Department of Energy
Washington, DC 20585

DEC 0 4 2006

The Honorable A. J. Eggenberger
Chairman
Defense Nuclear Facilities Safety Board
625 Indiana Avenue, NW
Suite 700
Washington, DC 20004-2901

Dear Mr. Chairman:

Enclosed is the Program Evaluation deliverable as specified in Commitment 3.11 of the Department of Energy's (DOE) Implementation Plan (IP), Revision 4, June 2006, for Recommendation 2001-1, *High-Level Waste Management at the Savannah River Site*. This evaluation reports on the program progress through November 2006 and takes input from various technical reports and planning documents to highlight key program issues currently being addressed. As outlined in the IP, this evaluation reflects the program impacts experienced as a result of delays in obtaining a regulatory permit to initiate salt waste processing. It also includes other key issues that have occurred since the last revision of the IP. These issues include extension of the program life-cycle as a result of increased sludge volumes anticipated to be processed and lower processing rates based on higher than projected aluminum concentrations in some sludge batches.

The impacts reflected in the program evaluation are the unmitigated impacts and aggressive action is currently being taken to develop and implement mitigation actions to reduce or eliminate unacceptable impacts to the mission objectives. Detailed System Plans are currently under development that utilizes the issues identified in this program evaluation, the project Risk Management Plans, and other planning documents to provide a more comprehensive assessment of adverse impacts and potential mitigation action benefits. The System Plan is expected to be issued by June 2007 and will be provided to the Defense Nuclear Facility Safety Board (DNFSB) when available.

In summary, the program evaluation concludes that although key milestones and mission objectives will be delayed, no changes to the fundamental strategy are recommended at this time because the basic scope and sequencing of activities remain valid. In fact, this strategy and sequencing is reflected in the draft permit already issued by South Carolina Department of Health and Environmental Control. As evidenced in the program evaluation, future IP commitments for the Actinide Removal Process, Modular Caustic Side Solvent Extraction Unit, and Tank 48 return to waste service are anticipated to be delayed but their scope and sequencing remains unchanged. A revised IP may need to be developed and submitted to the DNFSB next year after key events are resolved.

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If you have any further questions, please call me at (202) 586-0738, or Mr. Dae Y. Chung, Deputy Assistant Secretary for Safety Management and Operations, at (202) 586-5151.

Sincerely,

Dr. Inés R. Triay
Chief Operating Officer for
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Enclosure

cc:
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Abstract

This document meets Commitment 3.11 in the *DOE Plan of Action to Re-Assess Savannah River Site's High Level Waste Management Strategy, DNFSB Recommendation 2001-1 Implementation Plan (IP)*[1] Revision 4, June 2006, which requires the issuance of a program evaluation for integration of Liquid Waste processing facilities. The objective of the program evaluation for integration of the processing facilities consists of two parts. The first part shows how planning at all levels from long-range (life cycle) through intermediate-range (5 to 7 years) to short range (rolling 12-month period) is merged to provide direction to the Liquid Waste Operations (LWO) system. It demonstrates how the process effectively copes with changes to keep the plans viable and germane. The second part provides a programmatic assessment, which summarizes progress in meeting program objectives over the last year.

LWO planning takes place at three primary levels. The highest level is the *Lifecycle Liquid Waste Disposition* (LLWD) *System Plan* – an overall comprehensive strategy for disposition of the Liquid Waste stored in F- and H-Tank Farms (previously known as the *HLW System Plan* [2]), which is reviewed and updated on an as needed basis as conditions change – typically every two to five years. The *LLWD System Plan* extends through the conclusion of the LWO mission.

The broad goals and objectives expressed in the *LLWD System Plan* are translated into an intermediate (5 to 7 year) range plan, now known as the *FY06–FY12 Liquid Waste Disposition Processing Plan* (DPP) [3]. This plan is also updated on an as needed basis as conditions change – typically every one to two years. The intermediate range plan guides the creation of near-term plans, which are closely monitored and updated, if circumstances change.

In 2005, when the IP committed to evaluate integration of processing facilities, the planning baseline was captured in the *Interim Processing Plan* (IPP) [4]. Since the IPP was issued, the effects of regulations and emerging issues have necessitated revisions to the planning baseline. The DPP was prepared to incorporate the most up-to-date information. The DPP, and other associated planning documents, will continue to be updated as new emergent technical and programmatic issues arise to ensure an integrated planning baseline is maintained for LWO. Since the issuance of the DPP, several additional changes to the assumptions have occurred as a result of delays in the initiation of DDA salt processing and improved understanding of tank waste characterization (e.g., increased sludge mass and rate limitations for processing higher aluminum content material). The detailed modeling to fully quantify the impacts to the priority missions is actively ongoing as part of the upcoming System Planning document revisions. Delays beyond January 2007 have the potential to result in more than day-for-day extensions to the life-cycle as a result of diminishing compliant waste tank useable space.

Although the actual initiation of many of the activities identified may be later than depicted in the DPP, and the completion of milestones may be impacted, this programmatic evaluation concludes that the scope and sequence of these activities are still valid and no changes to the fundamental strategy are proposed at this time.

1.0 Purpose

This document meets Commitment 3.11 in the "DOE Plan of Action to Re-Assess Savannah River Site's High Level Waste Management Strategy, DNFSB Recommendation 2001-1 Implementation Plan", Revision 4, June 2006, which requires the issuance of a program evaluation for integration of Liquid Waste processing facilities. The purpose of the program evaluation for integration of the processing facilities consists of two parts. First, it shows how planning at all levels from long-range (life cycle) through intermediate-range (5 to 7 years) to short range (rolling 12-month period) is merged to provide direction to the Liquid Waste Operations (LWO) system. It demonstrates how the process effectively copes with changes to keep the plans viable and germane. Second, it provides a programmatic assessment, which summarizes progress in meeting program objectives.

2.0 Liquid Waste Operations Scope

The Liquid Waste Operations (LWO) Waste System comprises ten different facilities interconnected by pipelines. Each facility contains one or more processes. Although the ten facilities generally operate independently with each facility performing several functions of the LWO system, together they act as one large treatment plant to store, treat, and convert waste into forms suitable for final disposal.

The waste streams originate primarily from the Material Disposition Processes, but other liquid and vapor effluents and miscellaneous wastes must also be managed. The waste is a complex mixture of radionuclides, soluble salts, and insoluble sludges. Many components (*e.g.*, plutonium, cadmium, chromium, and mercury) can be hazardous to human health and the environment, if not properly managed. Several of the waste components can also cause processing difficulties, if present in inappropriate concentrations.

3.0 Planning Process

LWO planning takes place at three levels which are described in the *System Integration Management Plan* (SIMP) [5].

The highest level is the *Lifecycle Liquid Waste Disposition* (LLWD) *System Plan* (previously known as the *HLW System Plan* [2]), which is reviewed and updated on an as needed basis as conditions change – typically every two to five years. The *LLWD System Plan* extends through the conclusion of the LWO mission.

The broad goals and objectives expressed in the *LLWD System Plan* are translated into intermediate (5 to 7 year) range plans. These plans are updated every one to two years. The intermediate plans have been called the *Interim Salt Program Strategy Planning Baseline* [6], the *Interim Processing Plan* (IPP) [4], and most recently *FY06–FY12 Liquid Waste Disposition Processing Plan* (DPP) [3].

The intermediate range plans guide the creation of near-term plans, which are closely monitored and updated if circumstances change:

- *Sludge Batch Plan* [7]:
  The *Sludge Batch Plan* recommends sludge batch sequence and timing – including source tanks and anticipated feed make-up of sludge being transferred to the Defense Waste Processing Facility (DWPF) – and estimates of canister production rate, wash water volumes, and concentrations of soluble species.

- *Salt Sequencing Plan*[8]:
  The *Salt Sequencing Plan* is a comprehensive stand-alone document, which outlines the requirements for the removal, processing, and disposal of SRS salt waste.

- *Tank Closure Sequencing Plan*[9]:
  The *Tank Closure Sequencing Plan* recommends tank heel removal, annulus cleaning, operational closure sequence, and timing and estimate of cleaning water volumes to be used as input to the "FY06–FY12 Liquid Waste Disposition Processing Plan".

- *Twelve-month Transfer Plan* [10]
  The *Twelve-month Transfer Plan* is composed of a transfer strategy made up of scheduled activities that integrate planned Tank Farm transfers, scheduled outages and normal plant operations. This strategy covers major tank-to-tank transfers. It ensures that available un-concentrated liquid waste is sent to the appropriate evaporator at the appropriate time to support the LWO processing objectives.

Planning is also influenced by risks identified during risk assessments. The Radioactive Liquid Waste Stabilization and Disposition Project PBS-SR-0014 is the encompassing Project Baseline Summary under which the LWO Program is executed. The risk analysis report, *Risk Assessment Report for PBS-SR-0014 Radioactive Liquid Tank Waste Stabilization and Disposition (U)* [11] contains a comprehensive list of major risks. It identifies ongoing and planned risk handling strategies to manage these risks.

4.0 Programmatic Assessment

4.1. Fiscal Year 2006 in Review

Sludge Processing

The DWPF had a record year in stabilizing high level waste sludge. Waste loadings as high as 42% were achieved and the melter operated at an overall availability of 86.2%. Both of these accomplishments were new fiscal year records. Although not a record, the equivalent of 349 equivalent canisters (245 discrete canisters) were successfully filled. Sludge Batch 4 is on schedule to be ready several months before the actual need date. Adverse impacts that affected the program were the estimate of the total amount of sludge to be processed increased, which could add several years to the program life cycle, and also the amount of aluminum contained in Sludge Batch 4 exceeds earlier forecasts, which could reduce sludge disposition rates over the next several years. Alternatives to mitigate both issues are being investigated.

Salt Processing

Actinide Removal Process (ARP) has been completed and startup testing is currently in progress. Construction of the Modular Caustic Side Solvent Extraction Unit (MCU) is complete. Both facilities are on schedule to initiate radiological operations (integrated runs) by September 30, 2007.

Based upon the expected draft modified permit for the Savannah River Site (SRS) Z-Area Saltstone Disposal Facility issuance, it is anticipated that there will be a 7-month delay in the planned start date forecast in the DPP. Although the actual initiation of many of these activities may be later than depicted in the DPP, and the completion of milestones may be impacted, the scope and sequence of these activities are still valid.

During FY06, a detailed time and motion study was completed to evaluate the integration of DWPF and salt processing operations, including both ARP/MCU and the Salt Waste Processing Facility (SWPF) (*Time and Motion Study for DWPF, MCU, and Waste Transfer Line System of Salt Processing System* [12]). A previous modeling study had identified the slurry receipt and adjustment (SRAT) tank within DWPF as a potential bottleneck for salt processing rates. The FY06 integrated DWPF and salt processing study concluded that the SRAT process would not be a limiting step after implementation of some minor processing adjustments. To increase the salt processing throughput to as high as 7 million gallons per year would require some significant capacity increases in the stripped effluent hold tank and in the sludge solids storage tank to decouple the SWPF and DWPF processes.

H Canyon

Liquid Waste successfully supported all H Canyon missions. Of significant importance was the cumulative transfer of 235,000 gallons of Unirradiated Highly Enriched Uranium (HEU)/General Purpose Evaporator (GPE) Bottoms to Tank 50 for later disposal as Low Level Waste (LLW) which saved valuable tank farm space.

Waste Removal

A technology exchange for tank cleaning technology was held for the entire DOE complex, in which numerous vendors were identified for potential future SRS and DOE complex support. Bulk Waste Removal (BWR) operations were performed on Tank 5 and 6 utilizing Waste on Wheels (WOW) mobile sludge removal techniques. Some delays were experienced due to pump bearing issues. However, the issues were resolved and waste removal operations were initiated. Additional waste removal evolutions including the installation of a third submersible mixing pump (SMP) and hydro-lancing equipment are in progress to meet overall tank cleaning objectives.

Tank Closure

A draft "Basis for Section 3116 Determination for Tank 19/18" document needed to support Tank 19/18 closure was submitted to DOE-HQ and the NRC. Draft responses to NRC RAIs were completed for the Tank 19/18 WD basis document. Potential alternative technology for added waste removal in Tank 19/18 was identified. Evaluation of this technology for use in Tank 19/18 is in progress.

Tank Space

During FY06, Tank Farm influents and effluents were managed to maintain Type III useable tank space relatively constant at between 2.0 – 2.5 million gallons.

Evaporator operations continue to be monitored and evaluated to assure optimal support of the planning case is maintained. The 2F evaporator successfully processed all of the planned Sludge Batch 4 decanting operations. Several adverse impacts for evaporator operations experienced during the year were: 1) 2H evaporator utility was low (<50%) due to the need for mechanical and/or chemical cleaning caused by Sodium Alumina Silicate (NAS) solids buildup, and 2) 3H evaporator utility was low due to the Tank 37 transfer line jacket repair caused by a failed jacket. A NAS inhibitor technology development activity is being pursued to address NAS formation which has impacted the 2H evaporator attainment. A 2H acid cleaning process was developed and is being used to improve evaporator performance. A repair strategy for the Tank 37 transfer line jacket is in progress. Though the evaporator operation was low during FY06, the evaporator systems operated sufficiently to support the priority missions (i.e., Waste Removal in support of Tank Closure, Sludge Batch 4 washing, H Canyon operations, DWPF recycle receipts, and Salt Batch preparation).

Work continues to return Tank 48 to service. Progress continues to be made, but the schedule risk previously identified in the DPP will likely be realized. The Independent Technical Review (ITR) that was conducted for the alternative treatment technology selection process also confirmed the likelihood of realizing this risk.

Work continues on a project to support a low-level waste lag storage system that will replace Tank 50's function as the feed tank to SPF. The return of Tank 50 to liquid waste service by January 2010 is required to provide tank space to meet programmatic objectives.

4.2. Assessment of DPP versus Current Planning

The DPP was prepared to incorporate the most up-to-date information as of May 2006. The DPP is consistent with the consensus goals developed by DOE and the State of South Carolina. The DPP highlights these programmatic objectives:

- Continue storing liquid radioactive wastes in a safe and environmentally sound manner
- Meet tank closure regulatory milestones in the Federal Facility Agreement (FFA)
- Support continued nuclear material stabilization in H Canyon through at least 2013
- Provide tank space to support staging of salt solution adequate to feed the SWPF at system capacity
- Sustain sludge vitrification in the DWPF, which requires timely sludge batch preparation
- Minimize the quantity of radionuclides (curies) dispositioned in the Saltstone Disposal Facility (SDF) to be as low as practical, while meeting the stated goals

The IPP was the planning document in effect at the time of the last major revision to the IP (Rev. 3). The DPP and Rev. 4 of the IP were issued in mid-2006 to reflect the initial delays in DDA processing. Since the issuance of the DPP, several additional changes to the assumptions have occurred as a result of delays in the initiation of DDA salt processing and improved understanding of tank waste characterization (e.g., increased sludge mass and rate limitations for processing higher aluminum content). Table 1 highlights the changes that have occurred between the various planning documents and current planning conditions as of November 2006 and provides the primary basis for the change in assumptions. The table describes the unmitigated impacts to these changes with an assumed initiation of DDA processing by January 2007. Continuing delays significantly beyond January 2007 have the potential to result in more than day-for-day extensions to the life-cycle as a result of diminishing compliant waste tank useable space.

Detailed modeling is ongoing in conjunction with development of risk mitigation strategies to further quantify the impacts to the priority missions. While some risks previously documented in the PBS-SR-0014 Risk Management Plan have been realized, no new risks have been identified that would significantly impact the current risk management strategies. The purpose of the identification of the unmitigated impacts is to focus and drive decisions, evaluations, and detailed modeling leading to an updated revision to the System Planning documents.

Table 1 – Programmatic Assessment of the DPP versus the Current Planning Assumptions

Item	IPP assumptions (June 2005)	DPP assumptions (May 2006)	Current Planning assumptions (November 2006)	DPP versus Current Planning Assumptions (Unmitigated Impact Summary)
Salt Waste Processing Facility (SWPF) startup date	SWPF startup in August 2009.	SWPF startup in September 2011.	No change.	No impact.
Interim salt processing	Initiate salt processing January 2006.	Initiate salt processing July 2006 – date of approval of National Defense Authorization Act (NDAA) Section 3116 Waste Determination resulted in the delay in the initiation of salt processing.	Initiate salt processing January 2007 – processing was not initiated in July 2006 because of delays in issuance of the SPF salt processing permits and the SDF landfill permit.	Based upon the delays in the receipt of permits, it is anticipated that there will be a seven-month delay in the planned initiation of DDA salt processing. Because of this seven-month delay, a subsequent delay in feed availability of ARP/MCU is forecast. Therefore, Actinide Removal Process/Modular Caustic Side Solvent Extraction Unit (ARP/MCU) is forecast to process less salt solution than was assumed in the DPP due to the reduced time period between DDA completion and SWPF startup. Although the actual initiation of many of the salt processing activities will be later than depicted in the DPP, and the completion of milestones may be impacted, the scope and sequence of these activities are still valid and no changes to the fundamental strategy are proposed at this time.
SWPF processing rate	Production for the first year is 3.4 million gallons; ramp up over the next 5 years to 5.7 million gallons per year.	Production for the first year is 5 million gallons. Rate for subsequent years is 6.4 million gallons per year with a four-month outage every 48 months. Average rate will be 5.9 million gallons per year..	Production for the first year is 3.75 million gallons. Rate for subsequent years is 6.0 million gallons per year with a four-month outage every 48 months. Average rate will be 5.5 million gallons per year.	SWPF processing rates have been adjusted to reflect time and motion modeling results and expected SWPF processing capacity has been adjusted for contactor hydraulic limitations. Availability of Tanks 48 and 50 for salt solution preparation allows the system to meet full SWPF processing rate capacity after the first year of operation.

Table 1 – Programmatic Assessment of the DPP versus the Current Planning Assumptions

Item	IPP assumptions (June 2005)	DPP assumptions (May 2006)	Current Planning assumptions (November 2006)	DPP versus Current Planning Assumptions (Unmitigated Impact Summary)
DWPF sludge processing	Processing rate of 250 cans per year through FY08 and 230 cans per year thereafter. Waste Characterization System (WCS) predictions employed for mass of sludge and concentrations of components in Tanks 4 and 11.	Processing 262 cans per year initially; 186 cans per year for high-aluminum batches; and 250 cans per year thereafter.	Processing rate of 186 cans for high-aluminum batches and 250 cans per year for high-iron batches. Note: Higher sludge masses identified in recent sludge mass studies will be included in future modeling.	Programmatic life-cycle may be extended an estimated 5 to 10 years due to the effect of increased sludge mass and rate limitations for processing higher aluminum content material. Mitigation strategies (e.g., aluminum dissolution) to decrease the inert mass vitrified, increase DWPF throughput, and reduction of sludge mass uncertainty are under evaluation. The outcomes of these investigations will be incorporated into future System Planning documents. Due to the delays in the ability to initiate salt processing and therefore delays in ARP/MCU processing of stored DWPF concentrate, canister production must be reduced due to insufficient tank space available for 2H evaporator concentrate storage. Preliminary analysis indicates that a reduction of ~100 canisters through 2009 may result from a seven-month delay in the initiation of salt processing. Alternative mitigation strategies to reduce this impact are actively being pursued.
Tank 50	Tank 50 always used as DSS lag storage. Tank 50 not available for use in tank closures or as a salt solution preparation tank for SWPF.	Tank 50 will be available by January 2010 for storing waste to support closing Tanks 11 and 14 in FY14 and Tank 15 in FY15. Assumes after startup of SWPF, Tank 50 is used as a salt solution preparation tank for SWPF and new low-level waste lag storage will be constructed to replace Tank 50.	No change.	No impact.

Table 1 – Programmatic Assessment of the DPP versus the Current Planning Assumptions

Item	IPP assumptions (June 2005)	DPP assumptions (May 2006)	Current Planning assumptions (November 2006)	DPP versus Current Planning Assumptions (Unmitigated Impact Summary)
Tank 48	Tank 48 not available for other uses. Processing rate of SWPF is reduced in early years.	The tetraphenylborate in Tank 48 waste is dispositioned in time for the tank to be used by January 2010 for staging and processing of wastes generated by DWPF sludge batch preparation, H Canyon, and closing Tanks 11 and 14 in FY14 and Tank 15 in FY15.	Alternative technology selection is ongoing and is scheduled for completion in 2006. Implementation schedules will be developed following finalization of the selection process and these schedules will be included in future modeling. For the purpose of this assessment, realization of the schedule risk previously identified in the DPP is assumed. This is consistent with the Tank 48 Alternative Treatment Technology selection process ITR conclusions.	In the DPP, the return of Tank 48 by January 2010 is required to provide tank space to meet programmatic objectives. While schedules are not yet developed for implementation for the alternative treatment approach, it is likely that the schedule risk previously identified in the DPP will be realized. Based upon sensitivity studies performed during the development of the DPP[3], an unmitigated delay will primarily impact tank closures beginning in FY14. When a project baseline is approved, it will be incorporated into a future revision of the DPP along with any identified mitigation strategies.
H Canyon Operation	H Canyon operation through 2011	H Canyon operation through at least 2013.	H Canyon operation through 2019. This assumption is based on the 2006 Environmental Management Program Project Execution Plan [13].	Extension from 2013 to 2019 will have minimal to no impact on the Tank Farms since SWPF will already be in operation. The impact of delays in initiation of salt processing on H Canyon operation have been mitigated with the extension of unirradiated HEU campaigns to accommodate tank space shortages.

Table 1 – Programmatic Assessment of the DPP versus the Current Planning Assumptions

Item	IPP assumptions (June 2005)	DPP assumptions (May 2006)	Current Planning assumptions (November 2006)	DPP versus Current Planning Assumptions (Unmitigated Impact Summary)
Tank Closure	FFA commitment dates will be met.	FFA commitment dates will be met.	Without mitigation, delays in meeting FFA commitments dates are anticipated. Changes to this assumption are based on delays in issuing the Section 3116 Waste Determination that precedes final Tank 19 and 18 closure activities and the delay in initiating DDA that would provide necessary evaporator concentrate receipt space to volume reduce the waste streams generated during these activities.	Closure of tanks per the FFA schedule remains a high priority. Aggressive pursuit of mitigation strategies is underway. An extensive technology development program has been initiated to develop improved residual waste removal techniques. Improvements in the Section 3116 process are being identified and implemented to reduce the closure durations.
Tank Space	Sufficient space existed to support all priority missions.	Sufficient space existed to support all priority missions with the addition of Tank 48 and Tank 50 return to service in January 2010 and initiation of DDA in July 2006.	Sufficient space does not exist to support all priority missions without impacts. This assumption change results from delays in the initiation of DDA.	Delays in the initiation of salt waste processing, specifically DDA, will result in insufficient concentrate receipt space in both the 2F and 3H evaporator systems to support FY07 through FY08 mission priorities. This specifically impacts the removal of Tank 25 saltcake and subsequent restart of the 2F evaporator by the DPP planned date of late FY07. The timing of the recovery of Tank 25 and subsequent recovery of the 2F and 3H evaporator systems is critical to volume reduce the waste streams generated during Sludge Batch 5/6 preparation and Tank 5 and Tank 6 heel removal and subsequent closure operations.

5.0 Conclusion

Although the path to the final end-state of the Tank Farm and the waste processing facilities continues to change, LWO has been able to meet its mission objectives. As a result of the seven-month delay in the initiation of salt processing and improved understanding of tank waste characterization (e.g., the increased sludge mass and rate limitations for processing higher aluminum content material), it is anticipated that there will be impacts to portions of the LWO mission including near-term operations (e.g., reduced DWPF throughput, delayed Tank 25 recovery, etc.) with a corresponding extension to the program life-cycle. Although the actual initiation of many of the activities identified may be later than depicted in the DPP, and the completion of milestones may be impacted, this programmatic evaluation concludes that the scope and sequence of these activities are still valid and no changes to the fundamental strategy are proposed at this time.

Assuming a January 2007 start of DDA salt processing, no adverse impacts to H Canyon operations are anticipated due to the change in near-term processing campaigns. DWPF life-cycle objectives will be challenged due to higher sludge mass and reduced processing rate caused by high aluminum sludge batches. The ability to meet FFA Tank Closure schedules will be challenged even with mitigation strategies. The detailed modeling to fully quantify the impacts to the priority missions is actively ongoing as part of the upcoming System Planning document revisions. In parallel with System Planning document revisions, aggressive pursuit of alternative technologies have been initiated in the areas of aluminum dissolution, Tank 48 TPB disposition, and improved waste removal techniques. In addition, Tank 50 space is being recovered by replacement with a low-level lag storage system. Delays beyond January 2007 have the potential to result in more than day-for-day extensions to the life-cycle as a result of diminishing compliant waste tank useable space.

The planning process with its three primary levels of planning enables LWO to retain flexibility and responsiveness to circumstances. Maintaining the plans on a routine basis provides the necessary management direction for meeting near and long term programmatic objectives. Risks will continue to be monitored to ensure that risk handling strategies are implemented to mitigate potential impacts to LWO planned activities.

6.0 References

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