

JAN 08 1998

Sta. 37

ENGINEERING DATA TRANSMITTAL

Page 1 of 1  
1. EDT 622844

|   |  |   |
|---|--|---|
| 2. To: (Receiving Organization)<br>Document Control Services  | 3. From: (Originating Organization)<br>TWRS Configuration Management | 4. Related EDT No.:<br>ECN tbd            |
| 5. Proj./Prog./Dept./Div.:<br>Tank Waste Remediation Systems (TWRS)   | 6. Cog. Engr.:<br>John M. Vann                                       | 7. Purchase Order No.:<br>N/A             |
| 8. Originator Remarks:<br>This plan describes the configuration management program for Tank Waste Remediation System (TWRS) and defines the requirements and responsibilities for execution of that program. This document supersedes WHC-SD-WM-CM-013, <i>TWRS Configuration Management Program Plan</i> . |  | 9. Equip./Component No.:<br>N/A           |
| 11. Receiver Remarks:<br>11A Design Baseline Document? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  |  | 10. System/Bldg./Facility:<br>N/A         |
|   |  | 12. Major Assm. Dwg. No.:<br>N/A          |
|   |  | 13. Permit/Permit Application No.:<br>N/A |
|   |  | 14. Required Response Date:<br>1/5/98     |

| 15. DATA TRANSMITTED |                          |               |              |   |                         |                            |                            |                          |  |
|----------------------|--------------------------|---------------|--------------|---|-------------------------|----------------------------|----------------------------|--------------------------|--|
| (A) Item No.         | (B) Document/Drawing No. | (C) Sheet No. | (D) Rev. No. | (E) Title or Description of Data Transmitted                | (F) Approval Designator | (G) Reason for Transmittal | (H) Originator Disposition | (I) Receiver Disposition |  |
| 1                    | HNF-1900                 |               | 0            | Tank Waste Remediation System Configuration Management Plan | N/A                     | 2                          | A                          |                          |  |
|                      |                          |               |              |   |                         |                            |                            |                          |  |
|                      |                          |               |              |   |                         |                            |                            |                          |  |
|                      |                          |               |              |   |                         |                            |                            |                          |  |

16. KEY

| Approval Designator (F)                       | Reason for Transmittal (G)  | Disposition (H) & (I)  |
|---|---|--|
| E, S, Q, D or N/A (see WHC-CM-3-5, Sec. 12.7) | 1. Approval<br>2. Release<br>3. Information<br>4. Review<br>5. Post-Review<br>6. Dist. (Receipt Acknow. Required) | 1. Approved<br>2. Approved w/comment<br>3. Disapproved w/comment<br>4. Reviewed no/comment<br>5. Reviewed w/comment<br>6. Receipt acknowledged |

| 17. SIGNATURE/DISTRIBUTION (See Approval Designator for required signatures) |           |                                   |                    |          |          |                               |                    |          |          |            |           |
|--|-----------|-----------------------------------|--------------------|----------|----------|-------------------------------|--------------------|----------|----------|------------|-----------|
| (G) Reason   | (H) Disp. | (J) Name                          | (K) Signature      | (L) Date | (M) MSIN | (J) Name                      | (K) Signature      | (L) Date | (M) MSIN | (G) Reason | (H) Disp. |
| 1  | 1         | Design Authority<br>Shafik Rifaat | <i>[Signature]</i> | 1/8/98   | RI-56    | Author<br>John M. Vann        | (See Blk. 18)      | RI-31    |          | 1          | A         |
|  |           | Design Agent                      | N/A                |          |          | Author's Manager<br>E.R. Hamm | (See Blk. 20)      | RI-31    |          | 1          | A         |
|  |           | Cog. Eng.                         | N/A                |          |          | Author:<br>Rocky D. Crisp     | <i>[Signature]</i> | RI-31    |          | 1          | A         |
|  |           | Cog. Mgr.                         | N/A                |          |          |                               |                    |          |          |            |           |
|  |           | QA                                | N/A                |          |          |                               |                    |          |          |            |           |
|  |           | Safety                            | N/A                |          |          |                               |                    |          |          |            |           |
|  |           | Env.                              | N/A                |          |          |                               |                    |          |          |            |           |

|  |   |  |  |
|--|---|--|--|
| 18. Signature of EDT Originator<br>JM Vann<br>Date: 1/8/98 | 19. Authorized Representative Date for Receiving Organization<br><i>[Signature]</i><br>Date: 1/8/98 | 20. Cognizant Manager<br>ER Hamm<br>Date: 1/8/98 | 21. DOE APPROVAL (if required) Ctrl. No.<br><input type="checkbox"/> Approved<br><input type="checkbox"/> Approved w/comments<br><input type="checkbox"/> Disapproved w/comments |
|--|---|--|--|

# Tank Waste Remediation System Configuration Management Plan

J.M. Vann

Lockheed Martin Hanford Company, Richland, WA 99352  
U.S. Department of Energy Contract DE-AC06-96RL13200

EDT/ECN: 622844

UC: 2030

Org Code: 74A00

Charge Code: D215P

B&R Code: EW3130010

Total Pages: 43 42

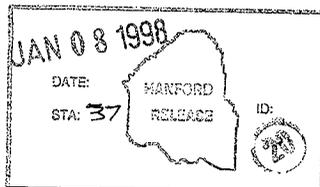
Key Words: TWRS, Configuration Management Plan

Abstract: The Tank Waste Remediation System (TWRS) Configuration Management Plan describes the configuration management (CM) program the contractor uses to manage and integrate its programmatic and functional operations to perform work.

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J.L. Burkland 1/8/98  
Release Approval Date



Release Stamp

Approved for Public Release

# Tank Waste Remediation System Configuration Management Plan

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Lockheed Martin Hanford Corporation

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MACTEC

Date Published  
January 1998

Prepared by Lockheed Martin Hanford Corporation,  
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Prepared for the U.S. Department of Energy



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Hanford Management and Integration Contractor for the  
U.S. Department of Energy under Contract DE-AC-0696-RL13200

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Document Title: Tank Waste Remediation System Configuration Management Plan

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1/8/98

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## EXECUTIVE SUMMARY

*The Tank Waste Remediation System (TWRS) Configuration Management Plan describes the configuration management program the contractor uses to manage and integrate its programmatic and functional operations to perform work. The configuration management program defined in this plan provides the technical consistency for safe, economic, and environmentally sound management of products throughout their life cycles. Over the next 25 years, the TWRS Project will transition from a safe storage mission to an aggressive retrieval, storage, and disposal mission in which substantial Engineering, Construction and Operations activities must be performed. This mission as defined will require a consolidated configuration management approach to engineering, design, construction, as-building, and operating in accordance with the technical baselines that emerge from the life cycles. Therefore, this configuration management Plan, which replaces the existing WHC-SD-WM-CM-013, Tank Waste Remediation System Configuration Management Program Plan (Vann 1996), will become the operative configuration management plan for the TWRS Project.*

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**LIST OF TERMS**

|      |  |
|------|--|
| CMP  | Configuration Management Plan          |
| DIMC | Document/Information Management Center |
| FDH  | Fluor Daniel Hanford, Inc.             |
| FY   | fiscal year                            |
| ICD  | interface control document             |
| LMHC | Lockheed Martin Hanford Corporation    |
| MYWP | Multi-Year Work Plan                   |
| PHMC | Project Hanford Management Contract    |
| TBSD | Technical Baseline Summary Description |
| TWRS | Tank Waste Remediation System          |
| USQ  | unreviewed safety question             |
| WBS  | work breakdown structure               |

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# TANK WASTE REMEDIATION SYSTEM CONFIGURATION MANAGEMENT PLAN

## 1.0 INTRODUCTION

The configuration management program for the Tank Waste Remediation System (TWRS) Project Mission supports management of the project baseline by providing the mechanisms to identify, document, and control the functional and physical characteristics of the products. This document is one of the tools used to develop and control the mission and work as depicted in Figure 1. It is an integrated approach for control of technical, cost, schedule, and administrative information necessary to manage the configurations for the TWRS Project Mission. Configuration management focuses on five principal activities: configuration management system management, configuration identification, configuration status accounting, change control, and configuration management assessments.

TWRS Project personnel must execute work in a controlled fashion. Work must be performed by verbatim use of authorized and released technical information and documentation. Application of configuration management will be consistently applied across all TWRS Project activities and assessed accordingly.

The Project Hanford Management Contract (PHMC) configuration management requirements are prescribed in HNF-MP-013, *Configuration Management Plan* (FDH 1997a). This TWRS Configuration Management Plan (CMP) implements those requirements and supersedes the HNF-SD-WM-CM-013, *Tank Waste Remediation System Configuration Management Program Plan* (Vann 1996). HNF-SD-WM-CM-014, *Tank Waste Remediation System Configuration Management Implementation Plan* (Vann 1997) will be revised to implement the requirements of this plan. This plan provides the responsibilities, actions and tools necessary to implement the requirements as defined in the above referenced documents.

## 2.0 PURPOSE

The purpose of this plan is to establish the requirements under which configuration management will be used to manage the work needed to complete the mission. The configuration management program has been planned where configuration management is a pivotal point of management controls. This approach is consistent with the private sector and has proven to work effectively and efficiently. A primary result of this plan will be to identify the TWRS products that need configuration management control, determine the rigor of control, and identify the mechanisms for that control.



This plan provides a structure for identifying and controlling configuration items and configuration information, respectively. TWRS Project will document the functional and physical characteristics of a configuration item to be controlled during its life cycle, control changes to those characteristics, and provide information on the status of the configuration item.

Figure 2 demonstrates the product relationships that progress from developing the source requirements to developing the product information and finally to acquiring the final product. These product relationships are active throughout the life cycle of the product, and when there is change to any one of these relationships the others will be evaluated to determine impacts. The purpose of a change control process is to provide an avenue to revise a product and determine the impacts on other attributes of the product or other products. Selected products within the TWRS Project will be identified and placed under configuration management control; the rigor of that control will be differentiated, and procedures will be established to implement that control.

### 3.0 CONFIGURATION MANAGEMENT PROGRAM

This plan complies with the configuration management requirements as defined in HNF-1883, *Tank Waste Remediation System Program Plan* (Freeman 1998), which establishes policies and requirements for implementing the TWRS Project mission. The scope of the TWRS Project configuration management program is to direct and monitor the development and implementation of the overall configuration management program. It establishes the criteria for the scope of the program; defines baselines, concepts, and terminology; identifies and controls configuration management organizational and programmatic interfaces; establishes the policy and criteria for required information systems; and specifies configuration management procedures. Implementation of the configuration management program is based on the TWRS Project mission. This plan describes how configuration management will be accomplished by maintaining consistency among the source requirements, the product's information, and the product. This CMP reflects those actions and responsibilities necessary to implement these requirements within the TWRS Project. The information associated with configuration management configuration items will be maintained as required by procedures throughout the product's life cycle. For specific TWRS Projects actions, procedures will be used to communicate how configuration management principles and requirements will be implemented. Assessments of configuration management implementation will be performed to determine program implementation and the need for program improvements.

#### 3.1 CONFIGURATION MANAGEMENT SYSTEM MANAGEMENT

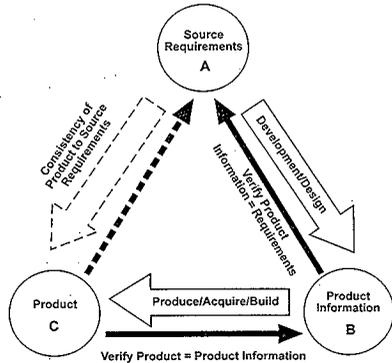
The TWRS Project Chief Engineer will ensure the successful implementation of the configuration management program in accordance with the requirements of HNF-SD-WM-SEMP-002, *Tank Waste Remediation System Systems Engineering Management Plan* (Peck 1998) and this plan. The TWRS Project configuration management program will

Figure 2. The Configuration Management Triangle.

In the process of developing or designing a product (e.g., SSC, document, or digital information), sources of requirements (A) are identified and the requirements are interpreted to develop a set of information (B) that defines and supports the product. Then that information is used to produce, acquire, or build the product (C) and operate, maintain, and support it. (In many instances a product can lead to other source requirements or product information for other products.)

Compliance of the product to source requirements is ensured by maintaining traceability and consistency between the source requirements, product information, and product. When the product information is developed, its compliance to the source requirements is verified (small B-A arrow). When it is created or acquired, the product's compliance to the product information is verified (small C-B arrow). The product must comply with the source requirements and if either the product or source requirements changes, procedures will be activated to bring them in compliance with each other.

This relationship is maintained for the life cycle of the product. Change to source requirements (A), product information (B), or product (C) requires that they each be examined for impacts to ensure that compliance and traceability is maintained.



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**EXAMPLES:**

- A - Source Requirements**
- Contracts
  - DOE orders
  - Federal regs. & codes
  - Mission
  - NEPA Record of Decision
  - Tri-Party Agreement
  - S/RIDS
  - External ICDs

- B - Product Information**
- Design dwgs, as-built dwgs
  - Specifications
  - Procedures
  - Authorization Basis
  - Calculations
  - Tech., sched. & cost bases
  - Reviews and assessments
  - Interface Control Documents
  - Functions and requirements
  - Labeling
  - Plans and procedures
  - Design concepts
  - Research
  - Assumptions, risk analysis

- C - Products**
- TWRS MYWP
  - Physical systems
  - Systems, structures & components (SSC)
  - Performance measures
  - Vendor information
  - Spares
  - Operations and maintenance procedures
  - Test evaluations
  - Deliverables
  - Permits
  - Equipment history
  - Data

ICD = Interface Control Document.  
 MYWP = Multi-Year Work Plan.  
 NEPA = *National Environmental Policy Act of 1969*.  
 SSC = systems, structures, and components.  
 S/RIDS = Standards/Requirements Identification Document.  
 Tri-Party Agreement = *Hanford Federal Facility Agreement and Consent Order*.  
 TWRS = Tank Waste Remediation System.

support the identification and control of configuration items. Consistency among source requirements, design requirements, physical configuration (e.g., construction, physical characteristics, data), and associated configuration item information, will be maintained throughout the life cycle of the products, particularly as changes are made to a configuration item.

The TWRS Project will work the following three groups of tasks to implement configuration management: (1) recovery tasks -- work that includes design reconstitution and material conditioning and aging of existing facilities, labeling, and training; (2) ongoing implementation tasks -- work inherent in ongoing activities that include documentation of design activities, document control, records management, product validation and test, procedure control, work packages, change implementation, as-built verification and validation, and closure; and (3) information infrastructure improvement tasks -- work that includes implementation of work management tools to link information of the TWRS Project plants and facilities. These configuration management tasks will be addressed in the TWRS Project work breakdown structure (WBS) elements as defined in HNF-SP-1230, *Tank Waste Remediation System Fiscal Year 1998 Multi-Year Work Plan WBS 1.1* (Lenseigne 1997), and HNF-MD-017, *Multi-Year Work Plan (MYWP)* (FDH 1997b).

### **3.1.1 Tank Waste Remediation System Configuration Management Procedures**

A brief top level description of configuration management and the basic actions to be taken by TWRS Project managers to implement configuration management will be provided by HNF-IP-0842, *TWRS Administration*, Volume IV, "Engineering," Section 2.13, "Tank Waste Retrieval Configuration Management" (LMHC 1997). Other procedures will be reviewed and evaluated as to their usefulness in implementing the TWRS Project configuration management program and updated or deleted accordingly. Emphasis will be placed on minimization of procedures and use of existing procedures where possible. Verbatim procedure compliance is mandatory. If the procedure is deemed inadequate, it will be corrected prior to continuing its use.

### **3.1.2 Tank Waste Remediation System Configuration Management Planning Schedule**

A schedule for the implementation of configuration management activities will be prepared by each TWRS Program and will be stated and maintained by their respective planning group. This schedule will reflect the activities to support the path forward defined in Section 4.0 of this plan. The specific items and associated information (status, dates, etc.) in a configuration management schedule will vary as configuration management implementation progresses. This schedule will be provided to the Chief Engineer for concurrence.

### 3.1.3 Configuration Management Scope Criteria

The TWRS Project configuration management program and its requirements apply to activities, products, and information performed or provided by or for the TWRS Project. The TWRS Project Technical Baseline establishes the design bases for the functional and physical characteristics of the configuration items. The minimum requirements for the configuration management scope criteria are defined in FDH (1997a). Criteria for the selection of configuration items and configuration information are provided in the TWRS Project configuration management procedure.

### 3.1.4 Interface Control

Interface control administers programmatic and technical interface requirements and physical interface definitions between two or more system elements. This requires the following:

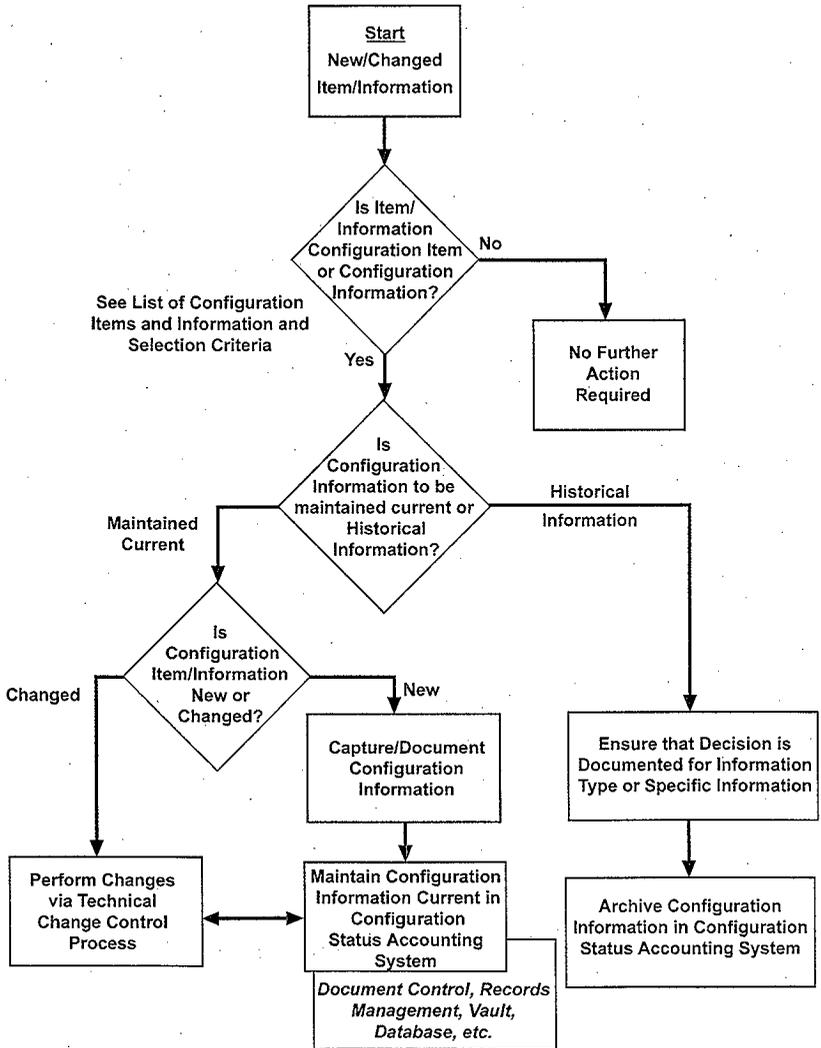
- Technical effort to arrive at mutually acceptable agreement.
- The preparation of supporting documentation.
- Administrative control of the documented agreements.

Interface control documents (ICDs) will be used as the vehicle to record agreements on technical requirements and design solutions across physical interface boundaries between two or more system elements. Programmatic interfaces/agreements will be controlled using a Memorandum of Agreement, reserving ICDs for technical definition. Interfaces are identified and controlled in accordance with HNF-PRO-243, *Interface Control Requirements*.

## 3.2 CONFIGURATION IDENTIFICATION

The TWRS Program managers are responsible for identifying configuration items and information important to the success of the TWRS Project mission that will be placed under configuration management. The HNF-1901, *Tank Waste Remediation System Retrieval and Disposal Mission Technical Baseline Summary Description* (TBSD) (Treat et al. 1998), and the Hanford Site Technical Baseline Database represent the Technical Baseline that identifies the product hierarchy and relationships. The TBSD (Treat et al. 1998) will identify the Technical Baseline products, their predecessor and successor relationships, and will be the basis for the cost and schedule baselines as defined by Lenseigne (1997). The products of the TWRS Project will be evaluated based on the configuration management Scope Criteria to identify those products that will be controlled as configuration items. The following subsections address the identification of configuration items and information. Control of changes to those items and information is delineated in Section 3.4 of this plan. Figure 3 represents the basic application of configuration management to products and information.

Figure 3. Configuration Management Application.



The following configuration management relational terms are explained to create an image when each are used and to provide a better understanding of their rolls in configuration management: 1) A product is an item produced and/or used by the TWRS Project including physical items (e.g., tank waste, procured goods), software, document, data, or systems, structures, or components (equipment). Configuration Items are the subset of physical products that have been chosen to be controlled. Configuration information is the subset of information products that have been chosen to be controlled; 2) A configuration item is a physical product that has been selected to be controlled and for which the configuration and configuration information (including basis) will be managed. (Example: A doorknob may be a subset product of a building but is not controlled and consequently would not be considered a configuration item. A disposal tank is a more important subset product of the tank farm and will be controlled as a configuration item.); 3) Configuration information is evidence and documentation that defines, provides basis for, or otherwise has an important relationship to a configuration item or other configuration information and is controlled to maintain that relationship. (Examples: A Performance Agreement is configuration information that will be controlled [configuration item]; and an operation procedure is controlled configuration information that supports the operation of a physical configuration item.)

### **3.2.1 Configuration Item Selection and Control**

Products will be selected for control based upon their importance to the TWRS Project mission and risks that would result from inadequacy of the product. This includes the programmatic and technical baselines and a variety of deliverables as well as systems, structures, and components. These products and their dependencies will be identified as configuration items by examining the activities and relationships in the program logs.

As configuration items are identified, the information related to those items will be examined to determine which items are important to control. If not controlled, there should be documentation to justify that decision. Sufficient information will be controlled to provide the necessary technical, schedule, and cost data to acquire, build, operate (e.g., Authorization Basis), and otherwise support the product throughout its life cycle. This includes information received as an input as well as information delivered as an output (information product). This will include both information that will be maintained current to support TWRS Project and the information that will be archived as a historical resource. The design basis will be identified and maintained traceable to the configuration item and related design documents. Changes to the design basis will be evaluated to determine impacts and required design changes. The TWRS Project configuration management implementing procedure provides detail regarding the selection and documentation of technical basis, requirements, and information.

### 3.2.2 Integrated Baseline

The Hanford Site Technical Baseline Database (HSTD n.d) establishes the top-level functional requirements that define the Hanford Site cleanup mission. The baseline allocates requirements to the projects that make up the TWRS Project, defines primary interfaces, and bounds the mission of the TWRS Project. The TWRS Project Mission Integrated Baseline is defined in HNF-SD-WM-MAR-008, *Tank Waste Remediation System Mission Analysis Report* (Acree 1998). The Level 0 Logics (FDH 1998) outline the entire TWRS Program including storage, Phase 1 waste vitrification demonstration, Phase 2 full-scale production, storage of immobilized wastes, and tank farms closure.

The Level 1 Logics (FDH 1998) define the work scopes and schedules down to WBS Level 7. Technical Basis Reviews further define the work scope at the WBS Level 8 and cost estimates have been developed. These work scopes, cost estimates, and the associated year-by-year financial analyses will form the basis of a major change request to the MYWPs. This documentation recognizes the current fiscal year (FY) 1998 configuration while establishing the framework for configuration maturation to 2002 at the start of treatment, onward to 2011, and ultimately to retrieval and immobilized product disposal mission completion in 2024. The Level 1 logic development provides the detail that maps the work into the retrieval and disposal WBS. The WBS describes the budgeted scope needed to support the critical path schedule.

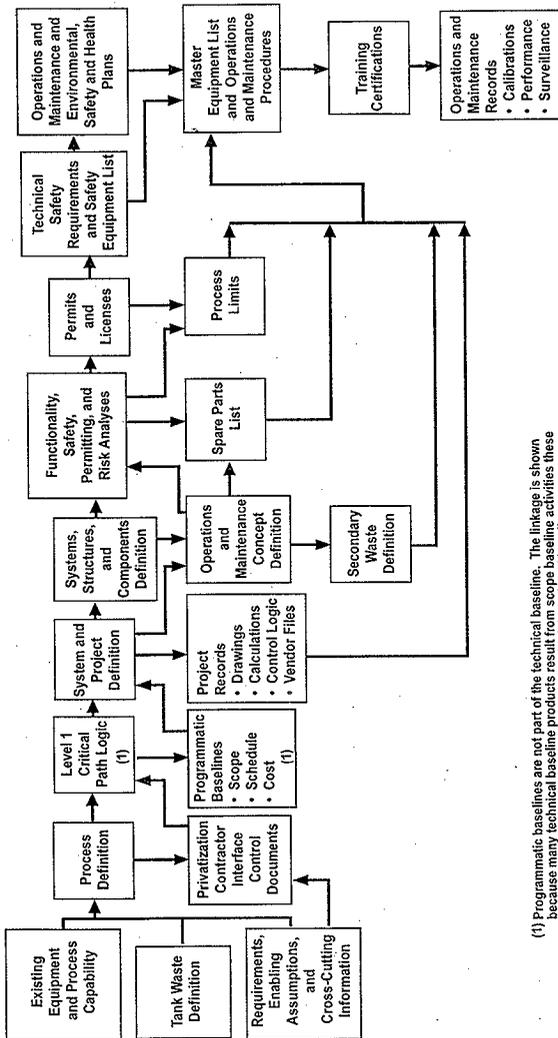
### 3.2.3 Tank Waste Remediation System Technical Baseline Summary Description

The TWRS Project has developed the TBSD (Treat et al. 1998) to show the Technical Baseline elements and their relationships. These elements will be broken down to lower level work elements to define those configuration items and their rigor of control. Identification of controlled configuration items will be accomplished by using the configuration item selection criteria stipulated in the referenced procedure in Section 3.1.1 of this plan. Figure 4 illustrates the configuration hierarchy and flow of Technical Baseline information that is addressed by the TBSD (Treat et al. 1998). The TBSD will be used as a source document and basis in identifying configuration items.

### 3.2.4 Tank Waste Remediation System Work Breakdown Structure

The TWRS Project WBS defines work scope based on the supporting logic decomposition and Technical Baseline that will be integrated into the TWRS Project MYWP (Lenseigne 1997). The readiness-to-proceed process developed requirement and planning information at a much greater level of detail than previously needed to support the existing MYWP. This resulted in some changes in the funding profiles, and an overall schedule supporting the Multi-Year Program Plan baseline. In addition, improvements in the timeliness and cost effectiveness of the management, business, and technical systems and streamlining of the work processes will be required to provide the controls necessary to accomplish the TWRS

Figure 4. Configuration Hierarchy and Flow of Technical Baseline Information.



(1) Programmatic baselines are not part of the technical baseline. The linkage is shown because technical baseline products result from scope baseline activities these activities must be captured in the integrated schedule and cost baselines.

Note: The process of Reconciling new and changed baseline information with existing information may require reversing the information flow.

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Project mission. A change request to incorporate this updated planning information will be processed to include these requirements.

### **3.2.5 Integrated Baseline Schedule**

Each level of the schedule is built to mirror the appropriate levels of the TWRS Project Site Technical Baseline. Relationships (predecessor/successor) and duration of activities have been identified and documented. Changes that affect the appropriate levels of the baseline schedule will be processed in accordance with HNF-IP-0842, Volume VIII, "Program Administration," Section 1.1, "TWRS Baseline Change Control" (LMHC 1997).

### **3.2.6 Performance Agreements**

The Performance Agreements capture the objectives and measure expectation relationships contained in *Project Hanford Management Contract (PHMC)* DE-AC06-96RL13200 (RL 1996). There is a Performance Agreement for each expectation. The Performance Agreements will be controlled as part of the contractual baseline. The Performance Agreements provide more detail than the contract language by identifying the specific criteria that must be satisfied in order to claim completion of the expectation.

During the course of working a Performance Agreement, impacts may occur that could require changes to the scope of work and the completion criteria. Changes to the Programmatic Baseline resulting from Performance Agreement changes are controlled via the HNF-IP-0842, Volume VIII, Section 1.1, "TWRS Baseline Change Control" (LMHC 1997).

### **3.2.7 Baseline Budget Plan**

Baseline costs are established in the Integrated Baseline by resource loading the technical work scope identified in detailed schedules that drive the TWRS Project Master Baseline Schedule. The specific costs resulting from this resource loading are based on the units (e.g., labor hours) of detail planning assigned to the work and the values (e.g., labor rates) assigned to these units. The Baseline Budget Plan (P3 Schedule System) and supporting Financial Data System are configuration items. Changes to these configuration items, the elements that make up these items (e.g., Financial Data System rate structure), or the elements these items support (e.g., MYWP), will be controlled in accordance with HNF-IP-0842, Volume VIII, Section 1.1, "TWRS Baseline Change Control" (LMHC 1997).

## **3.3 CONFIGURATION STATUS ACCOUNTING**

Status accounting of configuration items will be accomplished by the development of an information system that will list and status the configuration items and associated configuration

information, including the item/information identifier, ownership (functional organization), and associated WBS element. The configuration status accounting system will identify the TWRS Project baseline documents (technical, cost, and schedule) and their supplements; including interface documents such as the MYWP, Performance Agreements and Permits. As configuration items and information are identified, they will be entered into the configuration status accounting system. The system will evolve and its contents will be updated to provide a history and status throughout the configuration items' life cycle. Configuration items and information will be deleted from the system by the appropriate change board as they are decommissioned, dismantled, discarded, destroyed, voided or superseded. A procedure will be developed during the third quarter of FY 1998 to address the removal of controlled configuration items and information from the configuration status accounting system.

### **3.3.1 Tank Waste Remediation System Document Control**

The TWRS Project configuration documents will be controlled in accordance with applicable procedures. Only currently approved revisions of configuration documents are used to conduct work. The TWRS Project will have designated Document/Information Management Center(s) (DIMC) that will process and maintain documents. The document control and records management systems will comply with HNF-PRO-210, *Records Management Program*, and HNF-PRO-224, *Document Control*.

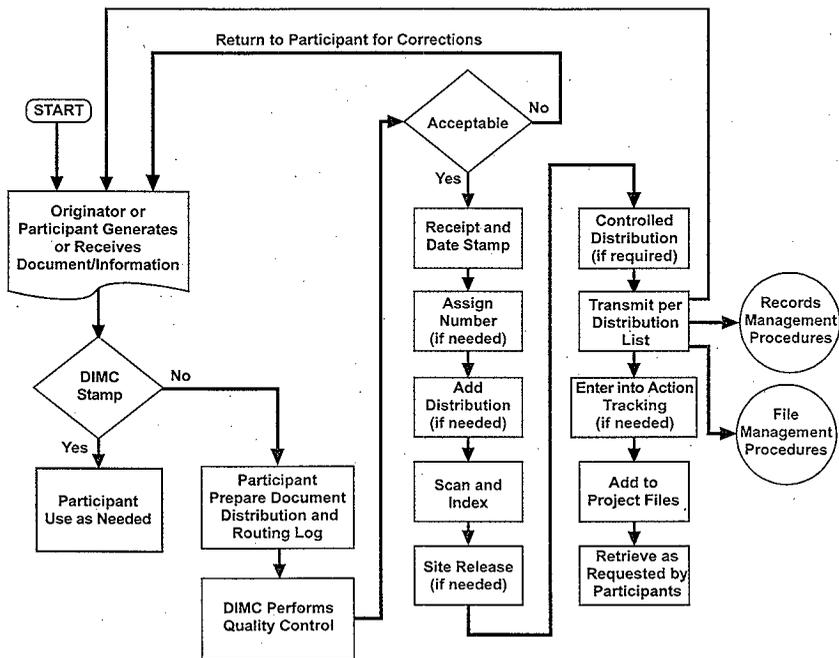
### **3.3.2 Tank Waste Remediation System Document/Information Management Centers**

The TWRS Project will utilize satellite DIMCs to receive and transmit documentation and information associated with the TWRS Project mission. The DIMC will provide a document management and digitizing (electronic imaging) process to help reduce the volume of paper and enable automating and streamlining the business process. It will provide the technology and services to manage both incoming and internally created documents including those discussed in this document so that information is accessible across the enterprise and is acted upon quickly and efficiently. This documentation and information process will be defined in desk instructions and procedures.

The DIMC will provide document scanning, indexing, document release, document clearance, distribution, storage, records disposition and transfer, commitment tracking and other services as required. The TWRS Project documentation will be stamped and logged as it is processed through the DIMC. Documents not stamped by DIMC must be forwarded to DIMC for processing. DIMC will perform a quality control check for TWRS Project generated documents and make distribution of the documents. The originators of TWRS Project correspondence and documents will obtain letter and document numbers from DIMC. A document numbering convention will be developed for documents and information that provides a tie to the WBS.

The DIMC management technologies and system will be integrated with existing systems and eventually linked and interfaced with the HANDI 2000 Information Management System when it becomes available. The selection of these controlled documents and information will be in accordance with the TWRS Project Configuration Management procedure. The DIMC document and information process flow is delineated in Figure 5.

Figure 5. Tank Waste Remediation System Document Information Management Center Flow Process.



DIMC = Document Information Management Center

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### 3.3.3 Configuration Management Information Systems

Information systems utilized to implement the TWRS Project configuration management program are identified in the Configuration Management Information Systems Plan. Improvements, upgrades, or replacements of the TWRS Project information systems will occur

on an as-needed basis or through a larger initiative (such as the Management Control System upgrades or the Fluor Daniel Hanford, Inc. [FDH], HANDI 2000 initiative). The TWRS Project configuration management information systems must comply with requirements contained and referenced in this CMP.

### **3.4 CHANGE CONTROL**

Control of changes to the TWRS Project Baseline is delineated in LMH-MD-004, *TWRS Change Control* (Rosenberry 1997). The "A/B/C" change board system will be used by the TWRS Project for baseline management at the project/sub-project level of the Work Breakdown Structure. The TWRS Project "A" board will act on changes that have technical work scope/schedule/budget revisions that exceed established thresholds of the "B" board. The B Change Control Board (B-Board) will disposition change requests involving cost, schedule, and scope changes under A-Board thresholds. The B-Board will review and recommend A-Board approval of cost, schedule, and technical change which require A-Board action. Construction projects and/or cost accounts will establish C-Boards and will provide the B-Board secretary with a copy of approved Construction Projects C-Board change requests and meeting minutes. Thresholds for these Change Control Boards are delineated in Table 1.

#### **3.4.1 Programmatic Change Control**

Changes that affect the Integrated Baseline (technical or program baselines of the TWRS Project MYWP [Lenseigne 1997]) will be processed and dispositioned in accordance with HNF-IP-0842, Volume VIII, Section 1.1, "TWRS Baseline Change Control" (LMHC 1997). This procedure applies to changes affecting the lower tier data that roll up to the technical, work scope, cost, and schedule baseline elements contained within the MYWP. Where MYWP changes impact the Technical Baseline, changes will be processed in accordance with the technical change control process.

#### **3.4.2 Technical Change Control**

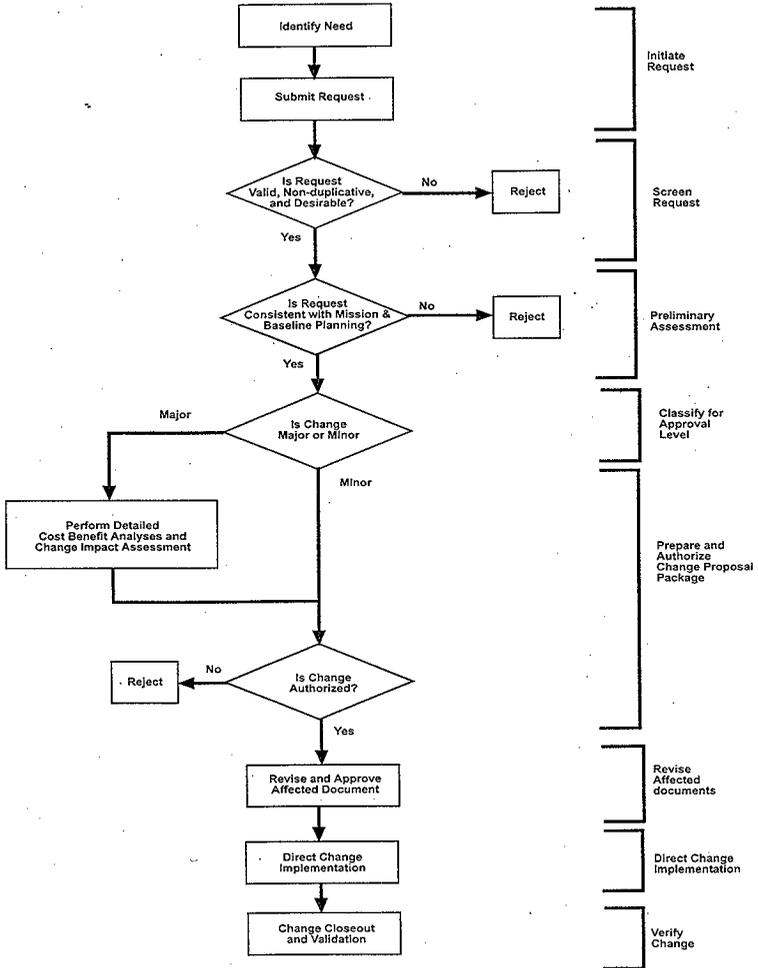
This plan describes the TWRS Project Technical Baseline change control process at a summary level. This process will be further defined within implementing procedures. Changes that affect technical products or technical information that is under configuration management will be controlled in accordance with this process. The existing change control process is currently being reengineered. The new change control model is summarized in Figure 6 and

Table 1. Tank Waste Remediation System Project Baseline Change Control Thresholds.

| Level | Change control board  |   | Thresholds   |  |  |
|-------|---|---|--|--|--|
|       | Membership  | Technical/work scope  | Schedule   | Cost   |  |
| A     | <ul style="list-style-type: none"> <li>Chair: Pres &amp; Gen'l Mgr LMHC or designate</li> <li>Members: TWRS Senior Staff<sup>a</sup></li> </ul> | <ul style="list-style-type: none"> <li>Funcn/Rqmts (MYWP Sect 1) Technical B/L Database</li> <li>WBS Level 4 (PBS)</li> <li>Technical B/L Docs (as ident)</li> <li>Perf Agreement Deliverables</li> <li>JMN &amp; MAR (Const Projects)</li> </ul> | <ul style="list-style-type: none"> <li>Site Master B/L Schedule</li> <li>Project Master B/L Schedule</li> <li>MYWP Milestones (HQ, RL, TPA, DNFSB, SSI, PA)</li> </ul> | <ul style="list-style-type: none"> <li>WBS Level 4 (PBS)</li> <li>TEC or TPC (Cost Projects)</li> <li>Contingency Use (if reqd by Const Proj Mgmt Plan)</li> </ul> |  |
| B     | Construction Projects: <ul style="list-style-type: none"> <li>Chair: VP &amp; Director, NHC</li> <li>Members:</li> </ul>                        | <ul style="list-style-type: none"> <li>WBS Level 5/6 (Activity/Cost Account)</li> <li>MYWP Error Correction</li> </ul>  | <ul style="list-style-type: none"> <li>WBS Level 5/6 (Activity/Cost Account)</li> <li>Key Milestones</li> <li>MYWP Error Correction</li> </ul>                         | <ul style="list-style-type: none"> <li>WBS Level 5/6 (Activity/Cost Account)</li> <li>MYWP Error Correction</li> </ul>   |  |
|       | Other <sup>b</sup> : <ul style="list-style-type: none"> <li>Chair: VP &amp; Director, TWR</li> <li>Members: TWR Senior Staff</li> </ul>         |   |  |  |  |
| C     | Construction Projects: <ul style="list-style-type: none"> <li>Chair: Project Manager</li> <li>Members: Project Manager Staff</li> </ul>         | <ul style="list-style-type: none"> <li>WBS Level 7/8 (Work Package/ Task)</li> </ul>  | <ul style="list-style-type: none"> <li>WBS Level 7/8 (Work Package Task)</li> <li>Other Milestones</li> </ul>  | <ul style="list-style-type: none"> <li>WBS Level 7/8 (Work Package Task)</li> </ul>  |  |
|       | Other: <ul style="list-style-type: none"> <li>Chair: Cost Account Manager</li> <li>Members: Apptd by Cost Account Manager</li> </ul>            |   |  |  |  |

Rosenberry, M. W., 1997, *TWRS Change Control*, LMH-MD-004, Rev. 0, Lockheed Martin Hanford Corporation, Richland, Washington.  
<sup>a</sup>Changes are reviewed by TWRS Director of Business Management/Chief Financial Officer prior to submittal to Fluor Daniel Hanford, Inc./U.S. Department of Energy, Richland Operations Office.  
<sup>b</sup>Change Control Boards may be delegated to the TWR Program (PBS) Manager.

Figure 6. Technical Baseline Change Control Process.



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described below. It incorporates front-end screening of proposed technical changes to evaluate potential impacts to cost and schedule baselines, establish levels of change control, and integrate the various change control processes. The approved configuration, changes, and departures are contained and tracked in the configuration status accounting system.

- **Initiate Request** - Anyone can identify a need for a change. Interfacing processes (e.g., unreviewed safety question [USQ], work management, programmatic change control) often identify needs. A form will be used to document the initiation of a request for change. The form identifies the initiator, main configuration item and documentation affected, problem, proposed solution, urgency, and other information that can be defined by the initiator.
- **Screen Request** - The initial request is examined against predefined criteria to determine whether it is non-duplicative, valid, and desirable. Screening identifies the primary area of impact (ownership) and required routing of the request. Rejected requests are returned to the user with the reason for rejection. Those accepted are assigned unique identifiers and forwarded via the selected routing. This action is done under the cognizance and authority of the Configuration Change Control Board.
- **Preliminary Assessment** - The request is assessed for consistency with the currently defined program mission and baseline planning. A request that is not within the authorized work scope is rejected. (The requestor may submit a baseline change request [programmatic] to support the requested technical change.) The areas impacted and a rough order of magnitude of those impacts are documented and used to identify what resources need to be involved in the development and review of the change package.
- **Classify for Approval Level** - Based upon the preliminary assessment, the appropriate level of approval is identified for the change package based on a set of predefined criteria. The proposed change is categorized as either a major or minor change. The level of approval and any change control board membership varies by category. The configuration change control board is the final approval authority for the change. This board identifies the person responsible for directing change planning and implementing the change in all affected parts of the Technical Baseline.
- **Prepare and Authorize Change Proposal Package** - The level of rigor involved in the preparation and approval of the change proposal is based on whether the change is major or minor. Impacts are identified and evaluated and details of the change proposal developed. The costs and benefits of implementing the change are evaluated and identified in the level of detail appropriate to the change category. Major changes require a documented detailed cost-benefit analysis and change impact assessment. Results of an assessment of a "minor" change's costs, benefits, and impacts are part of the change proposal package, but are not required

to be documented separately. This information will be used by the approval authority, as designated by the configuration change board, to make the approve/reject decision. In some cases the evaluation may result in a change to the approval level. The two basic change categories (major, minor) are addressed below.

- Major Change - Major changes are approved by the Configuration Change Control Board that includes the cognizant design authority and other impacted groups. Allocation of resources to develop the change package is determined in conjunction with priorities of participants. Change package development may be deferred to coincide with field organization priorities or plant mode conditions.
- Minor Change - Minor changes are approved by the cognizant design authority or the cognizant manager of a technical procedure as appropriate. Field work-in-progress change requests are included in this category. Change package development may be deferred to coincide with field organization priorities or plant mode conditions.
- **Revise Affected Documents** - Change notices are used to implement the proposed change once it is authorized. The change notice(s) is developed, reviewed, and the technical accuracy of the details verified. The sequencing will vary according to the category of the change. Major and minor changes will be documented prior to implementation, but the extent will vary. Technical approval of change notices and documentation is determined in accordance with approval designator criteria.
- **Direct Change Implementation** - A single point of contact coordinates implementation of the change, including aspects of construction and installation. A controlled process is used that includes determining what items must be changed (e.g., schedules, budgets, technical documents, training requirements, equipment lists, drawing lists, Authorization Basis amendments) and the detailed schedule for their change.
- **Change Closeout and Validation** - Implementation of the change is verified, including testing of physical and procedural changes and as-building. Closeout of the change is accomplished only when the necessary parts of the Technical Baseline have been verified as being consistent with the approved change.

### **3.5 CONFIGURATION MANAGEMENT ASSESSMENTS**

#### **3.5.1 Programmatic Assessments**

The TWRS Project Configuration Management organization and the TWRS Project Quality Assurance organization will perform assessments for compliance to the configuration management program. Assessments will be performed for each configuration management element to determine if the upgraded programs and procedures address identified weaknesses, are effective in accomplishing the configuration management functions, and are workable. Assessments will be planned to determine the strengths and weaknesses of existing Configuration Management-related programs and procedures with regard to determining where upgrade actions and resources are necessary.

#### **3.5.2 Physical Configuration Assessments**

Physical configuration assessments, or walkdowns, will be performed for a representative sample of systems, structures, and components to determine the degree of agreement between the physical configuration and the configuration depicted in the facility document. The TWRS Project has initiated a Drawing and Labeling program that is identifying and labeling Tank Farm equipment and updating the essential drawings of the Tank Farms where they are being as-built and Engineering Change Notices are being incorporated. This effort can be considered as an ongoing configuration management assessment, but the TWRS Project configuration management planning schedule will identify additional assessments.

## **4.0 CONFIGURATION MANAGEMENT IMPLEMENTATION STATUS**

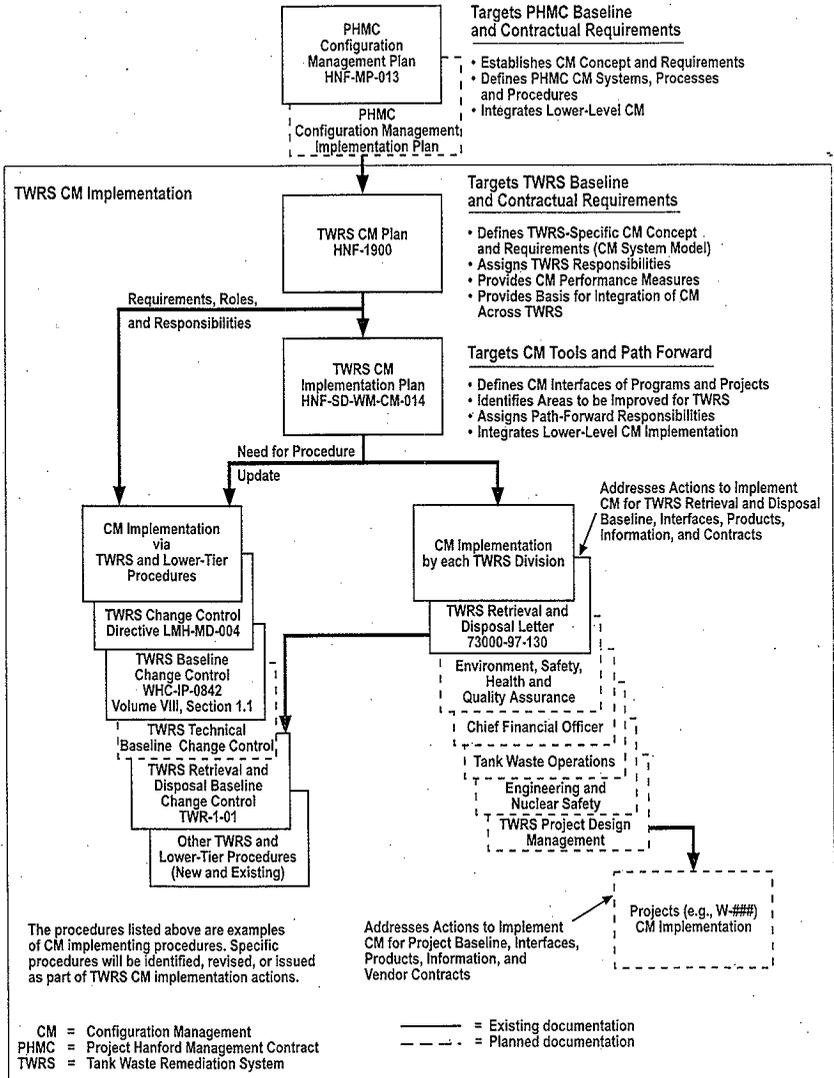
### **4.1 PATH FORWARD**

Configuration management under the management and operations contract was addressed through implementation of DOE-STD-1073-93, *Guide for Operational Configuration Management Programs, Including the Adjunct Programs of Design Reconstitution and Material Conditioning and Aging Management*, which primarily applied to the maintenance and operations of facilities. Under the management and integration contract, the contractors are responsible from the initial planning of a program or project through the execution of that plan. The TWRS Project configuration management requirements will address the identification and control of products and its information from the point of conception to their final disposition. The TWRS Project will apply configuration management throughout the full life cycle of a product, including control of the integrated technical, cost, and schedule baselines.

The TWRS Project configuration management planning will identify those actions necessary to implement configuration management in a manner that supports the management and integration contract structure of configuration management requirements. This includes aligning the configuration management system to cover those configuration management elements listed in Section 1.0. Figure 7, "Tank Waste Remediation System Configuration Management Document Hierarchy," identifies configuration management documents that presently exist or will be developed to implement the configuration management requirements for TWRS. The TWRS configuration management planning will include the following major actions:

- TWRS configuration management program management - the Project Hanford Management Contract (PHMC) Team recently issued FDH (1997a) that establishes the Hanford Site configuration management concept and requirements. In addition, the PHMC team will issue a configuration management Implementation Plan and procedures to further describe and implement those site requirements. Lockheed Martin Hanford Corporation (LMHC) has developed the TWRS Project configuration management plan to describe how the application of those configuration management requirements within TWRS Project. The TWRS Project configuration management implementation plan will identify and provide for necessary enhancements to the configuration management infrastructure (process and procedures).
- TWRS configuration management plan - This plan defines TWRS-specific configuration management concepts and requirements for the storage, retrieval, and disposal mission. It assigns configuration management responsibilities and provides the infrastructure to control the baseline and provides the basis for configuration management integration across the site. Their plan provides an avenue for identifying and evaluating configuration management performance measures and assessments. This plan will establish requirements for procedures that will be used for the identification of configuration items. Procedures will establish the selection criteria for configuration items and information, the selection of configuration items and information, capture of configuration information, and placing of configuration items and information under control.
- TWRS Project configuration management implementation plan - This plan will be an evolving document that will be revised as required to define and improve implementation of the configuration management requirements. It will define program and project interfaces; information systems and activities to be improved; and integrate lower-level configuration management implementation and procedures.
- TWRS programs will validate, via physical walkdown, that configuration information (e.g., specifications, drawings, procedures) depicts the actual product characteristics that are being controlled. The validation process will be included

Figure 7. Tank Waste Remediation System Configuration Management Document Hierarchy.



in the program's configuration management implementation schedule (see section 3.1.2) and statuses through completion.

- Configuration management implementation procedures - Each program will be responsible for controlling that program's portion of the TWRS Project baseline and enhancing configuration management implementation within the program. Procedures will be developed to ensure the control of the baseline and changes to it are identified or developed and then maintained. Procedures and lower level plans will be identified, revised, or issued as part of the TWRS Project configuration management implementation actions. Projects (e.g., W-###) will address procedures and actions necessary to effectively implement the TWRS Project configuration management requirements and define their interfaces.

## 5.0 REFERENCES

### Act

*National Environmental Policy Act of 1969*, as amended, 42 USC 4321 et seq.

### Database

Hanford Site Technical Baseline Database, database maintained by Lockheed Martin Hanford Corporation for Fluor Daniel Hanford, Inc., Richland, Washington.

### Standard

DOE-STD-1073-93, *Guide for Operational Configuration Management Programs, Including the Adjunct Programs of Design Reconstitution and Material Condition and Aging Management*, U.S. Department of Energy, Washington, D.C.

### Procedures

HNF-PRO-210, *Records Management Program*, Fluor Daniel Hanford, Inc., Richland, Washington.

HNF-PRO-224, *Document Control*, Fluor Daniel Hanford, Inc., Richland, Washington.

HNF-PRO-243, *Interface Control Requirements*, Fluor Daniel Hanford, Inc., Richland, Washington.

## Logic Diagrams

FDH, 1998, Logic Diagrams, prepared by Lockheed Martin Hanford Corporation for Fluor Daniel Hanford, Inc., Richland, Washington.

- H-2-823148, *TWRS Retrieval Level 1 Logic Immobilized Waste (ILAW)*
- H-2-829149, *TWRS Retrieval Level 1 Logic Immobilized Waste (IHLW)*
- H-2-829150, *TWRS Retrieval Level 1 Logic Infrastructure Phase 1 Privatization Support*
- H-2-892151, *TWRS Retrieval Level 1 Logic Waste Feed Delivery LAW 1st Feed Batches Tank 241-AN-105*
- H-2-829152, *TWRS Retrieval Level 1 Logic Waste Feed Delivery LAW 2nd Feed Batches Tank 241-AN-104*
- H-2-829153, *TWRS Retrieval Level 1 Logic Waste Feed Delivery LAW 3rd Feed Batches Tank 241-AW-101*
- H-2-829154, *TWRS Retrieval Level 1 Logic Waste Feed Delivery LAW 4th Feed Batches Tank 241-AN-103*
- H-2-829155, *TWRS Retrieval Level 1 Logic Waste Feed Delivery LAW 5th Feed Batches Tanks 241-AP-101 & 241-AW-104*
- H-2-829156, *TWRS Retrieval Level 1 Logic Waste Feed Delivery LAW 6th Feed Batches Tank 241-AY-101*
- H-2-829157, *TWRS Retrieval Level 1 Logic Waste Feed Delivery LAW 7th & 8th Feed Batches Tank 241-AN-107*
- H-2-829158, *TWRS Retrieval Level 1 Logic Waste Feed Delivery LAW 9th Feed Batches Tank 241-AN-102*
- H-2-829159, *TWRS Retrieval Level 1 Logic Waste Feed Delivery LAW 10th Feed Batches Tank 241-AN-106*
- H-2-829160, *TWRS Retrieval Level 1 Logic Waste Feed Delivery LAW 11th Feed Batches Tank 241-SY-101*
- H-2-829161, *TWRS Retrieval Level 1 Logic Waste Feed Delivery LAW 12th Feed Batches Tank 241-SY-103*
- H-2-829162, *TWRS Retrieval Level 1 Logic Waste Feed Delivery HLW 1st & 2nd Feed Batches First Tank, 241-AZ-101*
- H-2-829163, *TWRS Retrieval Level 1 Logic Waste Feed Delivery HLW 3rd & 4th Feed Batches Second Tank, 241-AZ-102*
- H-2-829164, *TWRS Retrieval Level 1 Logic Waste Feed Delivery HLW 5th - 9th Feed Batches Third Tank, 241-AY-102*
- H-2-829165, *TWRS Retrieval Level 1 Logic Waste Feed Delivery HLW 10th - 12th Feed Batches Fourth Tank, 241-C-104*
- H-2-829166, *TWRS Level 0 Logic (2 Sheets)*

**Documents**

- Acree, C. D., Jr., 1998, *Tank Waste Remediation System Mission Analysis Report*, HNF-SD-WM-MAR-008, Rev. 2, prepared by Lockheed Martin Hanford Corporation for Fluor Daniel Hanford, Inc., Richland, Washington.
- Ecology, EPA, and DOE, 1996, *Hanford Federal Facility Agreement and Consent Order*, 2 vols., Washington State Department of Ecology, U.S. Environmental Protection Agency, and U.S. Department of Energy, Olympia, Washington.
- FDH, 1997a, *Configuration Management Plan*, HNF-MP-013, Rev. 0, Fluor Daniel Hanford, Inc., Richland, Washington.
- FDH, 1997b, *Multi-Year Work Plan*, HNF-MD-017, Rev. 0, Fluor Daniel Hanford, Inc., Richland, Washington.
- Freeman, D. V., 1998, *Tank Waste Remediation System Program Plan*, HNF-1883, Rev. 0, prepared by Lockheed Martin Hanford Corporation for Fluor Daniel Hanford, Inc., Richland, Washington.
- Lenseigne, D. L., 1997, *Tank Waste Remediation System Fiscal Year 1998 Multi-Year Work Plan WBS 1.1*, HNF-SP-1230, Rev. 0, prepared by Lockheed Martin Hanford Corporation for Fluor Daniel Hanford, Inc., Richland, Washington.
- LMHC, 1997, *TWRS Administration*, HNF-IP-0842, Fluor Daniel Hanford, Inc., Richland, Washington.
- Peck, L. G., 1998, *Tank Waste Remediation System Systems Engineering Management Plan*, HNF-SD-WM-SEMP-002, Rev. 1, prepared by Lockheed Martin Hanford Corporation for Fluor Daniel Hanford, Inc., Richland, Washington.
- RL, 1996 *Project Hanford Management Contract (PHMC)*, DE-AC06-96RL13200, U.S. Department of Energy, Richland Operations Office, Richland, Washington.
- Rosenberry, M. W., 1997, *TWRS Change Control*, LMH-MD-004, Rev. 0, Lockheed Martin Hanford Corporation, Richland, Washington.
- Treat, R. L., P. Bartley, T. J. McLaughlin, R. D. Potter, R. E. Raymond, and W. L. Willis, 1998, *Tank Waste Remediation System Retrieval and Disposal Mission Technical Baseline Summary Description*, HNF-1901, Rev. 0, prepared by Lockheed Martin Hanford Corporation for Fluor Daniel Hanford, Inc., Richland, Washington.

Vann, J. M. 1996, *Tank Waste Remediation System Configuration Management Program Plan*, HNF-SD-WM-CM-013, Rev. 0, prepared by Lockheed Martin Hanford Corporation for Fluor Daniel Hanford, Inc., Richland, Washington.

Vann, J. M., 1997, *Tank Waste Remediation System Configuration Management Implementation Plan*, HNF-SD-WM-CM-014, Rev. 1, prepared by Lockheed Martin Hanford Corporation for Fluor Daniel Hanford, Inc., Richland, Washington.

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**APPENDIX A**  
**GUIDANCE AND REQUIREMENTS TO**  
**DELIVERABLES CROSSWALK**

**TWRS Configuration Management Plan**

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Table A-1. Guidance and Requirements to Deliverables Crosswalk -  
TWRS Configuration Management Plan.

| Guidance or Requirement  | Status | Implementing Location  |
|--|--------|--|
| <b>A.1 DOE Letter to H. J. Hatch, FDH, from W. J. Taylor, DOE, dated August 8, 1997, #9757162A (36 ITEM CHECKLIST)</b> | .      |  |
| 17. The technical baseline under configuration control.  | I      | Paragraph 3.2.3  |
| 28. The programmatic baseline is under configuration management and a change control system is implemented.            | I      | Paragraph 3.2.1, Programmatic Baseline Control   |
| 34. A records management program, including technical drawings, has been implemented.                                  | I      | Paragraphs 3.3.1 and 3.3.2, The Document/Information Management center will process all documents, including drawings        |
| <b>A.2 DOE Letter to H. J. Hatch, FDH, from W. J. Taylor, DOE, dated August 8, 1997, #9757162A (BODY OF TEXT)</b>      | .      |  |
| <b>General PHMC Responsibilities from RL's 8/8/97 letter, Section 2.1</b>  | .      |  |
| 7. The technical and programmatic baselines are under configuration management   | I      | Paragraphs 3.2 and 3.2.1   |
| 10. Performance measures can be integrated into plans  | I      | Any measure appropriate to CM will be integrated into the plan.  |
| <b>A.3 DOE Letter H. J. Hatch, FDH, from William J. Taylor, DOE, dated December 2, 1997, #9761291</b>                  | .      |  |
| 5. Provide specific information to address the ten areas in Paragraph 4.2.4 of the August 8 DOE letter of direction    | .      |  |
| j. Deliver to DOE or make available for DOE review, Draft Program Plans  | I      | The TWRS CMP is a subtler document to the Program Plans. This plan and subordinate plans are available for review.           |
| <b>B.1 DOE Order 430.1, "Good Practice Guide," GPG-FM-002</b>  | .      |  |
| <b>2.3.9 Project Management Criteria</b>   | .      |  |
| 2. Baseline Change Control   | I      | Paragraphs 3.2 and 3.2.2   |
| 4. Configuration Management  | I      | Paragraph 1.0 - This plan describes the TWRS CM systems and processes that will be implemented for configuration management. |

Table A-1. Guidance and Requirements to Deliverables Crosswalk -  
TWRS Configuration Management Plan.

| Guidance or Requirement  | Status | Implementing Location   |
|--|--------|---|
| <b>2.4.9 Project Management</b>  |        |   |
| 2. Baseline Change Control   | I      | Paragraphs 3.2 and 3.2.2  |
| 4. Configuration Management  | I      | Paragraph 1.0 - This plan describes the TWRS CM systems and processes that will be implemented for configuration management.                    |
| <b>2.5.9 Project Management</b>  |        |   |
| 1. Configuration Management  | I      | Paragraph 1.0 - This plan describes the TWRS CM systems and processes that will be implemented for configuration management.                    |
| <b>B.2 DOE Order 425.1, "Start-Up and Restart of Nuclear Facilities," Section 4.d.(1)-(20)</b>   |        |   |
| 425.1 Core Requirement (15) - Facility Complies With Safety Basis  | I      | Paragraphs 3.2.1, 3.4.2 and 3.5.2, Authorization Basis is included in CM Items Identification (Operation) and Technical Change Control Process. |
| <b>D.4 PHMC RTP; Approach for the Evaluation of Administrative Readiness, December 4, 1997</b>   |        |   |
| 13. Records Management - TWRS uses clearly defined and documented operating processes for managing records, with effective process features regarding content, distribution, timeliness, retrievability, availability and pertinent data.                              | I      | Paragraphs 3.3.1 and 3.3.2  |
| 17. Configuration Management - CM provides an orderly and efficient process for identifying and defining configuration items (the integrated site baseline) in a system, controlling, reporting on and verifying the status of these items throughout the system life. | I      | Paragraph 3.2   |

# DISTRIBUTION SHEET

|   |                               |                      |
|---|-------------------------------|----------------------|
| To  | From                          | Page 1 of 2          |
| Document Control Services                 | TWRS Configuration Management | Date January 3, 1998 |
| Project Title/Work Order                  |                               | EDT No. 622844       |
| Tank Waste Remediation Systems (HNF-1900) |                               | ECN No.              |

| Name             | MSIN  | Text<br>With All<br>Attach. | Text<br>Only | Attach./<br>Appendix<br>Only | EDT/ECN<br>Only |
|------------------|-------|-----------------------------|--------------|------------------------------|-----------------|
| C.D. Acree, Jr   | H6-35 | X                           |              |                              |                 |
| J.N. Alibert     | S2-48 | X                           |              |                              |                 |
| J.H. Baldwin     | H5-03 | X                           |              |                              |                 |
| R.B. Calmus      | H6-37 | X                           |              |                              |                 |
| D.L. Cahow       | R1-31 | X                           |              |                              |                 |
| R.D. Crisp       | H6-37 | X                           |              |                              |                 |
| M.A. Delamare    | H5-61 | X                           |              |                              |                 |
| M.P. Delozier    | R2-58 | X                           |              |                              |                 |
| D.V. Freeman     | G3-21 | X                           |              |                              |                 |
| T.G. Goetz       | R1-49 | X                           |              |                              |                 |
| O.A. Halvorson   | G3-21 | X                           |              |                              |                 |
| E.R. Hamm        | R1-31 | X                           |              |                              |                 |
| D.M. Hammond     | R1-44 | X                           |              |                              |                 |
| J.P. Harris, III | R1-49 | X                           |              |                              |                 |
| J.O. Honeyman    | G3-21 | X                           |              |                              |                 |
| K.N. Jordan      | G3-21 | X                           |              |                              |                 |
| R.A. Kirkbride   | H5-27 | X                           |              |                              |                 |
| S.C. Klimper     | H6-25 | X                           |              |                              |                 |
| M.R. Lewis       | H5-03 | X                           |              |                              |                 |
| R.J. Murkowski   | H6-37 | X                           |              |                              |                 |
| M.J. O'Neil      | G3-21 | X                           |              |                              |                 |
| S.M. O'Toole     | G3-21 | X                           |              |                              |                 |
| R.J. Parazin     | H5-49 | X                           |              |                              |                 |
| M.A. Payne       | R2-58 | X                           |              |                              |                 |
| L.G. Peck        | H6-35 | X                           |              |                              |                 |
| R.W. Powell      | H5-03 | X                           |              |                              |                 |
| R.E. Raymond     | R2-38 | X                           |              |                              |                 |
| S.H. Rifaey      | R1-56 | X                           |              |                              |                 |
| B. Root          | G3-21 | X                           |              |                              |                 |
| P.S. Schaus      | H5-03 | X                           |              |                              |                 |
| S.E. Seeman      | H6-35 | X                           |              |                              |                 |
| S.J. Simon       | H7-06 | X                           |              |                              |                 |
| J.W. Shade       | H5-27 | X                           |              |                              |                 |
| R.R. Stickney    | R1-30 | X                           |              |                              |                 |

|                 |       |   |
|-----------------|-------|---|
| W.R. Swita      | H5-03 | X |
| R.L. Treat      | H5-03 | X |
| J.M. Vann       | H6-37 | X |
| J.H. Wicks Jr   | H7-07 | X |
| A.D. Willis III | S7-51 | X |
| R.D. Wojtasek   | G3-21 | X |
| B.D. Zimmerman  | H6-35 | X |
| S.H. Zuberi     | R1-30 | X |

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Central Files

B1-07 X