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PFP TRANSITION PROJECT FUNCTION ANALYSIS REPORT

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## 7. Abstract

The document contains the functions, function definitions, function interfaces, function interface definitions, Input Computer Automated Manufacturing Definition (IDEFO) diagrams, and function hierarchy charts that describe what needs to be performed to deactivate PFP and to continue safe storage, treatment and disposition of Plutonium and High Enriched Uranium.

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**PLUTONIUM FINISHING PLANT  
TRANSITION PROJECT  
FUNCTION ANALYSIS REPORT**

September 1995

Prepared for:

**WESTINGHOUSE HANFORD COMPANY  
P.O. Box 1970  
Richland, Washington 99352**

Prepared by:  
PFP Baseline Control

## PFPTP FUNCTION ANALYSIS REPORT

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## 1.0 INTRODUCTION

### 1.1 Objective

This report is the product of one of several steps in the systems engineering approach and defines the content of the Hanford Site cleanup effort for the Plutonium Finishing Plant (PFP). A summary of the steps are listed below:

- Mission Analysis: This step established the problem to be solved and an acceptable end condition. It provides the basis for developing a system to resolve the problem. The mission is basically the purpose of the system which is to transform initial conditions to final conditions. The product from this step is WHC-SD-CP-MAR-001 Plutonium Finishing Plant Mission Analysis Report.
- Functional Analysis: The functions that the PFP Transition Project must perform are derived in this step. These functions include technical functions that a system must perform, other functions that must be carried out in support of the technical functions (i.e., organizational and management functions), and interdependencies among the functions. The functional analysis effort produces a functional hierarchy with detailed descriptions of all functions and interfaces to the lowest level.
- Requirement Identification: Statutory, regulatory, technical, social, and economic requirements with which a system must comply are identified in this step. These requirements fall into two classes: mission-driven and externally imposed requirements. This step produces a baseline list including requirement sources and their descriptions.
- Requirements Allocation to System Functions: The identified requirements are allocated to the system functions producing a requirements baseline for the systems engineering process.
- Innovation of Alternative Solutions: Based on the products of the systems engineering steps described above different structural, physical and organizational configurations that provide system solutions are developed.

This report contains the products from the second step described above. The related sections in this report are: 2.0 Functional Analysis and 3.0 Functional Interfaces and Dependencies. Section 4.0 lists the issues that have been compiled as the systems engineering approach was followed. Addenda provide all of the detailed back up information relating to PFP Transition Project. The addenda are reports generated from RDD-100, a computer program by Ascent Logic.

## 1.2 Mission Statement

The PFP Transition Project Mission Statement was developed during mission analysis and is reported in WHC-SD-CP-MAR-001 Plutonium Finishing Plant Transition Project Mission Analysis Report. It is repeated below:

"The PFPTP Mission is to prepare the PFPTP to implement the Record of Decision (ROD) resulting from the PFP Clean up Environmental Impact Statement, to provide interim storage for all SNM materials currently at the PFP and to deactivate all portions of the PFP not required for the storage of SNM or to implement the ROD. Facilities will be deactivated in a systematic manner which support the storage of SNM. Deactivation will support the Hanford Cleanup Mission Statement, summarized below.

- Cleanup the Hanford Site
- Protect the health and safety of the public and the workers
- Protect the environment
- Provide beneficial use of land and resources
- Serve as a DOE model for environmental restoration
- Comply with Tri-Party Agreement
- Comply with applicable Federal, State, International and Local laws
- Include stakeholders in the decision process
- Provide positive, lasting regional economic impact.

The PFPTP mission scope includes stabilizing and packaging SNM for storage. The storage is necessary to support facility deactivation and is necessary until the final disposition of the material is determined and implemented. Since the final disposition of the plutonium currently stored at PFP is unknown, the final form of that plutonium can not be determined. Therefore, it is premature to identify the PFPTP as having a mission that includes the treating plutonium to prepare it for final disposition."

## 2.0 FUNCTIONAL ANALYSIS

Identifying PFFTP's functions and subfunctions create a functional hierarchy called a tree. The analysis begins with the highest level functions, "Deactivate PFP" and "Store SNM." It is broken down into a number of major, necessary, and sufficient functions that, when completed in the prescribed logic, will ensure that PFFTP's mission is accomplished. The functional decomposition process is repeated for successively more detailed functional levels until known (precedented) solutions are available. Each function and subfunction is precisely defined. System function definitions are essential to establish what PFFTP must do to execute its mission successfully. Formal (i.e., hardware, software, facility, processes, services, or modifications) and provide a mechanism to insure that all parts of the system contribute to fulfill the PFFTP mission.

The ultimate function of the PFFTP system is to perform the operations that satisfy the mission need and correct the problem identified in WHC-SD-CP-MAR-001 Plutonium Finishing Plant Transition Project Mission Analysis Report repeated below:

"The PFP is no longer used to conduct diversified plutonium processing for the defense programs, but PFP retains Special Nuclear Materials (SNM) from previous activities. Special Nuclear Material contaminates some of the infrastructure, the soil and the immediate environment around the plant. The PFP infrastructure is also beyond its original designed life, is costly to maintain, and contains unconfined SNM which can be hazardous to workers, the environment, and the public. Safe and compliant SNM storage must be provided until alternative interim storage is available or until the material is transferred for beneficial use or final disposition. Beyond the interim storage of SNM and laboratory support, no future use of the PFP facilities has been confirmed."

### 2.1 Relationship to Hanford Site Functional Hierarchy

The PFP Mission Statement developed during the PFFTP Mission Analysis can be related to the functional hierarchy identified in WHC-EP-0722 "Systems Engineering Functions and Requirements for the Hanford Cleanup Mission: First Issue" of January 1994 and later revised and maintained as the Hanford Site Integrated Technical Baseline (HSITB). The PFFTP mission extends across two distinct areas as illustrated in Figure 1. "Deactivate facilities" and "Store Pu/HEU Materials" are the two major functional areas. This diagram also shows that PFFTP's mission is traceable to the overall mission, "Clean up Hanford," by passing through level 4 at the function "Remedy unsafe and unacceptable conditions."

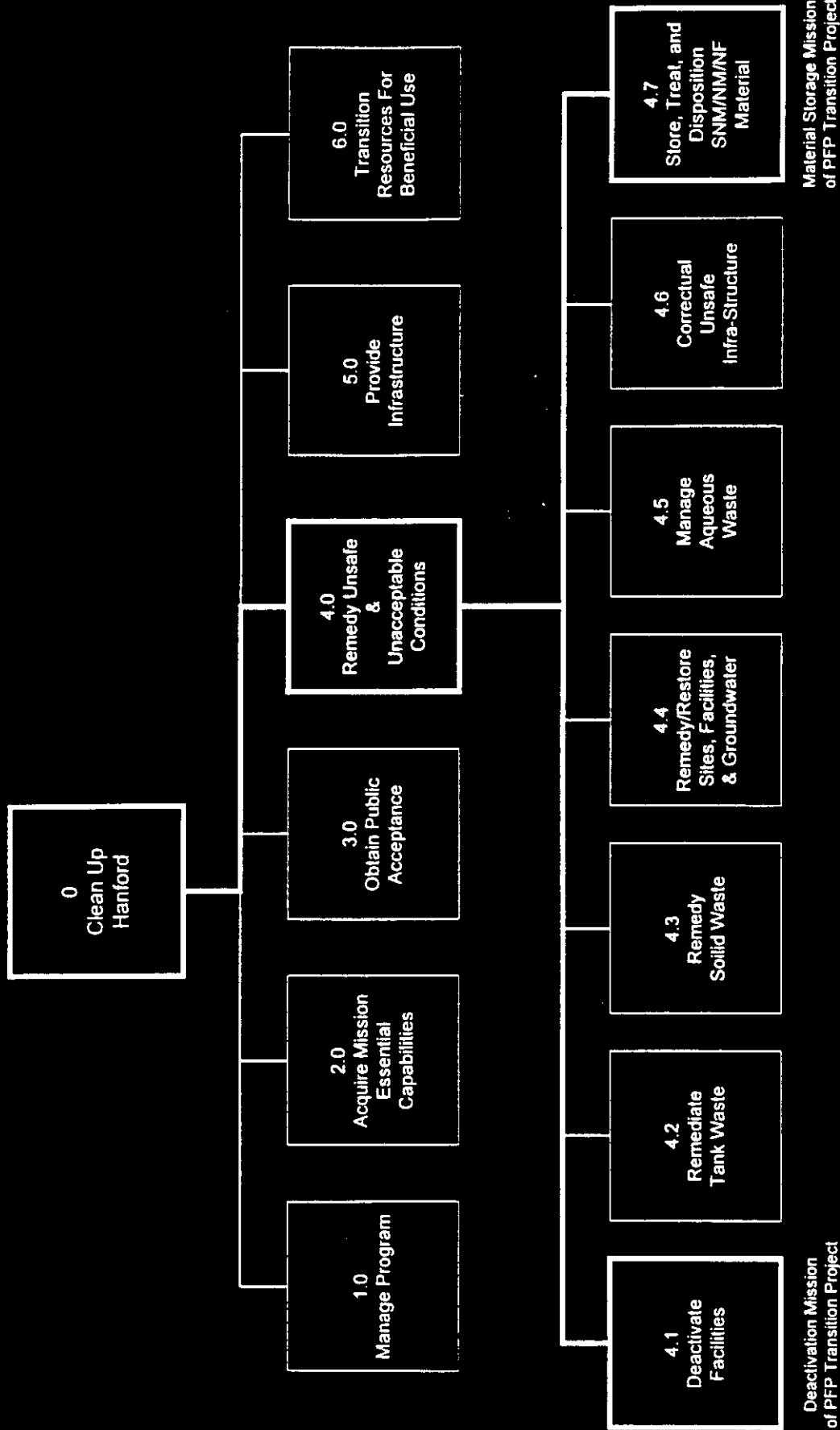


Figure 1. PFP's Relationship for Hanford Site Cleanup

## 2.2 Function Hierarchy

The detailed PFPTP functional hierarchy is presented in Addendum 1 and Addendum 2. Addendum 1 contains the functional decomposition beginning with 4.1.1.2 Deactivated PFP, and Addendum 2 contains the functional decomposition beginning with 4.7.1 Store, Treat and Disposition Pu/HEU Materials. This functional hierarchy is carried to levels four, five and six and in some cases a seventh level.

## 2.3 Function Definition Table

The definitions of the PFPTP functions in the functional hierarchies in Addendum 1 and 2 are presented in Addendum 3 and 4.

### 3.0 FUNCTIONAL INTERFACES AND DEPENDENCIES

Another way to describe functions is using functional interface diagrams. They establish the dependencies between the functions defined in the functional hierarchy. By conceptualizing each function as a process where inputs, resources, and controls are transformed into outputs, the relationships between functions can be identified. The outputs of one function become the inputs to other functions. Function inputs (initial state condition) enter from the left, and outputs (end state condition) exit to the right. Controls enter from the top; and resources, sometimes called mechanisms, enter from the bottom. Inputs, outputs, controls, and resources are all called interfaces and/or products and are defined for each system function.

#### 3.1 Interfaces

The PFPTP interfaces are provided in the form of IDEF (ICOM definition Method, ICOM is Input Controls Output Mechanisms) diagrams produced from Ascent Logic's RDD-100 system model are found in Addendum 5 and 6.

#### 3.2 Interface Definitions

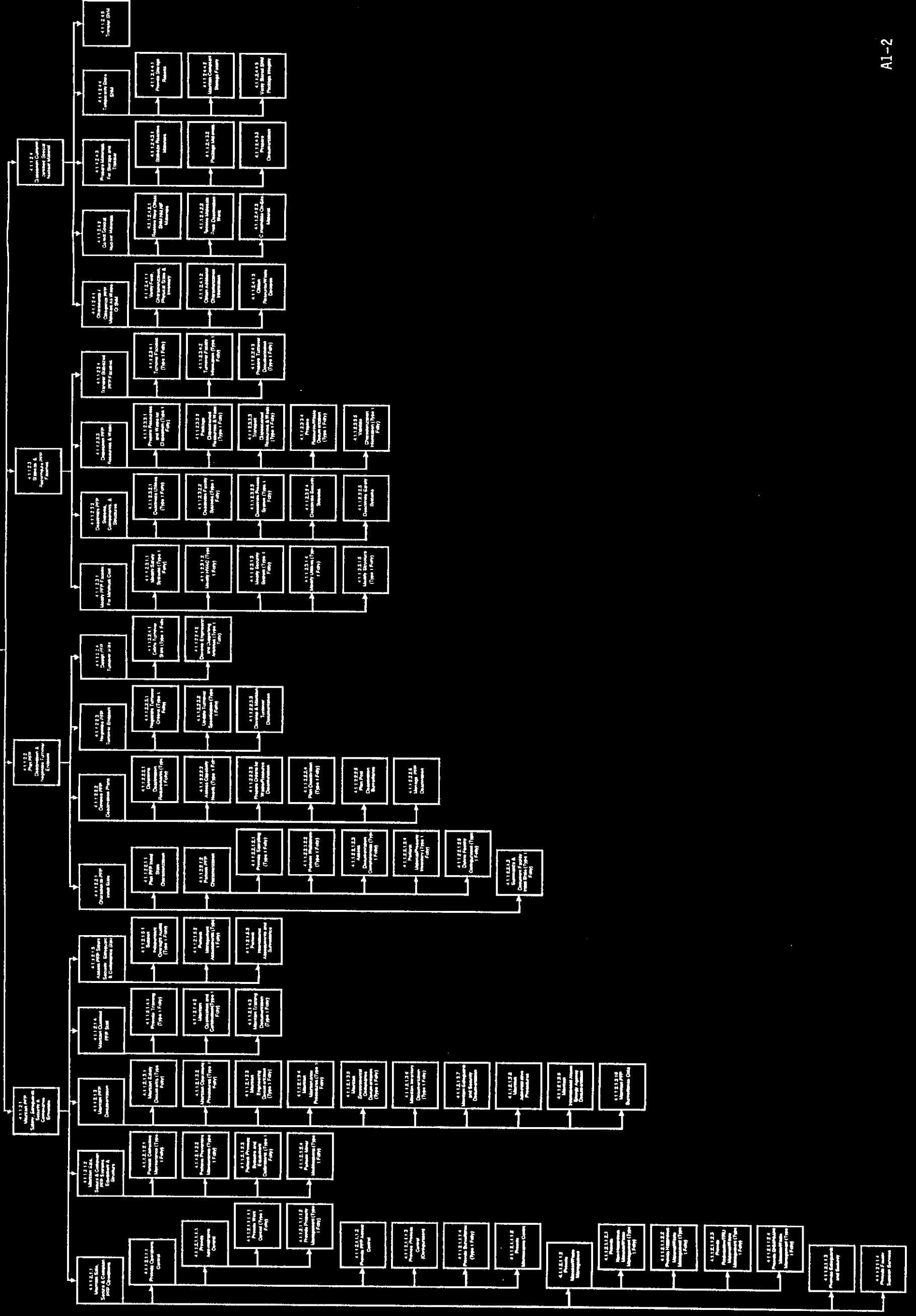
The PFPTP interface definitions, presented in Addendum 7 and 8, provide descriptions of all the interfaces found on the IDEF diagrams in Addendum 5 and 6. Inputs, outputs, controls and resources are all considered interfaces and are sometimes called products.

#### 4.0 ISSUES

- The duration of the interim SNM storage period is unknown but is expected to be in excess of 50 years.
- The DOE is in the process of developing guidance for the final disposition of SNM/NM/NF materials. Until this guidance is provided, the final disposition of SNM is undefined. Therefore, the role that the PFPTP may plan in final disposition of SNM cannot be determined at this time.
- For the purposes of this analysis, the amount of current and future funding is assumed to be adequate to carry out the PFPTP Mission. As the system alternatives and design are further developed, they will be compared to the MYPP and discrepancies will be reconciled.
- The acceptance criteria for transfer of PFP facilities to the ER Contractor are still developing. The determination of responsibilities, the end-point criteria, and the activities to be performed and the interfaces are not clear.
- The PFPTP mission includes the receipt and temporary storage of SNM from other Hanford cleanup mission areas. DOE may direct that the scope be expanded to include SNM receipt from other (off-site) facilities within the DOE complex.
- The role of the PFP laboratories, if any, to support other Hanford site cleanup activities is not yet determined. This role is captured within the high-level function 5.0 Provide Site Infrastructure, but needs further definition.
- Turn over to beneficial use is a function which disposes excess equipment and material during deactivation of facilities and ultimately turns over the sites following Decontamination and Decommissioning (D&D) and environmental restoration. Turn over to D&D is an intermediate step which uses the experience in operating the facility to shut down the facility. Once the facility is shutdown D&D can occur.
- PFPTP's responsibilities stretch across the entire cleanup Hanford hierarchy including 1.0 Manage.
- The SNM which is consolidated at PFP from other Hanford facilities is shown in the functional analysis as a constituent of the product "SNM/NM/NF Relocated Due to Deactivation", which connects 4.1 Deactivate Facilities to 4.7 Store, Treat & Disposition SNM/NM/NF.

ADDENDUM 1 - FUNCTION HIERARCHY- Deactivate

41121  
Domestic PEP Factory



ADDENDUM 2 - FUNCTION HIERARCHY - Storage



ADDENDUM 3 - FUNCTION DEFINITIONS - Deactivate

[4.1.1.2] Deactivate PFP Facility

<b>Function</b>	<b>Definitions</b>
4.1.1.2	<b>Deactivate PFP Facility</b> <i>Deactivates contaminated buildings, utilities, and services; stabilizes and safely stores or removes radioactive and hazardous materials; prepares turnover packages and transitions useable resources associated with the PFP complex.</i>
4.1.1.2.1	<b>Maintain PFP Safety, Safeguards, Security &amp; Compliance Envelope</b> <i>Maintains the facility structure, qualified staff, safe and compliant equipment, documentation and provides assessment of safety and compliance states. Provides all necessary resources for safe and compliant operation in accordance with governing safety codes and regulations.</i>
4.1.1.2.1.1	<b>Maintain Safe, Secure &amp; Compliant PFP Operations</b> <i>Assesses and maintains the facility operations in a safe condition that is compliant with applicable environmental requirements, DOE orders, and all other applicable codes, standards, and company procedures.</i>
4.1.1.2.1.1.1	<b>Provide Operations Control</b> <i>Provides the project management support necessary to ensure safe deactivation activities while continuing to maintain the safety boundary for the PFP complex.</i>
4.1.1.2.1.1.1.1	<b>Provide Administrative Control</b> <i>Provide job control, property management and administrative support</i>
4.1.1.2.1.1.1.1.1	<b>Provide Work Control (Type 1 Fcilty)</b> <i>Provides a job control system for the facility activities.</i>
4.1.1.2.1.1.1.1.2	<b>Provide Property Management (Type 1 Fcilty)</b> <i>Provides property management for the facility in accordance with DOE orders and WHC procedures.</i>
4.1.1.2.1.1.1.2	<b>Provide PFP Access Control</b> <i>Provide access control to and internal to the facility for safety and radiological purposes.</i>
4.1.1.2.1.1.1.3	<b>Provide Process Control (Configuration)</b> <i>Provide operational control over stabilization, deactivation, packaging and SMN storage processes.</i>
4.1.1.2.1.1.1.4	<b>Provide Surveillance (Type 1 Fcilty)</b> <i>Provides surveillance of the facility operations and operating systems, develop acutely unsafe condition action plans, perform OSR surveillance procedures, environmental monitoring, RCRA tracking, and surveillance of safety analysis compliance.</i>
4.1.1.2.1.1.1.5	<b>Provide Maintenance Control</b> <i>Provide operational control and oversight of facility systems and infrastructure maintenance activities.</i>
4.1.1.2.1.2	<b>Provide Material/Waste Management</b>
4.1.1.2.1.1.2.1	<b>Provide Non-Hazardous Material/Waste Management (Type 1 Fcilty)</b> <i>Contains, controls, and documents non-hazardous material and waste in accordance with safe and applicable standards.</i>
4.1.1.2.1.1.2.2	<b>Provide Hazardous Material/Waste Management (Type 1 Fcilty)</b> <i>Provides containment, control, and documentation of hazardous materials and wastes in conformance with safety requirements and all applicable hazardous material/wastes codes and regulations.</i>

## [4.1.1.2] Deactivate PFP Facility

<b>Function</b>	<b>Definitions</b>
4.1.1.2.1.1.2.3	<b>Provide Radioactive/TRU Material/Waste Management (Type 1 Fclty)</b> <i>Provides containment, control, and documentation of radioactive material and waste in accordance with safety requirements and all applicable codes and regulations.</i>
4.1.1.2.1.1.2.4	<b>Provide SNM/NM/NF Material/Waste Management (Type 1 Fclty)</b> <i>Provides all special SNM/NM/NF management operations in accordance with applicable codes and regulations including proper surveillance and security.</i>
4.1.1.2.1.1.3	<b>Provide Safeguards and Security</b> <i>Provides access control and other internal and external physical security. Additionally, provides safeguards support.</i>
4.1.1.2.1.1.4	<b>Provide Facility Support Services</b>
4.1.1.2.1.2	<b>Maintain Safe, Secure &amp; Compliant PFP Systems, Equipment &amp; Structure</b> <i>Maintains the facility systems and infrastructure in the operational condition dictated by approved safety and compliance documentation (includes environmental regulations).</i>
4.1.1.2.1.2.1	<b>Perform Corrective Maintenance (Type 1 Fclty)</b> <i>All maintenance that brings systems and equipment back to their operational states after failure.</i>
4.1.1.2.1.2.2	<b>Perform Preventive Maintenance (Type 1 Fclty)</b> <i>Preventive maintenance activities to minimize all unplanned events and premature equipment failures.</i>
4.1.1.2.1.2.3	<b>Perform Process Systems and Equipment Calibrations (Type 1 Fclty)</b> <i>Performs facility equipment, instrumentation, and process system calibrations to ensure accuracy.</i>
4.1.1.2.1.2.4	<b>Perform Minor Modifications (Type 1 Fclty)</b> <i>Performs minor modifications to facility systems or structure to ensure safe and compliant operations during the facility deactivation process.</i>
4.1.1.2.1.3	<b>Maintain PFP Documentation</b> <i>Maintains all required facility safety, compliance, engineering, inventory, and operating documentation during facility deactivation.</i>
4.1.1.2.1.3.1	<b>Maintain Safety Documents (Type 1 Fclty)</b> <i>Maintains documentation necessary to ensure safe deactivation activities. This includes Emergency Preparedness Procedures, FSARs, ISBs, CSERs, ETC..</i>
4.1.1.2.1.3.2	<b>Maintain Operations Procedures (Type 1 Fclty)</b> <i>Maintains operations procedures and documentation to support economic, safety, or environmental compliance requirements.</i>
4.1.1.2.1.3.3	<b>Maintain Engineering Documentation (Type 1 Fclty)</b> <i>Maintains configuration drawings and associated engineering documentation required to operate and maintain the facility in a safe and compliant status.</i>
4.1.1.2.1.3.4	<b>Maintain Maintenance Procedures (Type 1 Fclty)</b> <i>Maintains maintenance procedure documentation necessary for safe, efficient, and compliant operations.</i>
4.1.1.2.1.3.5	<b>Maintain Environmental Compliance Documentation (Type 1 Fclty)</b> <i>Maintains appropriate regulatory files and other related environmental documentation to assure and prove environmental compliance.</i>
4.1.1.2.1.3.6	<b>Maintain Inventory Documentation (Type 1 Fclty)</b> <i>Maintains inventories of spare parts, plastic shop, stockrooms, laundry supplies, etc.</i>

[4.1.1.2] Deactivate PFP Facility

<b>Function</b>	<b>Definitions</b>
4.1.1.2.1.3.7	<b>Maintain Safeguards and Security Documentation</b> <i>Maintains nuclear materials documentation in compliance with DOE orders.</i>
4.1.1.2.1.3.8	<b>Maintain Administrative Procedures</b>
4.1.1.2.1.3.9	<b>Maintain International Atomic Energy Agency Documentation</b>
4.1.1.2.1.3.10	<b>Maintain PFP Surveillance Data</b>
4.1.1.2.1.4	<b>Maintain Qualified PFP Staff</b> <i>Provides facility specific training, testing, and training records maintenance to ensure facility staff remain trained, qualified, and certified (as required) throughout the facility deactivation process.</i>
4.1.1.2.1.4.1	<b>Provide Training (Type 1 Fcilty)</b> <i>Provides all training related to the activities necessary to deactivate the facilities and ensure they remain in a safe and compliant condition.</i>
4.1.1.2.1.4.2	<b>Maintain Qualification and Certification (Type 1 Fcilty)</b> <i>Provides periodic personnel skills check, assessment, and testing required to maintain necessary qualifications and certifications.</i>
4.1.1.2.1.4.3	<b>Maintain Training Documentation (Type 1 Fcilty)</b> <i>Maintains applicable worker training documentation. Documentation includes worker safety and competency qualification and certification.</i>
4.1.1.2.1.5	<b>Assess PFP Safety, Security, Safeguards &amp; Compliance State</b> <i>Performs/responds to oversight assessments and perform appropriate self assessments of the facility deactivation activities to evaluate the facility and operations safety and compliance status.</i>
4.1.1.2.1.5.1	<b>Support Independent Oversight Audits (Type 1 Fcilty)</b> <i>Performs and responds to independant oversight audits.</i>
4.1.1.2.1.5.2	<b>Perform Management Assessments (Type 1 Fcilty)</b> <i>Performs self assessments of facility operations to ensure that safety and compliance are maintained.</i>
4.1.1.2.1.5.3	<b>Perform International Assessments and Surveillance</b> <i>Provides assessments by IAEA.</i>  <i>Need definition development</i>
4.1.1.2.2	<b>Plan PFP Deactivation &amp; Negotiate Turnover Endpoint</b> <i>Assesses the current state of the facility, identify and/or negotiate material, and equipment disposition requirements, develop plans to deactivate facilities, and negotiate and administratively maintain the desired facility turnover endpoint specifications. Establish and maintain a long-term archive of facility information.</i>
4.1.1.2.2.1	<b>Characterize PFP Initial State</b> <i>Identifies the current state of the facility infrastructure, process systems and other facility systems, facility contents, equipment, instrumentation, and utilities.</i>
4.1.1.2.2.1.1	<b>Plan PFP Initial State Characterization</b> <i>Develop plan for characterizing each facility in the PFP complex. The plan should include the use of walkdowns, sampling, material inventories and plant documentation review.</i>
4.1.1.2.2.1.2	<b>Perform PFP Characterization</b>

[4.1.1.2] Deactivate PFP Facility

<b>Function</b>	<b>Definitions</b>
4.1.1.2.2.1.2.1	<b>Provide Sampling (Type 1 Fclty)</b> <i>Obtains samples to characterize contamination and verify contamination levels, and to assist with SNM/NM/NF inventory verification. The functions to be performed are as follows:</i> *Develop Sampling Schedule *Obtain Facility Characterization Sample *Provide Sample Analysis *Document Sample Analysis
4.1.1.2.2.1.2.2	<b>Perform Walkdowns (Type 1 Fclty)</b> <i>Performs walkdowns to compare actual facility state with available documentation.</i>
4.1.1.2.2.1.2.3	<b>Assess Documentation Completeness (Type 1 Fclty)</b> <i>Assesses existing documentation for completeness and verifies with walkdowns, sampling, and other observations.</i>
4.1.1.2.2.1.2.4	<b>Perform Material/Property Inventory (Type 1 Fclty)</b> <i>Performs inventory of all property and materials.</i>
4.1.1.2.2.1.2.5	<b>Define Facility Configuration (Type 1 Fclty)</b> <i>Reviews facility drawing packages to determine accuracy and develop additional configuration control documents as required to document actual configuration of facility infrastructure, utilities, process systems, equipment, materials and instrumentation.</i>
4.1.1.2.2.1.3	<b>Summarize &amp; Document Facility Initial State (Type 1 Fclty)</b> <i>Develops and provides a documentation summary or matrix that clearly and completely defines facility state.</i>
4.1.1.2.2.2	<b>Develop PFP Deactivation Plans</b> <i>Develops strategies to best implement deactivation requirements, plans the facility deactivation, and identifies and/or negotiates facility equipment disposition requirements.</i>
4.1.1.2.2.2.1	<b>Determine Deactivation Requirements (Type 1 Fclty)</b> <i>Determines and documents all facility specific administrative, safety, environmental, regulatory, DOE orders, codes, standards, and other requirements.</i>
4.1.1.2.2.2.2	<b>Assess Capability Needs (Type 1 Fclty)</b> <i>Assesses personnel, material, equipment, facility, and technology needs necessary to support facility deactivation activities.</i>
4.1.1.2.2.2.3	<b>Prepare Criteria for Waste/Resource Determination</b> <i>Criteria is developed for dispositioning equipment, materials and systems as resources or waste. This criteria is part of the facilities deactivation plan.</i>
4.1.1.2.2.2.4	<b>Plan Deactivation (Type 1 Fclty)</b> <i>Develops deactivation strategy, plans, and schedules.</i>
4.1.1.2.2.2.5	<b>Plan Post Deactivation Surveillance</b> <i>Plan post deactivation monitoring, walk throughs, winterization checks, animal intrusion checks and water leakage checks.</i>
4.1.1.2.2.2.6	<b>Manage PFP Deactivation</b> <i>Develops plan for management of PFP deactivation activities.</i>
4.1.1.2.2.3	<b>Negotiate PFP Turnover Endpoint</b> <i>Negotiates and maintains the desired facility turnover endpoint specifications.</i>
4.1.1.2.2.3.1	<b>Negotiate Turnover Criteria (Type 1 Fclty)</b> <i>Negotiates turnover criteria with D&amp;D or the transition of resources to beneficial uses organization.</i>

## [4.1.1.2] Deactivate PFP Facility

<b>Function</b>	<b>Definitions</b>
4.1.1.2.2.3.2	<b>Update Turnover Specification (Type 1 Fclty)</b> <i>Maintains the negotiated facility deactivation turnover specification.</i>
4.1.1.2.2.3.3	<b>Develop &amp; Maintain Turnover Documentation</b> <i>Provide memorandum of understanding with responsibilities for deactivation and post deactivation activities such as maintenance. Provide characterization data defining end state at turnover to D&amp;D.</i>
4.1.1.2.2.4	<b>Design PFP Turnover State</b> <i>Specifies turnover facility, equipment, and material status; develops facility deactivation turnover specification; develops deactivation engineering documentation and other supporting analyses.</i>
4.1.1.2.2.4.1	<b>Define Turnover State (Type 1 Fclty)</b> <i>Defines configuration specifics, negotiates turnover facility state, and develops negotiated facility deactivation turnover specification.</i>
4.1.1.2.2.4.2	<b>Develop Engineering and Supporting Analyses (Type 1 Fclty)</b> <i>Provides engineering and supporting analyses to support engineered deactivation package development. Examples include safety analyses, transportation analyses, and development of NEPA documentation.</i>
4.1.1.2.3	<b>Stabilize &amp; Reconfigure PFP Facilities</b> <i>Deactivates nonessential systems, system components, and physical structures, and takes other actions as required to minimize environmental, public, and personnel hazards. Takes these actions consistent with minimizing continuing facility costs.</i>
4.1.1.2.3.1	<b>Modify PFP Facilities For Minimum Cost</b> <i>Reconfigures plant systems and structure to minimize cost of maintenance and operation during deactivation phase and while waiting for D&amp;D while retaining minimum acceptable compliance with safety and environmental requirements.</i>
4.1.1.2.3.1.1	<b>Modify Safety Systems (Type 1 Fclty)</b> <i>Makes any appropriate modifications to safety systems such as elimination or conversion (wet to dry) of fire systems.</i>
4.1.1.2.3.1.2	<b>Modify HVAC (Type 1 Fclty)</b> <i>Modifies HVAC for minimum acceptable heating, ventilation and radiological containment requirements.</i>
4.1.1.2.3.1.3	<b>Modify Security System (Type 1 Fclty)</b> <i>Reconfigures security systems consistent with SNM inventory and security requirements.</i>
4.1.1.2.3.1.4	<b>Modify Utilities (Type 1 Fclty)</b> <i>Modifies or downsizes utility systems to satisfy reduced needs.</i>
4.1.1.2.3.1.5	<b>Modify Structure (Type 1 Fclty)</b> <i>Modifies structural aspects if savings can be obtained (e.g. adding a firewall rather than maintaining a fire suppression system).</i>
4.1.1.2.3.2	<b>Deactivate PFP Systems, Components, &amp; Structures</b> <i>Deactivates non-essential systems, system components, and physical structures while maintaining safety and environmental compliance.</i>
4.1.1.2.3.2.1	<b>Deactivate Utilities (Type 1 Fclty)</b> <i>Deactivates water, sewer, electrical, HLAN, steam, telephone, power, vacuum system as appropriate to still maintain minimum safety and environmental compliance.</i>

## [4.1.1.2] Deactivate PFP Facility

<b>Function</b>	<b>Definitions</b>
4.1.1.2.3.2.2	<b>Deactivate Facility Systems (Type 1 Fclty)</b> <i>Deactivates facility systems as much as possible to minimize operating and maintenance costs and still maintain minimum safety and environmental compliance. Facility systems include criticality alarm, emergency lights, emergency evacuation.</i>
4.1.1.2.3.2.3	<b>Deactivate Process System (Type 1 Fclty)</b> <i>Deactivates, drains, flushes, removes, etc., process systems in accordance with negotiated turnover specifications.</i>
4.1.1.2.3.2.4	<b>Deactivate Security Systems</b> <i>Deactivate intrusion control and related security systems.</i>
4.1.1.2.3.2.5	<b>Deactivate Safety Systems</b> <i>Deactivate safety systems including fire suppression system.</i>
4.1.1.2.3.3	<b>Disposition PFP Resources &amp; Waste</b> <i>Accumulates, packages, and dispositions resources and waste for facilities containing SNM/NM/NF.</i>
4.1.1.2.3.3.1	<b>Prepare Resources and Waste for Disposition (Type 1 Fclty)</b> <i>Accumulates, drains, collects, and dispositions material, equipment, consumables, etc., and waste or resources for disposal or reuse.</i>
4.1.1.2.3.3.2	<b>Package Dispositioned Resources &amp; Waste (Type 1 Fclty)</b> <i>Packages materials for disposal or reuse.</i>
4.1.1.2.3.3.3	<b>Transport Dispositioned Resources &amp; Waste (Type 1 Fclty)</b> <i>Transports materials to disposal or reallocation sites.</i>
4.1.1.2.3.3.4	<b>Prepare Resource/Waste Documentation (Type 1 Fclty)</b> <i>Prepares any documentation required for disposal or certification for reuse or excess.</i>
4.1.1.2.3.3.5	<b>Validate Characterization Information (Type 1 Fclty)</b> <i>Validates waste or reusable material characterization information.</i>
4.1.1.2.3.4	<b>Transfer Stabilized PFP Facilities</b> <i>Maintains, and effects transfer of facility structure and surrounding area to D&amp;D organizations for remediation or to transition organization for reuse, privatization, etc.</i>
4.1.1.2.3.4.1	<b>Turnover Facilities (Type 1 Fclty)</b> <i>After deactivation is complete, maintains and manages the facility until transfer for beneficial use or D&amp;D is accomplished. Performs actual transfer of facility.</i>
4.1.1.2.3.4.2	<b>Turnover Facility Information (Type 1 Fclty)</b> <i>Transfers actual information on facility status and characterization to receiving organization.</i>
4.1.1.2.3.4.3	<b>Prepare Turnover Documentation (Type 1 Fclty)</b> <i>Prepares appropriate documentation on the facility status and supporting information in accordance with turnover specification.</i>
4.1.1.2.4	<b>Disposition Currently Identified Special Nuclear Material</b> <i>Collects and prepares materials for temporary storage and transfer, and transports materials out of the facility.</i>
4.1.1.2.4.1	<b>Characterize / Categorize PFP Materials As Waste Or SNM</b> <i>Categorizes materials as waste or Nuclear Material with potential value (e.g. cesium capsules, SNM, NF, ETC.).</i>

## [4.1.1.2] Deactivate PFP Facility

<b>Function</b>	<b>Definitions</b>
4.1.1.2.4.1.1	<b>Verify Form, Characterization, Physical State &amp; Inventory</b> <i>Verifies form, characterization, physical state, and inventory of SNM/NM/NF materials in the facility.</i>
4.1.1.2.4.1.2	<b>Obtain Additional Characterization Information</b> <i>Obtains additional characterization information to support certification or SNM/NM/NF disposition decision making.</i>
4.1.1.2.4.1.3	<b>Obtain Resource/Waste Decision</b> <i>Determines if the material is a waste or a product. This may include solicitation of a decision policy from DOE.</i>
4.1.1.2.4.2	<b>Collect Special Nuclear Materials</b> <i>Accumulates materials in logical configuration to minimize facility cost and maximize subsequent disposition opportunities.</i>
4.1.1.2.4.2.1	<b>Receive New Offsite SNM,NM,NF Materials</b> <i>Receives incoming materials in facilities being deactivated if cost effective and it is the most logical temporary storage facility.</i>
4.1.1.2.4.2.2	<b>Receive Materials From Deactivation Work</b> <i>Receives material from other facilities being deactivated if designated storage is cost effective and the most logical temporary storage option. Includes Pu scrap from facility deactivation. Material typically requires stabilization.</i>
4.1.1.2.4.2.3	<b>Consolidate On-Site Material</b> <i>Move materials from other on-site facilities to PFP for consolidation. Materials are typically in stable form.</i>
4.1.1.2.4.3	<b>Prepare Materials For Storage and Transfer</b> <i>Stabilizes and packages reactive materials for temporary storage for transportation to an alternate company or permanent storage or for other use.</i>
4.1.1.2.4.3.1	<b>Stabilize Reactive Materials</b> <i>Treats material as required to meet storage, shipment, and disposition criteria.</i>
4.1.1.2.4.3.2	<b>Package Materials</b> <i>Packages material for temporary storage or shipment.</i>
4.1.1.2.4.3.3	<b>Prepare Documentation</b> <i>Prepares all documentation for storage, shipping, or alternate use.</i>
4.1.1.2.4.4	<b>Temporarily Store SNM</b> <i>Stores materials until alternate, temporary or permanent storage or beneficial use is identified.</i>
4.1.1.2.4.4.1	<b>Provide Storage Reports</b> <i>Prepares and maintains required storage reports.</i>
4.1.1.2.4.4.2	<b>Maintain Compliant Storage Facility</b> <i>Maintains facility and equipment qualifications and operating requirements for compliant storage.</i>
4.1.1.2.4.4.3	<b>Verify Stored SNM Package Integrity</b>
4.1.1.2.4.5	<b>Transfer SNM</b> <i>Transports materials to alternate storage or a beneficial use.</i>

ADDENDUM 4 - FUNCTION DEFINITIONS - Storage

## [4.7.1] Store, Treat, &amp; Disposition Pu/HEU Materials

<b>Function</b>	<b>Definitions</b>
4.7.1	<b>Store, Treat, &amp; Disposition Pu/HEU Materials</b> <i>The management of Plutonium and Highly Enriched Uranium (Pu/HEU) includes the receiving, handling, processing, storing, and transfer for ultimate disposition in a safe and efficient way. All inventoried Pu/HEU is included.</i>
4.7.1.1	<b>Maintain Safety, Safeguards, Security &amp; Compliance Envelope (Pu/HEU)</b> <i>Maintains the physical facility, qualified staff, safe and compliant equipment, documentation and provides assessment of safety and compliant states. Provides all necessary safety and security resources for compliance with all governing safety/security codes and regulations. Also included is the periodic verification of material inventory and sample analysis of the materials.</i>
4.7.1.1.1	<b>Maintain Safe, Secure and Compliant Operations (Pu/HEU)</b> <i>Assesses and maintains the Pu/HEU facility operations in a safe condition that is compliant with environmental, DOE Orders, Regulatory requirements, and all other applicable codes, standards, and company procedures.</i>
4.7.1.1.1.1	<b>Provide Operations Control (Pu/HEU)</b> <i>Provides the project management and administrative support required for project direction and control of all Pu/HEU activities. Also provides operations support.</i>
4.7.1.1.1.1.1	<b>Provide Surveillance (Pu/HEU)</b> <i>Provide surveillance of all facility operations and operating systems, develop acutely unsafe condition action plans, perform OSR surveillance procedures, environmental monitoring, RCRA tracking, and surveillance of safety analysis compliance.</i>
4.7.1.1.1.2	<b>Provide Safeguards and Security (Pu/HEU)</b> <i>Provide access control to and internal to the facility for safeguards and security, safety and radiological purposes.</i>
4.7.1.1.1.2.1	<b>Provide Physical Security (Pu/HEU)</b> <i>Provides all internal and external facility physical security.</i>
4.7.1.1.1.2.2	<b>Provide Pu/Heu Safeguards (Pu/HEU)</b> <i>Provides safeguards support.</i>
4.7.1.1.1.3	<b>Provide Administrative Control (Pu/HEU)</b> <i>Provides the job control system for the facility activities.</i>
4.7.1.1.1.4	<b>Provide Maintenance Control (Pu/HEU)</b> <i>Provides project management and administrative support required for the direction and control of all maintenance activities.</i>
4.7.1.1.1.5	<b>Provide Pu/HEU Handling Process Control (Configuration)</b> <i>Provides personnel to assist with independent safety and compliant assessment audits.</i>
4.7.1.1.1.6	<b>Provide Pu/HEU Material Waste Management</b> <i>Arranges for the disposal of solid, liquid, and aqueous wastes generated during the maintenance of the safety and compliance envelope.</i>
4.7.1.1.2	<b>Maintain Safe, Secure, and Compliant Systems, Equipment, and Structure (Pu/HEU)</b> <i>Maintains the facility infrastructure and facility systems in the operational condition dictated by approved safety and compliance documentation. (Pu/HEU)</i>
4.7.1.1.2.1	<b>Perform Corrective Maintenance (Pu/HEU)</b> <i>All maintenance that brings systems and equipment back to its operational state after failure.</i>

## [4.7.1] Store, Treat, &amp; Disposition Pu/HEU Materials

<b>Function</b>	<b>Definitions</b>
4.7.1.1.2.2	<b>Perform Preventative Maintenance (Pu/HEU)</b> <i>Preventative maintenance activities to minimize all unplanned events and premature equipment failures.</i>
4.7.1.1.2.3	<b>Perform Process Systems and Equipment Callibrations (Pu/HEU)</b> <i>Performs facility equipment, instrumentation and process system calibrations to ensure accuracy.</i>
4.7.1.1.2.4	<b>Perform Minor Facility/Equipment Modifications (Pu/HEU)</b> <i>Performs minor modifications to Pu/HEU facility systems or structures necessary to ensure safe and compliant operations which do not require new capabilities from provide mission essential capabilities (Pu/HEU).</i>
4.7.1.1.2.5	<b>Dispose of Incidental Pu/HEU Waste (Maintenance)</b> <i>Arranges for the disposal of the solid, liquid, and aqueous wastes generated during the facility maintenance activities.</i>
4.7.1.1.3	<b>Maintain Pu/HEU Documentation</b> <i>Maintains all required facility safety, compliance, engineering, inventory and operating documentation.</i>
4.7.1.1.3.1	<b>Maintain Safety Documents (Pu/HEU)</b> <i>Maintains documentation necessary to ensure economical, safe and compliant handling, storage, treatment, and disposition of Pu/HEU materials.</i>
4.7.1.1.3.2	<b>Maintain Operations Procedures (Pu/HEU)</b> <i>Maintains operating procedure documentation.</i>
4.7.1.1.3.3	<b>Maintain Engineering Documentation (Pu/HEU)</b> <i>Maintains configuration drawings and associated engineering documentation required to maintain the facility in a safe and compliant status.</i>
4.7.1.1.3.4	<b>Maintain Maintenance Procedures (Pu/HEU)</b> <i>Maintains maintenance procedure documentation necessary for efficient, safe, and compliant operation.</i>
4.7.1.1.3.5	<b>Maintain Compliance Documentation (Pu/HEU)</b> <i>Maintains documentation to assure and prove compliance with appropriate environmental, regulatory and DOE orders.</i>
4.7.1.1.3.5.1	<b>Maintain Pu/HEU Inventory Documentation</b> <i>Maintains an inventory of all materials in the Pu/HEU category in accordance with DOE orders. Also maintains inventories of spare parts, equipment, etc.</i>
4.7.1.1.3.5.2	<b>Maintain Criticality Documentation (Pu/HEU)</b> <i>Maintains criticality calculations and other applicable documents.</i>
4.7.1.1.3.6	<b>Maintain Surveillance Data (Pu/HEU)</b>
4.7.1.1.3.7	<b>Maintain SAS Documentation (Pu/HEU)</b>
4.7.1.1.3.7.1	<b>Maintain SAS Documentation Other Than IAEA (Pu/HEU)</b>
4.7.1.1.3.7.2	<b>Maintain SAS IAEA Documentation (Pu/HEU)</b>
4.7.1.1.4	<b>Maintain Qualified Facility Staff (Pu/HEU)</b> <i>Provides facility specific training, testing, and training records maintenance to ensure the facility staff remain trained, qualified, and certified as required.</i>

[4.7.1] Store, Treat, & Disposition Pu/HEU Materials

<b>Function</b>	<b>Definitions</b>
4.7.1.1.4.1	<b>Provide Training (Pu/HEU)</b> <i>Provides all training related to the handling, storage, treatment, and disposition of Pu/HEU materials and training necessary to safely operate and maintain the facility and facility operating systems.</i>
4.7.1.1.4.2	<b>Maintain Certification and Qualification (Pu/HEU)</b> <i>Provides periodic personnel skills check, assessment, and testing required to maintain the necessary qualification and certification.</i>
4.7.1.1.4.3	<b>Maintain Training Documentation (Pu/HEU)</b> <i>Maintains applicable worker training documentation. Documentation includes worker safety and competency qualification and certification.</i>
4.7.1.1.5	<b>Assess Safety, Security and Compliance State (Pu/HEU)</b> <i>Assesses the handling, treatment, storage, and disposition of all Pu/HEU materials to ensure that safety, security and compliance is maintained.</i>
4.7.1.1.5.1	<b>Perform Self Assessments (Pu/HEU)</b> <i>Internal assessment of the facility operations to ensure that safety and compliance are maintained.</i>
4.7.1.1.5.2	<b>Support IAEA Assessments (Pu/HEU)</b> <i>Provides assessments by IAEA.</i>  <i>Need definition development</i>
4.7.1.2	<b>Control Pu/HEU</b> <i>Plans, coordinates, and schedules all the necessary operations within the 4.7.1 function. The function defines the treatment, storage, and transfer needs for the materials; establishes the acceptance criteria; and performs the acceptance or rejection of the material shipping documentation. The function does not include the physical work to perform the operations.</i>
4.7.1.2.1	<b>Define Pu/HEU Treat/Store/Disposition Operations</b> <i>Performs the planning and assessment of necessary material treatment, storage and disposition actions necessary for safe and efficient material receipts, treatment, storage and disposition.</i>
4.7.1.2.1.1	<b>Establish Pu/HEU Acceptance Criteria</b> <i>Establishes the criteria necessary to accept the material based on the capability to handle, treat, store and disposition the material.</i>
4.7.1.2.1.1.1	<b>Establish Pu/HEU Storage/Disposition Criteria</b> <i>Identifies storage and disposition criteria associated with the proposed receipt of Pu/HEU material.</i>
4.7.1.2.1.1.2	<b>Establish Pu/HEU Treatment Criteria</b> <i>Identifies the treatment criteria associated with the proposed receipt of Pu/HEU materials.</i>
4.7.1.2.1.2	<b>Evaluate Forecast Pu/HEU Generator Requests</b> <i>Evaluates generator forecasts to determine storage capacity needs, treatment options and disposition prospects for all forecasted materials receipts.</i>
4.7.1.2.1.3	<b>Define Pu/HEU Capability Needs</b> <i>Defines existing handling, treatment, storage and disposition capabilities.</i>
4.7.1.2.1.3.1	<b>Define Pu/HEU Storage Capability</b> <i>Defines the remaining facility storage capability.</i>
4.7.1.2.1.3.2	<b>Define Pu/HEU Treatment Capability</b> <i>Defines the existing facility specific treatment capabilities.</i>

## [4.7.1] Store, Treat, &amp; Disposition Pu/HEU Materials

<b>Function</b>	<b>Definitions</b>
4.7.1.2.1.3.3	<b>Define Pu/HEU Acceptance Capability</b> <i>Defines the Pu/HEU material form, type, consistency, and packaging required for acceptance into the facility.</i>
4.7.1.2.1.4	<b>Define Pu/HEU Material/Storage/Treatment/Disposition Requirements</b> <i>Defines the material handling, treatment, storage and disposition requirements necessary to process a specific material shipment.</i>
4.7.1.2.2	<b>Negotiate Pu/HEU Shipper/Receiver Agreement</b> <i>Negotiates acceptance terms and requirements with the material shipper.</i>
4.7.1.2.2.1	<b>Assess Capability to Accept Requested Pu/HEU Transfer</b> <i>Examines existing facility handling, treatment, storage, and disposition capabilities to verify capability exists to accept the proposed transfer.</i>
4.7.1.2.2.2	<b>Identify Pu/HEU Variances from Acceptance Criteria</b> <i>Compares the facility Pu/HEU acceptance criteria with the proposed Pu/HEU current owner criteria to determine variances.</i>
4.7.1.2.2.3	<b>Accept/Reject Pu/HEU Requests</b> <i>Transfer requests are accepted or rejected based upon the facility acceptance capability.</i>
4.7.1.2.3	<b>Plan and Schedule Pu/HEU Operations</b> <i>Plans all work operations for specific material shipment transfers. Plans necessary to receive, treat, store and disposition specific material transfers are performed.</i>
4.7.1.2.3.1	<b>Plan Pu/HEU Handling and Receipts</b> <i>Develops plans to receive and handle Pu/Heu materials.</i>
4.7.1.2.3.2	<b>Plan Pu/HEU Storage</b> <i>Develops Pu/HEU storage plans.</i>
4.7.1.2.3.3	<b>Plan Pu/HEU Dispositions</b> <i>Develops the Pu/HEU disposition plans.</i>
4.7.1.2.3.4	<b>Plan Pu/HEU Safety, Security, and Maintenance</b> <i>Plans all facility safety, security, and maintenance activities.</i>
4.7.1.2.4	<b>Design Modifications to Pu/HEU Store, Treat and Disposition Facilities and Systems</b> <i>Provides engineering and other technical support necessary to design modifications to Pu/Heu Store, Treat and Disposition facilities and systems.</i>
4.7.1.2.4.1	<b>Develop Engineering and Supporting Analysis for Facility/Equipment Modifications</b> <i>Provides technical support necessary to develop engineering design media and other supporting analysis (such as regulatory documents, engineering studies, etc.) required to perform facility/equipment modifications.</i>
4.7.1.3	<b>Handle Incoming Pu/HEU Materials</b> <i>Physically handles the material shipping container and packaged material receipt. It is responsible for disposal of the wastes generated during the handling process.</i>
4.7.1.3.1	<b>Receive Pu/HEU Shipment</b> <i>The process of receiving the actual shipment of materials. This function ensures readiness to accept material, ensures transfer of custody, verifies manifest and material documentation, and is responsible for obtaining radiological surveys.</i>
4.7.1.3.1.1	<b>Ensure Pu/HEU Receipt Readiness</b> <i>Verifies the readiness to receive a specific Pu/HEU shipment.</i>

## [4.7.1] Store, Treat, &amp; Disposition Pu/HEU Materials

<b>Function</b>	<b>Definitions</b>
4.7.1.3.1.2	<b>Verify Pu/HEU Manifest and Materials Documents</b> <i>Examines manifest and material documents for accuracy and completeness.</i>
4.7.1.3.1.3	<b>Transfer Pu/HEU Custody</b> <i>Performs the Pu/HEU material transfer of custody as defined in 5630.11a.</i>
4.7.1.3.1.4	<b>Conduct Pu/HEU Radiological Survey</b> <i>Performs radiological surveys to ensure the received shipment shipping containers are not externally radioactively contaminated.</i>
4.7.1.3.2	<b>Handle Pu/HEU Shipping Containers</b> <i>Performs lag storage, shipping container unloading, shipping container decontamination, and recycling of the shipping containers.</i>
4.7.1.3.2.1	<b>Offload Pu/HEU Shipping Containers</b> <i>Performs the unloading of shipping containers from the transporter.</i>
4.7.1.3.2.2	<b>Provide Pu/HEU Lag Storage for Containers</b> <i>Provides temporary storage for received shipping containers.</i>
4.7.1.3.2.3	<b>Unload Pu/HEU (Primary Package) Material Containers</b> <i>Removes the primary package containing Pu/HEU materials from the shipping container.</i>
4.7.1.3.2.4	<b>Survey and Release Pu/HEU Shipping Containers and Transporters</b> <i>Releases the shipping containers and transporters after radiological surveys are performed to ensure they are not externally radiologically contaminated.</i>
4.7.1.3.2.4.1	<b>Decontaminate Pu/HEU Containers</b> <i>Decontaminates shipping containers to levels acceptable for reuse.</i>
4.7.1.3.2.4.2	<b>Recycle Pu/HEU Containers</b> <i>Recycles the shipping containers for reuse.</i>
4.7.1.3.3	<b>Handle Pu/HEU Packages and Verify Material</b> <i>Physically handles the packages containing material. It verifies that the material is of the form, type, consistency and quantity noted in the material documentation and shipping manifest.</i>
4.7.1.3.3.1	<b>Analyze Pu/HEU Material</b> <i>Characterizes samples and/or material to verify the actual Pu/HEU material matches the associated manifest and material documentation.</i>
4.7.1.3.3.2	<b>Reconcile Pu/HEU Exceptions</b> <i>Reconciles the differences between the actual material characteristics and those material characteristics noted in the manifest and material documentation.</i>
4.7.1.3.3.3	<b>Transfer Pu/HEU Package to Storage</b> <i>Transfers the Pu/HEU material package to storage.</i>
4.7.1.3.3.4	<b>Ensure Pu/HEU Package Integrity</b> <i>Examines and evaluates the Pu/HEU material package condition.</i>
4.7.1.3.3.5	<b>Archive Pu/HEU Material Documentation and Analysis Data</b> <i>Ensures the safe, secure storage and retrieval of Pu/HEU analysis data and information.</i>
4.7.1.3.4	<b>Dispose of Incidental Pu/HEU Waste (Shipping)</b> <i>Arranges for the disposal of solid, liquid, and effluent wastes generated during the handling of incoming materials.</i>

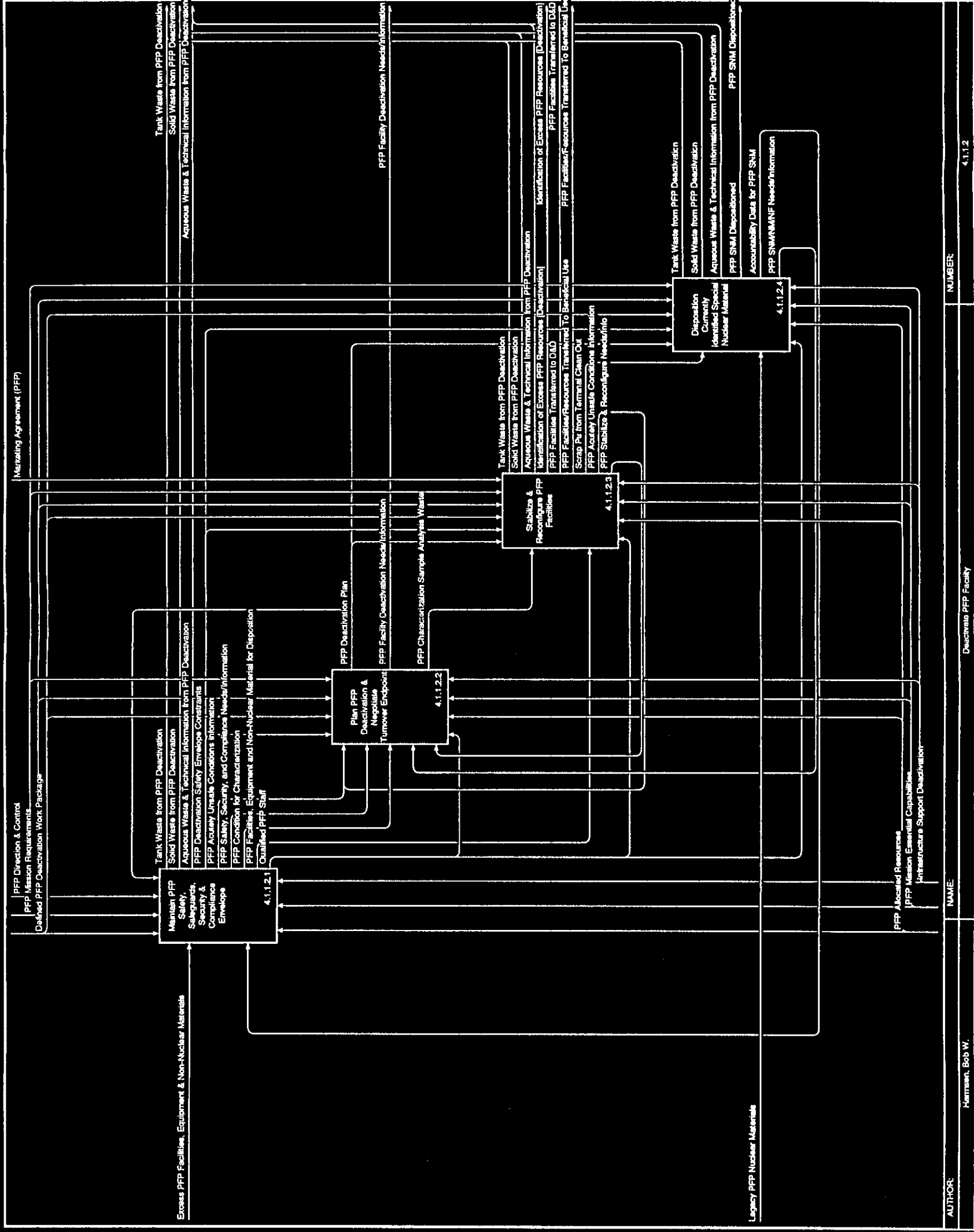
## [4.7.1] Store, Treat, &amp; Disposition Pu/HEU Materials

<b>Function</b>	<b>Definitions</b>
4.7.1.4	<b>Store Pu/HEU Materials</b> <i>Prepares and stabilizes the materials for storage and stores these materials until they are transferred to disposition. It is responsible for disposal of wastes generated during the material storage process.</i>
4.7.1.4.1	<b>Stabilize Pu/HEU Material for Storage</b> <i>Characterizes, treats and packages the plutonium materials to permit safe storage, disposal or shipment. The storage is for the interim time period while the methods for final disposition are being determined. Safe disposal will be allowed only when authorized and only when the material meets the appropriate waste acceptance criteria. Safe shipment is a possibility, if the capabilities do not currently exist at Hanford but they do exist at other DOE sites.</i>
4.7.1.4.1.1	<b>Characterize Pu/HEU Material to Determine Stabilization Needs</b> <i>Examines the existing material information and may collect additional information in order to determine if and what treatment is necessary for the safe storage, disposal or shipment of the material.</i>
4.7.1.4.1.2	<b>Treat Unstable Pu/HEU Material for Storage</b> <i>Process the material to make it suitable for safe storage, disposal or shipment. This may involve pre-treatment, baking, calcining, denitration or burning.</i>
4.7.1.4.1.3	<b>Package Stabilized Pu/HEU Material for Storage</b> <i>Performs the verification, packaging, documentation and transfer of the stabilized materials for safe storage, disposal, and shipment.</i>
4.7.1.4.2	<b>Store Stable Pu/HEU Materials</b> <i>Provides all periodic inspections and tests to ensure the safety and security of the materials placed in storage.</i>
4.7.1.4.2.1	<b>Verify Pu/HEU Package Integrity</b> <i>Examines and evaluates the Pu/HEU storage packaging condition.</i>
4.7.1.4.2.2	<b>Document and Report Pu/HEU Status</b> <i>Provides information on the status of all stored Pu/HEU materials and maintains Pu/Heu inventories.</i>
4.7.1.4.3	<b>Dispose of Incidental Pu/HEU Waste (Storage)</b> <i>Arranges for the disposal of solid, liquid, and effluent wastes generated during the treatment of material prior to storage and during the actual storage of the material.</i>
4.7.1.5	<b>Transfer Outgoing Pu/HEU Materials for Disposition</b> <i>Prepares, stabilizes, and transfers materials for disposition. The disposition of materials is one of two processes: The transfer of useable material or the transfer of materials for disposal. It arranges for disposal of incidental wastes generated during the disposition process.</i>
4.7.1.5.1	<b>Prepare for Final Pu/HEU Disposition</b> <i>Characterizes material for disposition treatment, treats the material and packages it for disposition.</i>
4.7.1.5.1.1	<b>Characterize Pu/HEU Material for Disposition</b> <i>Examines material characterization to determine necessary disposition actions.</i>
4.7.1.5.1.2	<b>Treat Pu/HEU for Disposition</b> <i>Performs the necessary operations to comply with disposition criteria.</i>
4.7.1.5.1.3	<b>Package Pu/HEU for Disposition</b> <i>Provides the necessary packaging to allow for the Pu/HEU material disposition.</i>

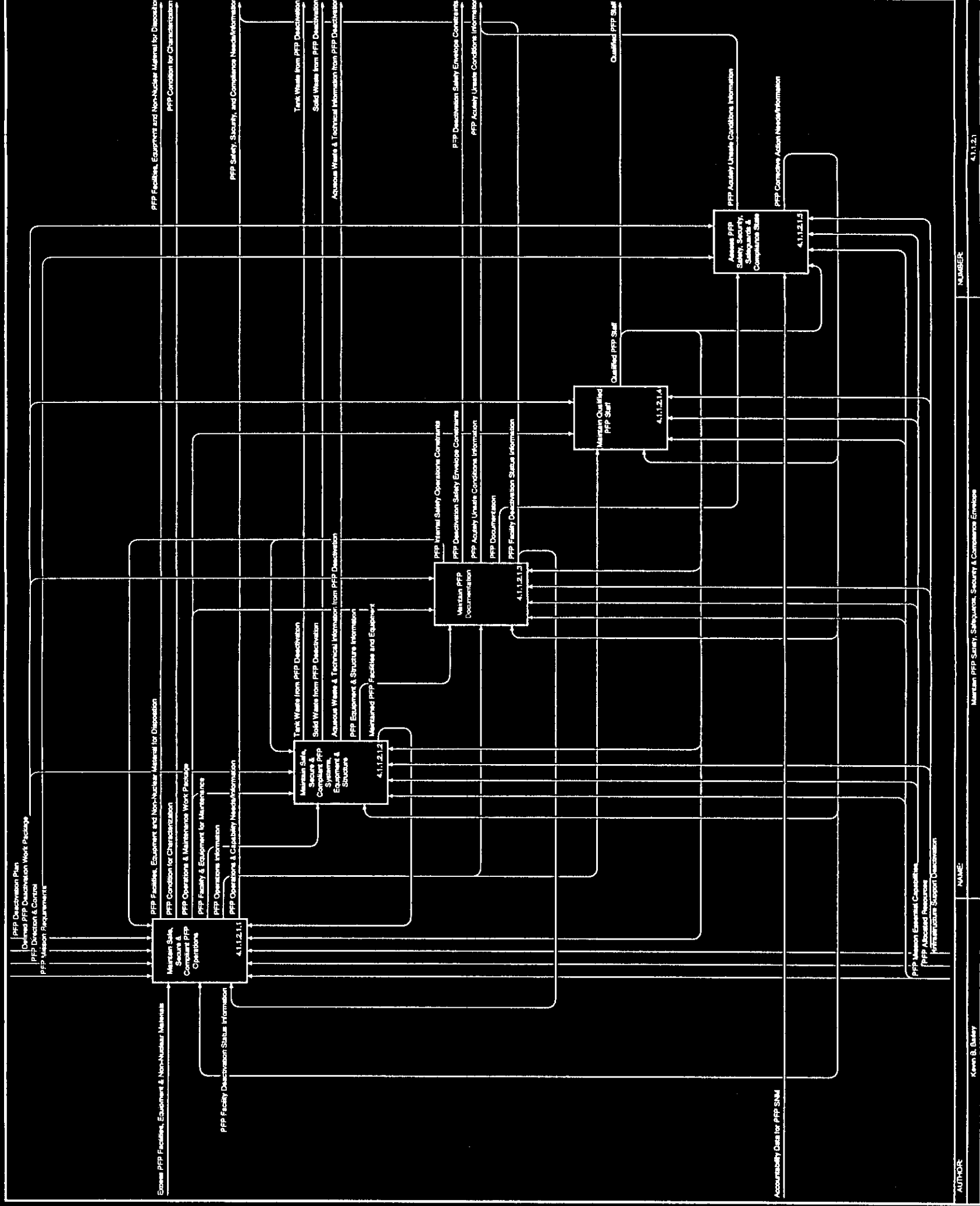
## [4.7.1] Store, Treat, &amp; Disposition Pu/HEU Materials

<b>Function</b>	<b>Definitions</b>
4.7.1.5.2	<b>Transfer Dispositioned Pu/HEU Materials</b> <i>Obtains and loads the shipping containers and transporter. It prepares the necessary shipping documentation, makes the necessary notifications, and ships the material.</i>
4.7.1.5.2.1	<b>Obtain/Load Pu/HEU Shipping Container and Transporter</b> <i>Arranges for the necessary transporter and shipping containers, loads the shipping containers, and places the shipping containers on the transporter to transfer the materials to disposition.</i>
4.7.1.5.2.2	<b>Document and Notify Pu/HEU Shipment</b> <i>Performs the necessary notification prior to the material shipment and prepares the necessary shipping documentation.</i>
4.7.1.5.2.3	<b>Move Pu/HEU Shipment</b> <i>Transfers the Pu/HEU materials to disposition.</i>
4.7.1.5.3	<b>Dispose of Incidental Pu/HEU Waste (Disposition)</b> <i>Arranges for the disposal of solid, liquid and effluent wastes generated during the treatment and dispositioning of the materials.</i>

ADDENDUM 5 - INTERFACE DIAGRAMS - Deactivate



[4.1.1.2.1] Maintain PFP Safety, Safeguards, Security & Compliance Envelope



AUTHOR: Kevin B. Bailey

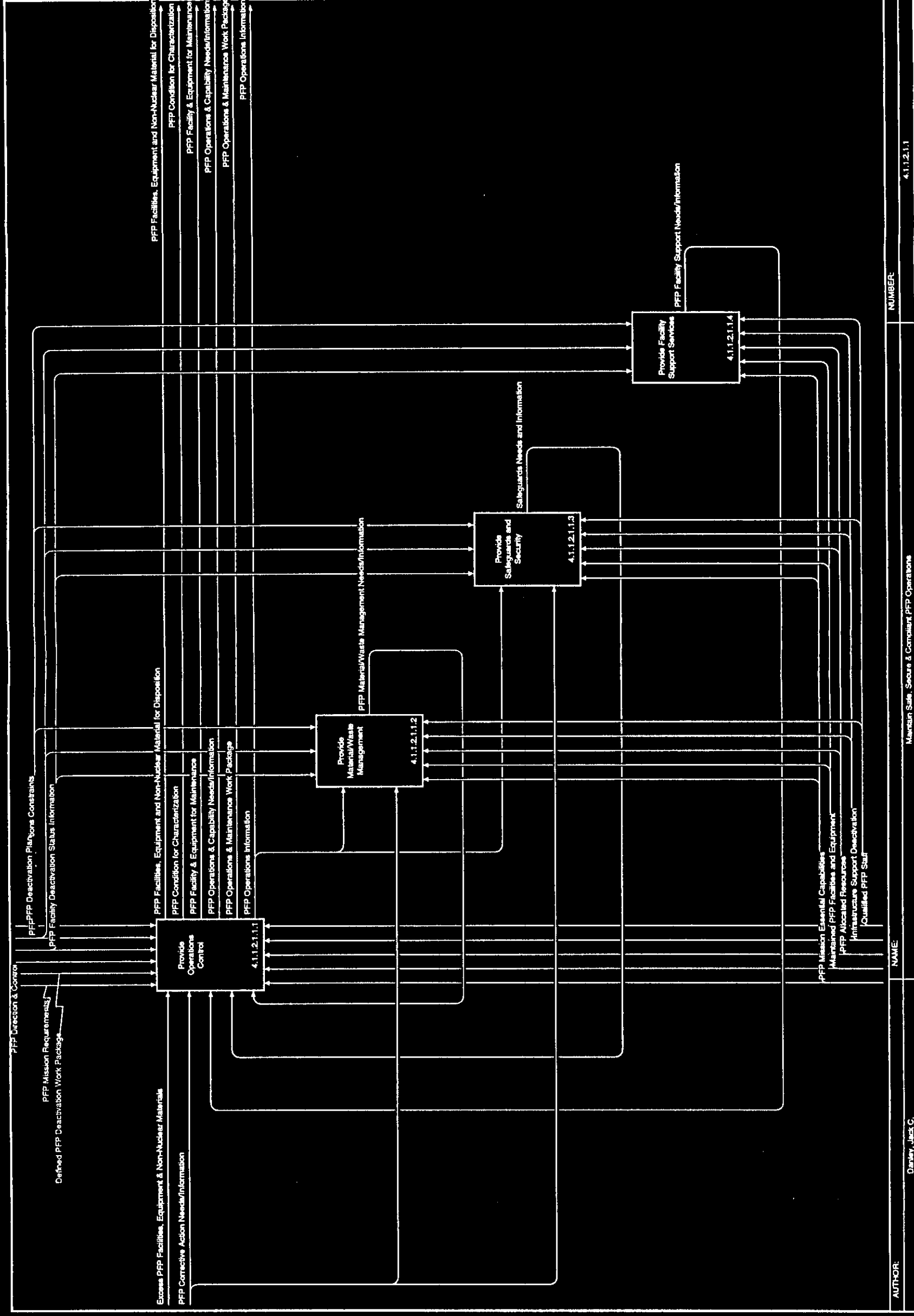
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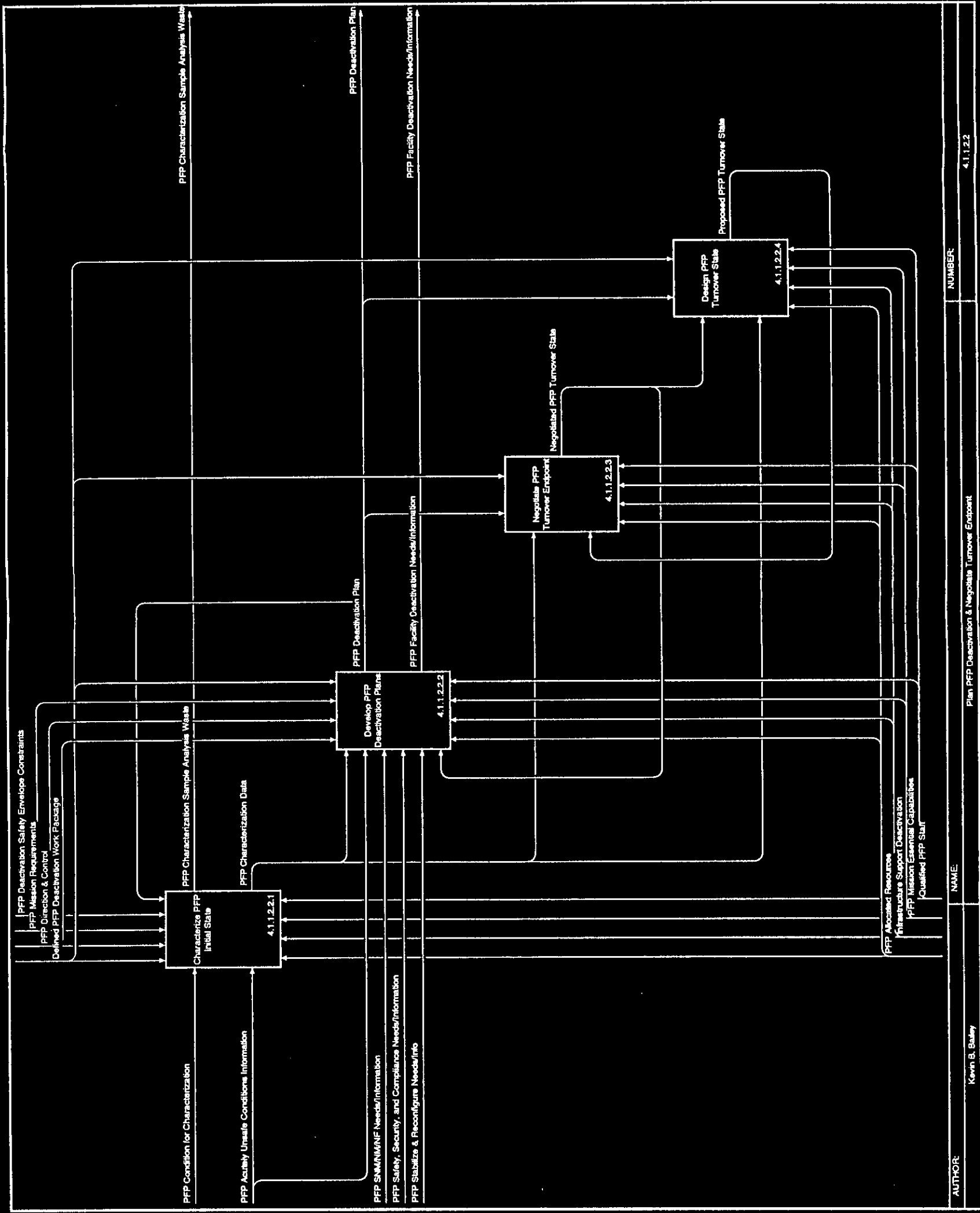
Maintain PFP Safety, Safeguards, Security & Compliance Envelope

NUMBER: 4.1.1.2.1

IDEF0 Diagram

[4.1.1.2.1.1] Maintain Safe, Secure & Compliant PFP Operations



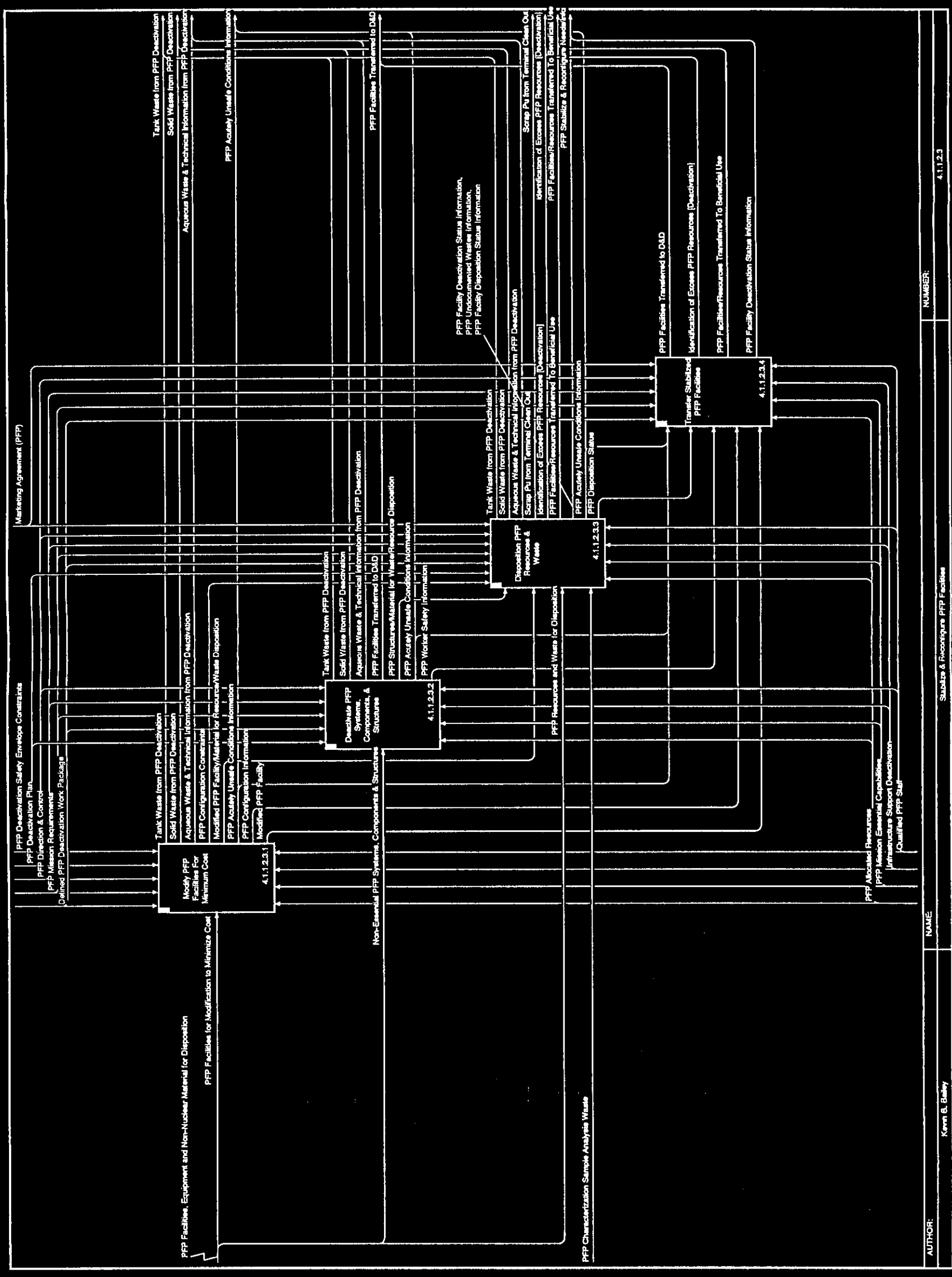


AUTHOR:  
Kevin B. Bailey

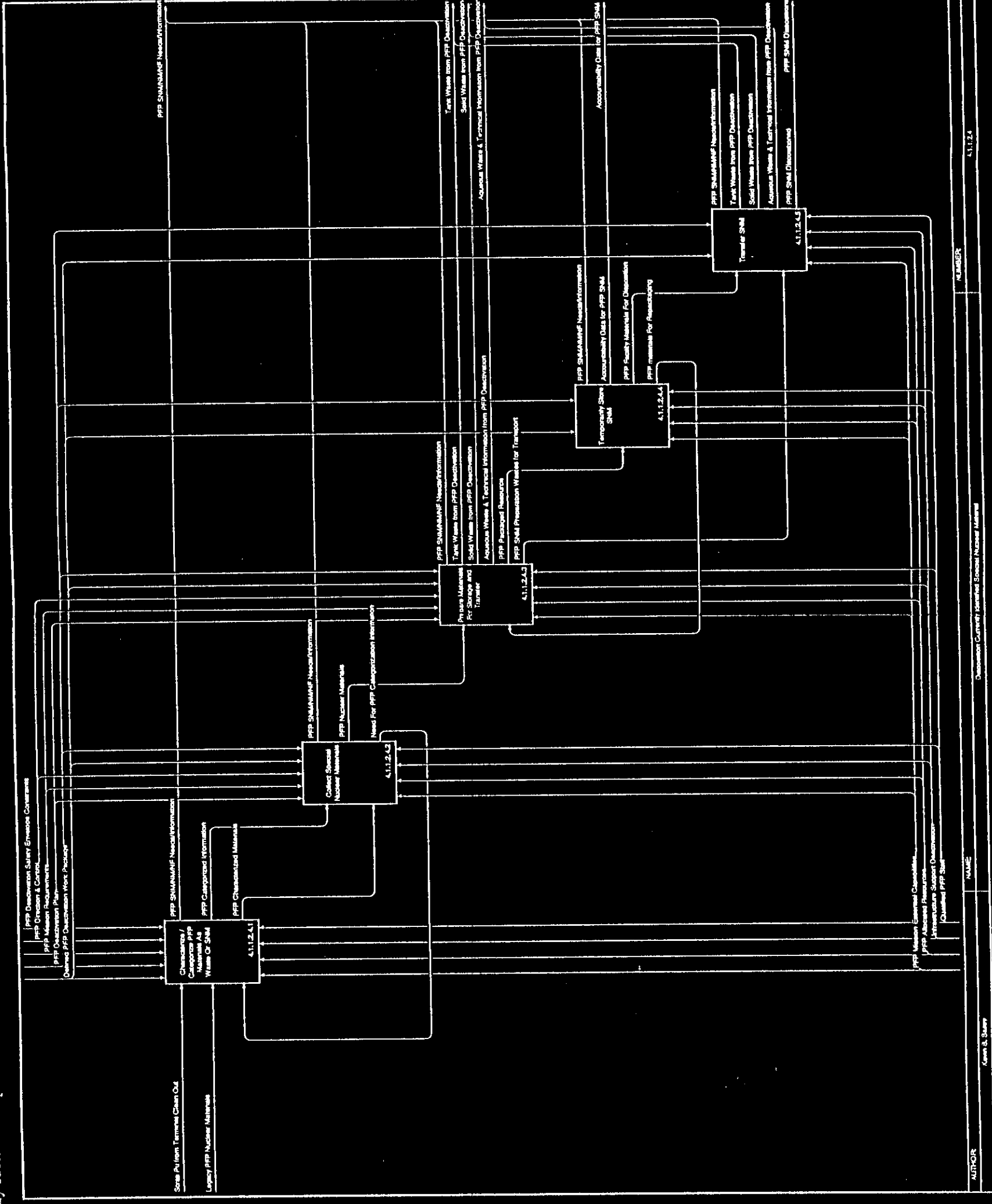
NAME:  
Plan PFP Deactivation & Negotiate Turnover Endpoint

NUMBER:  
4.1.1.2.2

IDEF0 Diagram  
[4.1.1.2.3] Stabilize & Reconfigure PFP Facilities

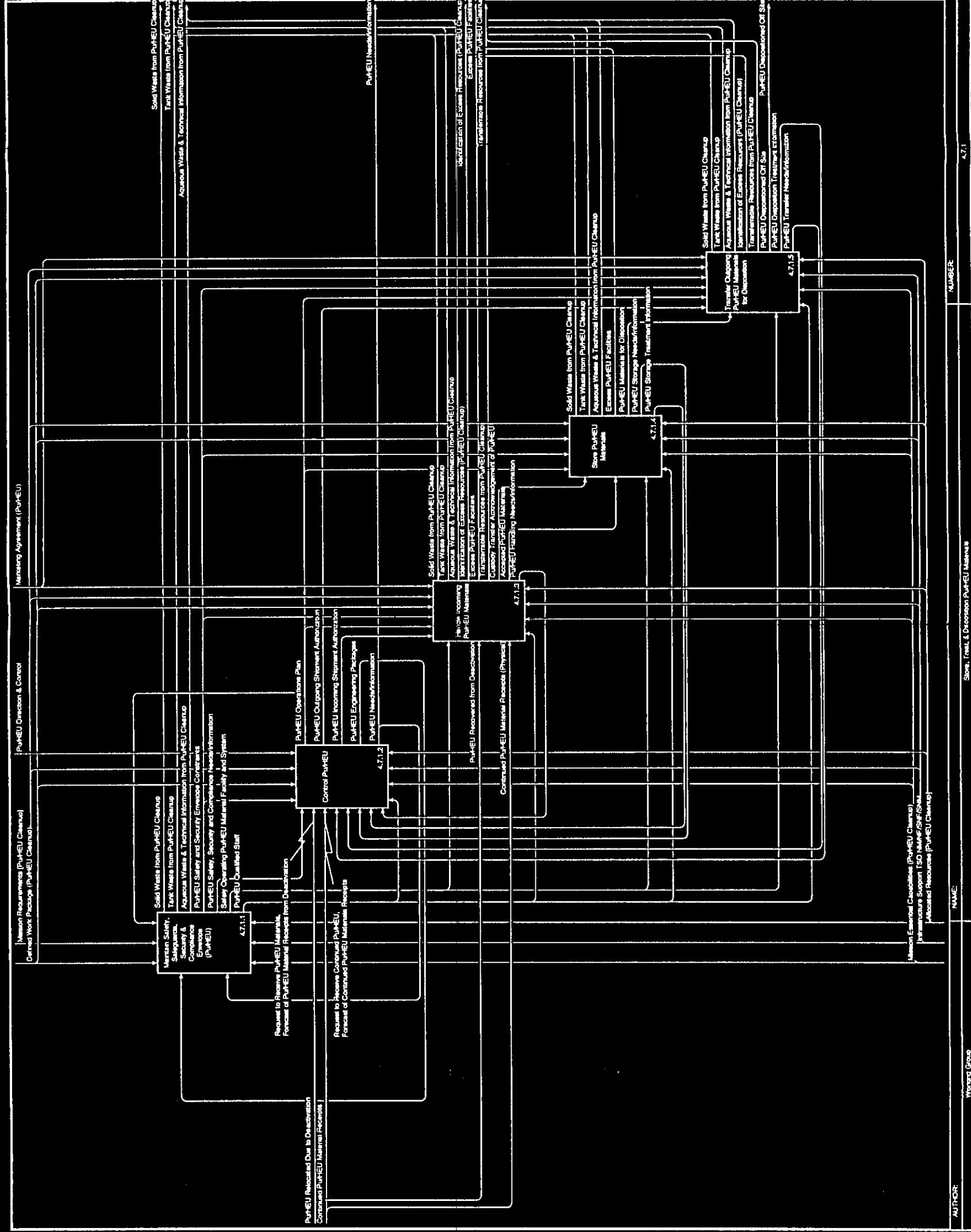


IDEF0 Diagram  
[4.1.1.2.4] Disposition Currently Identified Special Nuclear Material

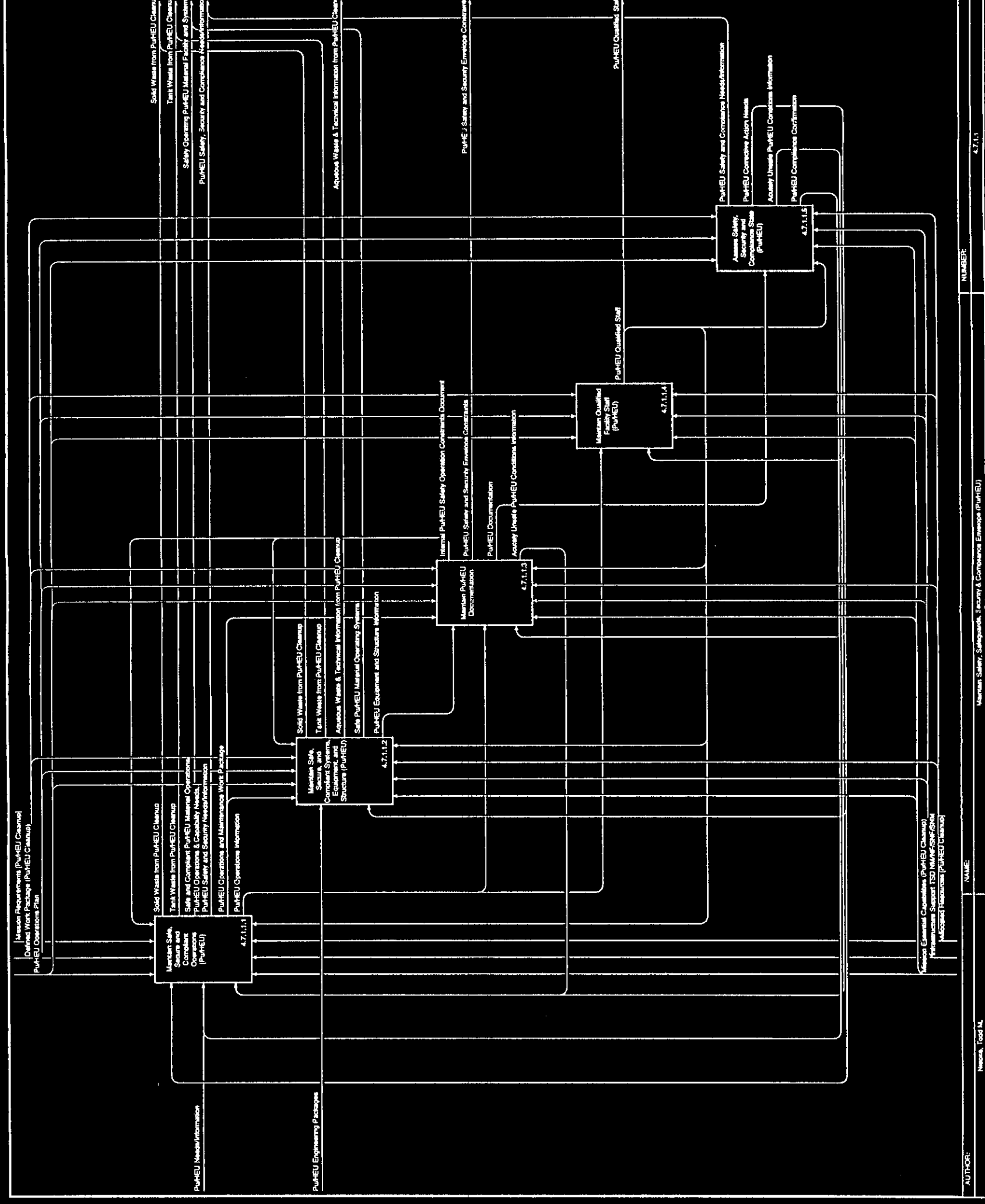


ADDENDUM 6 - INTERFACE DIAGRAMS - Storage

IDEF0 Diagram  
[4.7.1] Store, Treat, & Disposition Pu/HEU Materials

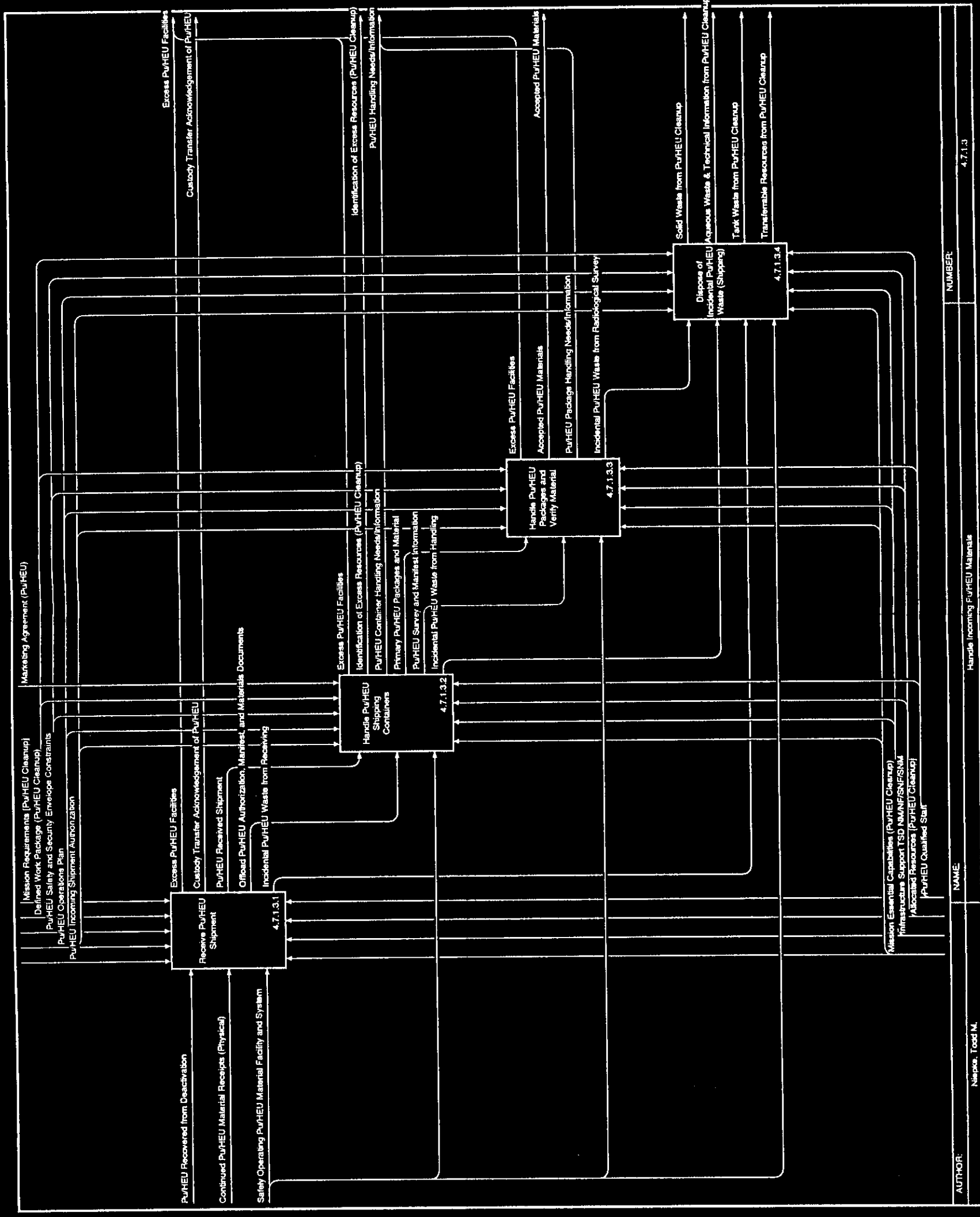


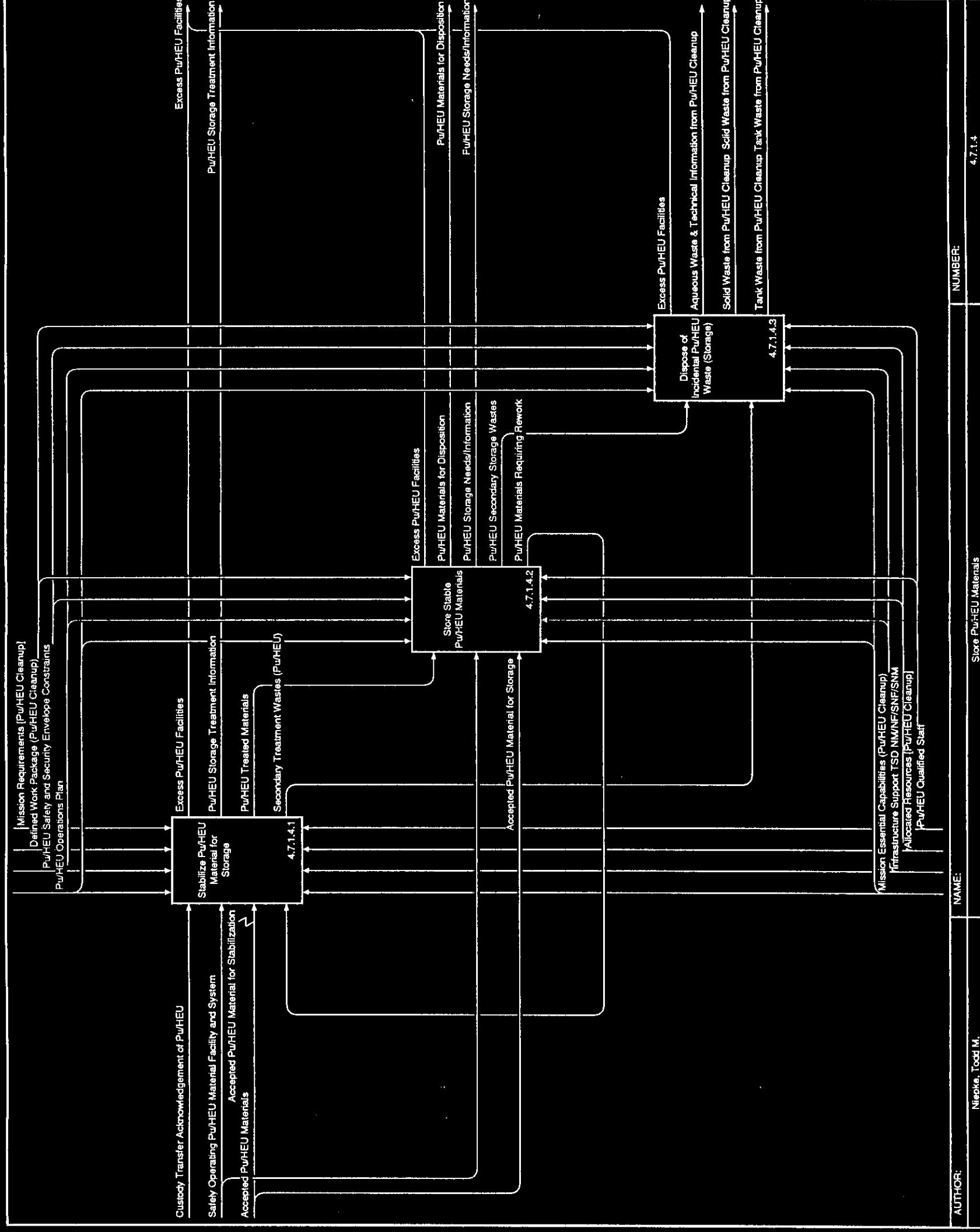
IDEF0 Diagram  
 [4.7.1.1] Maintain Safety, Security & Compliance Envelope (Pu/H/EU)



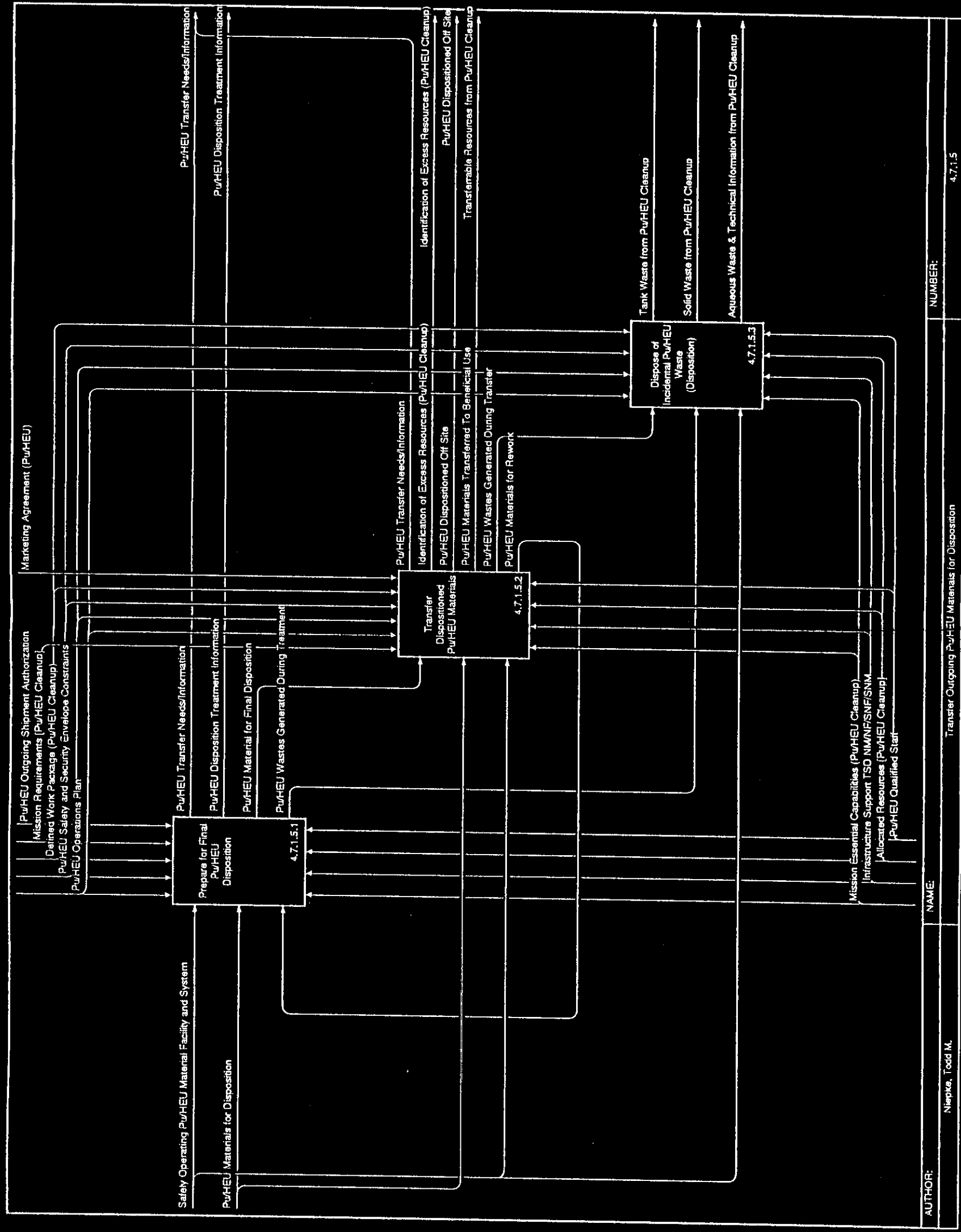


IDEFO Diagram  
[4.7.1.3] Handle Incoming Pu/HEU Materials





AUTHOR:	NAME:	NUMBER:
Niepke, Todd M.	Store Pu/HEU Materials	4.7.1.4



AUTHOR:	NAME:	NUMBER:
Niepka, Todd M.	Transfer Outgoing Pu/HEU Materials for Disposition	4.7.1.5

## **ADDENDUM 7 - INTERFACE DEFINITIONS - Deactivate**

<b>Interface</b>	<b>Constituents</b>
<b>Accountability Data for PFP SNM</b> Accountability documentation of SNM temporarily stored in the PFP complex.	
<b>Aqueous Waste &amp; Technical Information from PFP Deactivation</b>	<ul style="list-style-type: none"> <li>• Plutonium Finishing Plant wastewater</li> </ul>
<b>Defined PFP Deactivation Work Package</b> Documentation describing the project specific work; work authorization, description, procedures, resource limits and schedules.	
<b>Excess PFP Facilities, Equipment &amp; Non-Nuclear Materials</b> PFP facilities, including all equipment and materiel associated with those facilities, that supported the Hanford production mission and are not needed to support the cleanup mission	<ul style="list-style-type: none"> <li>• Excess PFP SNM Storage Facilities</li> </ul>
<b>Identification of Excess PFP Resources [Deactivation]</b> Identification of excess PFP resources consisting of excess inventory information.	
<b>Infrastructure Support Deactivation</b>	
<b>Legacy PFP Nuclear Materials</b>	
<b>Maintained PFP Facilities and Equipment</b> Maintained facilities, systems and equipment returned to operational status.	
<b>Marketing Agreement (PFP)</b> Marketing Agreements consisting of identification of resources to be used in building the local economy which essentially causes transferrable items to be removed from the "disposal" list to the transfer list.	
<b>Modified PFP Facility</b> A PFP facility that has been placed into a configuration that requires minimal cost, maintenance, surveillance, and security.	
<b>Modified PFP Facility/Material for Resource/Waste Disposition</b>	
<b>Need For PFP Categorization Information</b> Occurs when collected materials from PFP do not have proper identification documentation.	
<b>Negotiated PFP Turnover State</b> Turnover is the point when turned over to D & D operations after negotiations are complete for dormant state. Dormant state is when we can lower cost of people and operation resources, equals turnover state in final, minimum surveillance.	
<b>Non-Essential PFP Systems, Components &amp; Structures</b>	
<b>PFP Acutely Unsafe Conditions Information</b> Nuclear or chemically unsafe PFP conditions and information, does not include OSHA, for example. These are conditions detected during the cleanup operations which need to be immediately fed back to the program management function for consideration which may result in new direction & control, defined work packages, and/or mission requirements.	

<b>Interface</b>	<b>Constituents</b>
<p><b>PFP Allocated Resources</b> Financial resources authorized to the implementing organization for completion of the function.</p>	
<p><b>PFP Categorized Information</b> Information on what type or category material fits in (ie. waste, SNM, NM, NF, potential product, etc).</p>	
<p><b>PFP Characterization Data</b> Information collected from facility walkdowns, sample analysis and documentation review about the actual physical configuration of the facility, status of process and other facility systems, material contents, and contamination areas and levels.</p>	
<p><b>PFP Characterization Sample Analysis Waste</b> Waste generated by analysis of PFP characterization samples. Includes unused portion of sample.</p>	
<p><b>PFP Characterized Materials</b> Material in the PFP facility that has been categorized.</p>	
<p><b>PFP Condition for Characterization</b> Condition in a PFP facility requiring characterization. Includes available documentation describing condition. Condition may involve sampling for characterization, e.g. a section of exhaust plenum duct work could be exposed to sample extent of Pu contamination.</p>	
<p><b>PFP Configuration Constraints</b> Constraints placed on the disposition of resources and waste by modifications to the PFP facility to minimize cost, maintenance, surveillance, and security.</p>	
<p><b>PFP Configuration Information</b> Status on how the PFP facility should be modified to minimize cost, maintenance, surveillance, and security.</p>	
<p><b>PFP Corrective Action Needs/Information</b> Actions that must be taken to ensure the safety and compliance envelop of the facility is maintained.</p>	
<p><b>PFP Deactivation Plan</b> Plan containing the requirements defined in the turnover specification that must be met before D&amp;D will accept the facility. Certain systems may need to be deactivated. Contaminated areas will need stabilization. Materials and equipment may need to be removed, ie. ER.</p>	
<p><b>PFP Deactivation Safety Envelope Constraints</b> Constraints required to maintain the PFP safety and compliance envelope. Examples include HVAC system requirements, configuration, electrical system requirements/configuration, instrument requirements/configuration, material storage configuration/location, fire alarm system, etc.</p>	

<b>Interface</b>	<b>Constituents</b>
<b>PFP Direction &amp; Control</b> <i>Project specific management guidance based on the status of implementation of the Defined Work Packages</i>	
<b>PFP Disposition Status</b> <i>Status on how complete the physical disposition of PFP resources is.</i>	
<b>PFP Documentation</b> <i>NFPA, OSHA, and other safety and compliance paperwork for type 3 and type 4. facilities. For type 1 and type 2 facilities, SAR's and OSR's are also included.</i>	
<b>PFP Equipment &amp; Structure Information</b> <i>PFP equipment &amp; structure status, compliance state, and design &amp; configuration information.</i>	
<b>PFP Facilities Transferred to D&amp;D</b>	
<b>PFP Facilities for Modification to Minimize Cost</b>	
<b>PFP Facilities, Equipment and Non-Nuclear Material for Disposition</b> <i>PFP facilities and equipment made available for modification to minimize cost; non-essential systems, components and structures for deactivation, and materials to be dispositioned as a resource or waste.</i>	<ul style="list-style-type: none"> <li>• Non-Essential PFP Systems, Components &amp; Structures</li> <li>• PFP Facilities for Modification to Minimize Cost</li> <li>• PFP Resources and Waste for Disposition</li> </ul>
<b>PFP Facilities/Resources Transferred To Beneficial Use</b> <i>Physical and intellectual resources; e.g., facilities, equipment, materials, infrastructure, land, technology, scientific data, personnel expertise; that are developed during facility deactivation and can be transferred to other areas in the public or private domains</i>	
<b>PFP Facility &amp; Equipment for Maintenance</b>	
<b>PFP Facility Deactivation Needs/Information</b>	
<b>PFP Facility Deactivation Status Information</b> <i>Information on how complete the physical deactivation of the PFP facility is.</i>	
<b>PFP Facility Disposition Status Information</b>	
<b>PFP Facility Materials For Disposition</b> <i>Includes all materials inside the PFP facility requiring disposition. Equipment is not included. In addition, type 3 facilities have hazardous material included. Type 2 facilities have radioactive materials and possibly hazardous materials and type 1 facilities have SNM, NM, NF and possibly radioactive and hazardous materials.</i>	
<b>PFP Facility Support Needs/Information</b>	
<b>PFP Internal Safety Operations Constraints</b> <i>PFP safety constraints derived from safety analysis reports, radiological safety procedures, occupational safety codes and standards, DOE safety orders, etc.</i>	
<b>PFP Material/Waste Management Needs/Information</b>	

<b>Interface</b>	<b>Constituents</b>
<b>PFP Mission Essential Capabilities</b> <i>Mission essential capabilities in the form of all physical resources, manpower, technology, infrastructure, expertise required by all the other functions to conduct their submissions.</i>	
<b>PFP Mission Requirements</b> <i>Externally- and internally-imposed product specifications and process constraints derived from all applicable laws, directives, policies, standards, agreements with stakeholders, engineering studies, safety analyses, and findings from surveillances and audits, applicable to deactivation of PFP.</i>	
<b>PFP Nuclear Materials</b> <i>Accumulated SNM/NM/NF.</i>	
<b>PFP Operations &amp; Capability Needs/Information</b> <i>Capabilities and needs discovered while operating the PFP system.</i>	
<b>PFP Operations &amp; Maintenance Work Package</b> <i>Work packages that identify operating and maintenance activities required to ensure that the PFP facility safety and compliance envelope and documentation are maintained.</i>	<ul style="list-style-type: none"> <li>• B Plant Operations &amp; Maintenance Work Package</li> </ul>
<b>PFP Operations Information</b> <i>Consists of information on PFP staffing needs, control information, facility status, required reports, people &amp; resource allocation.</i>	
<b>PFP Packaged Resource</b> <i>Materials that will be transported (because a beneficial use exists) or materials that will be stored.</i>	
<b>PFP Resources and Waste for Disposition</b>	
<b>PFP SNM Dispositioned</b> <i>SNM that has been transported from the PFP facility during deactivation activities to an on-site disposal location in order to place that facility in a deactivated state.</i>	
<b>PFP SNM Preparation Wastes for Transport</b>	
<b>PFP SNM/NM/NF Needs/Information</b> <i>Information and capability needs identified during performance of PFP SNM/NM/NF handling, treatment, storage, and/or disposition activities, provided to program management functions to support decision-making essential to managing the SNM/NM/NF material processes.</i>	
<b>PFP Safety, Security, and Compliance Needs/Information</b>	<ul style="list-style-type: none"> <li>• PFP Facility Deactivation Status Information</li> <li>• PFP Operations &amp; Capability Needs/Information</li> </ul>
<b>PFP Stabilize &amp; Reconfigure Needs/Info</b>	<ul style="list-style-type: none"> <li>• PFP Facility Deactivation Status Information</li> <li>• PFP Facility Disposition Status Information</li> <li>• PFP Undocumented Wastes Information</li> </ul>
<b>PFP Structures/Material for Waste/Resource Disposition</b>	

<b>Interface</b>	<b>Constituents</b>
<p><b>PFP Undocumented Wastes Information</b>  <i>While doing everyday PFP operations we come upon waste previously undocumented. Information must be fed back to the management function.</i></p> <ul style="list-style-type: none"> <li>• liquid tank waste</li> <li>• liquid non-tank waste</li> <li>• solid waste</li> <li>• landfill</li> <li>• airborne waste</li> <li>• non-defined waste</li> </ul>	
<p><b>PFP Worker Safety Information</b>  <i>PFP facility information on deactivated utilities, deactivated process systems, and other deactivated PFP facility systems provided to ensure worker safety.</i></p>	
<p><b>PFP materials For Repackaging</b>  <i>Any PFP materials that are not properly packaged for transport.</i></p>	
<p><b>Proposed PFP Turnover State</b>  <i>The turnover endpoint recommended by PFP facility personnel.</i></p>	
<p><b>Qualified PFP Staff</b>  <i>PFP staff that has had the necessary training and testing to perform the facility deactivation and material disposition activities in a safe and compliant manner.</i></p>	
<p><b>Safeguards Needs and Information</b></p>	
<p><b>Scrap Pu from Terminal Clean Out</b></p>	
<p><b>Solid Waste from PFP Deactivation</b></p>	
<p><b>Tank Waste from PFP Deactivation</b></p>	

## **ADDENDUM 8 - INTERFACE DEFINITIONS - Storage**

[4.7.1] Store, Treat, & Disposition Pu/HEU Materials

<b>Interface</b>	<b>Constituents</b>
<b>Accepted Pu/HEU Material for Stabilization</b>	
<b>Accepted Pu/HEU Material for Storage</b>	
<b>Accepted Pu/HEU Materials</b> <i>Materials that meet the acceptance criteria and their form, type, consistency, and quantity have been verified.</i>	<ul style="list-style-type: none"> <li>• Accepted Pu/HEU Material for Stabilization</li> <li>• Accepted Pu/HEU Material for Storage</li> </ul>
<b>Acutely Unsafe Pu/HEU Conditions Information</b> <i>Nuclear or chemically unsafe conditions and information, does not include OSHA, for example. These are conditions detected during the cleanup operations which need to be immediately fed back to the program management function for consideration which may result in new direction &amp; control, defined work packages, and/or mission requirements.</i>	
<b>Allocated Resources [Pu/HEU Cleanup]</b> <i>Financial resources authorized to the implementing organization for completion of the function</i>	
<b>Aqueous Waste &amp; Technical Information from Pu/HEU Cleanup</b> <i>All liquid waste that meets the acceptance criteria of the Manage Aqueous Wastes function. Includes liquid wastes with low level radioactive and hazardous contamination levels.</i>	
<b>Continued Pu/HEU Material Receipts</b>	<ul style="list-style-type: none"> <li>• Continued Pu/HEU Material Receipts (Physical)</li> <li>• Forecast of Continued Pu/HEU Materials Receipts</li> <li>• Request to Receive Continued Pu/HEU</li> </ul>
<b>Continued Pu/HEU Material Receipts (Physical)</b> <i>The actual material involved in the continued offsite material receipts.</i>	
<b>Custody Transfer Acknowledgement of Pu/HEU</b> <i>An acknowledgement of custody transfer of Pu/Heu.</i>	
<b>Defined Work Package (Pu/HEU Cleanup)</b> <i>Material specific project level documentation describing the specific work: work authorization, procedures, resource limits and schedules.</i>	
<b>Definitive Pu/HEU Disposition</b> <i>The necessary handling, treatment, storage, and/or disposition actions for a specific shipment of Pu/Heu materials.</i>	
<b>Excess Pu/HEU Facilities</b> <i>The excess facilities and equipment associated with the storage, treatment, and disposition of Pu/Heu materials.</i>	
<b>Forecast of Continued Pu/HEU Materials Receipts</b> <i>Forecast information of continued Pu/Heu material receipts.</i>	
<b>Forecast of Pu/HEU Material Receipts from Deactivation</b> <i>Forecast information of on-site Pu/Heu material receipts.</i>	
<b>Identification of Excess Resources (Pu/HEU Cleanup)</b> <i>Identification of excess resources which consists of excess inventory information</i>	

[4.7.1] Store, Treat, & Disposition Pu/HEU Materials

<b>Interface</b>	<b>Constituents</b>
<b>Incidental Pu/HEU Waste from Handling</b> <i>Solid, aqueous, and tank waste generated during the handling of shipping containers.</i>	
<b>Incidental Pu/HEU Waste from Radiological Survey</b> <i>Solid, aqueous, and tank waste generated during radiological surveys and analysis of the Pu/Heu material packages.</i>	
<b>Incidental Pu/HEU Waste from Receiving</b> <i>Solid, aqueous, and tank wastes generated during the receipt of Pu/Heu material shipments.</i>	
<b>Infrastructure Support TSD NM/NF/SNF/SNM</b>	
<b>Internal Pu/HEU Safety Operation Constraints Document</b> <i>Document defining Pu/Heu safety and compliant operating constraints.</i>	
<b>Marketing Agreement (Pu/HEU)</b> <i>Marketing Agreements consisting of identification of resources to be used in building the economy which essentially causes transferrable items to be removed from the "disposal" list to the transfer list.</i>	
<b>Mission Essential Capabilities (Pu/HEU Cleanup)</b> <i>Mission essential capabilities in the form of all physical resources, manpower, technology, infrastructure, expertise required by all the other functions to conduct the "Pu/HEU Cleanup" mission.</i>	
<b>Mission Requirements [Pu/HEU Cleanup]</b> <i>Externally- and internally-imposed product specifications and process constraints derived from all applicable laws, directives, policies, standards, agreements with stakeholders, engineering studies, safety analyses, and findings from surveillances and audits.</i>	
<b>Offload Pu/HEU Authorization, Manifest, and Materials Documents</b> <i>All documentation associated with a specific material shipment.</i>	
<b>Primary Pu/HEU Packages and Material</b> <i>The Pu/Heu material and the associated primary and possible secondary packaging (does not include the shipping container).</i>	
<b>Pu/HEU Acceptance Criteria</b> <i>Criteria necessary to accept material based on the existing capability to handle, treat, store, and dispose of the material.</i>	
<b>Pu/HEU Accepted Requests</b> <i>Shipping requests that have been accepted based upon the facility acceptance capability.</i>	
<b>Pu/HEU Capabilities and Receipts Forecasts</b> <i>Forecast information of expected Pu/HEU handling, storage, treatment, and disposition activities. Information includes the existing and forecast storage, treatment and disposition of nuclear materials.</i>	
<b>Pu/HEU Compliance Confirmation</b> <i>Acknowledgement that current facility status and operations meet all safety and compliance criteria for Pu/Heu.</i>	

[4.7.1] Store, Treat, & Disposition Pu/HEU Materials

<b>Interface</b>	<b>Constituents</b>
<b>Pu/HEU Container Handling Needs/Information</b> <i>Information on the material handling status and new capability needs.</i>	
<b>Pu/HEU Corrective Action Needs</b> <i>Information on actions required to bring the facility and facility operations back to a safe and compliant state.</i>	
<b>Pu/HEU Direction &amp; Control</b> <i>Management guidance based on the status of implementation of the Defined Work Packages</i>	• Request for Final Disposition Shipment (Pu/HEU)
<b>Pu/HEU Disposition Treatment Information</b> <i>Information on the existing facility disposition treatment capabilities.</i>	
<b>Pu/HEU Dispositioned Off Site</b> <i>SNM, NM, and NF shipped off site.</i>	
<b>Pu/HEU Documentation</b> <i>Pu/Heu safety and compliance documentation that is provided for internal and external safety and compliance assessments.</i>	
<b>Pu/HEU Engineering Packages</b>	
<b>Pu/HEU Equipment and Structure Information</b> <i>Facility, equipment and maintenance information that must be maintained to ensure that adequate safety and compliance documentation exists.</i>	
<b>Pu/HEU Handling Needs/Information</b> <i>Information on the material handling status and new capability needs.</i>	• Pu/HEU Container Handling Needs/Information • Pu/HEU Package Handling Needs/Information
<b>Pu/HEU Incoming Shipment Authorization</b> <i>The official paperwork giving the authorization or acceptance of an incoming Pu/HEU material shipment request.</i>	
<b>Pu/HEU Material for Final Disposition</b>	
<b>Pu/HEU Materials Requiring Rework</b> <i>Materials in storage that need further treatment to ensure continued storage in safe and compliant manner.</i>	
<b>Pu/HEU Materials Transferred To Beneficial Use</b> <i>Nuclear material that is recovered during facility deactivation and transferred to the public or private domains.</i>	
<b>Pu/HEU Materials for Disposition</b> <i>Pu/Heu materials that are being transfer from storage for disposition. These materials may require further treatment prior to transfer to final disposition.</i>	
<b>Pu/HEU Materials for Rework</b> <i>Pu/Heu materials requiring further treatment prior to their transfer to final disposition.</i>	
<b>Pu/HEU Needs/Information</b>	• Pu/HEU Compliance Confirmation
<b>Pu/HEU Operations &amp; Capability Needs</b> <i>Pu/Heu capabilities and needs discovered while operating the system.</i>	

[4.7.1] Store, Treat, & Disposition Pu/HEU Materials

<b>Interface</b>	<b>Constituents</b>
<p><b>Pu/HEU Operations Information</b>  <i>Operations information that must be maintained to ensure adequate safety and compliance documentation exists. This information is also used to assist in the development of facility staff training.</i></p>	
<p><b>Pu/HEU Operations Plan</b>  <i>The plans that define and govern all Pu/Heu storage, handling, treatment, and disposition operations.</i></p>	
<p><b>Pu/HEU Operations and Maintenance Work Package</b>  <i>Work packages that define facility process and infrastructure maintenance activities.</i></p>	
<p><b>Pu/HEU Outgoing Shipment Authorization</b>  <i>Authorization to proceed with outgoing Pu/Heu shipments.</i></p>	
<p><b>Pu/HEU Package Handling Needs/Information</b>  <i>Information on the status of Pu/Heu package handling and new package handling capability needs.</i></p>	
<p><b>Pu/HEU Qualified Staff</b>  <i>A fully trained, qualified, and certified (as required) facility work staff.</i></p>	
<p><b>Pu/HEU Received Shipment</b>  <i>Pu/Heu material shipment accepted for handling, treatment, storage, and/or disposition.</i></p>	
<p><b>Pu/HEU Recovered from Deactivation</b>  <i>Pu/Heu removed from a facility in order to place it in a deactivated state.</i></p>	
<p><b>Pu/HEU Relocated Due to Deactivation</b></p>	<ul style="list-style-type: none"> <li>• Forecast of Pu/HEU Material Receipts from Deactivation</li> <li>• Pu/HEU Recovered from Deactivation</li> <li>• Request to Receive Pu/HEU Materials</li> </ul>
<p><b>Pu/HEU Safety and Compliance Needs/Information</b>  <i>Information on Pu/Heu safety and compliance status and new safety and compliance capability needs.</i></p>	
<p><b>Pu/HEU Safety and Security Envelope Constraints</b>  <i>Constraints placed on the receipt, handling, storage, treatment, and disposition of Pu/Heu material, facility operations and maintenance activities to ensure safety and compliance are maintained.</i></p>	
<p><b>Pu/HEU Safety and Security Needs/Information</b>  <i>Information on Pu/Heu safety and security status and new safety and security capability needs.</i></p>	
<p><b>Pu/HEU Safety, Security and Compliance Needs/Information</b>  <i>Information on Pu/Heu safety, security, and compliance status and new safety and security capability needs.</i></p>	<ul style="list-style-type: none"> <li>• Pu/HEU Operations &amp; Capability Needs</li> <li>• Pu/HEU Safety and Compliance Needs/Information</li> <li>• Pu/HEU Safety and Security Needs/Information</li> </ul>

[4.7.1] Store, Treat, & Disposition Pu/HEU Materials

<b>Interface</b>	<b>Constituents</b>
<b>Pu/HEU Secondary Storage Wastes</b> <i>Incidental solid, aqueous, or tank waste generated during the storage of Pu/Heu materials.</i>	
<b>Pu/HEU Storage Needs/Information</b> <i>Information on the status of Pu/Heu material storage and new storage capability needs.</i>	
<b>Pu/HEU Storage Treatment Information</b> <i>Information on the existing facility storage treatment capabilities and Pu/Heu material storage capabilities and status.</i>	
<b>Pu/HEU Survey and Manifest Information</b> <i>Radiological release of the Pu/Heu packaging and the associated Pu/Heu material manifest information.</i>	
<b>Pu/HEU Transfer Needs/Information</b> <i>Information on the status of Pu/Heu transfers and new transfer capability needs.</i>	
<b>Pu/HEU Treated Materials</b> <i>Pu/Heu materials that have been treated to allow for safe, stable, and compliant storage.</i>	
<b>Pu/HEU Wastes Generated During Transfer</b> <i>Incidental solid, aqueous, and tank waste generated during the transfer of Pu/Heu materials to final disposition.</i>	
<b>Pu/HEU Wastes Generated During Treatment</b> <i>Incidental solid, aqueous, and tank waste generated during Pu/Heu material treatment prior to transfer for final disposition.</i>	
<b>Request for Final Disposition Shipment (Pu/HEU)</b> <i>Programmatic authorization to initiate Pu/HEU material transfer to final disposition.</i>	
<b>Request to Receive Continued Pu/HEU</b> <i>Requests from offsite generators to send Pu/Heu materials to Hanford for treatment, storage, and/or disposition.</i>	
<b>Request to Receive Pu/HEU Materials</b> <i>Requests from onsite generators to send Pu/Heu materials for treatment, storage, and/or disposition.</i>	
<b>Safe Pu/HEU Material Operating Systems</b> <i>Maintained, compliant handling facilities, systems, and components for storage, treatment and disposition of nuclear materials.</i>	
<b>Safe and Compliant Pu/HEU Material Operations</b>	
<b>Safely Operating Pu/HEU Material Facility and System</b>	<ul style="list-style-type: none"> <li>• Safe Pu/HEU Material Operating Systems</li> <li>• Safe and Compliant Pu/HEU Material Operations</li> </ul>
<b>Secondary Treatment Wastes (Pu/HEU)</b> <i>Incidental solid, aqueous, and tank wastes generated during the treatments of Pu/HEU material to prepare it for storage.</i>	

[4.7.1] Store, Treat, & Disposition Pu/HEU Materials

<b>Interface</b>	<b>Constituents</b>
<b>Solid Waste from Pu/HEU Cleanup</b> <i>Radioactive or hazardous material or solid objects from the cleanup of Pu/Heu materials.</i>	
<b>Tank Waste from Pu/HEU Cleanup</b> <i>Tank waste resulting from the cleanup of Pu/Heu containing a high level of radioactive, hazardous, or mixed waste.</i>	
<b>Transferrable Resources from Pu/HEU Cleanup</b>	<ul style="list-style-type: none"> <li>• Pu/HEU Materials Transferred To Beneficial Use</li> </ul>