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Department of Energy
National Nuclear Security Administration
Washington, DC 20585

April 1, 2003

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DNE SAFETY BOARD

The Honorable John T. Conway
Chairman
Defense Nuclear Facilities Safety Board
625 Indiana Avenue, NW.
Suite 700
Washington, D.C. 20004-2901

Dear Mr. Chairman:

The Defense Nuclear Facilities Safety Board (Board) letter of December 27, 2002, noted that, despite improvements to the design criteria document and the process for identification of safety control, persistent weaknesses need to be addressed to ensure an adequate safety basis for the operation of the Highly Enriched Uranium Materials Facility (HEUMF). I am committed to ensuring that the HEUMF is designed with an appropriate safety basis. My letter dated February 20, 2003, reported that the HEUMF Preliminary Documented Safety Analysis (PDSA) process has resulted in a change in the control set and that the isolation holdup approach, which was identified in the staff report as a concern, is no longer being considered. The interim response also reported the establishment by BWXT Y-12 of a project team that will develop a plan to address concerns with the types and physical characteristics of materials and the technical standard and criteria for their storage in the HEUMF.

The preparation of the draft HEUMF PDSA has reached the point where we have a more mature preliminary determination of credited controls for Design Basis events. The safety analysis indicates that adequate protection to the workers and the public can be ensured by the identification of credited controls (Safety Class building and storage racks and Safety Significant fire sprinkler system) other than a Safety Class secondary confinement system. The secondary confinement system will be identified in the draft HEUMF PDSA as a Safety Significant system providing significant defense in depth. Specific details on the requirements for the secondary confinement system as it performs this function, such as equipment classification and power supply requirements for the confinement system fans, will be resolved as part of the PDSA review and approval process. Additional information on the HEUMF secondary confinement system and other staff report issues with the HEUMF Preliminary Hazard Analysis are attached as Enclosure 1, Confinement System for the HEUMF.



The draft PDSA is scheduled for submittal to NNSA for formal review in May 2003. NNSA Site Office and Headquarters staffs continue to coordinate with the contractor to maintain awareness of the PDSA progress and content. We will maintain an ongoing dialogue with your staff on our progress in resolving their issues and are planning a staff review of the HEUMF PDSA after its formal submittal to NNSA; at that time, we will be prepared to address the resolution of issues in the staff report not covered in the enclosure.

The Y-12 storage criteria that applies to all enriched uranium material forms, storage containers, and duration are specified in the "Criteria for the Safe Storage of Enriched Uranium at the Y-12 National Security Complex," Y/ES-015/R1, and "Criteria for Acceptance and Technical Assessment for Acceptance of Enriched Uranium at the Y-12 National Security Complex," Y/LB-15, 920/R2. The HEUMF must be in compliance with the storage criteria in these documents. As part of the activities committed in the January 31, 2003, NNSA "Report to the DNFSB on the Management of Inactive Actinide Material at NNSA Sites, Strategy for FY 2003-04 Activities," Y-12 will revise and update these documents in FY 2003 with specific focus on HEUMF storage requirements.

Since it will be several years before the HEUMF is ready to receive material, planning for stored material in the HEUMF will be based on a strategy that integrates all pertinent ongoing HEU storage and disposition initiatives. In addressing issues at Y-12 that resulted in part from the fact that multiple types of storage containers complicate criticality safety requirements and affect operator conduct of operation performance, BWXT Y-12 is developing a plan to evaluate current facility container storage and determine a minimum set of storage containers that meet facility safety and operational needs, while simplifying criticality safety and operator handling requirements. In addition, as part of the Material Recycle and Recovery program, actions are ongoing to develop and execute a project plan that will evaluate currently stored in-process HEU materials at Y-12 awaiting further processing with an end goal to establish and execute a path forward for recovery or discard.

BWXT Y-12 managers are integrating the actions from these initiatives into a Y-12 Comprehensive Ten-Year HEU Storage Material Management Project Plan. This plan will not only form the basis for the HEU that will be stored in the HEUMF but also will include the planning to move materials to the HEUMF. The Y-12 Site Office and BWXT Y-12 staffs have had preliminary discussions with your staff on the proposed path forward. Enclosure 2, "Development of Comprehensive HEU Storage and Material Management Plan," includes the current status and details of our planning.

We will continue to work closely with your staff to exchange updates on issue resolution as the draft PDSA for HEUMF is finalized and the project plan for HEU storage at Y-12 is finalized and executed. As your staff is aware, the HEUMF project team maintains a log of issues/questions raised by the Board and staff as a result of their site visits and document reviews. The team uses this log to track resolution of issues. Several of the comments included in the Staff Issue Report that are not directly addressed in the enclosures will be tracked via this log.

If you have any questions concerning our response to your letter, please contact me or have your staff contact Mr. David E. Beck at (202) 586-4879 or Mr. Bill Brumley at (865) 576-0752.

Sincerely,

A handwritten signature in black ink, appearing to read "Everet H. Beckner". The signature is written in a cursive style with a large initial "E".

Everet H. Beckner
Deputy Administrator
for Defense Programs

2 Enclosures

Enclosure 1

Confinement System for the HEUMF

The draft Preliminary Documented Safety Analysis (PDSA) for the Highly Enriched Uranium Materials Facility (HEUMF) will be provided to NNSA as part of the formal Critical Decision 2 (CD-2) submittal in May 2003. The CD-2 process establishes a Performance Measurement Baseline that must be approved by the Deputy Administrator for Defense Programs, NNSA. Per NNSA guidelines, this process occurs at the end of Preliminary Design, nominally at 30% design complete. An early copy of the draft PDSA is expected to be delivered to NNSA in April to support their review of the CD-2 submittal. The analysis supporting preparation of the draft PDSA is now nearing completion, allowing for preliminary determination of credited controls for each Design Basis Event (DBE) that will be evaluated in the PDSA.

A Preliminary Hazard Analysis (PHA) was provided to NNSA to support the CD-1 process that documented results of Conceptual Design and authorized the initiation of Preliminary Design. That PHA identified a conservative control set for the Conceptual Design that included a Safety Class secondary confinement system based on isolating and confining any released hazardous material inside the facility (often referred to as a "holdup" strategy). As Preliminary Design and development of the PDSA have progressed, it has become evident that appropriate protection to workers and the public can be ensured by identification of credited controls other than a safety class secondary confinement system. Confinement of hazardous materials is required by DOE Order 420-1, *Facility Safety*, which mandates the design of new nuclear facilities be based on confining hazards. This requirement, along with providing a significant defense in depth protection for accidents with the potential to release hazardous material outside the facility if credited controls fail, gives reason for classifying the secondary confinement as a Safety Significant system providing significant defense in depth in the draft PDSA. This safety significant secondary confinement system, as currently envisioned by BWXT-Y-12, includes the building structure encompassing the storage/work areas, HEPA housings and some ventilation ductwork, seals around various penetrations in the wall of this structure, dampers in various ventilation on ducts, and airlocks for personnel and material movement into and out of the facility. Additionally, discussion with the Board Staff and NNSA continues regarding whether the exhaust fans and associated support systems also should be included in this safety significant system.

The Staff Issue Report attached to the referenced letter identified several potential weaknesses associated with the Safety Class secondary confinement ("holdup") system included in the Conceptual Design for HEUMF. These concerns have either been addressed in our existing HEUMF Design Criteria, or will be alleviated with a Safety Significant vented confinement system that provides significant defense in depth. Discussion of the potential weaknesses follows:

- The Design Criteria for HEUMF contains requirements for classification of support systems. Appendix A to Y/HEU-0037, Rev 1, *Highly Enriched Uranium Materials Facility Design Criteria*, requires that the support systems necessary for the functioning of Safety Class structures, systems, and components (SSC) shall be classified as safety-class if their failures can prevent a safety-class SSC from performing its safety function.
- As discussed above, the safety significant confinement system performs a defense in depth function. Any leakage from the facility associated with building overpressure due to a facility fire or personnel (fire department, security, or facility personnel) entering or leaving the building will not result in exposures in excess of those indicated in the safety analysis or any requirements identified in the draft PDSA. To ensure that any building out-leakage is minimized, the facility will be designed to maintain a negative pressure during normal operations and to have air locks on all entrances to the areas containing hazardous materials.
- The confinement system currently being incorporated in the facility design is a vented system including HEPA filters with water sprays and release monitors located in the facility exhaust. This will enhance any post-accident recovery capability and will support the quantification of any hazardous material released from the facility for Emergency Management responses.
- Recent revision (Revision 19) to the Emergency Response Planning Guidelines (ERPGs) and Temporary Emergency Exposure Limits (TEELs) for Chemicals of Concern has resulted in changes that indicate lower potential for significant toxicological consequences resulting from a fire scenario. This allows for consideration of other credited controls, along with a safety significant vented confinement system serving as defense in depth.

As discussed above, the confinement system will provide significant defense in depth to the safety systems credited in the PDSA (the Safety Class building and storage racks, and the safety significant fire sprinkler system). Radiological exposures, only considering the building and storage racks as Safety Class, are conservatively predicted to be in the range of 1 to 3 rem at the emergency response boundary and 3 to 18 rem onsite (100 meters). No significant releases (radiological or chemical) are expected based on crediting the operation of the safety significant fire sprinkler system and a safety class container. Since the safety significant confinement system is not credited in the accident analysis, no functional requirements are derived directly from the Safety Analysis for the confinement system; the following requirements are considered appropriate for a safety significant confinement system that serves as defense in depth:

Functional Requirement: Maintain negative pressure in facility during normal operation and filter any exhaust (radiological and other hazardous material non-vapor releases) from facility during normal and upset conditions.

Performance Category (PC) - No PC requirements for the Secondary Confinement are derived directly from the PDSA process. No significant releases of hazard material requiring confinement are postulated from a NP event since the facility structure and storage racks will be designed and constructed to meet PC-3 requirements. However, DOE G - 420.1-2, *Guide for the Mitigation of Natural Phenomena Hazards for DOE Nuclear Facilities and Non-Nuclear Facilities*, states "When safety analysis determines that local confinement of high hazard materials is required for worker safety, PC-3 designation may be appropriate for the SSCs involved." The analysis supporting the draft PDSA indicates that confinement is not necessarily required to ensure public or worker safety but prudence in a new design indicates that the structural features of the confinement boundary be designed as PC-3. The structural features are considered to consist of the secondary confinement walls, doors, air locks, and ventilation duct through the first isolation device.

Single Failure Criteria – As discussed above, the PDSA process has not resulted in a requirement for safety class or safety significant secondary confinement system to protect workers and the public. Thus, the design of the confinement systems to protect against single failure is not a requirement. However, defense indepth design considerations should result in continued operation of the vented and filtered secondary confinement system during upset conditions, such as a fire in the storage area of the facility.

Emergency Power – No emergency power is required as a result of the PDSA process. The confinement system will serve as a significant defense indepth feature, and the system will not be designed to automatically shut down in the event of an upset condition, such as a fire in the storage area of the facility. The building will normally operate under negative pressure, with no significant ventilation flow paths from the storage area to the building exterior, other than through the ventilation system (doors are closed and backflow preventers are installed and operating on ventilation supply systems). Also, upon loss of normal power, the flow path through the HEPA Filters will remain open and any significant release exiting the building would naturally vent through this path. To aid in post accident recovery, one ventilation system that serves the halls and corridors that surround the storage areas in the facility will be supplied with emergency power by means of a standby diesel generator.

The requirements listed above can be met without the Ventilation System fans being available after the Design Basis Fire. Discussion is ongoing concerning the requirement to ensure the operation of the ventilation's system fan(s) by classifying the fans and supporting equipment (emergency power) as safety significant. This issue is expected to be resolved during the draft PDSA review that supports the CD-2 submittal and approval.

Enclosure 2

Development of Y-12 Comprehensive 10-Year HEU Storage and Material Management Plan

The interim response to the December 27, 2002, letter from the Defense Nuclear Facilities Safety Board (Board) indicated that the Y-12 National Security Complex (NSC) is currently evaluating the architecture of process and storage containers utilized within the plant site. The purpose of this evaluation is to define the minimum set of containers for the processing or storage of Highly Enriched Uranium (HEU) materials onsite. The containers to be utilized in storing HEU in the Highly Enriched Uranium Material Facility (HEUMF) are of particular interest in this evaluation.

An integral part of the container assessment is the material form and quantity of uranium, both elemental and isotopic, which can be contained in the various containers. It will be required that uranium in the form of metal, metal alloy, triuranium octaoxide (U₃O₈), or other qualified stable oxides be placed in stainless steel containers for long-term storage up to 50 years. Interim storage of materials of the same forms that may require further processing or repackaging into stainless steel containers will be permitted for a limited time period currently assumed not to exceed 10 years.

The container assessment study is scheduled for completion with a recommended minimum container set identified by the end of Fiscal Year (FY) 2003. Attachment 1 further describes activities related to the container simplification project currently ongoing at the Y-12 NSC. Attachment 2 provides an initial schedule for activities related to the container simplification as well as ongoing and planned work related to preparation of materials destined for the HEUMF.

A parallel effort in FY 2003 and FY 2004 will characterize currently stored materials to determine materials that are qualified for transfer to the HEUMF, materials that are scheduled for repackaging and transfer off-site for commercial sale, materials that must be repackaged into acceptable storage containers before transfer to the HEUMF, or materials that must be processed and repackaged to satisfy long-term storage criteria for form and container type. The final product of this effort will be a database of information that contains, at item level, all HEU with data on chemical form, isotopic and elemental weights, container, and expected next step processing activity for those items. The latter set of data will define the requirements for processing (reuse, ship off-site for use or waste, or long-term storage) needed to establish processing priorities within Y-12. The schedule for developing the initial draft database of information is the end of FY 2003. This draft database of information, along with other established planning for materials processing and storage, will be integrated to form a comprehensive HEU storage and material management for the future (10-year planning window).

A third, ongoing initiative will revise and update Y-12 documents by the end of FY 2003 for materials receipt and acceptance, technical assessment of safety issues associated with storage, and specific criteria applicable to the storage of HEU (Y/LB-15,920/R2 and Y/ES-015/R1). These documents will be applicable to storage of HEU at Y-12 with particular emphasis of storage considerations at the HEUMF. The revisions will focus on the assessment of the different forms of uranium materials and the containers that house these materials.

Y-12 will integrate its activities with the NNSA sites' plans and schedules and actively participate with the Inactive Actinides Working Group in developing and prioritizing projects to execute in FY 2004. Beyond FY 2004, Y-12 will continue executing projects to enable successful disposition of excess/inactive materials and properly package and store remaining materials required for its missions, which include long-term storage of highly enriched uranium for the NNSA Complex. The programmatic activities associated with the Inactive Actinide Material Initiative will be reflected in the initial draft Y-12 Comprehensive Ten-Year HEU Storage and Material Management Plan.

Enclosure 2
Attachment 1

As the above planning proceeds, the following actions have been completed or are in process:

In FY 2003, NNSA YSO directed nine activities to be completed as part of the Comprehensive Materials Disposition FY 2003 Performance Based Incentives:

1. Develop and execute disposition plans within funding targets for Pu-contaminated HEU material that must be removed from 9720-5 prior to start up of HEUMF.
2. Package a minimum of 1,300 kgU of surplus HEU oxides by September 30, 2003, in preparation of off-site shipment for commercial processing.
3. Inspect, pack, and ship two inactive UF6 items, each less than 350 grams, to Nuclear Fuel Services in Erwin, Tennessee, by March 31, 2003.
4. Prepare 115 drums of inactive U-Zr material labeled and ready to ship to a commercial processor by May 31, 2003.
5. Prepare the Y-12 inventory of inactive NS Savannah Fuel for TVA pick up by September 30, 2003. Complete the planning and documentation and initiate unpack/repackaging of the fuel. In FY 2003, two of the seven fuel assemblies at Y-12 will be repackaged into approximately ten 6M 110-gallon drums and will be ready for TVA pick up by September 30, 2003.
6. Dispose excess Non-MAA nuclear and non-nuclear materials: Ship 150 MT depleted uranium metal from Y-12 to NTS or other disposal or storage site by September 15, 2003.
7. Continue to reevaluate and update, as needed, Y-12 Economic Discard Limits (EDL) for inactive national security or surplus HEU. By August 31, 2003, develop and request NNSA-YSO approval for two EDLs for low-equity HEU material types with detailed analysis and basis for recommended disposal versus recovery of HEU materials. The recommendation and assessment should be sufficiently detailed to enable NNSA to approve the proposed EDL and include identification of actions and costs required to initiate the disposal of the selected material types. Specific Project Execution Plans will be submitted to NNSA-YSO by September 30, 2003, that will allow the two EDLs to be implemented in FY 2004 (if funded).
8. Repackage 100 drums of legacy HEU-contaminated process combustibles to meet waste profile criteria for off-site disposal. Prepare UCN-2109 forms for discard of the materials, and stage the drums for pick up by Bechtel Jacobs Company/WESKEM by September 30, 2003.

9. Complete five shipments of excess classified/inactive aeroshells to NTS and establish readiness to ship classified DU metals to NTS by September 30, 2003. Shipments are contingent upon NTS approval of BWXT Y-12 submitted materials profile.

Inactive phosphoric solutions in Building 9206 began repackaging and disposition activities last year and will be complete this year. Also, inactive, surplus process residues are being repackaged for off-site disposition. (These were the first materials pushing through the enhanced EDLs at Y-12.) Excess graphite, slag, and liner and other inactive process materials are being evaluated this fiscal year for off-site disposal utilizing the new EDLs currently being evaluated and revised.

Container Simplification Activities (FY 2003):

The overall schedule for container simplification activities is provided as Attachment 2. The FY 2003 effort is intended to develop a plant-wide recommended container set of the future by the end of the fiscal year. A brief description of the major activities in support of that overall objective is provided below.

1. Facility Review for Container Needs.

Approximately 2 years ago, a listing of containers in use at Y-12 was developed, including facilities where the containers were in use and requirements (dimensional and loading) associated with the containers. This listing will be used as a starting point for a review by facility to develop a minimum container set needed by the facility to operate. Each major Operating Organization/Facility will review the listing to assure it is up-to-date and then suggest a minimum container set that would meet the known workscope of the Operating Organization/Facility. The review will consider both process and storage containers and is scheduled for completion by May 15, 2003.

2. Compile Draft Plant-Wide Minimum Container Set.

Utilizing the results of the facility review and the suggested minimum sets as inputs, a draft plant-wide container set listing will be developed. Material form, container physical (volumes, dimensions, and materials of construction) requirements, and container administrative (loading) requirements will be considered to develop an initial draft of the plant-wide recommended container set of the future. The intent is to minimize the number of containers/loading to those necessary to meet the operational needs. As with the facility review, both process and storage containers will be considered. This activity is scheduled for completion by May 30, 2003.

3. Evaluate the Impact of the Draft Container Set.

This activity consists of a series of reviews to confirm that the draft container set will meet the operational plant needs, security requirements, and intra-plant transportation requirements to the extent that they are known. Additionally, the set must be consistent with other ongoing initiatives, such as storage (both MAA storage and HEUMF) and material disposition. Several iterations are anticipated during this process. Scoping calculations will be performed as necessary to assure that the recommended container set can be implemented. This activity is scheduled for completion by August 31, 2003.

4. Issue Recommended Container Set of the Future.

The resultant plant-wide container set of the future will be issued as a recommendation to management for implementation. This activity is scheduled for completion by September 30, 2003.

Concurrent with the activities described above, several activities are planned for execution during FY 2003 that serve to improve the container situation, while a long-term resolution is under development. These include:

1. Elimination from current approval and implementing documents, containers that are no longer in use and not expected to be needed in the near term. Each facility will review its current container approval and implementing documents to identify containers that are no longer needed to support ongoing operations. The documents will then be revised to eliminate those containers. While this activity will not result in removal of containers actually in use, it will simplify the approval and implementing documents. This activity is scheduled for completion by May 31, 2003.
2. Current container approval and implementing documents for EUO contain seven "Metal Cans" with various dimensional and loading requirements. One is expected to be removed from service. Analysis is currently underway to consolidate and simplify the requirements for the remaining six into a single requirement set. This activity will not result in removal of containers actually in use, but it will simplify the approval and implementing documents. This activity is scheduled for completion by September 30, 2003.
3. Current container approval and implementing documents for Assembly Organization contain numerous dolly types with various dimensional and loading requirements. An activity has been initiated to consolidate and simplify the requirements for the dollies to the extent practical. As above, this activity is not anticipated to result in removal of dollies actually in use, but it will simplify the approval and implementing documents. This activity is scheduled for completion by September 30, 2003.

Follow-on Activities (FY 2004 and beyond):

Implementation of the recommended container set developed during FY 2003 will be a long-term program. The implementation will need to be integrated with similarly long-term storage and material disposition programs as a minimum. Container specification, purchase, inspection, and configuration management will all need to be considered in addition to any necessary re-containerization activities. Detailed execution schedules, cost estimates, and budget approvals will be necessary. It is anticipated that these activities will occupy a good portion of FY 2004, particularly as long-term storage and material disposition programs have not yet been finalized.

Activity ID	Activity Description	Orig Dur	Rem Dur	Early Start	Early Finish	% Comp	WBS	Gantt Chart											
1 Y-12 NATIONAL SECURITY COMPLEX								FY03											
1.20 Containers, Storage, & Material Disposition								FY04											
1.20.01 Project Planning								FY05											
0000	Develop preliminary project schedule (FY03 Act)	10	6	23JAN03A	14MAR03	0	1.20.01	[Gantt Bar]											
0000	Identify task leads	10	1	24FEB03A	07MAR03	0	1.20.01	[Gantt Bar]											
0000	Request input for required resources	5	5	10MAR03	14MAR03	0	1.20.01	[Gantt Bar]											
0000	Apply resources to schedule	5	5	17MAR03	21MAR03	0	1.20.01	[Gantt Bar]											
0000	Estimate project cost	10	10	28MAR03	04APR03	0	1.20.01	[Gantt Bar]											
0000	Request funding/budget (FY03 Act)	16	16	07APR03	23APR03	0	1.20.01	[Gantt Bar]											
0000	Budget allocated	0	0		23APR03	0	1.20.01	[Gantt Bar]											
0000	Execute Plant-Wide FY03 Activities	0	0	30APR03		0	1.20.01	[Gantt Bar]											
1.20.02 Facility/Site Container Review								[Gantt Bar]											
0000	Review known/anticipated workspace	48	33	24JAN03A	01MAY03	0	1.20.02.01	[Gantt Bar]											
0100	Define/Review current container set	48	33	24JAN03A	01MAY03	0	1.20.02.01	[Gantt Bar]											
0110	Determine functional container needs	48	33	24JAN03A	01MAY03	0	1.20.02.01	[Gantt Bar]											
0120	Develop reduced container set	55	48	27FEB03A	19MAY03	0	1.20.02.01	[Gantt Bar]											
0400	9212/9206 Min Container Set Defined	0	0		19MAY03	0	1.20.02.01	[Gantt Bar]											
1.20.02.02								[Gantt Bar]											
0170	Review known/anticipated workspace	48	33	24JAN03A	01MAY03	0	1.20.02.02	[Gantt Bar]											
0180	Define/Review current container set	48	33	24JAN03A	01MAY03	0	1.20.02.02	[Gantt Bar]											
0190	Determine functional container needs	48	33	24JAN03A	01MAY03	0	1.20.02.02	[Gantt Bar]											

Start Date	01OCT02	Early Bar	CSM1	Sheet 1 of 6
Finish Date	26SEP06	Progress Bar	BWXT Y-12, LLC	
Date Date	07MAR03	Critical Activity	Containers, Storage, & Mtrl Disp	
Run Date	10MAR03 14:37			

Date	Revision	Checked	Approved

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Enclosure 2
Attachment 2

Activity ID	Activity Description	Orig Dur	Rem Dur	Early Start	Early Finish	% Comp	WBS	Gantt Chart																						
								EYM				EYM				EYM														
								J	F	M	A	M	J	J	F	M	A	M	J	J	F	M	A	M	J	J	F	M	A	M
0200	Develop reduced container set	55	48	27FEB03A	15MAY03	0	1200202	01307, 04307, 01907 Develop reduced container set																						
0200	9215 Min Container Set Defined	0	0		15MAY03	0	1200202	0200 9215 Min Container Set Defined																						
0210	Review known/anticipated workspace	48	39	24JAN03A	01MAY03	0	1200203	0207 Review known/anticipated workspace																						
0220	Define/Review current container set	48	39	24JAN03A	01MAY03	0	1200203	0207, 0210 Define/Review current container set																						
0230	Determine functional container needs	48	30	24JAN03A	01MAY03	0	1200203	0207, 0207 Determine functional container needs																						
0240	Develop reduced container set	55	48	27FEB03A	15MAY03	0	1200203	01307, 04407, 0207 Develop reduced container set																						
0240	9204-2ZE Min Container Set Defined	0	0		15MAY03	0	1200203	0240 9204-2ZE Min Container Set Defined																						
0250	Review known/anticipated workspace	48	39	24JAN03A	01MAY03	0	1200204	0207 Review known/anticipated workspace																						
0260	Define/Review current container set	48	39	24JAN03A	01MAY03	0	1200204	0270, 0207 Define/Review current container set																						
0270	Determine functional container needs	48	39	24JAN03A	01MAY03	0	1200204	0207, 0207 Determine functional container needs																						
0280	Develop reduced container set	55	48	27FEB03A	15MAY03	0	1200204	01307, 04607, 0270 Develop reduced container set																						
0280	9204 Min Container Set Defined	0	0		15MAY03	0	1200204	0280 9204 Min Container Set Defined																						
0290	Review known/anticipated workspace	48	37	24JAN03A	01MAY03	0	1200205	0307 Review known/anticipated workspace																						
0300	Define/Review current container set	48	39	24JAN03A	01MAY03	0	1200205	03107, 0207 Define/Review current container set																						
0310	Determine functional container needs	48	39	24JAN03A	01MAY03	0	1200205	0307, 0307 Determine functional container needs																						
0320	Develop reduced container set	55	48	27FEB03A	15MAY03	0	1200205	01307, 04807, 03107 Develop reduced container set																						
0320	9720-5 Min Container Set Defined	0	0		15MAY03	0	1200205	0320 9720-5 Min Container Set Defined																						
0330	Review known/anticipated workspace	48	39	24JAN03A	01MAY03	0	1200205	0340 Review known/anticipated workspace																						
0340	Define/Review current container set	48	39	24JAN03A	01MAY03	0	1200205	0307, 0307 Define/Review current container set																						

Start Date	01OCT02	Early Bar	CSM1	Sheet 2 of 6
Finish Date	29SEP03	Progress Bar	BWXT Y-12, LLC	
Date Date	07JAN03	Critical Activity	Containers, Storage, & Mtl Disp	
Run Date	10MAR03 14:37			

Date	Revision	Checked	Approved

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Enclosure 2
Attachment 2

Activity ID	Activity Description	Orig Dur	Rem Dur	Early Start	Early Finish	% Comp	WBS	Gantt Chart											
								0	1	2	3	4	5	6	7	8	9	10	11
030	Determine functional container needs	48	36	24JAN03A	01MAY03	0	1.20.02.05	[Gantt bar for 030: 0307, 0307]											
030	Develop reduced container set	55	48	27FEB03A	19MAY03	0	1.20.02.06	[Gantt bar for 030: 0130, 0470, 0307]											
0470	PCO Min Container Set Defined	0	0		19MAY03	0	1.20.02.06	[Gantt bar for 0470: 0307]											
030	Review known/anticipated workspace	48	36	24JAN03A	01MAY03	0	1.20.02.07	[Gantt bar for 030: 0307]											
030	Define/Review current container set	48	36	24JAN03A	01MAY03	0	1.20.02.07	[Gantt bar for 030: 0307, 0307]											
030	Determine functional container needs	48	36	24JAN03A	01MAY03	0	1.20.02.07	[Gantt bar for 030: 0407, 0307]											
040	Develop reduced container set	55	48	27FEB03A	19MAY03	0	1.20.02.07	[Gantt bar for 040: 0130, 0407, 0307]											
040	MCO Min Container Set Defined	0	0		19MAY03	0	1.20.02.07	[Gantt bar for 040: 0407]											
0130	Committee review of Facility Container Set	32	32	19MAY03	01JUL03	0	1.20.02.08	[Gantt bar for 0130: 0140, 0137, 0307, 0240, 0207, 0307, 0307, 0407]											
0140	Consolidate Facility Set to Site Container Set	19	19	02JUL03	30JUL03	0	1.20.02.08	[Gantt bar for 0140: 0137]											
0150	Eval impact of Draft Min Container Set	22	22	31JUL03	29AUG03	0	1.20.02.08	[Gantt bar for 0150: 0147]											
0410	Issue Recommendations	21	21	02SEP03	30SEP03	0	1.20.02.08	[Gantt bar for 0410: 0407, 0150, 060, 100, 1010, 100, 1040]											
040	Site Min Container Set Defined	0	0		30SEP03	0	1.20.02.08	[Gantt bar for 040: 0410]											
040	Review appl. docs. to eliminate unneeded contain	40	40	27JAN03A	02MAY03	0	1.20.02.09	[Gantt bar for 040: 0307]											
080	Revise CSA/CSR to eliminate unneeded containers	40	40	17FEB03A	02MAY03	0	1.20.02.09	[Gantt bar for 080: 0307, 0307]											
080	Rev CSA/CSR to consolidate metal can types	65	65	31MAR03	31JUL03	0	1.20.02.09	[Gantt bar for 080: 0307, 0307]											
080	Rev CSA/CSR to consolidate Assembly Dollys	65	65	31MAR03	31JUL03	0	1.20.02.09	[Gantt bar for 080: 0307]											
080	Implement CSA/CSR revisions (containers)	16	16	09MAY03	27MAY03	0	1.20.02.09	[Gantt bar for 080: 0307]											
080	Implement CSA/CSR revisions (metal cans)	42	42	01AUG03	30SEP03	0	1.20.02.09	[Gantt bar for 080: 0307]											

Start Date	01OCT02	Early Bar	CSM1	Sheet 3 of 6 BWXT Y-12, LLC Containers, Storage, & Mtrl Disp
Finish Date	29SEP08	Progress Bar		
Data Date	07MAR03	Critical Activity		
Run Date	10MAR02 14:37			

Date	Revision	Checked	Approved

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Enclosure 2
Attachment 2

Activity ID	Activity Description	Orig Dur	Rem Dur	Early Start	Early Finish	% Comp	WBS	Gantt Chart											
0570	Implement CSA/CSR revisions (dollies)	42	42	01AUG03	30SEP03	0	1.20.02.08	[Gantt bar for 0570: Implement CSA/CSR revisions (dollies)]											
0500	Near-Term Activities Complete	0	0		30SEP03	0	1.20.02.09	[Gantt bar for 0500: Near-Term Activities Complete]											
0570	Develop Implementation Plan & Min Container List	189	189	01OCT03	01JUL04	0	1.20.02.10	[Gantt bar for 0570: Develop Implementation Plan & Min Container List]											
0580	Approve Program Plan & Funding	62	62	02JUL04	30SEP04	0	1.20.02.10	[Gantt bar for 0580: Approve Program Plan & Funding]											
0580	Execute Program (FY05)	253	253	01OCT04	30SEP05	0	1.20.02.10	[Gantt bar for 0580: Execute Program (FY05)]											
0500	Execute Program (FY05)	249	249	03OCT05	28SEP06	0	1.20.02.10	[Gantt bar for 0500: Execute Program (FY05)]											
1.20.03 Material Storage																			
0590	Review Program Reqrmts Dc for HEUMF	173	143	24JAN04	30SEP03	0	1.20.03.01	[Gantt bar for 0590: Review Program Reqrmts Dc for HEUMF]											
0510	Complete Review of Program Requirements Document	0	0		30SEP03	0	1.20.03.01	[Gantt bar for 0510: Complete Review of Program Requirements Document]											
0580	Update Y-12 NSC Criteria for Safe Storage (FY03)	173	143	24JAN04	30SEP03	0	1.20.03.01	[Gantt bar for 0580: Update Y-12 NSC Criteria for Safe Storage (FY03)]											
0510	Updt Tech Assmt for Accept of EU at Y-12 (FY03)	173	143	24JAN04	30SEP03	0	1.20.03.01	[Gantt bar for 0510: Updt Tech Assmt for Accept of EU at Y-12 (FY03)]											
0580	Criteria/Tech Assesment docs updates comp (FY03)	0	0		30SEP03	0	1.20.03.01	[Gantt bar for 0580: Criteria/Tech Assesment docs updates comp (FY03)]											
0530	Update Y-12 NSC Criteria for Safe Storage (FY04)	128	128	01APR04	30SEP04	0	1.20.03.01	[Gantt bar for 0530: Update Y-12 NSC Criteria for Safe Storage (FY04)]											
0540	Updt Tech Assmt for Accept of EU at Y-12 (FY04)	128	128	01APR04	30SEP04	0	1.20.03.01	[Gantt bar for 0540: Updt Tech Assmt for Accept of EU at Y-12 (FY04)]											
0530	Criteria/Tech Assesment docs updates comp (FY04)	0	0		30SEP04	0	1.20.03.01	[Gantt bar for 0530: Criteria/Tech Assesment docs updates comp (FY04)]											
0910	Establish database for HEU for container info	20	20	30APR03	28MAY03	0	1.20.03.02	[Gantt bar for 0910: Establish database for HEU for container info]											
0980	ID mtrls/containers to move directly to HEUMF	40	40	29MAY03	25JUL03	0	1.20.03.02	[Gantt bar for 0980: ID mtrls/containers to move directly to HEUMF]											
1000	ID mtrls/containers that need repackaging	40	40	29MAY03	25JUL03	0	1.20.03.02	[Gantt bar for 1000: ID mtrls/containers that need repackaging]											
1010	ID mtrls/containers that require reprocessing	40	40	29MAY03	25JUL03	0	1.20.03.02	[Gantt bar for 1010: ID mtrls/containers that require reprocessing]											
1020	ID mtrls/containers not transferring to HEUMF	40	40	29MAY03	25JUL03	0	1.20.03.02	[Gantt bar for 1020: ID mtrls/containers not transferring to HEUMF]											

Start Date	01OCT02	Early Bar	
Finish Date	29SEP06	Progress Bar	
Data Date	07MAR03	Critical Activity	
Run Date	10MAR03 14:37		

CSM1				Sheet 4 of 6			
BWXT Y-12, LLC							
Containers, Storage, & Mtrl Disp							

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Enclosure 2
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Activity ID	Activity Description	Orig Dur	Rem Dur	Early Start	Early Finish	% Comp	WBS
080	Establish move priorities (schedule)	20	20	28JUL03	22AUG03	0	1.2003.02
100	Develop Project Plan for execution in FY05	57	57	28JUL03	15OCT03	0	1.2003.02
050	HEUMF Xtn Plan Developed (8720-5, 9215 Annex...)	0	0		15OCT03	0	1.2003.02
1000	ID mtrls/containers to move directly to HEUMF	100	100	01OCT03	20MAY04	0	1.2003.03
1000	ID mtrls/containers that need repackaging	100	100	01OCT03	20MAY04	0	1.2003.03
1100	ID mtrls/containers that require reprocessing	100	100	01OCT03	20MAY04	0	1.2003.03
1110	ID mtrls/containers not transferring to HEUMF	100	100	01OCT03	20MAY04	0	1.2003.03
1120	Establish move priorities (schedule)	80	80	21MAY04	19SEP04	0	1.2003.03
1130	Develop Project Plan for execution in FY05	91	91	21MAY04	30SEP04	0	1.2003.03
060	HEUMF Xtn Plan Developed (Remaining Facilities)	0	0		30SEP04	0	1.2003.03
1.20.04 Material Disposition							
060	Select two forms for EDL evaluation	33	33	30APR03	16JUN03	0	1.2004.01
1040	Cost benefit analysis	21	21	17JUN03	17JUL03	0	1.2004.01
1000	Develop Project Execution Plans	63	63	18JUL03	15OCT03	0	1.2004.01
1000	Continue EDL evaluations	251	251	01OCT03	30SEP04	0	1.2004.01
0540	FY03 EDL Evaluations Complete	0	0		15OCT03	0	1.2004.01
0600	FY04 EDL Evaluations Complete	0	0		30SEP04	0	1.2004.01
1.20.05 Near Term Material Storage/Disposition Actv							
PE01	Dev and exec disposition plans for PU contaminat	261	143	01OCT02A	30SEP03	0	1.20.05
PE02	Pkg minimum 1,300 kgU surplus HEU oxides	261	143	01OCT02A	30SEP03	0	1.20.05
PE03	Inspect, pack and ship 2 UF6 items to NFS	130	17	01OCT02A	31MAR03	0	1.20.05
Start Date	01OCT02	Early Bar	CSM1		Sheet 5 of 6		
Finish Date	29SEP05	Progress Bar	BWXT Y-12, LLC				
Data Date	07MAY03	Critical Activity	Containers, Storage, & Mtrl Disp				
Run Date	10MAY03 14:37						
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Activity ID	Description	Start	End	WBS
080	Establish move priorities (schedule)			1.2003.02
100, 1010, 1030	Develop Project Plan for execution in FY05			1.2003.02
1030	HEUMF Xtn Plan Developed (8720-5, 9215 Annex...)			1.2003.02
1000, 1100, 1110, 1130	ID mtrls/containers to move directly to HEUMF			1.2003.03
1000	ID mtrls/containers that need repackaging			1.2003.03
1000	ID mtrls/containers that require reprocessing			1.2003.03
1000	ID mtrls/containers not transferring to HEUMF			1.2003.03
1000	Establish move priorities (schedule)			1.2003.03
1000, 1100, 1110	Develop Project Plan for execution in FY05			1.2003.03
1000	HEUMF Xtn Plan Developed (Remaining Facilities)			1.2003.03
1000	Select two forms for EDL evaluation			1.2004.01
0500	Cost benefit analysis			1.2004.01
1000	Develop Project Execution Plans			1.2004.01
	Continue EDL evaluations			1.2004.01
1000	FY03 EDL Evaluations Complete			1.2004.01
1000	FY04 EDL Evaluations Complete			1.2004.01
	Dev and exec disposition plans for PU contaminat			1.20.05
	Pkg minimum 1,300 kgU surplus HEU oxides			1.20.05
	Inspect, pack and ship 2 UF6 items to NFS			1.20.05

Enclosure 2
Attachment 2

Activity ID	Activity Description	Orig Dur	Plan Dur	Early Start	Early Finish	% Comp	WBS	Gantt Chart											
								Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
PE04	Prepare 115 drums of U-Zr mtrl	174	59	01OCT02A	30MAY03	0	12005	[Gantt bar for PE04: 01OCT02A to 30MAY03]											
PE05	Prepare Y-12 inventory NS Sav Fuel for TVA pickup	261	143	01OCT02A	30SEP03	0	12005	[Gantt bar for PE05: 01OCT02A to 30SEP03]											
PE06	Disp of excess non-MAA nuclear and non-nuclear	250	132	01OCT02A	19SEP03	0	12005	[Gantt bar for PE06: 01OCT02A to 19SEP03]											
PE07	Continue to reevaluate and update EDLs	261	143	01OCT02A	30SEP03	0	12005	[Gantt bar for PE07: 01OCT02A to 30SEP03]											
PE08	Repkg 100 drums of legacy HEU contaminat combust	261	143	01OCT02A	30SEP03	0	12005	[Gantt bar for PE08: 01OCT02A to 30SEP03]											
PE09	Complete 5 shipments of aeroshells to NTS and	261	143	01OCT02A	30SEP03	0	12005	[Gantt bar for PE09: 01OCT02A to 30SEP03]											

Start Date	01OCT02	Early Bar	CSM1	Sheet 6 of 6	Date	Revision	Checked	Approved
Finish Date	26SEP06	Progress Bar						
Delta Date	07MAR03	Critical Activity						
Run Date	10MAR03 14:37							
BWXT Y-12, LLC Containers, Storage, & Mtrl Disp								
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