Department of Energy
Washington, DC 20585

22 September 1997

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

Dear Mr. Chairman:

Enclosed for your information is the ninth Quarterly Report on the Implementation of Defense Nuclear Facilities Safety Board Recommendation 94-1 by the Nuclear Materials Stabilization Task Group. This report presents the status of actions and milestones associated with the 94-1 Implementation Plan and describes activities underway to address emerging issues associated with nuclear materials stabilization for the period April 1 through June 30, 1997.

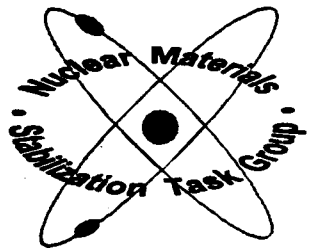
Since the preparation of this report, there have been developments to three 94-1 issues that are worth noting. H-Canyon at Savannah River was restarted and began dissolving Mark-16 and 22 spent nuclear fuel in July. The report on the Savannah River Canyon utilization strategy has not yet been transmitted to Congress. Also, as noted in my letter of September 18, 1997, there has been a significant delay in the execution of the milestone to begin stabilization of high-risk salts at Rocky Flats. Complete discussions of these issues will be included in the report for the period July 1 through September 30, 1997.

If you have any questions, please feel free to contact me or have your staff contact Mr. John Tseng, Acting Director, Nuclear Materials Stabilization Task Group, at 202/586-0383.

Sincerely,

Alvin L. Alm
Assistant Secretary
for Environmental Management

Enclosure



DEFENSE NUCLEAR FACILITIES SAFETY BOARD
RECOMMENDATION 94-1 IMPLEMENTATION

QUARTERLY REPORT

Covering the period
April 1 – June 30, 1997

Submitted: _____ Date: 7/16/97
John C. Tseng
Acting Director
Nuclear Materials Stabilization Task Group

Reviewed,
Recommending
Approval: _____ Date: 9/9/97
for David G. Huizenga
Acting Deputy Assistant Secretary for
Nuclear Material and Facility Stabilization

Approved: _____ Date: 9/20/97
Alvin L. Alm
Assistant Secretary for
Environmental Management

I. PROGRAM OUTLOOK

Major Activities and Issues

DNFSB 94-1 Public Meeting

A public meeting was held on June 10, 1997, at the request of the Board, during which the progress and future of the Department of Energy Recommendation 94-1 Implementation program was described. Assistant Secretary for Environmental Management (EM) Alvin Alm made opening comments and introduced John Tseng, Acting Director of the Nuclear Materials Stabilization Task Group (NMSTG: EM-66), who then proceeded with a detailed briefing describing the progress made over the past two years and the future plans related to nuclear materials management. The Board, after a series of specific questions and general discussion, concluded the meeting by reiterating their desire that the Department sustain its commitment to completing 94-1 milestones in a timely manner, particularly in light of reduced EM program budgets and DOE Headquarters EM organizational restructuring necessitated by employee end-strength reductions.

Rocky Flats

A 94-1 plutonium residues and liquids program rebaselining effort has been undertaken at Rocky Flats to incorporate recommendations and/or address technical issues identified in the various trade studies that have been completed over the past year. The benefits from this process include reducing the number of operators required to perform stabilization, reducing the number waste drums generated, and supporting the completion of stabilization commitments and overall site closure. The specific subcategories of material affected by the rebaselining include:

- Plutonium Combustibles
- Pyrochemical Salts
- Graphite Fines
- Ash
- Sand, Slag, and Crucible (SS&C)
- High-level Plutonium Solutions

Rocky Flats has submitted proposed implementation plan changes to Headquarters, as briefed to the Board on May 27, 1997. The proposed changes are currently under review.

Savannah River

A reassessment of the Savannah River Canyons utilization strategy is in the final stages of Headquarters' internal review. A briefing on this matter was provided to the Defense Board on April 30, 1997. A report on this strategy is expected to be submitted to Congress in late July or early August 1997. Any impacts to the program resulting from canyon utilization decisions will be reflected in an Implementation Plan (IP) change. The H-Canyon is undergoing final readiness reviews, and resulting prestart findings are expected to be closed in July 1997. The Department

could then restart H-Canyon to carry out the planned stabilization of spent nuclear fuel as soon as a final canyon utilization strategy is approved by the Secretary.

In conjunction with the canyon utilization study, an effort has been initiated by EM-60 to identify all potential excess nuclear materials around the complex that could be stabilized or prepared for disposition in the Savannah River canyons. All field offices and sites have been requested to provide an inventory of materials (including various forms of plutonium and uranium) to Headquarters in early July 1997 as the basis for this analysis. An analysis of the data being collected will be available later this year.

In an April 2, 1997 Supplemental Record of Decision, the Department decided to stabilize all remaining Taiwan Research Reactor spent nuclear fuel using the F-Canyon and FB-Line facilities.

Richland

Richland Operations Office has proposed a change to the Richland stabilization baseline and long term storage of plutonium metals and oxides in light of the recent Record of Decision on the Storage and Disposition of Weapons-Usable Fissile Materials Programmatic Environmental Impact Statement (S&D PEIS ROD). Richland states that the Interim Storage Criteria is acceptable for 20-year storage, and that PFP storage practices are consistent with the Interim Storage Criteria. Richland also contends that the S&D PEIS ROD will eliminate the need to package metals and oxides for long term storage. A study of the options presented by Richland is being conducted to provide a reasoned analysis of the issues and the potential impacts associated with deviating from the original stabilization baseline. The study is scheduled to be completed by August 1, 1997.

An implementation plan change is being developed by Richland to document changes in the spent fuel stabilization scope and schedule. In particular, the Spent Nuclear Fuel project is facing a number of challenges to meet SNF stabilization commitments. The fully integrated project schedule was rebaselined on April 1, 1997. Progress toward the new baseline is slipping causing potential delays in fuel removal from the K-Basins. A number of factors are contributing to the potential delays including:

- Dual path construction and design process requiring sequencing of verification and closure of enabling assumptions. The project has 91 formally defined enabling assumptions; inability to verify and close the assumptions at the required time has caused critical path delays.

- The use of enabling assumptions requires conservatism loading to complex designs and safety features, slowing equipment fabrication and construction.

- Safety Analysis Report (SAR) preparation and review involving multiple concurrent segment reviews is slowing overall SAR process.

- Probable changes to originally planned sludge removal plan. Originally sludge was to be transferred to the tank farms. Detailed analysis of issues such as criticality, pyrophoricity, vitrification performance, Toxic Substances Control Act requirements indicate that the original plan may not be practical. Changes would require design of either a pretreatment system or a separate storage facility adding time and cost to the project.

The construction contractor is in the process of finalizing a resource loaded critical path schedule that incorporates the design changes and the process described above. Once the schedule is complete an implementation plan change will be submitted.

Oak Ridge

A number of changes are being proposed for both major 94-1 activities underway at Oak Ridge. Unforseen technical difficulties have created additional scope for the MSRE stabilization project and are impacting existing milestones. The K-25 Deposit Removal Project will have a reduced scope compared to that originally identified in the 94-1 Implementation Plan for K-25 as a result of a detailed criticality review, however, additional deposit removal activities will be undertaken at K-29. Implementation plan changes reflecting these changes have been submitted and are currently being reviewed by Headquarters.

Los Alamos National Laboratory

An implementation plan change to the Los Alamos National Laboratory (LANL) 94-1 program has been submitted to Headquarters by DOE-Albuquerque (DOE-AL). The changes significantly modify previously planned stabilization and repackaging of selected LANL inventory items, but do not compromise safety issues surrounding their stability, packaging, and storage while either in use or awaiting use for DOE programmatic activities.

Plutonium items in the LANL inventory affected by these changes are: 1) approximately 1000 plutonium-bearing items, which are required in the present form and packaging for various DOE programmatic needs (i.e., items cannot be repackaged without impacting the beneficial use to the DOE programs; and 2) weapons grade plutonium metal, which is required for the future Stockpile Management program at LANL. Since these materials will be used in pit manufacturing operations over the next several years, they should not be packaged for long term storage, but rather should be stabilized and packaged for short term storage at the TA-55 vault in accordance with vault storage standards and requirements.

Headquarters is reviewing the proposed IP change and will coordinate with the Office of Defense Programs, DOE-AL, and LANL to address issues related to this change. Discussions with the Board and Board staff will take place as necessary to ensure proper coordination of this change according to established practices for the 94-1 program.

Plutonium Residues Environmental Impact Statement

The Department is in the process of preparing an Environmental Impact Statement (EIS) to evaluate the impacts associated with alternatives to preparing plutonium residues and scrub alloy

currently being stored at Rocky Flats for disposition or disposal. Evaluation of the proposed alternatives will facilitate planning for disposal or other disposition and will allow for any additional treatment to be integrated with the ongoing stabilization process so that the handling of material can be minimized by avoiding double handling for multiple processes. The EIS will serve to ensure that the significant effects of the treatment alternatives are identified and decisions are made on safe and cost-effective treatment for disposal of the affected plutonium residues and scrub alloy. A draft EIS for internal Departmental review has been developed. The Draft EIS will be issued for public review later this summer.

II. PROGRAM ACTIVITIES

Nuclear Materials Stabilization and Stewardship

The Office of Environmental Management is establishing a Nuclear Materials Stabilization and Stewardship (NMSS) program that will draw upon the nuclear materials management expertise from DOE Headquarters and the Operations Offices at Albuquerque and Savannah River. The focus of the NMSS program will be to define, evaluate, and implement nuclear materials stabilization, consolidation, storage, and disposition tasks, and to ensure close cooperation with other DOE programs and stakeholders who share responsibilities or interests in nuclear materials management issues. A draft program plan has been prepared describing functional roles and responsibilities, work control practices, and reporting requirements, and establishing near and long term projects to be conducted by the NMSS program participants. The stabilization and stewardship functions will continue to evolve over the coming months as the program matures and Albuquerque and Savannah River offices are fully staffed.

Plutonium Stabilization and Packaging Procurement Project

The first shipment of hardware for the prototype Plutonium Stabilization and Packaging System for Rocky Flats was delivered to Denver in March 1997. The equipment is being assembled in an off-site warehouse in Broomfield, CO. The full unit will be assembled and tested prior to delivery to DOE Rocky Flats in the summer. Representatives from the International Atomic Energy Agency (IAEA) are expected to witness the testing to determine/validate the ability to apply international safeguards to the stabilization process.

Research and Development Progress

The NMSTG reviewed the Stabilization Research & Development Program this quarter with assistance from the Plutonium Focus Area. Several projects were found to have matured to the point that they could be used for specific applications or concluded. The NMSTG uses the review to redirect the research and to guide the revision of the Stabilization R & D Plan.

LANL completed the draft publication, "Extraction of Water from Oxides and Hydrates Using Supercritical Fluid, Carbon Dioxide." This method is being considered to replace water analysis by weight loss during heating. The carbon-dioxide extraction offers a specific measurement of water without interference from sodium cations or other volatile, non-hydrogenous materials.

The following is a summary of significant 94-1 program R&D progress related to tasks being conducted by Los Alamos National Laboratory as the lead plutonium research laboratory:

- Hardware for the pyrolysis of polycubes has been fabricated and readied for shipment to Hanford.

- To date, the demonstration of the reliability of the 3kg salt distillation prototype is on schedule, having completed over 40 experiments at that capacity. Additionally, other oxidants are being pursued to enhance the chemical process and avoid issues associated with foaming. The aqueous process has shown the ability to dissolve 6kg of calcium chloride within a 6-hour period with stirring only.

- X-ray tomography is being evaluated as a non-invasive and non-destructive method for determining both contents and condition of TRU material packaged in long-term storage containers.

- The Materials Identification and Surveillance Program has focused on the two main technical issues of the evaluation of Loss On Ignition method (LOI) and other measurement of adsorbed water techniques. To date, the program has documented that materials high in chloride content, but with water content below 0.1%, can produce LOI measurements greater than the 0.5% criterion. Measurement of hydrogen content, including that in water by thermalized neutrons, can provide a rapid confirmation of successful stabilization that is superior to the LOI measurement in many instances.

- Acoustic resonance spectroscopy research is progressing well. It has demonstrated an excellent level of accuracy and ease of use. This technology will be developed as a part of an automated storage container system.

- The Core Technology Program has proceeded well this quarter. At the Core Technology review in May 1997, 15 core technologies were reviewed for technical merit and programmatic adequacy. Shown below are selected programs and their technical status to date.

  - The Actinide/Surface Interactions project: the project has shown that IX resins are not nitrated as they degrade in lesser molar concentrations of nitric acid (<8 molar) without radiation but they do nitrate in high molarity nitric acid concentrations (8 to 10 molar).

  - Plutonium Diffusion Science: Experiments have demonstrated that solid-solid diffusion rates are so low that they are irrelevant to DOE-STD-3013-96 storage containers.

  - Polymer Filtration: Research data indicate that this project looks competitive with IX for plutonium recovery. It was determined not to be appropriate for highly acidic solutions because salt waste produced would be highly basic.

- Thermodynamics: Technical achievement of the measurement of vapor pressure of PuCl in salt distillation was shown this quarter. This technology has demonstrated a more detailed model of salt distillation than accomplished in the past.

Plutonium Focus Area Activities

Technical Advisory Panel

A 2-day Applied Technology Program review was conducted by the Plutonium Focus Area (PFA) Technical Advisory Panel (TAP) at LANL in April. Following the review, a report entitled "Defense Nuclear Facilities Safety Board 94-1 Applied Technology Program Review" was prepared. Information from this report will be included as a portion of the 1997 Research and Development Plan, and is used to assist the Nuclear Material Stabilization Task Group and the Lead Laboratory in directing the program.

A quarterly TAP meeting was held in Scottsdale, Arizona, April 30 and May 1, in conjunction with the Seventh Annual Applied Research and Technology Colloquium. The TAP reviewed the draft of the "DNFSB 94-1 Core Technology Program Review" and endorsed the report with comments. The TAP reviewed two white papers: "Recovery of Plutonium from Plutonium Scrap and Residue with Conversion of Secondary Waste to Borosilicate Glass," and "Electrochemical Scrubbing of Rocky Flats Environmental Technology Site (RFETS) $CaCl_2$ Salt Residue." The TAP addressed Plutonium Residue Stabilization through an invited panel discussion at the Colloquium. An overview of the TAP's responsibilities was presented, and questions were taken from the attendees. Individual and collective answers were presented in response to the questions.

A second quarterly TAP meeting was conducted in Charleston, South Carolina on June 25 in conjunction with the annual Actinide Conference. The focus of this meeting was to develop and finalize plans for writing the 1997 Research and Development Plan. A schedule was developed and approved that will result in a finished R&D Plan by November 1997.

Integrated Monitoring and Surveillance System (IMSS) Test-bed Project

Progress continued throughout the quarter on the IMSS demonstration project. Major monitoring and surveillance sensor purchases were made during May, including orders to Oak Ridge National Laboratory (ORNL) and Sandia National Laboratory (SNL). Delivery of these sensors constitute a major milestone in the IMSS efforts. One area of concern is the delivery date for 3013 cans, which were to be delivered near the end of May; this date has now slipped to August. Surrogate cans may have to be fabricated to insulate the project from further delays in this area. Significant progress has been realized in the strengthening of inter-laboratory collaborations. The IMSS project team is now working closely with major sensor/software developers, SNL and ORNL, as well as potential customer for IMSS products, e.g. Savannah River Site. Cooperation with other "customer" laboratories, e.g. Rocky Flats Environmental Technology Site, will be pursued in the near future.

III. MILESTONE SUMMARY

Progress to Date: Milestones Summary

- 165 total milestones in Implementation Plan*
- 87 milestones completed since February 1995
  - 33 milestones completed early
  - 37 milestones completed on time
  - 17 milestones completed late
- 9 milestones past due

* *A complete listing of milestones is included as an attachment to this report.*

Milestones Past Due

IP-3.2-045 *Begin repackaging material to meet metal and oxide storage standard at Lawrence Livermore National Laboratory* (May 1996)

IP-3.3-043 *Pu identified in ES&H Vulnerability Study requiring stabilization will be processed during the first year of Phase 3 Operation.* (April 1997)

Packaging will begin in April 1998. The original plans anticipated procurement of a full plutonium stabilization and packaging system. However, a full system would be costly relative to the small amount of material at LLNL. Livermore has identified and will obtain sufficient stabilization and packaging equipment to complete stabilization and packaging by May 2002.

IP-3.6-040 *Complete vacuum consolidation of Savannah River's K-Reactor Disassembly Basin Sludge* (September 1996)

Upgrades to basin water chemistry have superseded the need for basin sludge consolidation and removal in the near term. An Implementation Plan revision to delete this milestone will be prepared.

IP-3.6-033 *Begin stabilization of Mark-16/22 HEU SNF at Savannah River* (November 1996)

Mark-16/22 spent fuel was scheduled to follow stabilization of Mk-31 targets. Stabilization of Mk-31 targets in the F-Canyon facility was delayed due to canyon seismic issues. Additionally, more spent fuel (Taiwan Research Reactor fuel) requiring stabilization has been added to the schedule. Mk-16/22 stabilization is now planned to be done in H-Canyon on following completion of final operational readiness reviews, expected July 1997, and Secretarial approval of a final canyon utilization strategy.

IP-3.2-042 *Complete the Plutonium ES&H Corrective Action Plan at Lawrence Livermore National Laboratory* (January 1997)

IP-3.3-045 *Identify, characterize, and non-destructively assay all Pu items at Lawrence Livermore National Laboratory* (January 1997)

Management shutdown of the Pu facility caused some operational delays. Additionally, the scope of the assessment of packaging has been increased to include 600 items of plutonium (those under 40 grams per item). These milestones are now expected to be completed in October 1997.

IP-3.6-036 *Reorient fuel in Savannah River K-Reactor Disassembly Basin to a horizontal configuration* (February 1997)

Reorientation of K-Basin fuel was adversely impacted by construction craft staff reductions and problems with basin turbidity in January 1997. Those personnel reductions delayed the removal of old racks in K-Basin, which is necessary to permit rebundling of the fuel for horizontal storage. Additionally, suspended solids present in the basin reduced visibility during reorientation operations delaying overall progress. By April, the new fuel racks had been installed and the water turbidity problems had been corrected, however, the milestone has fallen further behind schedule due to a dropped Mk-22 fuel assembly. Completion is now expected by the end of July 1997.

IP-3.1-022 *Begin Processing Solutions at Plutonium Finishing Plant* (June 1997)

This milestone, as reported in previous monthly status reports, is currently not going to be met on schedule. Project C-226 installs the solution processing equipment, and progress is ongoing but somewhat slowed due to the curtailment of fissile material movement. Electrical conduit installation and wire pulling continues. The construction forces are still on double shifts for electrical craft, and presently this construction is scheduled for completion by July 30, 1997. Construction of the pretreatment portion of the project will not be completed until FY 1998 because of lack of funding in FY 1997 to complete that work. This change is not expected to impact the completion milestone for this work as identified in IP-3.1-017 as January 1999.

IP-3.1-020J *Complete processing liquids from eight Rocky Flats Building 371 tanks* (June 1997)

Rocky Flats proposes a change in processing the high-level plutonium solutions in Building 371, which impacts the completion of this milestone. The hydroxide precipitation process in Building 371, which was successfully employed to stabilize low-level plutonium solutions, will be use for stabilized Building 771 high-level solutions instead of starting a new oxalate process system in Building 771. Some of the remaining Building 371 low-level plutonium solutions are needed for blending of high-level plutonium solutions prior processing. The Implementation Plan change proposes a new completion date of June 1999.

DEPARTMENT OF ENERGY

NUCLEAR MATERIALS STABILIZATION TASK GROUP

DNFSB Recommendation 94-1 Implementation Plan Milestones

July 8, 1997

165 Milestones
(173 proposed)

NMSTG Milestone Number	SIMS Cmt #	Key Milestones	Material Group	IP Page #	DOE Site	Milestone	Due Date	Revised Due Date	Completion Date	Status
IP-ES-042	001	*	General	6	All	Facilities will be started or restarted in accordance with DOE Order 5480.31. These restart and start-up requirements will be taken into account in the development of the "Facilities Section" of the Program Plan.	None			RF - Bldg. 771 tank draining ORR completed August 1, 1995. First three tanks drained September 29, 1995.
IP-3.2-028	002		Pu Met/Ox	47	HAN	Start engineering studies of a new repackaging line at Hanford.	Sep 1995		Sep 1995	Completed September 8, 1995.
IP-3.2-029	003		Pu Met/Ox	47	HAN	Complete detailed design, equipment procurement, and installation of a new repackaging system.	Dec 1998			**Budget shortfall delays PuSPS purchase. Completion delayed until Jun 1999. (May 97 Rpt)**
IP-3.2-033	004	*	Pu Met/Ox	48	HAN	Start restabilizing high assay oxides at the PFP.	Jul 1999			
IP-3.2-030	005		Pu Met/Ox	47	HAN	Train staff, prepare procedures, perform operational readiness testing (prior to commencing operations).	Sep 1999			**Budget shortfall delays PuSPS purchase. Completion delayed until Sep 2000. (May 97 Rpt)**
IP-3.2-031	006	*	Pu Met/Ox	47	HAN	Commence repackaging operations at Hanford.	Oct 1999			**Budget shortfall delays PuSPS purchase. Completion delayed until Oct 2000. (May 97 Rpt)**
IP-3.2-032	007	*	Pu Met/Ox	47	HAN	Complete metal repackaging at Hanford.	Sep 2000			**Budget shortfall delays PuSPS purchase. Completion delayed until Sep 2001. (May 97 Rpt)**
IP-3.2-018	008	*	Pu Met/Ox	41, 48, 50	HAN	Thermally stabilize and repackage all plutonium oxide to meet the metal and oxide storage standard.	May 2002			
IP-3.3-031	009	*	Pu Res	4, 67, 73	HAN	Stabilize existing inventory of sludge (low organic residues) in muffle furnaces.	Sep 1995		Jun 1995	Completed early on June 13, 1995.
IP-3.3-032	010	*	Pu Res	4, 67, 73	HAN	Stabilize 46 cans of selected ash from RF in the muffle furnaces.	Mar 1996		Jan 1996	Completed early in January 1996.
IP-3.3-028	011	*	Pu Res	67	HAN	Stabilization of Polycubes begins.	Jul 1999			Currently on schedule (January Prgm Review)
IP-3.3-026	012	*	Pu Res	67	HAN	Stabilization of reactive solids (SS&C) completed.	Jan 2000			
IP-3.3-029	013	*	Pu Res	67, 73	HAN	Stabilization of Polycubes completed.	Jan 2001			
IP-3.3-027	014		Pu Res	67	HAN	Stabilization and repackaging of interim-stabilized materials completed.	Jan 2002			Supporting action necessary to meet IP-3.3-033 due May 2002.
IP-3.3-033	015	*	Pu Res	4, 67, 73	HAN	Stabilize and package all remaining residues to safe storage standards.	May 2002			
IP-3.1-024	016	*	Pu Soln	3, 36, 37	HAN	Complete transfer of 22,700 liters of PUREX solutions to tank farms at Hanford.	Aug 1995		Apr 1995	Completed early on April 28, 1995.
IP-3.1-014	017		Pu Soln	36	HAN	All bottles of plutonium solutions at Hanford inspected to ensure proper venting.	Sep 1995		May 1995	Completed early on May 16, 1995.
IP-3.1-015	018		Pu Soln	36	HAN	220 liters of chloride solutions at Hanford stabilized as part of a developmental testing program.	Sep 1995		Sep 1995	Completed September 29, 1995.

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IP-3.1-021	019	•	Pu Soln	37	HAN	Complete solution technology development at Hanford Plutonium Finishing Plant (PFP).	Mar 1996		Apr 1996	Completed late in April 1996.
IP-3.1-016	020		Pu Soln	36, 37	HAN	ROD issued for PFP Clean-out and Stabilization EIS.	Jun 1996		Jun 1996	Completed. ROD was approved on June 25, 1996 and published in the Federal register on July 10, 1996. (June 96 RPT)
IP-3.1-022	021	•	Pu Soln	37	HAN	Begin processing solutions at PFP.	Jun 1997			**Past due. No stabilization activity since Dec 96 due to fissile mat'l handling problems. Handling is stopped, progress toward RA readiness is slow due to Conops issues. Stabilization won't resume before Jul 97. (May 97 Rpt)**
IP-3.1-017	022	•	Pu Soln	3, 36, 37	HAN	Stabilization of 4,800 liters at PFP completed.	Jan 1999			**See IP-3.1-022. Despite processing start problems, milestone is expected to be completed on time. (May 97 Rpt)**
IP-3.6-016	023		SNF	105	HAN	Complete cofferdam installation in K-West Basin	Feb 1995		Feb 1995	Completed February 1995; USQ package approved by DOE (RL) June 7, 1995.
IP-3.6-014	024		SNF	105	HAN	Develop K-Basin potential funding options and an acquisition strategy, as appropriate.	Mar 1995		Mar 1995	Completed March 1995.
IP-3.6-015	025		SNF	105, 112	HAN	Issue Notice of Intent for K-Basins EIS.	Mar 1995		Mar 1995	Completed. Published in the Federal Register on March 28, 1995.
IP-3.6-017	026		SNF	5, 105	HAN	Complete cofferdam installation in K-East Basin	Apr 1995		Apr 1995	Completed April 1995; USQ package approved by DOE (RL) June 7, 1995.
IP-3.6-019	027		SNF	105	HAN	Initiate sludge retrieval demonstration in conjunction with cofferdam installation in K-Basins.	Apr 1995		Dec 1994	Completed early in December 1994.
IP-3.6-018	028		SNF	5, 102, 105, 112	HAN	Start fuel characterization in K-Basin hot cells	Apr 1995		Apr 1995	Completed. Started fuel transfer to PNL & characterization on March 30, 1995.
IP-3.6-020	029		SNF	105, 112	HAN	K-Basins Integrated Path Forward Schedule providing details of major system acquisitions and material movements issued.	May 1995		Apr 1995	Completed early. Schedule issued April 25, 1995.
IP-3.6-010	030		SNF	101, 103, 105, 112	HAN	Issue "Management of SNF from the K-Basins" EIS ROD.	Dec 1995		Mar 1996	Completed late on March 4, 1996.
IP-3.6-012	031	•	SNF	105, 112	HAN	Begin SNF and sludge removal from K-Basins.	Dec 1997			**K-Basin fuel and sludge removal progress is slipping as project status and path forward are reassessed. CSB construction was stopped between May 12th and 30th while investigating personnel injury. (May 97 Rpt)**
IP-3.6-001	032	•	SNF	5, 96, 105, 112	HAN	Complete removal of all SNF from K-Basins.	Dec 1999			15 fuel elements from the KW-Basin to the 300 Area hot cells was completed. They were selected to span the damage state of the KW-Basin fuel inventory. Test to determined the cold vacuum drying and hot conditioning will begin in Mar 97. (Feb 97 RPT)
IP-3.6-201	153	•	SNF		HAN	Complete removal of all sludge from K-Basins.	Dec 2000			IP-3.6-201 added to separate original milestone, IP-3.6-001, into two parts; SNF removal (001) followed by sludge removal (201).

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IP-3.6-045	033	*	SNF	111	ID	Begin movement of CPP-603 South Basin SNF.	Jul 1995		May 1995	Completed early on May 12, 1995.
IP-3.6-043	034	*	SNF	110, 111, 113	ID	Move an additional 189 SNF units from CPP-603 North and Middle Fuel Storage Facility to CPP-666.	Dec 1995		Sep 1995	Completed early on September 11, 1995.
IP-3.6-044	035	*	SNF	110, 111, 113	ID	Move all SNF (6.84 metric tons) from CPP-603 North/Middle Basins to CPP-666.	Dec 1996		Aug 1996	Completed early on August 5, 1996.
IP-3.6-046	036	*	SNF	111, 113	ID	Complete the removal of all SNF not requiring overpacking from CPP-603.	Dec 1998			**Progress behind schedule – 0.08MTHM (8 transfers). 0.081MTHM SNF moved from CPP-603 So. Basin since Dec 96 into CPP-666 FSA. 1,766 MTHM (582 FHUs) remain in So. Basin. Site's completion date "under evaluation" - 94-1 due date will be met. (Mar 97 Rpt)**
IP-3.6-047	037	*	SNF	111, 113	ID	Construct and startup a CPP-603 dry storage overpacking station.	Dec 1998			**Unanticipated heater, wiring, and insulation modifications causes completion to be slipped six months. 94-1 completion date will be met. (Mar 97 Rpt)**
IP-3.6-005	038	*	SNF	96, 110, 112, 113	ID	Remove all SNF from the CPP-603 Fuel Storage Facility.	Dec 2000			**Fuel Canning/Drying Station start-up delay & working "higher priority" SNF vulnerabilities causes revaluation of site's scheduled completion date. 94-1 due date will be met. (Mar 97 Rpt)**
IP-3.2-037	039		Pu Met/Ox	49	LANL	Complete peer review of LANL packaging operations for long term storage.	Apr 1995		Apr 1995	Completed April 28, 1995.
IP-3.2-039	040		Pu Met/Ox	49	LANL	Integrate and demonstrate repackaging operations at the TA-55 plutonium facility at LANL.	Apr 1995		Apr 1995	Completed April 28, 1995. Cold operations demonstrated April 28, 1995; hot operations demonstrated June 1, 1995.
IP-3.2-040	041		Pu Met/Ox	49	LANL	Begin repackaging of plutonium metal and oxide at the TA-55 plutonium facility in LANL.	May 1995		May 1995	Completed; repackaging operations commenced May 1995.
IP-3.2-035	042	*	Pu Met/Ox	48	LANL	Stabilize and repackage high risk vault items to meet the long-term storage standards.	Sep 1997			**3 of 4 materials, SS&C, silica solids, and cellulose (cleanup rags) will be completed by due date; however, completion of 4th material, hydroxide precipitate, will require 3 more months. (May 97 Rpt)**
IP-3.2-014	043	*	Pu Met/Ox	41, 48, 49, 50	LANL	Thermally stabilize and repackage all plutonium oxide to meet the metal and oxide storage standard.	May 2002			
IP-3.3-035	044		Pu Res	73	LANL	Perform 100% visual inspection of vault inventory.	May 1995		Apr 1995	Completed early on April 7, 1995.
IP-3.3-034	045		Pu Res	73	LANL	(LANL lead; HAN, LLNL, RF and SR assist) Develop risk-based, complex-wide categorization and prioritization decision criteria that all stored residues will be required to meet.	Sep 1995		Mar 1996	Completed late March 1996 (January Prgm review)
IP-ES-100	046	*	Pu Res	4	LANL	Stabilize 220 kgs of residues.	Oct 1995		Oct 1995	Completed in October 1995.
IP-3.3-037	047	*	Pu Res	74	LANL	Process 90% of analytical solutions.	Oct 1995		Aug 1995	Completed early on August 31, 1995.

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IP-3.3-036	048		Pu Res	74	LANL	Recover 100 neutron sources.	Oct 1995		Apr 1995	Completed early on April 21, 1995.
IP-3.3-038	049		Pu Res	74	LANL	Process 100 kgs of sand, slag and crucible materials.	Oct 1995		Apr 1995	Completed early on April 21, 1995.
IP-3.3-039	050		Pu Res	74	LANL	Process 70 kgs of hydroxide solids.	Oct 1995		Apr 1995	Completed early on April 21, 1995.
IP-3.3-040	051	*	Pu Res	74	LANL	Oxidize 50 kgs of corroded metal items.	Oct 1995		Oct 1995	Completed revised milestone on time. Revised milestone is: "Stabilize 100 metal items by October 31, 1995."
IP-3.2-044	052		Pu Met/Ox	49	LLNL	Begin initial inspection of metal items.	Apr 1995		Apr 1995	Completed in April 1995. Inspections finished in November 1995.
IP-3.2-045	053	*	Pu Met/Ox	49	LLNL	Begin repackaging material to meet the metal and oxide storage standard	May 1996			Past due. Further progress requires bagless transfer equipment. Packaging will begin in April 1998. All materials will be stable during delay. (Apr 97 Rpt)
IP-3.2-042	054	*	Pu Met/Ox	49	LLNL	Complete the Plutonium ES&H Corrective Action Plan at LLNL.	Jan 1997			Past due. 600 additonal items have been added to milestone scope. Packaging assessments are on schedule for completion in October 1997. IP due date change requested. (Apr 97 Rpt)
IP-3.2-043	055	*	Pu Met/Ox	49	LLNL	Excess plutonium metal items at LLNL repackaged in compliance with DOE-STD-3013-94.	Jan 2002			This project is in the Preparation Phase. Additional 600 items were added to the scope of this assessment in an effort to assure a comprehensive assessment of the total inventory of Pu at LLNL. (Feb 97 RPT)
IP-3.2-015	056	*	Pu Met/Ox	2, 41, 50	LLNL	Thermally stabilize and repackage all plutonium oxide to meet the metal and oxide storage standard.	May 2002			
IP-3.3-042	057		Pu Res	71, 73	LLNL	Complete trade-off study to develop plans for the stabilization and packaging of ash/residues for long-term storage.	Apr 1996		Nov 1996	Completed late in November 1996.
IP-3.3-045	058	*	Pu Res	73	LLNL	Identify, characterize, and non-destructively assay all Pu items.	Jan 1997			Past due. See IP-3.2-042 for detail.
IP-3.3-043	059	*	Pu Res	71	LLNL	Materials identified in the Pu ES&H Vulnerability study requiring stabilization will be processed during the first year of Phase 3 operations.	Apr 1997			Past due. See IP-3.2-045 for detail.
IP-3.3-041	060	*	Pu Res	4, 71, 73	LLNL	Stabilize and package all containers of ash/residue.	Apr 1998			Preparing ash stabilization per RFETS Trade Study - wash, calcine, weigh, repeat. Progress behind schedule. Bagless transfer system required for stabilization. (Feb 97 Rpt)
IP-3.3-046	061	*	Pu Res	73	LLNL	Ship all excess items to LANL.	May 2002			Milestone to be deleted in a IP change. LLNL will process and store items.
IP-3.2-003	062	*	Pu Met/Ox	41, 50	Mound	Repackage all plutonium metal in direct contact with plastic.	Sep 1996		Sep 1996	Completed September 26, 1996.
IP-3.2-101	063	*	Pu Met/Ox	50	Mound	Repackage all plutonium metals and oxides to meet the DOE metal and oxide storage standard.	May 2002		Mar 1997	Completed March 31, 1997

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IP-ES-001	064	*	General	2	NMSTG	Issue a DNFSB 94-1 Integrated Program Plan.	Feb 1995		Feb 1995	Completed February 28, 1995.
IP-ES-004	065	*	General	3	NMSTG	Research Committee established.	Mar 1995		Mar 1995	Completed March 15, 1995.
IP-ES-005	066	*	General	3	NMSTG	Research Committee's comprehensive Research and Technology Development Plan issued (RC).	Noc 1995		Nov 1995	Completed November 30, 1995
IP-ES-041	067	*	General	5	NMSTG	Complete the "Facilities Section" of the Integrated Program Plan (IWG).	Dec 1995		Nov 1995	Completed early on November 7, 1995
IP-ES-006	068	*	General	3	NMSTG	Research and technology development efforts will be measured against the comprehensive plan, which will be updated annually.	Nov 1997			The first annual update is submitted. (November 26, 1996)
IP-3.2-011	069		Pu Met/Ox	2, 41	NMSTG	Pu Metals/Oxides Trade Study Completed	May 1995		May 1995	Completed May 15, 1995.
IP-3.3-050	070	*	Pu Res	73	NMSTG	Develop complex-wide secondary material storage standard for materials that are less than 50% assay.	Dec 1995		Jan 1996	Completed late on January 25, 1996.
IP-3.6-100	071		SNF	100	NMSTG	Issue Final Programmatic SNF EIS.	Apr 1995		Apr 1995	Completed in April 1995.
IP-3.6-053	072		SNF	100, 103, 112	NMSTG	Issue Programmatic SNF EIS ROD.	Jun 1995		Jun 1995	Completed. Published in Federal Register June 1, 1995.
IP-3.6-006	073		SNF	99, 112	NMSTG	Issue the SNF Program Plan	Nov 1995		Nov 1995	Completed November 30, 1995
IP-3.6-008	074		SNF	100, 112	NMSTG	Issue Foreign Research Reactor SNF EIS ROD.	Dec 1995		May 1996	Completed late on May 13, 1996.
IP-3.6-048	075		SNF	112	NMSTG	Environmental Management PEIS ROD issued	Sep 1995		Jun 1995	Completed early on June 1, 1995
IP-3.6-049	076		SNF	112	NMSTG	Repository EIS ROD.	Sep 2000			
IP-3.4-012	077		Spec Iso	80	NMSTG	Activities will be initiated to clarify end-states and disposition pathways.	None			Will be addressed by the IWG Small Sites, Small Holdings Initiative.
IP-3.4-013	078		Spec Iso	80	NMSTG	Activities will be initiated to establish storage standards and/or criteria for unique material forms as required.	None			Local standards/criteria for material storage are being developed for Am/Cm, Np and Pu-238.
IP-3.4-014	079		Spec Iso	80	NMSTG	Activities will be initiated to resolve transportation, storage space, and consolidation issues related to Special Isotopes.	None			Will be addressed by the IWG Small Sites, Small Holdings Initiative.

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IP-3.4-009	080		Spec Iso	78	NMSTG	Non-defense users will define requirements for programmatic and National Asset reserves, in concert with DOE representatives (including NE). Inventories in excess of these requirements will be considered for long-term storage or disposal.	None			Will be addressed by the IWG Small Sites, Small Holdings Initiative.
IP-3.4-008	081		Spec Iso	78	NMSTG	Strategic goals will be refined for which parts of current inventories must be retained for future use. DOE(DP) will define isotope quantities and forms that will be reserved for national security needs.	None			
IP-3.2-017	082	•	Pu Met/Ox	2, 41, 50	OR	Thermally stabilize and repackage all plutonium oxide to meet the metal and oxide storage standard.	May 2002			Preparation phase is progressing on schedule. (May 97 Rpt)
IP-3.5-010	083	•	Uranium	92, 93	OR	Complete "interim corrective measures:" drain water from ACB cell; partition the off-gas system; eliminate water sources.	Nov 1995		Nov 1995	Completed November 29, 1995.
IP-3.5-003	084	•	Uranium	87, 92, 93	OR	Complete mechanical removal of HEU deposits at OR's K-25 Plant.	Sep 1997			Large diameter pipe deposit removal has been completed. Replacing milestone with two due in Dec 97 and Mar 98, respectively, proposed - see IP change request. (May 97 Rpt)
IP-3.5-004	086	•	Uranium	87, 92, 93	OR	Complete chemical removal of remaining HEU deposits at OR's K-25 plant	Apr 1998			Independent management self assessment of criticality risks scheduled in June 1997. (May 97 Rpt)
IP-3.5-005	085	•	Uranium	87, 92, 93	OR	Remove HEU Uranium deposits for ORNL's Molten Salt Reactor Experiment (MSRE) project.	Feb 1998			Residual Ur recovery effectiveness using ClF3 injection system has been confirmed. CBC/ACB mockup fabrication continues. (May 97 Rpt)
IP-3.5-011	087	•	Uranium	92	OR	Fuel salts at OR's MSRE project removed.	May 2000			EPA and Tenn Dept of Environment and Conservation support fuel salt removal strategy. Specimen removal preparations are underway. (May 97 Rpt)
IP-3.2-046	088	•	Pu Met/Ox	50	RF	Conduct a sampling and inspection program at Rocky Flats to determine the relative risk and priority for repackaging plutonium metals and oxides in close proximity to plastic and other synthetic materials.	Jul 1995		Sep 1995	Completed late on September 30, 1995. Late completion due to Bldg. 371 ventilation and Stacker/Retriever problems.
IP-3.2-020	089	•	Pu Met/Ox	41, 45, 50	RF	Repackage a total of 256 items in Building 707 where Pu metal is in direct contact with plastic.	Oct 1995		Nov 1995	Completed late on November 14, 1995.
IP-3.2-021	090	•	Pu Met/Ox	45, 50	RF	Repackage 1,602 Rocky Flats Pu metal items not in direct contact with, but in proximity to, plastic.	Oct 1996	Nov 1996	Dec 1996	Completed late in December 1996. (Jan 97 RPT)
IP-3.2-012	091	•	Pu Met/Ox	41, 50	RF	Thermally stabilize the existing backlog of all known reactive plutonium oxide at Rocky Flats. (Est.: 63 kgs.)	Oct 1996	Nov 1996	Jan 1997	Completed January 9, 1997. (Jan 97 RPT)
IP-3.2-022	092	•	Pu Met/Ox	45	RF	New Pu metal/oxide processing line operational in Building 371 at Rocky Flats.	Sep 1998			At risk. Procurement priorities under review for 1998 budget. (Feb 97 RPT)

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IP-3.2-016	093	*	Pu Met/Ox	2, 41, 50	RF	Thermally stabilize and repackage all plutonium oxide to meet the metal and oxide storage standard.	May 2002			
IP-3.3-011	094	*	Pu Res	4, 63, 73	RF	Vent 2,045 residue drums with a potential for hydrogen gas generation.	Oct 1995		Sep 1995	Completed early on September 25,1995.
IP-3.3-008	095	*	Pu Res	63	RF	Vent 700 unvented residue drums.	Oct 1996		Dec 1995	Completed early on December 22, 1995.
IP-3.3-015	096	*	Pu Res	4, 73	RF	Vent all inorganic residues.	Oct 1996		Dec 1995	Completed early on December 22, 1995.
IP-3.3-016	097	*	Pu Res	4, 73	RF	Vent all wet/miscellaneous residues.	Oct 1996		Dec 1995	Completed early on December 22, 1995.
IP-3.3-014	098	*	Pu Res	4, 63, 73	RF	Stabilize all sand, slag, and crucible materials and graphite fines.	May 1997	May 1998		Implementation Plan change approved August 20,1996.
IP 3.3-014A	154	*	Pu Res		RF	BEGIN stabilization of SS&C and graphite fines.		Sep 1997		Implementation Plan change approved August 20,1996. On schedule. (Feb 97 RPT)
IP-3.3-012	099	*	Pu Res	4, 61, 73	RF	Stabilize by pyrochemical oxidation and repackage 6,000 kgs of higher risk Plutonium containing salts.	May 1997	Feb 1998		Implementation Plan change approved August 20,1996. On schedule. (September. 96 RPT)
IP-3.3-012A	155	*	Pu Res		RF	BEGIN stabilization by pyrochemical oxidation 6,000 kg higher-risk Pu salts.		Aug 1997		Implementation Plan change approved August 20,1996. On schedule. (Feb 97 RPT)
IP-3.3-013	100	*	Pu Res	4, 61, 73	RF	Stabilize remaining high risk salts (4,000 kgs.) via chemical oxidation.	Dec 1997	Jun 1998		Implementation Plan change approved August 20,1996. On schedule. (September. 96 RPT)
IP-3.3-017	101	*	Pu Res	4, 61, 73	RF	Stabilize high risk combustibles (11,000 kgs).	Nov 1998			On schedule. (September. 96 RPT)
IP-ES-025	102	*	Pu Res	4, 63	RF	Repackage all Pu inorganic oxides and wet/miscellaneous residues (1,113 drums).	May 2002			
IP-3.1-004	103	*	Pu Soln	34, 37	RF	Complete NEPA analysis (an Environmental Assessment) for solution stabilization.	Apr 1995		Apr 1995	Completed April 28, 1995.
IP-3.1- 020A	156	*	Pu Soln		RF	START draining B771 hydroxide tanks and begin processing.		Nov 1996	Nov 1996	Milestone IP-3.1-020A was completed on November 4, 1996 when hydroxide precipitation processing was started. (Nov 96 RPT)
IP-3.1-020B	157	*	Pu Soln		RF	COMPLETE draining four (4) B771 hydroxide tanks.		Jan 1997	Aug 1996	Completed early in August 1996.
IP-3.1-020C	158	*	Pu Soln		RF	COMPLETE B771 hydroxide precipitation process.		Mar 1997		Completed. Formal notification of completion from site is required.
IP-3.1-020D	159	*	Pu Soln		RF	START draining five (5) B771 high level tanks and begin oxalate processing.		Nov 1997		
IP-3.1-020E	160	*	Pu Soln		RF	COMPLETE processing liquids from B771 high level tank & bottles.		May 1998		
IP-3.1-020F	161	*	Pu Soln		RF	COMPLETE processing all liquids in B771		Sep 1998		

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IP-3.1-020G	162	*	Pu Soln		RF	START draining B371 tanks and begin processing.		Dec 1996	Dec 1996	Completed December 1996. (Jan 97 RPT)
IP-3.1-020H	163	*	Pu Soln		RF	COMPLETE draining six (6) B371 Cat B tanks.		Feb 1997	Feb 1997	Completed February 18, 1997 (Feb. 97 RPT)
IP-3.1-020I	164	*	Pu Soln		RF	COMPLETE draining two (2) B371 criticality tanks.		Jun 1997	May 1997	**Completed early on May 12, 1997. (Per Kurt Juroff)**
IP-3.1-020J	165	*	Pu Soln		RF	COMPLETE processing liquids from eight (8) B371 tanks.		Jun 1997		Past due.
IP-3.1-020K	166	*	Pu Soln		RF	COMPLETE processing all liquids in B371.		Jun 1999		
IP-3.1-005	105	*	Pu Soln	34, 37	RF	All solutions in Building 771 (12,000 l.) stabilized.	Dec 1997	Sep 1998	Mar 1997	**Completed on early on March 14, 1997.**
IP-3.1-006	106	*	Pu Soln	3, 34, 37	RF	18,000 l. of solutions in Building 371 stabilized.	Jun 1999			
IP-3.1-003	107	*	Pu Soln	31	RF	Place plutonium metal and oxide generated from stabilizing solutions at RF in a form suitable for safe storage.	May 2002			
IP-3.5-006	108	*	Uranium	90, 93	RF	Begin bottling and shipping 2,700 liters of HEU solutions offsite for stabilization.	May 1996		Aug 1996	Completed late on August 13, 1996.
IP-3.5-001	109	*	Uranium	87, 90, 93	RF	Remove all HEU uranyl nitrate solutions (2,700 liters) from Building 886 and complete all shipments offsite.	Sep 1996	Nov 1996	Nov 1996	Completed on November 8, 1996.
IP-ES-018	110	*	General	4	RF, SR, Mound	All Pu Metal in direct contact with plastic repackaged.	Sep 1996		May 1997	**SR completed in November 1995, Mound in September 1996, and Rocky Flats in May 1997.**
IP-3.2-100	111		General	101	SR	Final IMNM EIS issued.	May 1995		Oct 1995	Completed in May 1995. Issued for public distribution and NOA to EPA October 13, 1995. NOA in Federal Register October 20, 1995.
IP-3.2-024	112		General	5, 35, 37, 46, 64, 81, 82, 90, 101,	SR	IMNM EIS ROD issued. (The ROD will select a method for stabilizing SR fuel and targets, H-Canyon Pu-239 solutions, metals & oxides, Pu residues, special isotopes, and HEU solutions.)	Jul 1995		Dec 1995	Completed late on December 12, 1995. Added TRR fuel (82 cans).
IP-3.2-025	113	*	Pu Met/Ox	46, 50	SR	Metal turnings where plutonium metal is known to be in direct contact with plastic at Savannah River will either be processed (using the F-Canyon and FB-Line facilities) to a safe storable form, or repackaged.	Dec 1995		Nov 1995	Completed early on November 20, 1995.
IP-3.2-027	114		Pu Met/Ox	47, 65	SR	Modifications to the FB-Line facility (installation of a bagless transfer system) completed.	Sep 1997			
IP-3.2-026	115		Pu Met/Ox	46, 65	SR	A new or modified Actinide Repackaging Facility at Savannah River, required to fully meet the metal and oxide storage standard, is available. (Assumes the approval of an FY98 Line Item Project).	Dec 2001			

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IP-3.2-013	116	*	Pu Met/Ox	2, 41, 46, 50	SR	Thermally stabilize and repackage all plutonium oxide to meet the metal and oxide storage standard.	May 2002			
IP-3.3-021	117	*	Pu Res	65	SR	Processing in F-Area begins.	Sep 1996		Jun 1996	Completed early in June 1996.
IP-3.3-018	118		Pu Res	65	SR	Characterization methods used will include NDA using digital radiography equipment, with selected sampling of containers using existing gloveboxes with modifications.	Dec 1997		Mar 1997	**Completed early in March 1997.**
IP-3.3-022	119	*	Pu Res	4, 65, 74	SR	Processing of existing inventories of SS&C material completed.	Dec 1997			On schedule. (January 97 RPT.)
IP-ES-032	120	*	Pu Res	4, 65, 74	SR	Stabilize all other residues at SR.	May 2002			See IP-3.3-021. Although processing began ahead of schedule the site does not expect to complete Pu residue process on time due to conflicting F-canyon requirements.
IP-3.1-007	121		Pu Soln	35, 37	SR	ROD for the F-Canyon plutonium solutions issued.	Feb 1995		Feb 1995	Completed. ROD issued February 2, 1995.
IP-3.1-008	122		Pu Soln	35, 37	SR	Begin F-Canyon processing operations.	Feb 1995		Feb 1995	Completed on February 3, 1995.
IP-3.1-009	123	*	Pu Soln	3, 35, 37	SR	Complete Stabilization of F-Canyon plutonium solutions (320,000 liters convertibd to metal).	Jan 1996		Apr 1996	Completed late on April 11, 1996.
IP-3.1-011	124	*	Pu Soln	35, 37	SR	Begin H-Canyon stabilization operations.	Feb 1999			IP text change and milestone revision will be submitted under separate cover. (August 96 RPT.)
IP-3.1-013	125		Pu Soln	35	SR	SR's HB-Line Phase II start-up.	Feb 1999			IP text change and milestone revision will be submitted under separate cover. (August 96 RPT.)
IP-3.1-012	126	*	Pu Soln	35, 37	SR	Stabilization operations completed for Pu-239 solutions in SR's H-Canyon (34,000 liters converted to oxide).	Feb 2000			IP text change and milestone revision will be submitted under separate cover. (August 96 RPT.)
IP-3.6-101	127		SNF	109	SR	Re-examine L-Basin corrosion surveillance coupons.	Feb 1995		Feb 1995	Completed in February 1995.
IP-3.6-034	128	*	SNF	109	SR	Complete vacuum consolidation of SR's L-Reactor Disassembly Basin sludge.	Sep 1995		Mar 1995	Completed early on March 31, 1995.
IP-3.6-035	129	*	SNF	109	SR	Reorient fuel in SR's L-Reactor Disassembly Basin to a horizontal configuration.	Feb 1996		Nov 1995	Completed early on November 29, 1995.
IP-3.6-037	130	*	SNF	110, 112	SR	Complete fuel consolidation to free up approximately 1,250 additional storage spaces in SR's RBOF.	Dec 1995		Aug 1996	Completed late on August 26, 1996.
IP-3.6-032	131	*	SNF	107, 110, 112	SR	Begin Mk31 target stabilization in SR's F-Area.	Nov 1995		Feb 1996	Completed late on February 12, 1996.
IP-3.6-038	132	*	SNF	5, 109, 110, 112	SR	Complete K- & L-Reactor Disassembly Basin upgrades.	May 1996		May 1996	Completed May 31, 1996.

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IP-3.6-002	133	•	SNF	5, 96, 108, 110, 112	SR	Complete stabilization of SR's Mk31 targets via dissolution in F-Canyon.	Sep 1996		Jan 1997	Completed late on January 2, 1997
IP-3.6-040	134	•	SNF	110	SR	Complete vacuum consolidation of SR's K-Reactor Disassembly Basin sludge.	Sep 1996			Past due. Excellent basin water quality has been maintained in the presence of sludge, eliminating urgency to remove sludge. (Mar. 1997 RPT) IP change will propose deleting milestone.
IP-3.6-033	135	•	SNF	108, 110, 112	SR	Begin stabilization of SR's Mk16 and Mk22 HEU SNF.	Nov 1996			Past due. Mk-16/Mk-22 stabilization & Mk-31 transfers to F-Canyon delayed because TRR & EBR-II added to canyon schedule. Resource concentration on F-Canyon restart delays dissolver availability. Stabilization expected to begin in July 97. (Mar. 97 RPT)
IP-3.6-036	136	•	SNF	109	SR	Reorient fuel in SR's K-Reactor Disassembly Basin to a horizontal configuration.	Feb 1997			Past due. Personnel reductions and basin turbidity problems have delayed milestone completion until July 1997. (Mar 1997 RPT)
IP-3.6-041	137	•	SNF	110	SR	Remove consolidated basin sludge from SR's K-Reactor Disassembly Basins.	Sep 1997			IP text change and milestone revision will be submitted under separate cover. (August 96 RPT.)
IP-3.6-042	138	•	SNF	110	SR	Remove consolidated basin sludge from SR's L-Reactor Disassembly Basins.	Sep 1997			IP text change and milestone revision will be submitted under separate cover. (August 96 RPT.)
IP-3.6-003	139	•	SNF	5, 96, 108, 110, 112	SR	Complete dissolution of SR's Mk16 and MK22 SNF.	Nov 1998			See IP-3.6-033. SNF processing delay will cause delay in completion until April 2000. (August 96 RPT.)
IP-3.6-004	140	•	SNF	5, 96, 110, 112	SR	Complete stabilization of SR's resultant Uranium solutions from the dissolution of Mk16/22 SNF.	Apr 2000			See IP-3.6-033. SNF processing delay will cause delay in completion until April 2000. (August 96 RPT.)
IP-3.4-001	141		Spec Iso	77	SR	Immediately discontinue active water cooling for Am/Cm solutions in F-Canyon.	Feb 1995		Feb 1995	Completed in February 1995.
IP-3.4-021	142		Spec Iso	77, 83, 84	SR	Transport Pu-238 solids currently in inadequate storage to the HB-Line for venting and repackaging.	Apr 1995		Mar 1995	Completed early on March 2, 1995.
IP-ES-008	143		Spec Iso	3, 81	SR	Conceptual design report for the stabilization of Am/Cm Solutions completed.	Dec 1995		Nov 1995	Completed early on November 30, 1995
IP-3.4-017	144	•	Spec Iso	82, 84	SR	Begin stabilization of Pu-242 Solutions at HB-Line, Phase III.	May 1997		Aug 1996	Completed early in August 1996.
IP-3.4-018	145	•	Spec Iso	3, 77, 82, 84	SR	Complete stabilization of Pu-242 Solutions at HB-Line, Phase III.	Nov 1997		Dec 1996	Completed early in December 1996
IP-3.4-015	146	•	Spec Iso	84	SR	Start vitrification of Am/Cm Solutions.	Mar 1998			Project delayed for at least 15 months due to melter failures. (Mar 97 PRG Rev)
IP-3.4-016	147	•	Spec Iso	3, 77, 80, 84	SR	Complete vitrification of Am/Cm Solutions.	Sep 1998			See IP-3.4-015 status. (Mar 97 PRG Rev.)
IP-3.4-019	148	•	Spec Iso	84	SR	Begin stabilization of Np-237 Solutions HB-Line, Phase II.	Jul 2001			HB -Line, Phase II startup has been deleted. Solutions will be transported from H-Canyon to F-Canyon for vitrification in the Multi-Purpose Processing Facility (MPPF) after Am/Cm is stabilized. (August 96 RPT.)

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IP-3.4-020	149	*	Spec Iso	3, 77, 84	SR	Complete stabilization of Np-237 Solutions at HB-Line, Phase II.	Dec 2002			IP text change and milestone revision will be submitted under separate cover. (August 96 RPT.)
IP-3.4-003	150		Spec Iso	77	SR	Implement effective surveillance and monitoring programs to reduce the risk of extended storage of special isotope solutions.	None		Mar 1995	Completed in March 1995.
IP-3.5-008	151	*	Uranium	91	SR	Complete construction of blending facilities at F- and H-Areas (HEU Dilution Project).	Jul 1996		Jul 1996	Completed on July 25, 1996.
IP-3.5-002	152	*	Uranium	3, 87, 91, 93	SR	Complete FA-Line blending and processing of 230,000 liters of HEU solutions into a stable oxide.	Dec 1997			