scientific Institute/Institute of Electrical and Electronic Engineers (ANSI/IEEE), Software Engineering Institute/Capability Maturity Model (SEI/CMM), Hanford Procedures (HNF-PRO), and Lockheed Martin Services, Incorporated Organization Standard Software Practices (LMSI OSSP) document directives referenced earlier as a guideline. However, the FDH and LMSI
organizations reserve the right to modify procedures as required to ensure the integrity of all
configuration management baselines. Specific procedures for performing the operational
maintenance SCM activities are defined in the LMSI OSSP controlled documents.

3.0 SOFTWARE CONFIGURATION MANAGEMENT ACTIVITIES

This section is an overview of the software configuration management activities.

3.1 BASELINE ITEMS

All items that make up a given system, must be uniquely identified and listed in the
Version Description Document (author date) referenced in Appendix A, Version Description
Document Format. These configured items include life cycle documentation, software code
modules, application libraries, executable libraries, operating system utilities, COTS products,
selected data, and other elements of the system that impact the ability to re-create the system.
Configuration items are baselined when they have been formally reviewed by LMSI software
engineers, database administrators, and if appropriate COTS representatives, and the HANJX
2000 Software Change Control Boards. These baselined items can be changed only through
formal change control procedures.

3.1.1 Baseline Identification

The LMSI software engineers, database administrators, and operations administrators, with
support from the COTS representative, have the responsibility to provide a complete VDD
before system implementation. The HANDI 2000 product baseline is the unique identification of
all required components for a given application to function correctly. Listed below are examples
that depict the type of structural identification required for traceability and change control, but
are not inclusive.

- COTS Documentation
- System Change Requests
- System Design Document
- Test Plans
- HANDI 2000 Source Code
- Database Libraries
- Structure Query Language Scripts
- Processes
- Reports
- Parameter Files
- Operating Utilities
LMSI software engineers, database administrators, and operations administrators will maintain the current production and previous version of each system. Between baselines, each change to an individual system component will be tracked. The VDD identifies system components created by LMSI staff and the COTS software. For example, the VDD shall contain the appropriate version of the Database Management System software, the Operating System, Reporting Software, and so forth. Often in dealing with COTS products, it is not only the version that must be specified but also specific values or parameters. The data values are appropriately noted in the VDD if they affect or prevent normal system functionality.

3.2 SYSTEM CHANGE REQUEST PROCESS

The purpose of an SCR is to document requested changes to a baseline system. An SCR is required when a change is proposed to any component of the system. Refer to APPENDIX B, *HANDI 2000 Customization Guidelines and Release and Upgrade Procedure HNF-2639*, (Evosevich 1998) for further information.

Some sample situations requiring an SCR are as follows:

- New tables need to be added to the existing system as part of a system enhancement to increase capabilities.
- Data elements need to be added to tables, or changes made to existing data tables.
- Changes to processing logic or the addition of new functionality.
- New screens/panels, or forms, are required for report definition and selection criteria.
- Reports need to be added or changed.
- New system interfaces or modifications to the existing system interfaces are required.
- New or revised field calculations contained in screens or reports are required.
- Changing/Upgrading a COTS product.

3.2.1 System Change Request Initiation

Any HANDI 2000 end user, technical staff, computer systems support, and so forth can initiate an SCR. The SCR may use an automated or manual tracking system. The SCR is provided to the FDH Project Manager for review. Refer to Appendix C, *System Change Request Form and Instructions* for further information.

3.2.2 System Change Request Validation

The FDH Project Manager reviews the SCR for apparent need with business analysts and LMSI software engineers, and if appropriate, consults with the COTS representative for a non-customized solution. If a non-customized solution is identified and acceptable, the solution is documented, implemented, and the SCR is completed. If the solution requires customization, the SCR is provided to the FDH, LMSI, and COTS technical staff for alternative analysis and
3.2.3 Alternatives Analysis and Estimation of Hours and Cost

Using the requirements contained within the SCR as a basis, the FDH, LMSI and COTS representatives identify possible alternatives. An estimate for man-hours is prepared. If a dollar amount is requested, LMSI finance will provide the appropriate figures. Additionally, costs for hardware or software, as required, must be provided by LMSI’s Business Operations office. As part of the estimate, and as appropriate to the SCR, the required deliverables for documentation, review, software construction, and testing are noted. The nature of these deliverables is directly dependent upon the technical scope and technical complexity of the SCR. System documentation will be revised as appropriate based on the amount of system change. Refer to LMSI OSSP Cost Estimating for further information.

3.2.4 Technical Review Board

The TRB reviews all SCRs when the initial estimates reveal a change in work scope or costs to the HANDI 2000 project. The SCR is provided to the HANDI 2000 CCB with action recommendations from the TRB for approval or disapproval. Refer to Section 2.4.1 of this document for detailed information.

3.2.5 Change Control Board

The Change Control Board will review SCRs provided from the TRB for approval or disapproval. Refer to Section 2.4.2 of this document for detailed information.

3.2.6 Software Design, Construction, and Unit Testing

HANDI 2000 will establish system environments as identified in the Region and Database Management Plan, HNF-2584 (Evosevich and Lutter 1998). At a minimum, the test and production environments will reside on different hardware platforms. These environments will be used to develop, unit test, and perform acceptance testing of system changes.

The following is an overview of the process:

- A “Development” environment for the initial construction and debugging of software is maintained and controlled by the responsible software engineer. This area will include the modules necessary to affect the changes required by the SCR, as well as other accompanying programs and routines that are necessary for the particular construction activities being pursued.
After code changes are complete, individual software engineers will perform their own debugging and unit testing activities, and if appropriate hold a code walkthrough before moving the software to the “Test” environment. Refer to LMSI OSSP Code Walkthroughs for further information.

The “Test” environment will utilize production versions of all modules not being changed and will replicate as closely as possible the “Production” environment. Therefore, the modules not being changed will be migrated to the test environment, while the changed components will be copied from the development environment to form a complete system.

Documentation of software revisions is maintained within the LMSI applicable program’s source code, not the COTS source code. The program revision log is stored within the applicable program source code itself; that is, a description of the change, the SCR number authorizing the change, and the date of the change is recorded at the beginning of the source code for each individual component.

An authorized LMSI person, under the direction of the FDH Project Manager, will update the appropriate documentation, such as the System Change Request, Software Design Description, System Test Plan, and if appropriate the System User Manual. The current version of the documentation will be “Checked-Out” of the FDH Configuration Management Library, and when the update is complete the new document version will be “Checked-In” to the appropriate library. FDH will then release the document in accordance with the Engineering Data Transmittal Requirements, HNF-PRO 244 (Skriba 1997).

Peer Reviews will be scheduled and conducted. Peer Reviews may or may not require the presence of FDH Internal Audit or LMSI System Quality Assurance. Refer to LMSI OSSP Peer Review for further information.

Acceptance testing is accomplished in conjunction with FDH specified users, LMSI software engineers, and if appropriate COTS representative. The acceptance will be documented in the test plan. Once the change has been accepted the SCR is updated and scheduled for implementation. If appropriate, the PRRB will approve/disapprove the implementation.

### 3.2.7 Production Implementation

The LMSI software engineers maintain a list of all program modules affected by the SCR being worked, and updates the SCR with all changes performed. When the Test Plan has the appropriate signatures for acceptance, the TRB reviews to verify the change is ready for implementation. FDH and LMSI provide documentation to the PRRB to review for implementation approval. If approved, the responsible LMSI software engineer, database administrator, and/or operations administrator move the software from the test environment to the production environment. The software and documentation are “Checked-In” and become part of the production baselines. This SCMP becomes effective as of this document’s acceptance and will be reviewed throughout the HANDI 2000 life cycle. It will be updated to accommodate the transition from implementation to operation maintenance, as required. Refer to the Production Rollout Plan HNF-2795 (McKay 1998a). After production implementation, LMSI
will work to LMSI OSSPs.

3.3 EMERGENCY CHANGES

In some instances, applications require immediate fixes to ensure user objectives can be met. In these cases it is unrealistic to try to rush a change through the HANDI 2000 Change Control Boards and the SCR process described in Section 3.2. Therefore a substitute process will be allowed in emergency situations.

3.3.1 Emergency Criteria

A system emergency is defined, as any circumstance causing system interruption, a significant reduction in system functionality, or a critical system function has been impaired to the degree that the users can no longer achieve their business objectives. System downtime, major loss of functionality, or severe impacts to dependent or interfacing systems would be considered emergency situations. Improperly estimated schedules or customer driven changes to timelines are not considered emergencies. The TRB will review each emergency change and identify corrective actions to the software support project manager. In order to avoid nullifying the normal SCR process and SCM procedures, only emergency changes as defined here will be permitted.

3.3.2 Emergency Change Process

In the event that an emergency change is required, the LMSI person requesting the change will complete the following process:

- Software engineer verifies emergency exists
- Software engineer opens an SCR and documents the emergency
- The change to the software is performed as expediently as possible
- Software engineer and/or database administrator moves the changed software into production, the SCM baseline is not updated
- The SCR is turned over to the project manager the next workday
- The software support project manager and software engineer will identify the long term fix and initiate the normal SCR process.

3.3.3 System Change Request Follow-Up

The designated LMSI software engineer, database administrator, and/or operations administrator retain the responsibility of ensuring the emergency change is routed through the normal SCR process and a permanent fix is implemented. The designated LMSI personnel will utilize normal management channels to ensure the appropriate actions are taken to maintain the SCM baseline synchronization with the production version.
3.4 CONFIGURATION STATUS TRACKING

Configuration Status involves the tracking and reporting of the change process. The goal is to maintain a record of all items in the baseline and provide traceability of all changes to the baseline throughout the lifecycle. COTS baseline products will not be tracked beyond version numbers. Because LMSI has no ability to control the elements of a COTS package, no attempt at managing vendor changes between versions will be attempted. However, a list will be maintained of all COTS products and versions used by applications supported by LMSI. The LMSI designated personnel will coordinate with Software Accountability to ensure that at least one copy of each COTS product is retained until no longer needed.

3.5 DATA MANAGEMENT

Data management is defined by functional elements that govern data planning and administration, data ownership, data analysis, and database administration. Data management provides for data that is consistent, complete, accurate, accessible, available, and retrievable throughout the lifecycle of HANDI 2000. It is a process that produces quality data as the product from which information can be created for making business decisions. Data management changes will utilize the SCR process. Refer to the Data Management Plan, HNF-2585 (Evosevich 1998a) for further details.

3.6 CONFIGURATION AUDITS

The HANDI 2000 is primarily an integration of commercial products running on site standard equipment. FDH Internal Audit will conduct audits from an annual audit plan approved by DOE-RL and FDH. Management reviews are also performed upon request. Parts, or all, of HANDI 2000 may be the subject of such audits or management reviews. An audit survey is performed from which specific scope, object, and audit procedures are defined. Audit findings will be documented and completion dates for the deficiencies will be established. Reviews will be held to assure deficiencies have been corrected and incorporated. System audits generally include, at a minimum, the following audit areas:

- Physical electronic security
- System Documentation
- User Documentation
- User Training
- Change Control Process
- Data Integrity.

3.7 SECURITY ACCESS CONTROL

HANDI 2000 contains data of a sensitive nature and the FDH, LMSI and COTS representatives will define security definitions and access profiles with appropriate levels. The LMSI database administrator is responsible for setting up the various network access safeguards.
These safeguards prevent unauthorized access to the designated database servers and the data contained within. Refer to the Security Administration Plan HNF-2713 (McKay 1998b) for further details.

The use of passwords is extensive. Passwords are required to connect to the HLAN network and to access HANDI 2000. HLAN passwords are administered by LMSI Network Support. The HANDI 2000 passwords are administered through user security features of the COTS application software. LMSI Customer Technical Service is responsible for setting up, monitoring, and disabling accounts on the HLAN upon notification from the FDH HANDI 2000 administrators. LMSI System Administration Staff, at the request of the designated FDH personnel, will establish new users, assign initial passwords and disable accounts for the appropriate HANDI 2000 system components. End users will be able to modify their own passwords.

3.8 BACKUP AND RECOVERY

Arranging for and ensuring the adequacy of the system backups is the responsibility of the HANDI 2000 FDH Project Managers. The LMSI support service provider is responsible for managing and executing backup and recovery functions.

As a minimum, the plan covers the following computers:
- HANDI 2000 INDUS PassPort™ and PeopleSoft™ Financials Production server
- HANDI 2000 INDUS PassPort™ and PeopleSoft™ Financials Non-Production server
- HANDI 2000 PeopleSoft™ Human Resource/Payroll Production and Test servers
- HANDI 2000 Application Client Executables NT File servers
- CA Unicenter NT servers.

3.8.1 Backup

All computers specified in the backup, recovery, and disaster recovery document will be backed up to tape according to the business and technical requirements for each computer. The backup requirements for each computer will cover the backup strategies, backup schedules, and the tape retention schedules. Refer to the Backup and Recovery Plan for HANDI 2000 Software, HNF-2858 (Kuyper, 1998a) for further details.

Some of the potential backup strategies, specified in the requirement document are:
- Full tape backup
- Incremental tape backup of changes from the last full or incremental backup
- Differential tape backup of changes since the last full backup
- Backing up databases straight to tape
- Dumping databases data and/or logs to disk files and backing up the disk files to tape.

Each computer will use appropriate backup strategies to meet the requirements of the business and technical processing needs on the computer. Any of the backup strategies that meet or exceed the backup requirements for the computer can be used.
Some of the potential tape retention schedules, specified in the requirement document are 7 days, 2 weeks, 4 weeks, 29 days, 32 days, 5 weeks, 6 weeks, one quarter, half year, one year, and multiple years. Each computer will use appropriate tape retention schedules to meet the requirements of the business and technical processing needs on the computer. Any of the tape retention schedules that meet or exceed the backup requirements for the computer can be used.

Some of the potential backup schedules, specified in the requirement document are:
- Fixed schedules: yearly, quarterly, monthly, weekly, certain days of the week; once a day, multiple times a day
- Dynamic schedules: at the start of batch processing, at the end of batch processing, at the start of critical processing, at the end of critical processing.

Each computer will use appropriate backup schedules to meet the requirements of the business and technical processing needs on the computer. Any of the backup schedules that meet or exceed the backup requirements for the computer can be used.

### 3.8.2 Recovery

The FDH customer will notify LMSI Customer Technical Support in the event of a user workstation system failure or the network failure. Users will not experience any data loss except the current entry or modification data, which was being entered at the time of failure. In the event of unrecoverable, extreme server system failure, it may be necessary to recover to the latest tape backup or dump to disk, causing a loss of any updating that had occurred since the backup and failure. Refer to the *Backup and Recovery Plan for HANDI 2000 Software*, HNF-2858 (Kuyper 1998a) for further details.

### 3.8.3 Disaster Recovery

HANDI 2000 infrastructure is designed so that if one of the computers is destroyed, there is a backup computer. For some of the computers, the fail-over to the backup computer is automatic. For other computers, the fail-over to backup computer is manual. There are shared disk storage systems in HANDI 2000 that do not have a backup shared storage system. If one of these shared disk storage systems are destroyed, then the shared disk storage system would have to be replaced as expeditiously as possible. Refer to the *Disaster Recovery Plan*, HNF-2859 (Kuyper 1998b) for further details.

Most of the computers are located in the 339A building in the 300 area. If there were a disaster that affected the 339A building, then the 339A building would need to be fixed in a timely manner or a new location would need to be found for housing computers and the destroyed computers replaced. If the tape backups in the 339A building were destroyed, then the backup tapes stored elsewhere would need to be used, as described in the *Disaster Recovery Plan*. The lost data that would need to be recreated would correspond to the number of days since creating the latest backup tapes, which are stored elsewhere.
4.0 VERSION CONTROL

This section is an overview of vendor, custom software, and software release and upgrades version control.

4.1 VENDOR VERSION CONTROL

Each HANDI 2000 COTS product incorporates the vendor’s unique product name, version number and release number. The HANDI 2000 INDUS integration vendor will manage, coordinate and document the HANDI 2000 COTS modules, products, and their relationships by providing the production ready releases to FDH.

4.1.1 Vendor Version Identification

Version identification of the vendor products that comprise the HANDI 2000 system will be identified and certified by the Integration Vendor under the direction of the PHMC HANDI 2000 Project Manager as part of their contract. This includes the following:

- UNIX³
- Oracle⁴
- INDUS PassPort™ modules
- PeopleSoft™ modules
- P3 integration components
- Other integrated modules/products.

The System Version Description Document (VDD) will be updated as appropriate.

4.2 CUSTOM SOFTWARE VERSION CONTROL

Customization to the PP and/or PS baseline products will be handled by numbering the system in a specific manner. All systems under HANDI 2000 control will follow this version numbering convention. Changes to the system shall be tracked by noting changes to the HANDI 2000 unique system version number. Therefore, by knowing the version number, the database administrator(s) will be able to recreate the system for any given release.

4.2.1 HANDI 2000 Custom Version Number Format

If the COTS product is customized, by FDH direction, then a unique HANDI 2000 version number will be applied to the change. The unique version number will always contain a

³ UNIX is a registered trademark of UNIX System Laboratories, Inc., Berkeley, California.
⁴ Oracle is a trademark of Oracle Corporation, Redwood Shores, California.
prefix of "H", the vendor version number, and an affix of a sequential alpha, that is, Vendor
version number = PS7.0.1 and the customization version number = HPS7.0.1a. The highest
alpha letter will always be the most current version of the customized software and will be the
one in production. No version number will be assigned until the software is tested and approved
for implementation. Refer to the Data Management Plan, HNF-2585 (Evosevich 1998a) for
further details.

The client-server environment of HANDI 2000 is composed of three distinct portions that
require independent configuration control: the "front end" (client) portion, the "back end"
(server) portion, and the report portion. Each can be independently modified as a result of some
particular SCR without affecting some other portion of the architecture. For example,
functionality updates affect the client software and may or may not affect any of the server
software. Meanwhile, server software changes usually require some matching changes in the
client software, but may not always do so. Consequently, version control and configuration
management of client software is independent of server software. This may result in a different
version number for the respective portions of the architecture.

The System Version Description Document (VDD) will be updated as appropriate.

4.2.2 Documentation Version Control

The COTS documentation is controlled by the vendor, but FDH management and the
LMSI technical support will maintain a library of all HANDI 2000 documentation,
correspondence, vendor material, and project produced documents. The library will maintain the
most current version of all documents throughout the lifecycle of the HANDI 2000 system. In
addition, FDH will provide HNF numbered documents to the Hanford Document System.

If there is a baseline customization to the COTS product, then FDH, with support from
LMSI, will be responsible for document version control concerning the customized portion of the
system. The LMSI technical personnel will maintain an electronic copy of the document in a
controlled environment. In addition, the data administrator will maintain user and system
documentation with an assigned HNF number in a restricted access database. When a change is
required to the user and/or the system document, it will be retrieved, changed, and a new version
number will be assigned to the HNF number. A hardcopy of this revised documentation, with
the new version number, will be transmitted to FDH Document Control through the use of an
Engineering Data Transmittal. Refer to the Engineering Data Transmittal, HNF-PRO-244
(Skriba 1997) for further details.
4.3 SOFTWARE RELEASE AND UPGRADES

COTS Vendors, other than INDUST™, may also ship releases, upgrades, bug fixes, and so forth, external to the HANDI 2000 integrated product. If appropriate, because of the FDH contractual agreement, the INDUS Integration Vendor will certify the item(s) is production ready. Custom release activities such as: Database Management Systems, Operation System upgrades, enhancements, corrections of logic defects, and application or system optimization changes are recommended to be released as a grouping or block point of changes. The FDH Project Manager and LMSI software engineer and database administrator will ensure that new releases and installation of HANDI 2000 software are tested before being placed in the HANDI 2000 production environment. Release/Upgrades will follow the SCR process. Refer to the Release and Upgrade Procedure, HNF 2639 (Evosevich 1998b) for further details.

The System Version Description Document (VDD) will be updated as appropriate.

4.3.1 Release/Upgrade Plan

For each release/upgrade a Release/Upgrade Plan will be generated. Listed below are items that should be identified in the Release/Upgrade Plan.

- Scope and schedule for general or maintenance upgrades
- System upgrade support
- All COTS software elements
- All tailoring and customization elements
- All operating system elements
- All desk top system elements
- All third party software elements
- All network system software elements
- All legacy systems elements
- All integrated systems elements that will be impacted
- Test environment
- Data migration approach
- Product tape fixes

5.0 TOOLS, TECHNIQUES, AND METHODOLOGIES

The tools, techniques, and methods used to implement SCM are usually discussed in terms of a (set of) libraries and the methods and techniques used to capture, store, and promote or release items of each type of library in a controlled manner. Refer to the Data Management Plan, HNF-2585 (Evosevich 1998a) and the Region/Database Management Plan HNF-2584 (Evosevich and Lutter 1998) for further details.
5.1 TOOLS

The tools used to implement SCM are as follows:

- The PassPort™ Issues Log (ABACUS) will be used during the testing phase to record problems and track them through their disposition and correction.
- The Primavera P3 Scheduler will be used to track costs, tasks, resources, and schedule.
- Microsoft's Visual Source Safe or Intersolve Project Version Control Software, or similar software will be used to control customized code versioning. If a software package cannot be procured in a timely manner a manual system will be used to control versioning. Refer to Section 4.0, Version Control for further information.

5.2 TECHNIQUES

LMSI software engineers, database administrators, and/or operations administrators will manage the following operation and maintenance libraries.

- Programming Libraries - manage the changes to support software configuration
- Development Libraries - used by software engineers to develop and unit test code
- Integration Libraries - contains source code and executable load modules for integration testing
- Production Libraries - contains master copies of all support software configuration items and acts as backup for the run-time configurations used on the systems

5.3 METHODOLOGIES/LIFE CYCLE

The COTS based integrated system development lifecycle has emerged in recent years as the result of tremendous interest within the software industry in building reliable, cost effective, distributed software systems through the utilization of both generic and domain-specific COTS software packages. On-going COTS-based software development projects range from small single function to complex, large-scale software systems.

The buy and adapt approach is the method used for HANDI 2000. The buy and adapt model is characterized by acquiring a single complete working system that satisfies most of the requirements and adapting and extending it for desired needs. Adapting is completed by extending the system with add-ons, interfaces with another application, or modifications to the original source code. Each of these adaptive methods would be an application development project with its own lifecycle; an example is an added interface that is developed to fulfill a functional requirement to pass data from a project tracking module to a budget/staff forecasting module. The COTS solution is best suited for situations where changes to the COTS can be minimized. This means the customer is willing to accept the solutions as-is and is able to change business rules as necessary to adapt to the COTS packages.

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5 MicroSoft is a trademark of MicroSoft Incorporated, Redmond, Washington.
The COTS development model follows a modified version of the waterfall lifecycle consisting of requirement analysis, implementation analysis, construction, testing, and implementation. The requirements and overall design are clearly understood before any other design or integration takes place. The application is broken into well-defined functional areas that can be fit with a COTS application. Each functional area is then evaluated for fit-gap to the COTS application, and the COTS application is evaluated for integration into the larger system. For HANDI 2000 production, reference LMSI OSSP, COTS LIFECYCLE and for HANDI 2000 Project, refer to the Finance and Supply Management Project Execution Plan for HANDI 2000 Project Lifecycle, HNF-1984, (Adams 1998) for further details.

6.0 DATA/RECORDS COLLECTION AND RETENTION

The FDH HANDI 2000 Project Managers shall be responsible for determining record retention schedules, with the assistance from LMSI technical staff. HANDI 2000 system development and maintenance records will be processed in accordance with the following procedures:

HNF-PRO-210, Records Management Program (Davis 1997a)
HNF-PRO-214, Record Inventory and Disposition, Schedules (Davis 1997b)
HNF-PRO-215, Records Storage, Retrieval, and Destruction (Davis 1997c)
HNF-PRO-222, Quality Assurance Records (Davis 1997d)
HNF-PRO-231, Correspondence and Commitment Control (Davis 1998).

7.0 REFERENCES


HNF-1984 Rev. 0

HNF-2583, Rev. 1


The following Organization Standard Software Practice directives originated with Lockheed Martin Services, Inc., Richland, Washington.

LMSI OSSP Software Configuration Management Plan
LMSI OSSP Production Readiness Review Board
LMSI OSSP Cost Estimating
LMSI OSSP Code Walkthroughs
LMSI OSSP Peer Review
LMSI OSSP COTS Lifecycle
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1.0 Project Identification - This paragraph shall contain the project version identification number for the application to which this document applies. (that is, ISEARCH 1.1) The initial baseline release for applications in production shall assume the existing version number for the application. If no number exists, the initial baseline will assume a version number of 1.0. All applications shall be numbered in accordance with the SCM plan.

1.1 System Overview - Provides a brief overview of the application’s purpose, user community, and intended functionality. (that is, The ISEARCH application provides the Hanford community with search, retrieval, viewing, printing, and mail capabilities with regard to Hanford documentation, drawings, and record material.)

2.0 Referenced/Related Documents - This section identifies referenced documents as well as application specific documentation. (that is, ISEARCH SRS HNF-000458)

3.0 Version Description

3.1 Software - This section identifies the CM baseline directories that contain the application software created and maintained by this organization. Assigned by CM personnel before baseline creation. This includes any script or report definition files necessary to maintain, execute, install, or in any way support the application.

3.2 Database - This paragraph identifies the supporting DBMS, including version number, and the implemented Database Version number. The CM baseline directory containing database definition language, script, or defining module will also be referenced. (that is, Server then directory - CMSRV/R01/ISEARCH/DB)

3.3 Operating System and Environment - This section will identify the system, operating system, and peripheral environmental specifications under which this software was designed to operate. (that is, NT 5.0 Server with SQL 6.5, Min 128 Mb RAM, 16 GB Available contiguous Disk Space.)

3.4 COTS - This paragraph lists any COTS products, including version or release, used to support the application in a production mode. (that is, Altris 11.1, Crystal Reports 3.0).

3.5 Metadata - This section details any parameters, option settings, or specific data values that may affect the performance of, or prevent the use of the application. (that is, Compiler options, Security Settings, Data values driving application functionality, and so forth)

3.6 Notes - This paragraph is used to convey any additional information about the application, its installation, execution, or interface requirements. (that is, File or directory locations supporting input/output functions, known limitations/problems, and so forth)

4.0 Change Description - This section is used to define the intent of the VDD. (that is, Establish an initial baseline or implement a new release) Changes from one version to the next should be described briefly here and system change request numbers referenced.

5.0 Installation Instructions - This section describes the installation of the application in sufficient detail to allow the application to be installed from the CM baseline files.
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APPENDIX B – HANDI 2000 CUSTOMIZATION GUIDELINES
The HANDI 2000 Customization Guidelines document is intended to cover the implementation phase of the HANDI 2000 Project. This document will be reviewed throughout the HANDI 2000 life cycle and will be updated to accommodate the transition from implementation to operation maintenance, as required. All sophisticated COTS products require some level of change, or customization, to adjust to the specific needs of a customer. In the case of PeopleSoft™ products the average is 10 to 15 percent of all of the screens, reports, processes, and so forth, INDUS maintains that Passport™ products require less customization than PeopleSoft™, and P3 asserts that their product requires no customization. The delivered products may require some level of change to support the customer's business decision on how to use the COTS product.

This customization guideline is to help define and control, during the implementation phase, changes to the baseline products. After going into production with the COTS modules the System Change Request process supersedes this guideline.

Technical Impact

Low - indicates that there is little or no impact to the system or processes and there will be minor efforts required to maintain the modification. Creation and modification of operator groups, stored procedures, indexes, menus, reports, views and triggers should be included here. Changing the values of delivered fields not utilized outside of the executable product and modifications of the data access model would be considered low technical impact.

Low Technical Impact Examples

Creating two new tables to support training plans should be considered "Low". These new tables are almost always queried with data that is needed in other tables within the same software module. The tables are not considered core, and the software upgrade routines would not detect them, if certain table naming conventions are adopted.

Adding alternate search keys for retrieving data within the application is considered "Low". This change is not detectable outside the system and provides alternate means of quickly retrieving data that more closely match the user's business processes.

Adding data fields that provide more information about courses would be considered "Low". This information is not tracked outside of the originating system. The data is used on custom and ad-hoc reports needed by the user.

Moderate - indicates that there are some core tables or processes that have been touched and that a complete system test should be done. Additionally, a moderate rating indicates that during each upgrade the modification should be revisited and re-tested for system changes.

Moderate Technical Impact Examples

Adding additional fields to the Job Table to support the Training organization should be considered "Moderate". The Job table is considered a core table, but the new fields are not processed outside Human Resource Information System (HRIS). If a delivered column in the Job Table were modified, this would be classified as a complex customization.
Creating a process to recover incurred costs for training classes has an effect on another software product outside of the originating system (HRIS to Financials). While not a core process table in HR, it would need to be coordinated with the financial system to ensure that the modification can correctly recover costs using the delivered Financials module. While not core in HRIS, this type of data is tracked and has associated logic in more than one software module.

Creating additional data fields to identify area, building and room data for an employee is considered a "Moderate" impact. The data fields reflect the interface requirements of dozens of external systems, and are not referenced in the processing logic of PeopleSoft™ or INDUS software, because they did not exist previously.

Complex - indicates that core complex tables and core processing were modified. The maintainability would be high because the vendor would no longer support the module and processing. Additionally, a complete review and possible re-write would be required during each update or system update. All delivered COBOL modifications would be considered "Complex".

**Complex Technical Impact Examples**

Changing the width and attributes of a key identifier field would be considered complex. This field is used throughout the system, as well as in other integrated software products. Processing logic that references key fields is extensive and may not work correctly in all tables as a result of this modification. Changing widths and attributes of other major employee, financial or supply categorization fields that are used extensively outside the originating software executable would also be complex customizations. Changing the Pay Calculation Cobol routine would be complex.

Adding a separate organization code strictly to support financial organizational costing a rollup to the Department Table would be considered "Complex". This data field would have to be referenced in a large number of modules within Financials and PassPort™, which would require customizations.

Changing the method that payroll costs are collected and allocated would be considered "Complex". This change significantly affects other integrated modules in the Financials and PassPort™ product line.

**Business Priority**

Low - Important need, but less efficient or more costly manual processes can accomplish the same task.

Medium - Task required by management, supports new non-critical business process.

High - The change must be done or the mission critical task can not be accomplished.
## Implementation Decision Guidelines

<table>
<thead>
<tr>
<th>Technical Impact</th>
<th>Business Priority</th>
<th>Review / Approval Level*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
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<td>Project Manager</td>
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<tr>
<td>Low</td>
<td>Medium</td>
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<tr>
<td>Low</td>
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<td>Project Manager</td>
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<tr>
<td>Moderate</td>
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<tr>
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<tr>
<td>Moderate</td>
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<td>Project Director</td>
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<tr>
<td>Complex</td>
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<tr>
<td>Complex</td>
<td>Medium</td>
<td>HANDI 2000 Change Control Board</td>
</tr>
<tr>
<td>Complex</td>
<td>High</td>
<td>HANDI 2000 Change Control Board</td>
</tr>
</tbody>
</table>

*Note: Regardless of technical impact or business priority, if the change affects another product family (that is, an HRIS change that would affect Financials), it must be approved at least at the Project Director level.
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APPENDIX C – SYSTEM CHANGE REQUEST FORM
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<table>
<thead>
<tr>
<th>SCR Number:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project ID:</td>
</tr>
<tr>
<td>Activity Type: Software Change</td>
</tr>
<tr>
<td>Sub Project ID: Type Change:</td>
</tr>
<tr>
<td>Title:</td>
</tr>
<tr>
<td>Description:</td>
</tr>
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<td>Module Name(s):</td>
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</tr>
<tr>
<td>CCB Date:</td>
</tr>
<tr>
<td>Closed Date:</td>
</tr>
</tbody>
</table>
SCR Number - Each Project can pre-set its starting number and each System Change Request will require a unique number for each Project. This number is used for tracking the SCR. The automated SCR system will automatically generate the SCR Number.

Project ID - The Project ID associated with this request (i.e. HANDI 2000, TIS, HUB, etc).

Activity Type - Select either System Change or Problem Report.

Sub Project ID - The Sub Project ID is a further breakdown of Project ID information. For example, a Project ID might be HANDI 2000, and a sub Project ID might be General Ledger.

Type Change - Identifies whether the record is a defect of enhancement.

Title - The title associated with this SCR or PR.

Description - The requirements associated with the SCR or PR. It may contain the customer’s and/or software engineer’s requirement descriptions.

Module Name(s) – Any modules changed by the SCR. For each SCR there could be many modules affected and these should be individually identified.

Resolution - Description of the solution used in solving this request.

Status - The only values allowed within this field are: New, Cancelled, Accepted, In Work, User Test, Ready to Implement, Completed, or On Hold.

Priority - The software engineer will determine the criticality of the SCR or PR to the project, (i.e., 1- System or major component down/unusable through 10 - Slight modification needed)

Urgency - The requestor would indicate the urgency of the SCR or PR. Three choices can be entered into the field: 1 - High, 2 - Medium, or 3 - Low.

Requester - The name of the individual making the request.

Request Date - Date the request was made.

Requested Completion Date - Date the requester would like the request to be completed.

Comments - This is for the comments made thought out the life cycle of this request.

WBS Code - The Work Breakdown Structure Code associated with the SCR or PR. The Project must have a WBS Code in order to perform the work.

Assigned To - The name LMSI/SD&I software engineer who is assigned to the SCR or PR.

Acceptance Criteria - Acceptance criteria specified by the Requester.

Estimated Begin Date - Estimated Begin Date for work to begin on the SCR or PR.

Estimated End Date - Estimated End Date to complete work on the SCR or PR.

Estimated Hours - Estimated Hours to complete work on the SCR or PR.

Actual Begin Date - Actual Begin Date the work began on the SCR or PR.

Actual End Date - Actual End Date the SCR or PR was completed.
Actual Hours - Actual Hours in took to complete the SCR or PR.

CCB Date - The date the Change Control Board reviewed and approved the SCR for work.

Closed Date - Date the SCR or PR was closed due to completion and implementation.
APPENDIX D – HANDI 2000 BOARD MEMBERS
As of 05/05/98

- **TECHNICAL REVIEW BOARD**
  
  S. L. Bennion, FDH – Chair Person  
  D. E. Adams, FDH  
  K. K. Friday, FDH  
  P. B. Isaacs, LMSI  
  K. Whiteaker, INDUS  
  A. H. Wirkala, DOE-RL

- **CHANGE CONTROL BOARD**
  
  E. W. Penn, Jr., FDH – Chair Person  
  R. E. Gates, FDH  
  S. E. Manley, FDH  
  A. Q. Murphy, DOE-RL  
  A. H. Wirkala, DOE-RL

- **PRODUCTION READINESS REVIEW BOARD**
  
  R. E. Cartmell, LMSI  
  B. D. Eliison, LMSI  
  D. L. Fischer, LMSI - Chair Person  
  
  D. E. McElroy, LMSI  
  R. R. Petro, LMSI
ATTACHMENT C

FINANCE AND SUPPLY MANAGEMENT
DRAFT MOBILIZATION PLAN
HNF-1984 Rev. O

Financial and Supply Management Mobilization Plan

November, 1997

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Notice: This document contains confidential and proprietary information. Do not disclose to other parties without written permission from The Indus Group.

Introduction
Overview

This Mobilization Plan has been created to assist Hanford in coordinating the necessary resources, detailing responsibilities, and obtaining authorization for key project phases in the implementation of the selected PassPort and Peoplesoft Software Solution modules. It represents and covers implementation activities at a high level, and estimates the resources required, while identifying assumptions and constraints. Preliminary planning and budgeting began in August 1997. The project began in October 1997 and will last through post production support. Two fundamental principles of the Mobilization Plan are:

1. To represent and cover implementation activities at a high level, and estimate the resources required, while identifying assumptions and constraints.
2. That the Mobilization Plan will serve as the basis for the Implementation Plan. The Implementation Plan will be completed in the next project phase of effort, and will be a more detailed version of the Mobilization Plan. The Implementation Plan will be the key tool used to manage the project throughout the implementation.

The development of this plan began with a review of the Baseline schedule developed by Hanford to obtain initial project funding. The purpose of this effort was to establish a common understanding of the PassPort and Peoplesoft implementation effort by validating and updating the existing baseline schedule to the tasks identified in the ABACUS Implementation methodology. This plan also includes additional detail information obtained by Hanford since the baseline schedule was developed.

This plan represents a ‘partnership’ approach to implementation and requires communication, and trust among all of the project participants. It is NOT designed to support the typical supplier/customer model as it is firmly believed that this out-dated model cannot effectively address enterprise software solution implementations.

Document Content

The Mobilization plan is divided into the following sections
Section 1, Introduction, background and overview of the Plan and project.

Section 2 - General Assumptions and Special Considerations

Section 3 - Task Descriptions including deliverables and responsibilities

Purpose and Scope of Finance and Supply Project
Hanford has become aware that the business processes and information systems now in use to manage the business were in need of update, both in terms of technology and level of integration. It was determined that the existing software could not support the required business process improvements identified. This program is seen as one example of the need to bring the information systems in line with management needs in order to streamline costs.

Eight Applications will be deployed across Hanford in the scope of this Implementation. The applications are PassPort Inventory, Purchasing, Contracts, and Accounts Payable along with PeopleSoft General Ledger, Budgets, Project Costing and Payables. The PassPort/PeopleSoft Financial Integration software will also be deployed at the same time.

Business Benefit to Hanford

Hanford will see business benefits from the use of the PassPort and PeopleSoft products in several areas:
- Streamlined Business Processes
  There are many areas in which existing business processes are far from ‘best practice’. While Hanford understands that it might not be able to achieve ‘best practice’ operation in all areas, significant change can take place to positively impact the business.
- Replacement of Existing Systems with Integrated Information Systems
  The information systems in use today at Hanford are largely internally developed, and require teams to maintain. These systems are sometimes interfaced but are seldom integrated, and it is sometimes necessary to re-enter information from system to system. Also, the maintenance of these application systems is expensive. The use of PassPort and PeopleSoft Software will replace many of these information systems and the associated interfaces thereby reducing costs of maintenance in the Information Systems area.
- Reduction in Software Maintenance Expense
  The use of PassPort and PeopleSoft Software will also result in a shift of maintenance responsibility for the Software from Hanford (as it has been for most previous systems) to INDUS and PeopleSoft. The cost of this maintenance is fixed through the Software Maintenance Agreement which is to be signed upon licensing the Products.
- Improved Accounting Information and Cost Control
  Once PassPort and PeopleSoft Software is fully adopted, the system used to plan and monitor work is totally integrated with the system used to account for it. This will enable greater cost control by enabling Hanford employees to research costs and see the costs as they are generated.
In today’s environment, costs are collected by a diverse set of information systems and periodically summarized in a complicated process. Using PassPort and PeopleSoft, this process will become part of the integrated systems environment.

General Assumptions
Following are the general assumptions which are to be considered in the project to implement the PASSPORT/PEOPLESOFT suite of Applications at Hanford:

Hanford will be responsible for managing the implementation project. INDUS will name a full time Project Manager who will be responsible for all INDUS and Peoplesoft activities that are part of the project. Prior to each phase of the implementation effort, the INDUS and Hanford Project Managers will meet to agree on the level of effort that will be required by both Companies and will document this agreement as an updated Implementation Plan. This plan will be used as the basis for change control and cost control.

The Plan is based upon proper project team staffing by Hanford as well as INDUS. This includes a full time, qualified internal Project Manager and sufficient full time project personnel to accomplish the listed tasks in the time frames specified.

Hanford has adopted a baseline implementation strategy. Therefore, no programming alteration to PassPort or Peoplesoft is considered within this Plan. Every effort will be made during the To-Be analysis to identify acceptable Business Process Changes or options within the existing software design to satisfy all functional requirements. If Hanford determines that these suggested resolutions are not acceptable, software customizations to resolve the gaps will be proposed. The design, coding, testing and delivery of any such customizations, including resulting customizations to data load programs, are outside the scope of the schedule and labor estimates provided herein. INDUS will provide Hanford with an estimate for any such customizations, including schedule impact implications, and a separate work authorization from Hanford will be required prior to INDUS proceeding with the modifications.

· The roll-out production of the products will be parallel to take advantage of the integrated nature of the PASSPORT and PeopleSoft products. The PeopleSoft products, General Ledger, Project Costing, and Budgets, will be rolled out as soon as possible to support planning development of the Fiscal '99 Budget. PassPort's Financial Integration, Inventory, Purchasing, Contracts, Accounts Payable and PeopleSoft's Payables will go live on October 1, 1998. By performing a parallel implementation, the team will avoid going back and making changes to already agreed upon designs.

Data Cleanup activities for data to be converted from legacy systems are considered to be critical path efforts to assure that the users are provided with the best possible product. Hanford intends to ensure the cleanliness and correctness of the source data, prior to data conversion. Data cleanup activities are not within the INDUS scope of work.

Acquisition of a third party Ad-Hoc reporting tool is recommended for this project. Hanford will be responsible for selecting, procuring, and providing all required training on the selected product. Although INDUS does not support any specific tool, Ad-hoc tools frequently encountered include FOCUS, MS Access, Crystal Reports, COGNOS and Oracle Browser.

· Hanford will provide appropriate office space and facilities for the combined Hanford-INDUS project team members, conferencing and information storage and retrieval. These facilities will include LAN connected PC workstations with Windows, MSOffice, Passport and Peoplesoft Delivery system and workshop tools, access to PassPort/Peoplesoft, and a tool for accessing the Oracle database (such as MS Access with ODBC connections or Oracle Browser.)

· Hanford will either provide administrative support for the project or will request through the contract that INDUS provide this support locally.

Hanford will provide appropriately furnished training facilities for all project training activities.

Task Descriptions

Introduction

During the preliminary planning phase of the project Hanford developed a baseline schedule with resource loading to obtain funding for the project. Since project progress and costs must be
tracked to this baseline schedule the original task and Work Breakdown Structure was maintained. The INDUS ABACUS Implementation methodology was then used to validate and update the schedule tasks to assure that all steps necessary for a successful project implementation were included.

Although the structure of the plan and schedule do not adhere to the ABACUS structure of Tracks and Phases the methodology has been maintained. Since the scope of many of the activities in the preliminary plan were the same as those in ABACUS, but using different terminology, the original schedule terminology is maintained for clarity. Where there was no corresponding task the ABACUS terminology is employed.

In order to ensure understanding of the tasks to be performed a description of the task along with deliverables and responsibilities are identified in this section. Milestone tasks are identified as such.

Project Startup (1.4.01)
Form F&S Project Team (1.4.01.01)
Hanford will provide the internal resources that are needed to complete the work. This team was developed during the initial planning phase. INDUS will provide a team of Product specialists, business analysts and technical support. Cross-organization teams will be established to complete the effort as planned. The teams will work together to complete a specific objective (e.g. re-design the work order scheduling process, provide training, etc.) Other extended and specialized teams will be identified such as technical support, trainers and end-users. Core team resources will be 100% dedicated to the project. Resource reduction or reallocation may adversely affect the project schedule and success.

Approval to Proceed (Milestone) (1.4.01.02)
Kickoff Meeting
The Kickoff Meeting marks the first scheduled activity of the overall PassPort/PeopleSoft implementation. This meeting is the formal start to the implementation and provides an introduction of the key players. The key players include personnel from Hanford, personnel from the INDUS organization and other parties participating in the project who have a material interest in the result. The purpose of the meeting is to communicate the overall project objectives to the project team and establish a clear set of goals and responsibilities for all parties involved.

The Kickoff Meeting will be a hands-on session where the implementation team leads the review of the Implementation Plan and schedules the draft. Prior to that meeting, the team will conduct a schedule review and an implementation plan review with the intent of verifying the schedule, budget, plans, assumptions and responsibilities for each segment of the project team.

Project Planning (1.4.01.03) - Consists of the following sub-tasks:
Develop Project Plan (1.4.01.03.01) (ABACUS Implementation Plan)
The Implementation Plan describes all work activities required to successfully implement PASSPORT/PEOPLESOFT and effect business improvement. This is a 'living' plan that is initiated during the planning phase, and updated at regular intervals throughout the implementation process. It is used to document all implementation processes, record commitments, reflect changes, provide management direction and record significant accomplishments. This plan is comprehensive in that it includes 'ALL' implementation
activities, regardless of who is tasked to perform them. It provides a complete implementation picture.

The Implementation Plan is the master tactical document for the implementation. It is supported by topical plans and although the detailed contents of these plans are not repeated in the Implementation Plan, the summary schedules, budgets, and other key metrics in the topical plans are included in the Implementation Plan which is updated on a regular basis and/or when key milestones are achieved.

The following planning, which may or may not be published separately, are major inputs into this plan, as well as the planning covered under the Configuration Management Plan task described later in this section.

Mobilization Plan
The Mobilization Plan covers the initial mobilization & planning phase of the implementation. It addresses various surveys, studies, and other planning activities to define the scope and plan of action for the successful implementation of PassPort/PeopleSoft Software Solutions as part of the Hanford Business Process Improvement program.

The Mobilization Plan provides the roadmap and schedule for the generation of the studies and plans integral to the INDUS ABACUS methodology. The goal is to establish a firm implementation strategy so that Hanford and INDUS management are confident that the budget and schedule are both achievable and aggressive before significant implementation activities commence.

The deliverables from this effort are a Mobilization Plan and the initial ‘ rough draft’ of the Implementation Plan, which includes a preliminary implementation organization, cost estimate and schedule. These documents will become permanent attachments to the Implementation Plan.

Production Roll-out Plan
An initial Production Roll-out Plan outlines how and in what sequence the integrated systems will be implemented at the various plants, business units, locations, etc. The appropriate time to do this planning is after all sites have been surveyed to determine readiness and willingness.

The PeopleSoft products, General Ledger, Project Costing, and Budgets, will be rolled out as soon as possible to support planning development of the Fiscal ‘99 Budget. PassPort’s Financial Integration, Inventory, Purchasing, Contracts, Accounts Payable and PeopleSoft ’s Payables will go live on October 1, 1998.

Establish Steering Committee (1.4.01.03.02)
Establish Communication Plan (1.4.01.03.03)
The implementation of large, complex, integrated software solutions in conjunction with work process changes requires changing the current working culture of the company. This can only be accomplished with broad based support from both management and staff, including plant/site personnel. Effective communication of the pending changes is critical to the success of the implementation and are initiated via the Communications Plan.

The Communication Plan provides guidance on how best to effectively and frequently inform the organization (top to bottom) on key aspects of the implementation and the coming business,
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organizational and cultural changes. The Communication Plan is used by the implementation management team to provide structure and guidance for the communication of forthcoming changes, as well as to distribute information regarding key plans in varying levels of detail.

Develop and Present Road Show

The implementation of large, comprehensive, integrated software solutions in conjunction with work process changes requires changing the working culture of any company. This can only be accomplished with broad based support from both management and staff alike. The best way to secure this support is to set up a 'Road Show' which presents the implementation including its objectives, benefits, plan and schedule to each affected site. This process helps insure grass-roots support in order to obtain the needed 'buy-in' from affected departments/business units across the enterprise.

Special presentation materials are used to convey the needed senior management message to the troops so that it's understood that not only is the implementation critical to the company and its future but that support is both needed and required. INDUS can provide packaged materials to support the Road Show plus assistance in forming the agenda, schedule and presentation materials.

The successful presentation of the Road Show is a key to gaining broad based support from both management and staff alike. It is also sets the stage for a successful change in the working culture of the company. Conducting the first shows, evaluating the response and fine-tuning the show are important steps in presenting a convincing program.

It is recommended that the implementation Core Team, which includes the people who are responsible for the successful implementation of all systems, be part of the Road Show team along with the INDUS project management team. This team is uniquely qualified to present the first few presentations and assess the overall response and any feedback.

Data Management Plan (1.4.01.03.04)

Configuration Management Plan (1.4.01.03.05)

A Configuration Management Plan is of great importance in the control of PASSPORT, Peoplesoft and third party (all integrated and non-integrated) software and supporting hardware. This plan must encompass the management of software and hardware from initial install, to acceptance testing, through the tailoring of software, (if applicable), and finally throughout the production life of the system. The Configuration Management Plan must also address the installation of both maintenance release and general release upgrades.

The Configuration Management plan addresses the various types of activities that will occur in each of the regions that are created to support development, test & acceptance, pre-production, and production phases.

This plan is initially developed during the mobilization & planning phase and then incorporated into the Implementation Plan where it is maintained as a ‘living’ plan. Diagrams of regions and release levels are helpful as part of this plan.

At Hanford the following planning activities will also be considered and incorporated into the
Configuration Management Plan.

Technical Implementation Plan
The Technical Implementation plan includes all of the activities necessary to ensure the Networking infrastructure and workstation configuration will support the implementation of PassPort/Peoplesoft. The Site Survey document will list specific issues and proposed resolutions as identified.

The issues and proposed resolutions will be reviewed with Hanford and a plan developed to ensure the removal of the technical impediments prior to the implementation of PassPort/Peoplesoft.

Actions must be assigned and a schedule developed. It is important at this time to assess the impact on the overall Implementation Plan and to include the additional action item activities in the plan.

Release and Upgrade Plan
A key element of the overall Software Configuration Management Plan is the Software Release & Upgrade Plan. The plan provides for the continuous upgrade of all components to take advantage of emerging technologies and best practices provided through these systems.

The Release and Upgrade Plan must identify all critical tasks related to the implementation of both maintenance and upgrade releases of PASSPORT/PEOPLESOFT Software as well as third-party Software. It also identifies the steps required to implement the upgraded software into the enterprise system. The plan also addresses tools and techniques for executing and managing the data migration between releases.

Site Preparation Plan
The Site Preparation Plan is needed to facilitate roll-out of the PassPort/Peoplesoft products to each individual site. Preparation of this plan allows the implementation team to thoroughly address and meet all the requirements that are necessary to successfully deploy the PassPort/Peoplesoft Client/Server products.

The Site Preparation Plan should define the plan and actual roll-out schedule for deploying the various network support items identified in the Client/Server Site Survey. The plan should provide for integrating all additional hardware and/or software that will be needed to support the PassPort/Peoplesoft Client/Server products.

Region Management Plan
This activity covers the preparation and implementation of a plan to set up the optimal number of PASSPORT/PEOPLESOFT regions. Regions on a server are needed to separate different 'versions or generations' of programs that are maintained and promoted in accordance with this plan. Besides a Production region, a Baseline (demonstration), Development, Acceptance (testing), Data Conversion and Training regions may be required. This activity includes establishment of criteria for determining which regions are necessary, at what point in the implementation plan they are required and how long each region will be required/maintained.

Performance Planning
In addition to providing hardware capacity planning, it is also necessary to prepare an early
performance plan for addressing issues which are not strictly hardware related. A well-tuned system is one aspect of a high quality implementation, which helps with buy-in from the technical staff and management.

Tuning is defined here as reviewing and modifying table access, query selection criteria, access code, data volumes, etc. During the planning phase, data volumes, access loads, transaction rates, etc., are estimated and DBA talent is planned for so that when the time comes to actually apply performance tuning activities, it is not either a surprise or an unplanned for activity. The early stage plan is incorporated into the Implementation Plan as both a resource requirement and a schedule activity that starts as soon as the system is placed under load (training, data conversion, stress testing, etc.).

System Administration and Support Plan
PassPort/Peoplesoft System Administration is required as long as PassPort/Peoplesoft is in Production to support the application and end-users in providing a secure, up-to-date environment. This activity covers the preparation and implementation of a plan to set up and maintain this ongoing support. This plan will address how this support will be provided throughout the system life cycle. In areas where responsibilities may overlap the department responsible for coordinating the effort will be Identified. When a new PassPort/Peoplesoft application is added or during each formal release cycle, each System Administration function must be reviewed to determine what support action is required, new definitions, re-initialization, modification or other action.

Back-up and Recovery Plan
This plan includes activities such as establishing a routine backup and verification methodology, determining if current hardware is sufficient, determining a strategy for database backup and recovery, selecting a preferred media for use, developing a rotation cycle, identifying an on-site library and an off-site storage strategy. This plan also outlines the data restore plans and procedures.

Disaster Recovery Planning
A definitive Disaster Recovery Plan is needed prior to placing any software system into either a production or training environment. This plan differs from the Backup and Recovery Plan, in that it primarily deals with hardware and system configuration issues, and addresses specifically a corruption or destruction of data services.

If data services are completely corrupted or destroyed, usually as a result of a natural disaster (fire, flood, earthquake, etc.), it is the goal of the Disaster Recovery Plan to make sure that both data and systems are recoverable and current within, at most, a 24 hour period.

Obtain Consultant Support (1.4.01.03.05)
This task was inserted in the initial baseline schedule to cover the time and budget to acquire outside “expert” resources necessary to reduce the learning curve of site personnel, and therefore reduce the implementation time in implementing Commercial Off The Shelf (COTS).

Peoplesoft User Group Conference (1.4.01.05)
Attendance of Hanford team members at the conference.

INDUS PassPort User Group Conference (1.4.01.06)
Attendance of Hanford team members at the conference.

Map to Site Plans (1.4.01.07)

It is important that the entire implementation team understand how the PASSPORT/PEOPLESOF implementation maps to Hanford goals. This puts the implementation into context and provides the implementation management team with knowledge as to what is driving the project and what will constitute success. It also provides a method for verifying the necessity/priority of implementation expenditures. This issue is to be addressed at the Kickoff meeting and the information relayed to the implementation team through the methods identified in the Communications Plan.

Due to the other implementation activities of HANDI 2000 which will be ongoing in parallel with the Financial and Supply Management effort this step is critical in identifying overlap and interface points with other activities.

Receive Funding for Hardware and Software (1.4.01.08) - Milestone.

Infrastructure Preparation (1.4.02)

Evaluate the network, database server and workstation requirements of the Finance and Supply components of the PeopleSoft and PassPort products, factoring in the anticipated the number of users, transaction rates and data storage needs. Compare these requirements to the current capabilities available at Hanford. Develop a plan to resolve the shortfalls. Implement the plan, procuring hardware and software where needed, resulting in a technical infrastructure prepared to support the rest of the project deliverables.

Database Server Environment (1.4.02.01) - Consists of the following sub-tasks:

- Evaluate the database hardware and DBMS software alternatives supported by the PeopleSoft and PassPort products. Analyze the alternatives and present the findings and recommendation for review. Obtain approval and funding authorization. Develop the technical specifications needed to support the procurement and installation the database server hardware and software.

- Determine Configuration Needs (1.4.02.01.01)

  Using the specifications supplied by the product vendors and the analysis of the concurrent user, transaction rates and data storage needs of the Finance and Supply processes, develop the configuration of the database hardware. Assure that the configuration is supportable by the existing technical staff and/or develop plans to enhance the skill set. Assure that the configuration is scalable and compatible with the overall HANDI 2000 project plans. This includes the following activities.

- Client/Server Site Survey

  The site survey is the first in a group of related tasks aimed at successful installation and production deployment of PASSPORT/Peoplesoft client/server products. This task (and those which will be established based on its results) are critical to the smooth installation and deployment of PASSPORT/Peoplesoft. The site survey must be performed for each production site at which the software will be used. The purpose of the site survey is to identify and document the Hanford network configuration, workstations in use, software in use, protocol(s) in use, etc., vis-à-vis the PASSPORT and Peoplesoft products which have been purchased. The outcome of the site survey is a report which details tasks which must be performed in order to successfully deploy the client/server products.
The result of the Site Survey is the identification of any technical impediments and/or potential impediments to successful implementation, and to specify an action plan to resolve all such issues. The Site Survey report is reviewed with the Hanford team, the issues discussed and the Technical Implementation Plan is created to resolve the issues.

Hardware Sizing/Capacity Planning
In all cases, raw system performance (speed) is one of the most important ingredients for end-user satisfaction with application software. Response time is impacted by many components: CPU, LAN, WAN, Work Station and system tuning to name a few. The ultimate aim of a sizing exercise is to determine how much and what kind of hardware must be purchased in order to run the applications and provide a good service to our users based on the anticipated data and user load on the system.

The Hardware Sizing/Capacity Plan will become part of the overall Implementation Plan.

Procure Hardware and OS (1.4.02.01.02)
Develop the procurement information to support the purchase of the selected database server hardware and operating system. Obtain the appropriate approvals and funding authorizations. Work with the procurement specialists to place the orders.

Requisition Prep (1.4.02.01.02.0)
Work with the selected database server vendor to gather and document the detailed specifications required for the Purchase Requisition. This includes the software components that make up the operating system. This also includes any on-site services required for equipment and operating system setup and configuration.

Obtain Authorization (1.4.02.01.02.02)
Identify who needs to be in the review and approval process for the expenditure of funds for the Database hardware and operating system. Obtain the required approval signatures.

Place Order (1.4.02.01.02.03)
Support the procurement specialists as the Technical Representative as they identify and negotiate with potential suppliers of the database hardware and operating system components. Assure that the order is actually placed with a committed delivery date that supports the overall Finance and Supply project plan.

Procure DBMS (1.4.02.01.03)
Develop the procurement information to support the purchase of the selected database management system (DBMS) product components. Obtain the appropriate approvals and funding authorizations. Work with the procurement specialists to place the orders.

Requisition Prep (1.4.02.01.03.01)
Work with the selected DBMS vendor to gather and document the detailed specifications required for the Purchase Requisition. This includes the database engine, concurrent use seat licenses, administrative tools and maintenance agreements. This also includes any on-site services for installation and configuration that may be required.
Obtain Authorization (1.4.02.01.03.02)
Identify who needs to be in the review and approval process for the expenditure of funds for the DBMS software components. Obtain the required approval signatures.

Place Order (1.4.02.01.03.03)
Support the procurement specialists as the Technical Representative as they identify and negotiate with potential suppliers of the DBMS software components. Assure that the order is actually placed with a committed delivery date that supports the overall Finance and Supply project plan.

Delivery and Setup (1.4.02.01.04)
Plan for and coordinate the receipt and setup of the database server hardware, operating system and DBMS products. This includes the installation, configuration and check out of all of the hardware and software components needed to support the installation of the PeopleSoft and PassPort products. Verify that the expected telecommunications capabilities are available. Test the backup and recovery procedures. Test the failure-mode procedures.

Hardware (1.4.02.01.04.01)
Plan for and coordinate the receipt and setup of the database server hardware components. This includes the facilities preparation, coordinating the vendor supplied services and certifying that the hardware delivered matches our procurement specifications.

OS Installation and Checkout (1.4.02.01.04.02)
Plan for and coordinate the receipt and setup of the operating system software components. Verify that the versions and capabilities match the procurement specifications. Apply any checklists developed or supplied by the vendors to assist in checkout process.

DBMS Installation and Checkout (1.4.02.01.04.03)
Plan for and coordinate the receipt and setup of the DBMS software components. Verify that the versions and capabilities match the procurement specifications. Apply any checklists developed or supplied by the vendors to assist in checkout process.

Telecommunications Stress Test (1.4.02.01.04.04)
Coordinate with the Operations & Support and the Network Engineering organizations to verify that the expected data transfer capabilities between the database server and the Hanford Local Area Network (HLAN) are available. If possible, simulate a transaction load that will test the maximum performance of the telecommunications capabilities.

Backup and Recovery Testing (1.4.02.01.04.05)
Test the backup and recovery procedures for production servers of the selected operating system and DBMS mix. Verify that the existing procedures are adequate and coordinate any improvements indicated.

Fail-Mode Testing (1.4.02.01.04.06)
Test the existing procedures for the handling of failures of the database server hardware components. Adjust and re-test as necessary, developing a procedure that minimizes the downtime resulting from component failure.

Establish Working Areas (1.4.02.01.05)
Created and review with the PeopleSoft and PassPort representatives a region management plan that supports the production, development, demonstration, training, etc. use of the products. Establish the areas and implement the management plan.

Product Baseline (1.4.02.01.05.01)
Establish product baseline regions that will hold the PeopleSoft and PassPort products as they were delivered from the vendors. This will be a reference point to verify baseline capabilities versus any modification applied after installation.

Prototyping (1.4.02.01.05.02)
Establish a region to support any prototyping that may occur during the process of deciding how to use the products to support Hanford business processes.

Training (1.4.02.01.05.03)
Establish a region to support the training of individuals and groups in the use and capabilities of the PeopleSoft and PassPort products.

Production (1.4.02.01.05.04)
Establish a region to support the production use of PeopleSoft and PassPort.

Commercial Software (1.4.02.01.06)
Support the procurement and delivery of the commercial products with planning and preparation for the installation and configuration of the PeopleSoft and PassPort products, including the Integration products from INDUS. Assure that the default capabilities offered by these products perform as expected after installed in the Hanford environment.

Procurement & Delivery (1.4.02.01.06.01)
Support the procurement and delivery of the commercial products by participating with procurement specialists in discussions with the vendors about Hanford's hardware and software infrastructure plans and standards.

Installation & Configuration (1.4.02.01.06.02)
Coordinate the installation and configuration of the PeopleSoft and PassPort products. Provide operating system and DBMS administration support and expertise.

Certification of Default Capabilities (1.4.02.01.06.03)
Certify that the baseline capabilities of the two commercial products all work as expected after installation on Hanford equipment.

Receive P/S - Indus Integration S/W (1.4.02.01.06.04)
Milestone date for the receipt of the PeopleSoft-to-PassPort integration product. This product, from the INDUS company, is for integration of the PassPort modules that support the Supply Management functions with the PeopleSoft Financials product.

Install & Configure Int. S/W (1.4.02.01.06.04.01)
Coordinate the installation and configuration of the PeopleSoft-to-PassPort integration product. Provide operating system and DBMS administration support and expertise.
Certification Of Default Capabilities (1.4.02.01.06.04.02)
Certify that the baseline capabilities of the integration product works as expected after installation on Hanford equipment.

Receive P3 - P/S – Indus Int. S/W (1.4.02.01.06.05)
Milestone date for the receipt of the PeopleSoft-to-PassPort integration product. This product, from the INDUS company, is for integration of the PassPort modules that support the Supply Management functions with the PeopleSoft Financials product.

Install & Configure P3 Int. S/W (1.4.02.01.06.05.01)
Coordinate the installation and configuration of the P3/PeopleSoft/PassPort integration product. Provide operating system and DBMS administration support and expertise.

Certification Of Default Capabilities (1.4.02.01.06.05.02)
Certify that the baseline capabilities of the integration product works as expected after installation on Hanford equipment.

Desktop Hardware Planning (1.4.02.01.07)
Analyze the vendor information about the workstation requirements and the current workstation situation. Identify the issues and coordinate the efforts to assure that the required workstation capabilities are in place when needed.

Determine Requirements (1.4.02.01.07.01)
Analyze and document the vendors workstation requirements.

Survey User Community (1.4.02.01.07.02)
Assess the status of the user community’s workstations in regard to processor speed, memory and disk space.

Match to Current Upgrade Plans (1.4.02.01.07.03)
Where the survey of the users community show which users workstations fall short of the vendors requirements for PeopleSoft and PassPort, determine if any existing upgrade plans resolve the problems in time to support the implementation schedule.

Develop Enabling Plan – Project Team (1.4.02.01.07.04)
Develop the plan to, where necessary, upgrade the project team members workstations.

Develop Enabling Plan – End Users (1.4.02.01.07.04)
Develop the plan to, where necessary, upgrade the end users workstations in time to support the implementation schedule.

Setup Test/Demo/Training Center (1.4.02.01.08)
Plan and coordinate the allocation of the facilities and the workstations needed to support test, demonstration, and training centers.

Financial and Supply Management Implementation
Note: On the attached schedule the Financial Management (Phase 1) and Supply Management Implementations are tracked separately. Because the tasks identified at this level of planning are nearly identical the Task descriptions are listed only once and WBS references have been omitted.

Project Team Training
Orientation Training
In order be prepared to effectively participate in the business review sessions as part of the Business Process Improvement (BPI) program, members of the project/review team must attend PASSPORT and Peoplesoft Orientation Training. This training covers the business review process, how PASSPORT/Peoplesoft is designed to meet industry 'best practice' and how the architecture is configured to meet specific business needs without requiring customization. The goal is to assist the team in understanding the business review, the business tool and how it all can be configured to meet specific needs.

All of the members of the Core Team and/or the business review team need to understand certain basics before beginning a business review utilizing the software. INDUS conducts these sessions in a structured, fast-track manner which is designed to achieve meaningful results over the shortest possible time frame. It is imperative that all team members understand this process and its goals before the business review sessions (As-Is and To-Be) begin. This will help all members of the review team work together as a team from day-one.

Technical Training
PassPort and Peoplesoft software are supported by a proprietary architecture and set of Workbench development and support tools that aid in the development of run-time objects under that architecture. The analysts who take administrative responsibility for the overall support of the system must be trained to understand the tools and architecture.

To ensure adequate support for the initial environments and as a foundation for later implementations, this training provides the basic skills in installation and configuration of PassPort and Peoplesoft. Knowledge acquired here and through subsequent experience will prove useful as various environments are defined. Later, during the implementation phase, the follow-on training in operations support offers more intensive training to ensure a successful production implementation.

Product Familiarization Sessions
In addition to formal training it is important for the core team members to spend time familiarizing themselves with the software and applying the knowledge they have gained. These sessions provide the “hands on” opportunity to walk through the Hanford processes and become more comfortable with the system navigation and features.

Business and Reporting Requirements
Prior to beginning the Business Process Improvement (BPI) sessions, and continuing on through the sessions, team members need to identify the basic business and reporting requirements which must be met by the finalized “To-Be” activities. This includes the basic chart of account structure, regulatory requirements, and overall project goals which must be achieved. Identifying these basic requirements puts the implementation into context and provides the team with knowledge as to what will constitute success.
Requirements and Functional Fit/Gap Analysis (BPI sessions)
A series of working sessions is scheduled to review each business process within the scope of the implementation. This activity covers the process of reviewing and documenting the current work practices, establishing the ‘As-Is’ work processes, and reviewing how these processes will be performed utilizing the new software tools, the “To-Be”.

During this session, the team not only gains an understanding of current work practices and business processes but also establishes a relationship with the implementation team and a familiarity with the company. The two areas of emphasis during this evaluation are areas of potential work process improvement and areas where PassPort/Peoplesoft will eventually address and facilitate that change.

Utilizing the business processes defined in the As-Is evaluation, along with current business concerns, formal expected benefits and business improvement recommendations, new work flows are developed that document how the company will perform each business process in the future. Both data origination and destination is addressed within each work flow. Interface and data conversion (integration) requirements are another deliverable of this activity. Where decisions on software usage or new business procedures cannot be easily made, action items requiring resolution are identified. Resolution of these items will result in policy and procedure changes, or potential software changes (baseline changes, PassPort/Peoplesoft tailoring, or new software development). All business or software changes will go through a review and approval process to be either approved, rejected, or postponed.

A formal Workflow Analysis Report showing the project team’s findings and recommendations is prepared collating this information.

Progress Assessment
At the end of the BPI’s a management assessment must be made to determine the impact on schedule and budget by the business process changes and customization which have been approved. The Implementation Plan must be updated, and any additional staffing and budget requirements which may be needed must be appropriated or modifications in the scheduled “Go-Live” date must be made.

Prototyping
This process confirms the configuration and business process decisions which were made in the Work Flow Analysis Reports. Control table and application data is loaded using “real” data applicable to the Hanford implementation. Using the “To-Be” work flows as a guideline, test scripts will be developed to confirm the processes and refine them to achieve the required results. Modifications to previously agreed upon decisions are evaluated to confirm adherence the business and reporting requirements identified.

Define/Develop Reports
This activity covers the development of a complete view of all report requirements associated with the redesigned work flows and the new/revised policies and procedures. Additionally, a verification will be performed to assure the needed reports and reporting tools are being developed as part of the overall implementation plan. If necessary, new reports will be developed and/or existing reports will be modified to satisfy the complete set of reporting requirements.
If a third-party reporting tool has not been selected for use in developing non-baseline reports, such a tool should be selected at this point.

System 'As-Is' Survey
The System As-Is Survey identifies the current software configuration and availability of existing data. The Survey focuses on both applications initially targeted for replacement by PassPort/Peoplesoft and those where interfaces with PassPort/Peoplesoft are anticipated.

This survey identifies the anticipated interfaces that are to be constructed and maintained between PassPort/Peoplesoft and other systems including host-based legacy applications, workstation and client/server applications and external or other third party mechanisms (e.g., MSDS data acquisition, EDI data exchange, etc.) so that that the Mobilization Plan, and To-Be Evaluation properly address these considerations.

The survey also examines the sourcing of data required to load PassPort/Peoplesoft’s database tables. This effort scrutinizes data mapping requirements from supplanted applications, new data identification and creation, data redefinition, re-identification and/or consolidation (e.g., renumbering stock codes, consolidating vendors, etc.) and the differentiation of code tables, system administration data, security parameters and user data.

System Integration Plan
A comprehensive System Integration Plan is needed so that issues such as system interfaces, data conversion, software configuration management, security and full integration testing are properly identified and scoped early in the implementation. The output of this plan is incorporated into the overall Implementation Plan. While the Survey of Existing Systems represents the preliminary plan for interfaces and data conversion, the System Integration Plan, which incorporates findings from the Workflow Analysis Report, is a definitive plan and can be used as a scope document and a basis for preparing a definitive estimate for all system integration work needed to support the implementation.

The plan also details sources of data required to initially load PassPort/Peoplesoft’s database tables with the Hanford data at the proper level of detail, accuracy and timeliness. This effort recognizes data mapping requirements from existing applications which will be replaced by PassPort/Peoplesoft, new data identification and creation, data redefinition, re-identification and/or consolidation (e.g., renumbering stock codes, consolidating vendors, etc.) and the differentiation of code tables, system administration data, security parameters and user data.

Data Conversions - Consists of the following sub-tasks
Data Conversion Plan
Once a System Integration Plan is completed, a detailed Data Conversion Plan and Schedule must be prepared. This plan and schedule identifies scope of the conversion and source of all data required to load PassPort/Peoplesoft and other databases. This effort includes data mapping requirements, new data identification and creation, definition of code table data, system administration data, security data and user data. This plan is incorporated into the overall Implementation Plan.

Data Mapping Scheme
Once all data sources have been identified (through the Systems 'As Is' Survey and the Data
Conversion Plan and Schedule) a comprehensive Data Mapping Scheme is developed. This scheme shows specifics (field by field) of how data will be transferred from legacy system databases into PASSPORT/PEOPLESOFT. This mapping also shows where data will be modified, supplemented or created manually. The goal is to have a complete data roadmap for conversion.

The data mapping scheme also presents recommendations for dispositioning data that is contained in existing systems, but does not have a corresponding place in PASSPORT/PEOPLESOFT. This data may be archived or recorded as 'comments' in PASSPORT/PEOPLESOFT.

Develop Data Extraction and Load Conversion Programs

There are two categories of programs that are used in data conversion; data extracts and data loads. The data extract programs retrieve data from the legacy systems and format it to a standardized flat file format. The data load programs load data from the flat file into the PASSPORT or Peoplesoft data tables. These data load programs (referred to as Baseline Conversion Programs) are set-up and tested with extract data early to support data conversion activities.

INDUS provides baseline data load programs that are designed to load data extracted from legacy systems directly into PASSPORT. These programs use a standardized flat file format for the most common products. Hanford is responsible for developing the data extract programs and creation of the flat files. Hanford is also responsible for developing all Peoplesoft load programs.

In creating new data loading specifications, the responsible analyst reviews the specifications for the equivalent on-line panels and writes specifications for the load. These specifications mirror the edits and data integrity checks that are part of the on-line process. This ensures that converted data will work properly in the on-line system after conversion.

When specifications are complete, programs are coded and tested using controlled sample data. Programs are designed to run several times during implementation so that erroneous data can be corrected and productions loads can be staged according to the roll out schedule.

Data Gathering

This activity covers the actual collection of data, through both system resources and through manual effort. Data is sometimes copied to 'flat files' for conversion, or is manually loaded into intermediate tables or files for later conversion. Data Gathering is an on-going activity as new data and data sources are identified and more systems are retired with functions moved into PASSPORT and Peoplesoft.

It is imperative that all 'required' data elements in PASSPORT/PEOPLESOFT be populated, as a minimum, in order to achieve an fully functional implementation. The data mapping exercise will highlight those areas where required data is currently not available and other sources, or manual entry, will be used.

Where two or more sources of data exist, a hierarchy documenting the order of preference is established. Where two or more data sources provide conflicting information, the resolution
must be one that accurately reflects the plant configuration.

Data Cleanup
Data extracted from legacy systems may need to be scrubbed before loading into
PASSPORT/PEOPLESOFT. There are usually several reasons that Data Clean-up is needed. There may be slightly different variants of the same data. This is particularly true with multiple source systems. The source system may contain data with non-printable or otherwise unacceptable characters. Data from different source systems may contain contradictory information. The source data may not be PASSPORT/PEOPLESOFT compliant in terms of codes used or data dictionary field definitions. Data Cleanup will help assure that the users are provided with the best possible product.

Much of the source system data that needs to be cleaned up can usually be done programmatically. Some portion of the data can only be cleaned-up through manual intervention. In many cases the data can be cleaned up to a certain level programmatically, but then have to be resolved through a manual process. At this point, it is often beneficial to set up an interim database where the users can resolve a selected set of discrepant data on a one by one basis. This database should be developed with a product like Microsoft's Access. In some cases, where there is a large volume of data that is deemed critical and needs to be resolved in this manner, this process is set up as a 'mini-project'. The scope of these mini-projects can include plant walk downs to acquire missing or deficient data.

Load Data to Test
The loading of production data into a Baseline region is an important step in the conversion process. By performing this step, Hanford has the opportunity to view their existing data in baseline PASSPORT/PEOPLESOFT and make process and design decisions. This step also identifies potential problems with the conversion methodology and data mapping.

A specific data conversion region is required to perform this baseline load. The region is set-up with baseline programs and tables and is fully operational. Once data is loaded into this region, the data is validated on-line to ensure that the converted data meets on-line data requirements.

Sample data from legacy systems is identified for this load test. The load encompasses as many unique data scenarios as possible for a comprehensive test of the conversions.

Conversion programs are run in a predefined order based on data dependencies. As conversions are run, the data is spot checked to ensure each conversion matches the appropriate mapping document.

Load Static Data to Production
The first type of data normally loaded into a production environment during a data conversion effort is the so-called 'static' data. This is the data that either does not change, or changes very little over time. This includes such data as facilities, units, fixed code values, equipment, bills of material, historical data, etc. Even though this data is considered static, it may be necessary to re-load the data or supplement it prior to start-up of the production system.

This activity includes conversion of validation data such as any 'codes' used in the system. Such codes include failure codes, equipment types, craft codes, etc. An effort should be made early in the data conversion exercise to get the static data loaded and out of the way. This allows the
conversion team to focus on dynamic data which is always changing and can only be converted and loaded just before start-up.

Load Manual Data to Production
Sometimes it is actually more timely and cost efficient to load manual data rather than try to convert existing data via automated conversion programs. This is especially true where low volumes of data are being considered. An assessment of the quality and completeness of existing data is required prior to rushing into writing some complicated conversion programs. A hint as to when it's time to consider the 'manual' alternative is when we start to 'force-fit' data through conversion programs by plugging nonsense or dummy values just to satisfy PASSPORT/PEOPLESOFt editing and field requirements. This is a sign of trouble, and the manual alternative should be considered or reconsidered when the team sees signs of this 'force-fit' effort.

Legacy Data Disposition
All data contained in existing legacy systems will not normally be converted to the replacement systems. Some data has been made obsolete by the new business processes. A limited amount of history data, critical to daily business needs is normally converted to the new system.

Decisions must be made on where the data not converted will reside. If the legacy system is to be retired completely a conversion to a retrievable format may be required. Archiving of other system data must be addressed to reduce the amount of storage space required for infrequent retrievals.

Interfaces - Consists of the following activities
Interfaces
Interface Plan
Once a System Integration Plan is completed, an Interface Plan and Schedule must be prepared. This plan and schedule identifies scope and timing of all interfaces between PassPort/Peoplesof and other systems (legacy, desktop, server based, third party etc.). The timing of system interface tasks must be coordinated with those of data conversion and configuration management so that full integration testing can take place prior to moving software into production. This plan is incorporated into the overall Implementation Plan.

Interface Analysis and Design
Once the Interface Plan & Schedule is complete and the teams, as defined in the Implementation Plan, are formed, the analysis and design of the system interfaces begin. The INDUS PASSBOOK tool is used extensively along with other design techniques to make this phase as efficient as possible. The goal of this activity is to produce a detailed design for all system interfaces.

This activity includes the design research, design sessions with Hanford technical personnel and development of a detailed interface specification which is evaluated in terms of cost/schedule impact. In many cases, alternative design solutions are explored and evaluated. Once the design is complete, reviewed and approved, programming begins.

Interface Program & Unit Test
Once the Interface Detailed Design is approved, programming can begin. As the programming is
completed for each interface, that interface program is unit tested. The goal of this activity is to
program and perform initial testing of all interfaces efficiently and in accordance with the
Interface Plan & Schedule.

When the interface is 'on-line' in nature, both systems must be running in order to properly test
the interface. If the interface is 'batch' in nature, a test of the function is possible even if either or
both of the systems are down since reading batch data being passed from one system to another
is relatively easy.

Unit Test P3/PS/PassPort Interfaces
End User Training - Consists of the following items
   Develop Training Plan
   Training Survey
The ability to support a full implementation of integrated PassPort/PeopleSoft software is based
upon strong user acceptance, which is facilitated through a comprehensive education program.
Conducted early on, the training survey is designed to assess overall training needs, instructor
resources, training facilities, courseware and job aid requirements. Additionally, user
community matrices are developed matching system functionality against functional job areas to
profile end-user training requirements. The goal is to provide the right level of high quality
training in a timely manner at the lowest possible cost.

INDUS will provide both the resource and methodology for this survey with a formal assessment
and action plan as the deliverable. The survey is conducted by a training professional and
consists of gathering data regarding the scope of training needed, current capabilities in the
training area and recommendations for the development and execution of a complete training
program. The survey covers all facilities/sites involved with the PassPort/PeopleSoft
implementation. The survey service is also tailored to be specific to the Hanford business needs
and environment while taking advantage of tools and methodologies developed by INDUS.

The survey is a complete assessment of all education needs relative to the implementation. It
addresses not only end-user skills and training needs in terms of new software systems to be
implemented but also looks at potential work process changes which need to be addressed in the
training program. The survey also covers the technical infrastructure so that any training needed
in this support area is included.

Education Plan
Key to a successful implementation of integrated PassPort/PeopleSoft software is a
comprehensive education program. The Training Survey identifies the overall scope of this
program while the Education Plan details all aspects of a complete plan including training
resources, targeted users, custom courses, knowledge products and cost/schedule impact. The
goal is to have enough detail and lead time to plan, schedule and budget an appropriate
Education Program.

INDUS provides both the resource and methodology for the development of this plan. The plan
is developed in cooperation with the Hanford implementation team. This is a complete plan
covering all training including that handled by the Hanford internal training department, training
provided by INDUS and any third party training.
Training Schedule

Once a the formal Education Plan has been developed and accepted, individual end-users and technical support staff must be scheduled for training. A complete list of users and targeted training courses is compiled and communicated to the organization in the form of a Training Schedule so that attendees, their supervisors, and management know well in advance the 'who and when' of the overall deployment of the Education Plan. All participating departments must support this schedule by ensuring that all scheduled individuals are available for training as planned.

Implement Training Plan

Train the Trainer

A Train-the-Trainers program differs significantly from end-user training, in that we are training the Customer's instruction team on all aspects of the product (PASSPORT/PEOPLESOFTH and other systems) and teaching them how to most effectively transfer knowledge to the end-user community.

The trainers become subject matter experts as a result of attending these courses, as well as spending time following the course focusing on self-paced system familiarization, individual lesson plan development, and training data/scenario set-up.

Custom Training Curriculum

Once the Business Process Improvement (BPI) reviews have been completed and documented (Workflow Analysis Reports) and Integration Plans are complete, relevant material is integrated with the education program. In addition to incorporation of new business and work processes into the training curriculum, special training needs relative to interfaces, data hierarchy and nomenclature, must also be reflected in the training programs. This curriculum takes the form of education tracks/courses for identified user audiences and the development of custom training materials. In most cases, PASSPORT/PEOPLESOFTH baseline training methods/scenarios/courseware are used as a foundation from which a 'custom' training curriculum is developed.

Prepare Training Facilities

Training facilities are identified, configured and maintained to support the enterprise training program roll-out and successful implementation. It is critical that the computer software and hardware be properly installed and configured to support training (as envisioned when the software is in production). The facilities must also be properly outfitted with materials, graphic aides and other equipment to ensure that classroom time is both effective and pleasant for the attendee. All training facility requirements are identified in the Education Plan.

Training Materials

Training Materials are the customized products (courseware and related training materials, job aids, instructor kits, train-the-trainer tools, and/or interactive learning tools such as CBT) that are used to conduct user training. The baseline materials are tailored to meet the needs of individual organizations within the company, providing only what users within each organization need to know to support their individual job function(s). Materials are always customized to incorporate business process workflow from the BPI business reviews.

Training for Users (Includes Work Process Training)
PassPort/PeopleSoft, like all other computer systems, can be successful only if the users are properly trained. Implementing PassPort/PeopleSoft represents a move toward best practice. Because this move requires changes in daily work processes, employees need to know what has changed, why it has changed and how it affects them. User training is focused on using new tools, like PassPort/PeopleSoft, in the performance of their re-defined jobs.

User training is designed to help users make the easiest possible transition to performing their jobs using PassPort/PeopleSoft. An essential part of preparing for this training is understanding the work process changes so that all users/employees will be shown not only the relationship between PassPort/PeopleSoft and the work process changes, but also the effect these changes have on them as individuals.

The classes take the form of interactive, hands-on instruction. Each student has the opportunity to practice the new skills learned and to develop confidence in his or her ability to succeed in a changed work environment.

Ad-Hoc Report Training
Many users of the PASSPORT/PEOPLESOFT system will have the occasional need to design and/or run special or 'ad-hoc' reports. Ad hoc reporting must be addressed as a specialized training requirement since it is dependent upon the Ad-hoc tool selected for use with PASSPORT/PEOPLESOFT and other systems. This curriculum covers 'how to' use the selected tool to access and view/print reports from information in the PASSPORT/PEOPLESOFT and other databases.

Training Review
In order to ascertain the effectiveness of a project's overall education program, a formal review is recommended at fixed intervals following system start-up. The Training Review identifies areas of strength and weakness in the Continuous Education program while there is still adequate time to address issues and schedule additional or remedial training as deemed appropriate. The methods of assessment for this task include, but are not limited to: establishment of scoring and evaluations methods, questionnaire(s), random interviews, and scheduled interviews. The help desk log is also reviewed to determine which areas are receiving the most support and where additional training may be required.

Continuous Training Program
Once PASSPORT/PEOPLESOFT has been put into production, an Continuous Education program is needed. The Training Review(s) identify specific areas that need attention based on interviews and observation of PASSPORT/PEOPLESOFT users in the field. Remedial training may be needed either because training tools/approaches need revision or specific individuals need more attention. New Users are introduced to PASSPORT/PEOPLESOFT on an on-going basis and will need training to be effective in their job functions. Each time PASSPORT/PEOPLESOFT is upgraded, the users need to be updated/trained to take advantage of any new enhancements.

Business Procedures and Documentation - Consists of the following items

Summarize Work Process Changes
This activity is the expansion of items identified in the Workflow Analysis Report as ‘Work Process Changes’. It is required that these be carefully laid out so that all impacted procedures and policies are identified for revision including creation of new procedures or deletion of old procedures. In addition, these work process changes must be closely aligned with process Intersection issues. This activity is also tightly coupled with any organization changes that are recommended so that new procedures reflect these changes as well.

All affected processes are identified along with an index of what procedure changes will be required. In addition, it is required that all organizational interfaces affected by the work process changes be identified. Work process modifications are detailed and process flows established. Any new work or modified practices which require employee training or orientation must be identified and the required programs must be in place by the time the practices are actually implemented.

Identify Organization Changes
This activity is the expansion of items identified in the Workflow Analysis Report as ‘Organizational Impact & Changes’. Organization changes may be needed in order to implement the new work practices and may, in fact, be an on-going process as the organization learns more about how to optimize work practices over time. Procedures must also be reviewed due to these organizational changes resulting in the need to remove references made to specific organizations. This is essential to ensure that the procedures that cross-reference organizational responsibilities do not become a maintenance burden as changes continue to occur.

Any new organizational changes must be communicated during formal employee training so that everyone knows what has changed and why. Succession or emergency substitution planning must be formalized, recorded and maintained.

Develop Business Change Management Plan
Change management is not an event or destination, it is a process. This process must be managed in order to gain all potential benefits. This activity defines the requirements for a plan to manage change.

The change management plan defines the elements which are needed to affect the change smoothly and efficiently. It identifies all organizations affected by the change and defines responsibilities, programs and communications required to implement the change. It identifies requirements for the communications plan which addresses both inter project and external requirements and other changes needed such as procedures and software systems.

Procedure Impact Analysis
The impact of changes to specific procedures plus the creation of new procedures (or retirement of old procedures) must be carefully analyzed and planned. Frequently the steps required to change a procedure are both numerous and costly. The steps, sequence, and details, must be clearly understood before undertaking these changes. This activity documents both the scope of change for each affected procedure (in detail) plus the steps and effort required to accomplish the changes. The objective of this activity is one of achieving alignment between the business processes and system work flows.

This Procedure Impact Analysis results in a clear and detailed definition of scope of change for each affected procedure. In addition, this activity delivers a complete cost estimate for each new
or revised procedure, and a schedule, resource plan, and training impact analysis, for the entire set of related procedures (Program).

Modify & Approve new/revised Procedures
This activity encompasses the actual modification of affected procedures, development of new procedures and retirement of outmoded procedures. This also includes any steps required for the review and approval of the procedures. This activity supports the implementation of new business processes and fundamental change management decisions made by the management team.

The new procedures are formally approved by an appropriate management review team. This review may also include departmental or functional reviews such as by the Environmental, Health, and Safety team or the Quality Assurance team.

Issue Procedures
The 'Issue Procedures' activity covers the actual issuance and distribution of all affected and approved procedures, including both new and revised procedures. A related activity is that of removing or destroying any copies of procedures superseded by the new or modified procedure. Existing processes and procedures for this activity are used. The issuance of procedures also includes announcement of changes and applicable training sessions so that the affected individuals and departments are informed. An appropriate plan will facilitate a 'smooth' roll-out with as little work disruption as possible.

Implement New Work Processes
This activity assures that all approved and proceduralized work process changes are implemented into the business process. The goal is to get as many of the new processes in place prior to implementation of the new PASSPORT/PEOPLESOFT system so that 'change' occurs in stages allowing for the organization to adapt over time. Additionally, it provides an opportunity to 'trial-run' the changes with time to correct any inefficient processes before implementation of the new software tools.

Correct Process Based on Findings
As new procedures and business improvement processes are deployed, the effectiveness and acceptance of the change(s) are assessed. Where changes cannot be fully implemented, a process needs to be in place to correct process and procedure changes. The goal of this activity is to utilize 'findings' from the Implement New Work Process Changes activity to formulate modifications to the process/procedures. Recommended changes may include work process changes, procedure changes and, in some cases, advisement on work assignments with possible impact on organizational changes and/or training. To gain maximum benefit, this should be an on-going process which is part of the continuous business process improvement program.

Review work Processes (Post Implementation)
This activity defines those tasks associated with performing general and on-going work process reviews. Approximately 3 - 6 months after the full implementation of work process changes and software tools, a review of the work processes must be performed. This is necessary to verify that the new work methods that were recently implemented are still being enforced and are in fact helping improve business efficiency as anticipated. It also ensures that the software tools are functioning as expected in the 'real world.' It is expected that findings from this review will
result in some 'tuning' to gain further process improvement. This is an on-going process and should be repeated at regular intervals and continue to identify new opportunities for business process improvement.

Identify Possible Changes (Post Implementation)
Once the Review Work Processes activity is complete, an action plan is developed based upon the findings. The actions are quantified in terms of cost and schedule impact, and are prioritized. The high priority items that will yield the greatest benefit are the first to be implemented. Several alternatives are normally considered prior to implementation of identified changes. This activity is not a 'one-time' event but instead is a regularly scheduled event to make sure that continuous improvement is taking place.

Setup Security - Consists of the following items
Security Study and Plan
A security plan is needed to cover the entire integrated system so that the investment in corporate data is preserved and a comprehensive security profile is developed to cover all systems. This plan promotes the concept of a single security system rather than separate security systems for each application. This plan is incorporated into the overall Implementation Plan.

In the typical PassPort/Peoplesoft implementation, there are usually three levels of security that must be established - LAN, Host, and PassPort/Peoplesoft. The scope of this plan covers the LAN and Host security issues only to the extent that they impact access to PassPort/Peoplesoft. The interface of PassPort/Peoplesoft to a corporate standard security package is also addressed in the plan.

Security Definitions and Profiles
All users of PASSPORT/PEOPLESOFT and other integrated systems must be covered by the overall Security Plan. Following completion of the Security Study & Plan, pre-built security profiles are assigned to users. The prerequisite to assigning profiles consists of associating discrete security events to function groups that define actions against PASSPORT/PEOPLESOFT objects in an operational context. This activity also requires that all near-term users of the system(s) be identified and entered into the security system.

Some users may have access to several PASSPORT/PEOPLESOFT secured systems. This should be reflected in their security profile. Since this is a major task, covering hundreds or even thousands of users, early emphasis should be placed on getting this completed for the personnel in the area targeted for initial Roll-out.

Test Security
Before the integrated system is moved into production, a complete test of security is required. This is to make sure that when real production data is accessed, proper security is in place to protect that data. A set of representative security profiles are established and associated with 'test' users and the tests are conducted in accordance with the Security Plan.

Based on the Security Plan, each profile is used to run through the series of work scenarios. Logs are kept of unavailable (or available when not granted) panels, options, processing, etc. Adjustments to the profiles are made based on these tests, and the adjusted profiles are re-tested until acceptable.
System Performance Tuning
Once the initial tuning exercise has been performed, and experience gained, it is essential that the process continue as data conversion efforts are completed and as the product goes into production. Data growth (which occurs rapidly during data conversion and initial system startup) along with growth of the user population has a serious impact on system performance; a well-tuned application today can perform badly tomorrow as internal thresholds are exceeded.

Parallel Operations
It may be necessary to run both the 'old' or current systems and new systems concurrently in a production environment in order to confirm that the new system is ready for production. This means that the old system is still the 'real' production system and the new system is still in a test mode. This type of verification testing is called Parallel System Testing. It is expensive, logistically cumbersome, and very labor intensive, and is done only when absolutely required, and only for a limited time period.

Parallel System Testing is a conservative testing technique. Extensive use of this technique is discouraged due to its high personnel and system resource requirements. Through good planning and extensive testing, a quick cut-over to the new system is the best approach. Parallel testing requires that users do their jobs twice; once using the old system and again using the new system. The results of the two system outputs is then compared by the testing team. Obviously, users require extensive support while they are in this dual-system mode and resources must be available to assist them.

Cease Legacy Systems Transactions (Milestone)
Integration Testing
Develop Test Plan
A complete test plan of the entire integrated system must be developed to ensure that all aspects of the production system are thoroughly tested, in a 'production like' environment, with all elements and data in place. Once all of the packaged products are tested as a 'unit', a full integration test is required. This test is both complex and comprehensive and therefore requires a formal/detailed plan. This plan is incorporated into the overall Implementation Plan.

The test plan provides a structure for organizing, scheduling, and managing the testing process. The test plan identifies the tasks in the testing process, structures the tasks, organizes the resources, coordinates resources and tasks, and is used to measure and monitor the project status.

Develop Test Data
Complete test data must be created and compiled to support complete stream/scenario testing of the fully integrated system. Optimally, this data is used over and over through several iterations of testing. This data resembles, to the extent practicable, actual production data. The use of testing tools and data roll-back techniques will help in the preservation and re-use of test data. The data developed should be 'recognizable' to the users actually doing the testing.

It is possible that the data delivered with PASSPORT/PEOPLESOFT and with other applications can be utilized as the core of the test data requirements.

Integration Application Testing
Prior to moving software into an integration test program, each software application is tested to
insure that all functions and features perform according to the detail specifications or product descriptions and that the products are free of defects. During this step, the stream or scenario test data is used to test within the confines of each system involved in the integration. Purchased software packages, data conversion, interface programs, and desktop system products, should all be tested as a part of this activity. Once this series of tests has been completed, the integration testing can begin.

Each software package (or application) will be tested to insure that the package is both free from defect and consistent with the detailed design specification documents. This activity relies on a pre-defined set of test script scenarios and test data defined and developed in previous activities.

**Integration and Configuration Testing**

The second phase of testing is the System Configuration Testing. During this activity, the test data is used to run complete stream and scenario tests which cross over between all of the integrated systems. This test is conducted using the exact hardware and software configuration anticipated for production and is the last step prior to system stress testing. The purpose of this test is to confirm that the complete integrated system works together and that data is properly handled between systems.

This phase in the integration process is performed after the individual application testing scenarios have been run and approved. To carry out this System Configuration Testing, the previously developed Test Plan is used to identify and track the necessary activities, schedules and incident reporting procedures, etc.

**Final Data Conversion**

The final type of data normally loaded into a production environment during a data conversion effort is the so-called 'active' data. This is the data that represents either 'work-in-progress' or data that changes frequently for any other reason. This includes such data as active purchase orders, projects, work orders, inventory quantities, etc. Due to the nature of this 'constantly changing' data, the actual loading usually takes place 'just in time' before start-up of the production system. Because of this, all active data must be thoroughly reviewed just before it is loaded, rather than after it is loaded.

**Production Roll-Out**

Once the final Quality Assessment has been performed and the decision to move to production is made, the next step is a Production Roll-Out. This occurs when the software systems are physically moved into a production environment. This may also include a final load of conversion data and other just-in-time activities. This task requires that all systems be taken out of service. It must be quick, efficient and virtually flawless. Optimally, a cut-over should be performed during a low activity time like over night or on a week-end, or whenever production activities are least affected.

A complete migration list is compiled by the technical team so that all of the systems and system objects and data are moved quickly and efficiently. There is little time to run tests so a 'pre-tested' and approved software suite is absolutely required. This activity is then limited to a 'technical' event and planned for and controlled by the system support staff. The system and procedure are rolled into production in accordance with the schedule laid out in the Production Roll-Out Plan. Once the fully integrated system has been tested under 'production-like' conditions in a controlled environment, and all operation findings addressed, a
full Production Roll-out of the integrated system can begin.

Production Readiness Acceptance
Once all forms of testing have been completed, the testing team makes a final Quality Assessment to determine whether the fully configured systems are ready for production. If no critical problems are outstanding, they will likely recommend that the system be moved into Operations. However, if significant issues exist they may recommend that these issues be addressed prior to moving the systems into production. This is sometimes called the Quality Assessment ‘Go-No-Go’.

User Implementation Support
Help Desk
Providing a single point of contact for end-users during the initial roll-out and ongoing use of PASSPORT/PEOPLESOFT is essential for the successful deployment of the PASSPORT/PEOPLESOFT product. If end-users do not get accurate and timely response to questions about the use of the product then their buy-in to the system is diminished as their frustration increases.

The addition of PASSPORT/PEOPLESOFT as a supported product to the existing help desk (or the establishment of such a help desk if one does not currently exist) is closely coordinated with the deployment of the PASSPORT/PEOPLESOFT Patrol. The successful deployment of the two ensures acceptance of the product by the end users.

PassPort/Peoplesoft Patrol
The PASSPORT/PEOPLESOFT Patrol is the 'hands-on' support group dedicated to supporting users in the field. This small, mobile team of PASSPORT/PEOPLESOFT experts are also individuals who are intimately familiar with the business and have credibility with end-users. Their specific functions are to assist users collectively and individually with the use of PASSPORT/PEOPLESOFT, provide one-on-one assistance and training, answer questions about the business and culture changes, help users with tricks and tips, assist users in getting around real or imagined road-blocks and help them both understand and use the Help Desk.

System Support
The turnover of responsibility for the on-going support of PASSPORT/PEOPLESOFT to Hanford occurs following the completion of the initial deployment. This support infrastructure is critical to the on-going success of PASSPORT/PEOPLESOFT technologies and will require the coordinated efforts of the Data Center (including systems, network and desktop computing support groups) and Database Administration Groups.

The host hardware and software support needs to include daily support and maintenance, standard backup and recovery, disaster recovery planning and testing, performance monitoring and tuning support as well as upgrade planning and installation of system and application software. Capacity planning needs to occur periodically and hardware upgrades performed as necessary to support the growth.

System Administration Support
A series of functions known as System Administration are provided which assist in managing and controlling all PASSPORT/PEOPLESOFT applications. Through System Administration,
the administrator establishes host printer definitions, maintains facility definitions, establishes
Generic Routing, updates Data Dictionary definitions, defines system Preferences, maintains data
code tables for each module of PASSPORT/PEOPLESOFT, and performs various other
functions. System Administration for the enterprise also provides a means for maintaining all
system user access security and end user profiles.

PASSPORT/PEOPLESOFT System Administration must be established and maintained as long
as the system is in Production to support the application and end users in providing a secure, up
to date environment. When a new PASSPORT/PEOPLESOFT application is added, or during
each formal release cycle, each of these functions must be reviewed to determine what support
action is required: new definitions, re-initialization, modification etc.

On-Going Interface Support
The interfaces constructed between PASSPORT/PEOPLESOFT and legacy or other systems
must be continuously supported to ensure that the users receive the best service possible with a
minimum of down time. This activity includes the plan and actual support of the interfaces, both
batch and on-line, and optimally includes both operation and enhancement. This plan and
operation will change over time as legacy systems are retired and more
PASSPORT/PEOPLESOFT applications are brought on-line. It is important to note that
PASSPORT/PEOPLESOFT interfaces to other applications, as well as to operating systems and
databases, also requires support.

System Upgrade Support
This activity is the execution of actual support as spelled out in the software Release & Upgrade
Plan. Because this is an operational service, the goal is to make this on-going upgrade activity as
smooth and uneventful as possible for the user community.

The upgrade of Maintenance and General releases of PASSPORT/PEOPLESOFT and third party
software must be carefully scheduled to avoid disrupting production schedules or performance.
It is also important to review the changes to ensure that all procedural and training requirements
are identified and properly implemented along with the system upgrade. This activity must
closely follow the Configuration and Region Management plans as well as the Release and
Upgrade Plan.

Project Management
As part of the full time responsibilities of the Hanford and INDUS Project mangers the following
tasks should be included.

Establish Metrics
Metrics are the tools established to objectively measure cost savings and other benefits. These
will be used by to assess and demonstrate progress and success of the overall implementation, as
well as its various component parts. Additionally, the Metrics provide evidence of successful
change management (e.g., cultural 'buy-in') to the organization (as a whole and as individuals).

As the implementation proceeds, periodic measurement and assessment using the metrics is both
required and recommended. Additionally, the implementation team must allow for the possibility
of adding new metrics and retiring others as conditions change. On larger implementations, it is
often necessary to re-align reward factors to be complementary with the metrics so that everyone's agendas/goals/objectives are aligned to support the implementation.

Monitoring and Reporting Progress
Progress monitoring and reporting tools must be in place to help ensure that the implementation is tracking to the approved Implementation Plan budget and schedule. These tools must provide 'real-time' information regarding budgets, schedule, quality and scope control.

Verify Results and Benefits
To insure that the implementation receives the needed management support both initially and over the long-term (i.e., for the entire production life-cycle), metrics must be developed and monitored to confirm that the anticipated benefits are being achieved on an ongoing basis.

The means for providing this information is the Implementation Benefits and Results Report that is issued at the end of the Pre-Production phase. This report is updated and issued on a periodic basis starting when all systems are in full production. This serves to document benefits and provide a vehicle for the 'good news'. Be aware that some resulting benefits may not come right away and will have to be measured later when the system has been in production for some period of time.
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Financial and Supply Management Mobilization Plan

November, 1997

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Determine Configuration Needs (1.4.02.01.01)

Procure Hardware and OS (1.4.02.01.02)

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