HANFORD SITE'S 300 AREA ACCELERATED CLOSURE PLAN

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ABSTRACT

For nearly 50 years, the 300 Area just 1.5 miles north of Richland, Washington, and along the west bank of the Columbia River, was the center of Hanford's radiological research and fuel fabrication. That activity resulted in highly contaminated facilities, a large inventory of radioactive materials, and contaminated soil waste sites. One of the highest Hanford cleanup priorities is to safely deactivate contaminated buildings, and ship radioactive and hazardous waste out of the 300 Area to approved storage – away from Richland and the Columbia River. Major progress has been made and significant quantities of radioactive material have been moved out of the 300 Area. However, much remains to be done and the 300 Area Accelerated Closure Project Plan (300 Area ACP) provides a faster, more cost effective way to accomplish the cleanup.

INTRODUCTION

The 300 Area ACP Plan provides a safe and innovative closure approach for the Hanford Site's 300 Area, with a documented and traceable cost and schedule baseline. The proposed baseline aggressively accelerates the closure of a significant portion of the 300 Area, completing these activities nearly four decades ahead of current baseline planning for an estimated savings of over $1 billion. The benefits of this approach go beyond schedule and cost savings, providing earlier reduction of hazards and earlier remediation of the environment, thus providing tangible improvements to worker and public safety and enhanced protection of the Columbia River.

The 300 Area ACP Plan was assembled by a highly focused, multi-contractor team. The team was composed of experts in their fields from Fluor Hanford (FH), Bechtel Hanford, Inc. (BHI), and Pacific Northwest National Laboratory (PNNL). The result represents the first comprehensive plan that integrates operational shutdown/transition, deactivation, decontamination and decommissioning (D&D), and remedial action activities on the Hanford Site.

The 300 Area ACP Plan documentation is composed of a Project Summary, an integrating volume (Volume 1), five technical volumes and a facility description volume. The Project Summary and Volume I provide a high-level overview of the plan. Volume I also provides details of the business, regulatory, and safety basis strategies that are key to the project approach. The business strategy assumes an integrated prime-contractor team will work as a cohesive unit. The regulatory strategy maximizes use of a single-regulator approach where possible. The regulatory strategy also provides a

well-defined process for regulator and stakeholder involvement and defines the governing regulations and requirements for execution of the plan. The 300 Area ACP cost and schedule summaries and comparison to the November 1999 reference baseline are also included in Volume 1.

The technical volumes present the baseline at the functional levels and describe the approaches and tools used to develop an activity-based cost and schedule estimate for each of the functions. Each of the primary work functions (relocation, utilities and infrastructure, deactivation, decontamination and decommissioning, and remedial action) is contained within a separate technical volume. The final technical volume, "Facility Description," provides a library of descriptive information on each of the buildings and waste sites within the 300 Area ACP, including photographs and building layouts.

While the technical volumes document the functional building blocks for the estimate, the overall plan has fully integrated these functions into a cohesive project.

VISION AND MISSION

Vision

The vision of the 300 Area ACP is that the 300 Area Complex, north of Cypress Street (with the exception of selected facilities), is dismantled and remediated by an integrated project team by 2010.

Mission

The 300 Area ACP will safely and cost-effectively reduce risks to the environment, the public, and site workers by removing 148 facilities and structures in the Hanford 300 Area and remediating the contaminated soils beneath and adjacent to those structures associated with over 50 identified waste sites.

End-State

The plan aggressively accelerates the closure of the 300 Area, completing activities nearly four decades ahead the current baseline, with savings of more than $1 billion. The benefits of this approach go far beyond schedule and cost savings, resulting in earlier reduction of hazards and remediation of the environment, thus providing tangible improvements to worker and public safety and enhanced protection of the Columbia River.

Once the vision is achieved, a significant portion of the 300 Area north of Cypress Street will be remediated in accordance with approved industrial standards. The 300 Area ACP provides for new or renovated space to house staff, equipment and capabilities displaced from vacated 300 Area or 300 Area support facilities. Roads, utilities, facilities and infrastructure not related to the remaining facilities will have been removed. Long-term groundwater monitoring wells needed for surveillance will remain in place. The fence will have been removed and controlled access will no longer be required, making the area and the adjoining Columbia River shoreline accessible for other uses.

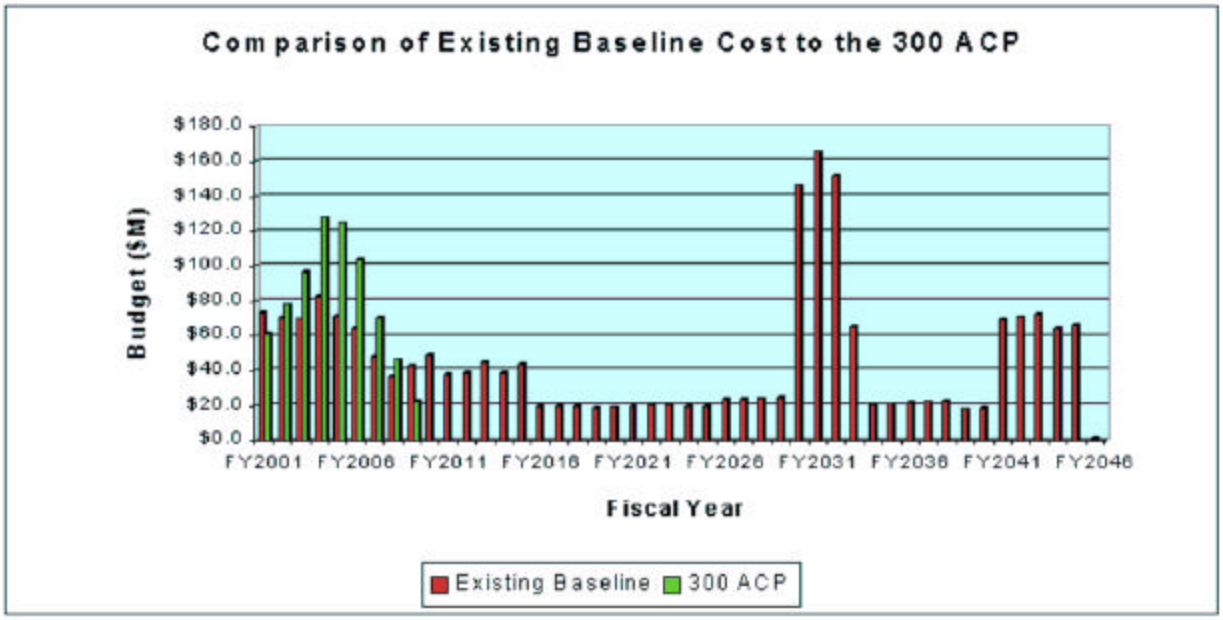

Fig. 1. Comparison of Existing Baseline Cost to the 300 ACP

HISTORY

The 300 Area is located in the southeastern portion of the Hanford Site along the west bank of the Columbia River, only one-and-a-half miles north of schools, businesses and residences in the city of Richland. Starting in 1943, the 300 Area primarily supported fabrication of uranium fuel for the Hanford Site reactors. Besides fuel fabrication, the 300 Area has been the center of much of the site's research and development activities, test reactors, hot cell examination facilities and numerous ancillary/support activities. Later work scope has included energy, waste management, biological and environmental sciences research. Each of these various activities has contributed over the years to waste streams, contamination in buildings and unplanned releases to the environment that need to be cleaned up. In July 1989 the 300 Area was added to the National Priorities List (under CERCLA).

APPROACH

The 300 Area ACP planning process applied new approaches to project implementation and management drawn from experiences throughout the Department of Energy (DOE) complex, the DOE-HQ National Facility Deactivation Initiative (NFDI) program, the Fluor experience at Fernald, the Bechtel experience on the Environmental Remediation Contract on the Hanford Site and other DOE contracts, and the Pacific Northwest cleanup technology and analysis experience. From this broad experience background, the following are some of the key strategies developed for the 300 Area ACP.

- Plan and execute the work as a continuous project to eliminate the costs and delays associated with the turnover process between cleanup stages, repairs to sustain facilities awaiting the next cleanup stage, and surveillance and maintenance during the delays between cleanup stages. The integrated-contractor approach also provides for the consolidation and focus of the complimentary skills, resources, and experience of the various contractors.

- Plan and execute the work in groupings of facilities and areas to achieve the benefits of economy-of-scale in regulatory approvals; procurement of materials, services, and subcontractors; and management of resources.
- Simplify the regulatory interfaces by performing many of the closure actions under the CERCLA removal action and remedial action processes. A benefit of the CERCLA approach is the ability to use the on-site CERCLA disposal facility, thus reducing both waste packaging and disposal costs.
- Closely integrate the interface between deactivation and D&D, to include where possible, parallel execution of these activities in order to minimize the transition process and to ensure a timely and cost effective transition of work activities between phases.
- Minimize the labor hours and costs of decontamination by maximizing the use of contamination fixatives and subsequent bulk removal of large sections of equipment, structure components, and concrete.
- Minimize operations and deactivation costs by applying new packaging and removal techniques to remove large contaminated systems such as the individual cells in the 327 Building.
- Reduce the regulatory requirements, impacts to schedule, and costs of maintaining nuclear facility classification longer than necessary by proposing direct calculations to establish safety basis requirements instead of using of generic threshold criteria.
- Design and construct, in the first two and one-half years, the rerouted utilities required for the facilities that will remain in the southern portion of the 300 Area. This will maximize schedule and cost savings for either full project implementation, or offer flexibility for partial project implementation. Although the capacity will exist in some utilities to support redevelopment, there are no costs tied to future redevelopment.
- Provide, in the first three years, a new laboratory for the consolidation of four separate laboratory missions, which are currently housed in partially occupied, high-cost, deteriorated facilities. The facilities in which these missions are currently located must be vacated by specific dates to support critical path cleanup activities in the closure schedule.

A functionally based work breakdown structure (WBS) was developed for the 300 Area ACP. The WBS provides a comprehensive basis for scope definition, resource planning, and project implementation and control. The development of the WBS began with an assessment of the entire 300 Area, identifying all buildings, waste sites, and supporting utilities. To effectively execute and manage the 300 Area ACP scope, the individual buildings and waste sites were grouped into geographic zones. A facility use plan was prepared identifying those buildings with long-term missions, which would define the end-state makeup of the 300 Area facilities. This evaluation was essential to developing the geographic zones, assessing utility and infrastructure needs, and optimizing relocation planning.

A work-flow model was developed to identify the major work functions needed to be performed in each zone and for each building and waste site within the zone. For the buildings, the following four work functions were identified: relocation of personnel and equipment, cleanout and deactivation, isolation of utilities, and D&D. These work functions form the basis for the estimating level of the WBS. For each geographic zone the environmental restoration of the waste sites are treated as a collective grouping. Two crosscutting zones were also included within the WBS, one to capture the "One-Site, One-Team" approach for project management and another to address crosscutting infrastructure activities, including remedial action work. Detailed resource-loaded schedules and estimates were prepared for the entire 300 Area closure scope based on this integrated WBS approach.

Data sheets (basis of estimates) have been prepared for all the estimates and have been integrated into two common management systems. These data sheets provide the facility description, scope descriptions, planning basis and assumptions, risk mitigating actions, waste volume projections, and cost and schedule estimates. The flexibility of this baseline management system allowed each of the participating teams to use proven estimating and planning tools for the development of their individual estimates while providing a common system for storing and reporting the baseline data. This system is fully operational and, along with the zone-based WBS, is structured to readily support future analysis of "what if" scenarios.

Proven industry estimating tools and techniques were used to develop detailed estimates that are well documented with drawings, photographs, walkdown checklists, and data sheets that are available on electronic databases. Additionally, BHI and FH ran recognized risk analysis software tools to assess contingency requirements on the estimates. Backup hard copy information has been stored in an organized and retrievable repository. The validity of the technical approaches, schedules, and estimates has been assessed by an Independent Review Team. This rigorous approach used in the development and review of the cost estimates and schedule provides confidence that the project is achievable within the planned budget and schedule.

Accelerated 300 Area closure provides the following benefits:

- It provides for the earliest possible clean-up of significant hazards in close proximity to the public
- It facilitates 300-FF-2 CERCLA actions by removing facilities from above waste sites
- It removes contaminants that could migrate to groundwater/river or be released to the environment
- Most nuclear operations are shutdown or moved to more remote areas of the Hanford Site
- It produces savings of over $1billion for application to cleanup of the 200 Areas.

IMPLEMENTATION STRATEGIES

Integrated Safety Management System (ISMS) Implementation

The objective of the ISMS is the full inclusion and integration of environmental, safety, and health (ES&H) requirements into the existing system for accomplishing work. With this comes a focus on accomplishing work safely and compliantly rather than a focus on ES&H requirements and programs for their own sake. This is accomplished through the effective integration of ES&H management into all facets of work planning and execution. The planning basis contained in the 300 Area ACP Plan includes the DOE's ISMS requirements. As work in the closure project progresses, the appropriate ES&H requirements will be integrated into the planning for project work scope execution. An important consideration in the 300 Area ACP Plan is the integrated transition of facilities between various project phases with a complete understanding of existing hazards, requirements, and necessary controls to protect the worker, the public, and the environment.

Regulatory Approach

The regulatory approach adopted for the 300 Area ACP Plan was developed after careful identification of the regulatory status of each facility included in the project scope. In addition to the regulatory status of each facility, the 300 Area ACP regulatory approach adopted a policy of maximizing the single regulator concept; i.e., the processes were structured so that the regulatory authority is only the U.S. Environmental Protection Agency (EPA) or only the State of Washington, Department of Ecology (Ecology) for specific actions. A major assumption used in the development of

the strategy was that the EPA will be the lead regulator for all actions except those associated with existing RCRA closures or special-case waste (SCW) disposition. In the case of RCRA closures, Ecology will be the lead regulator for clean or partially clean closure, and EPA will assume the lead regulator role for the associated soil remediation.

Safety Basis Strategy

The safety basis strategy developed for the 300 Area ACP Plan should reduce resource requirements and minimize potential schedule impact on the plan. Included in this strategy development was an evaluation of existing safety basis documents for "nuclear" and "radiological" facilities in the 300 Area, precedents at the Hanford Site and elsewhere, and a detailed review of the technical basis for threshold quantities in Table A. 1 of DOE-STD-1027-92.

The safety basis strategy in this plan is consistent with regulatory requirements and DOE standards. The approach taken will lead to downgrading of nuclear facility hazard categories earlier than previously envisioned. The authorization basis documents and hazard categorization, regardless of the categorization method, can only reflect the condition of the facilities, and recategorization will depend on the actual progress of deactivation activities.

PROJECT EXECUTION PLAN

The 300 Area ACP is comprised of five primary work functions:

Relocation

The scope of the relocation effort is the sum of the activities required to move tenants and equipment from existing facilities within the 300 Area ACP boundary to another location. The relocation scope applies only to those tenant activities that were determined to have a long-term mission. In some cases the relocation scope includes the cost of modifying existing space or constructing new facilities. It also includes buyout costs for Johnson Control, Inc. (JCI) owned boilers and other capital equipment.

Utilities and Infrastructure

The scope of the utilities and infrastructure activities is comprised of three primary tasks: the planning and construction required to supply utilities to the 300 Area buildings that will remain after execution of the 300 Area ACP; the planning for and removal of various aboveground utilities; and the isolation and removal of utilities in support of deactivation, demolition and excavation activities.

Deactivation

The following steps comprise the scope of the deactivation function: radiological surveys and characterization, engineering and work planning, site mobilization and preparations, deactivation (including waste removal), equipment isolation and/or removal, and decontamination and stabilization of radiological materials.

Decontamination and Decommissioning (D&D)

The D&D scope follows (or overlaps) the deactivation of the building. The D&D scope includes radiological surveys, asbestos removal, facility demolition, waste removal, and site restoration.

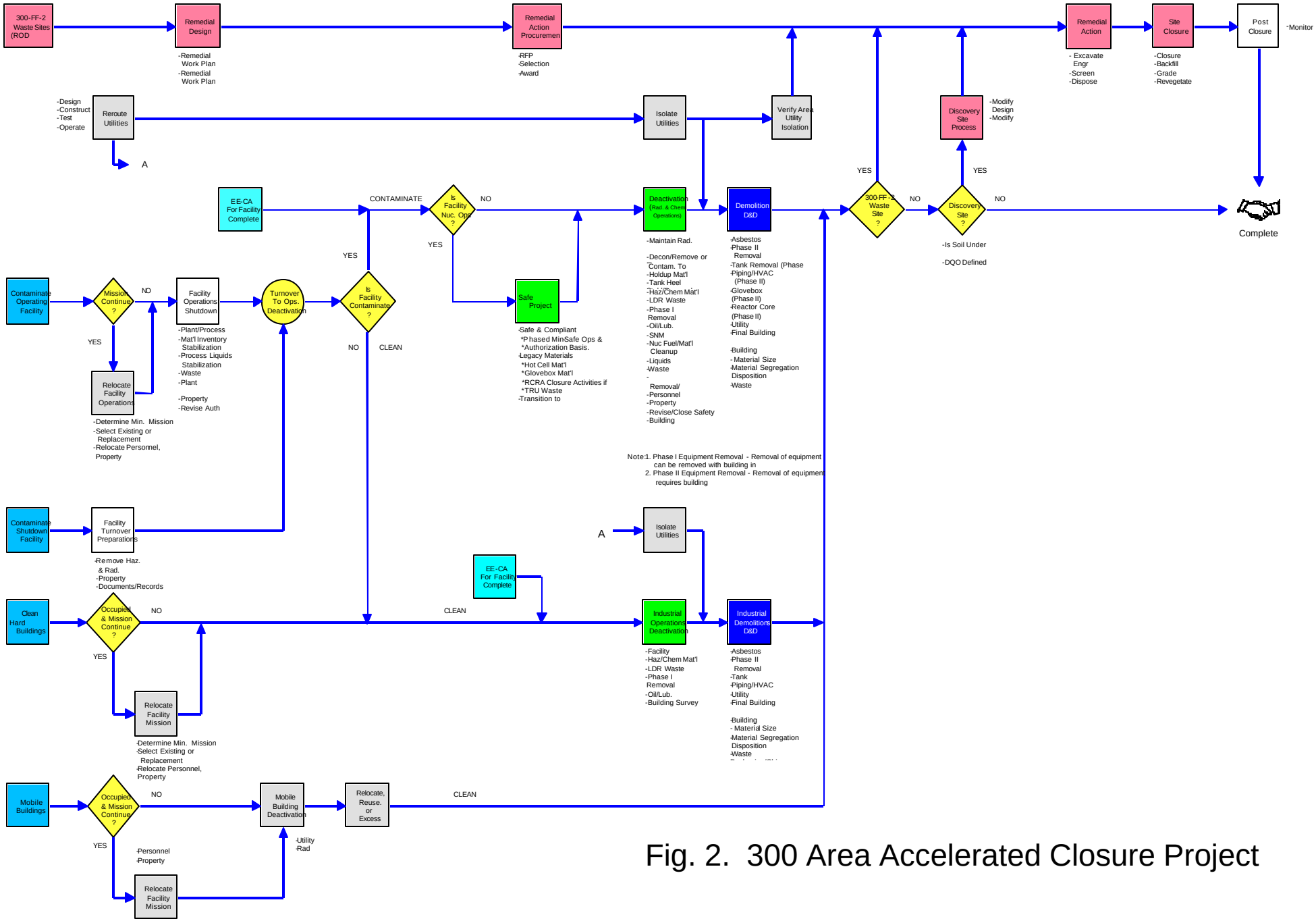

Fig. 2. 300 Area Accelerated Closure Project

Remedial Action

The 300 Area is a National Priority List site comprised of three operable units. The 300-FF-1 operable unit and 300-FF-2 operable unit are contaminated waste source sites, and the 300-FF-5 operable unit represents areas of contaminated groundwater. Waste sites within the boundary of the 300 Area ACP are primarily related to those in 300-FF-2 with a few sites from 300-FF-1.

Two of the operable units (300-FF-1 and 300-FF-5) have a Record of Decision. The 300-FF-1 operable unit is undergoing remediation at this time. Remedial actions to close waste sites have not been performed at the 300-FF-2 operable unit. The preferred remedial action alternative recommended for the 300-FF-2 waste site is to remove, treat, and dispose of contaminated soil, materials and debris so that industrial land use scenario cleanup levels are achieved. The remedial action work scope has been planned and estimated on a zone-by-zone basis for the waste sites located within a zone.

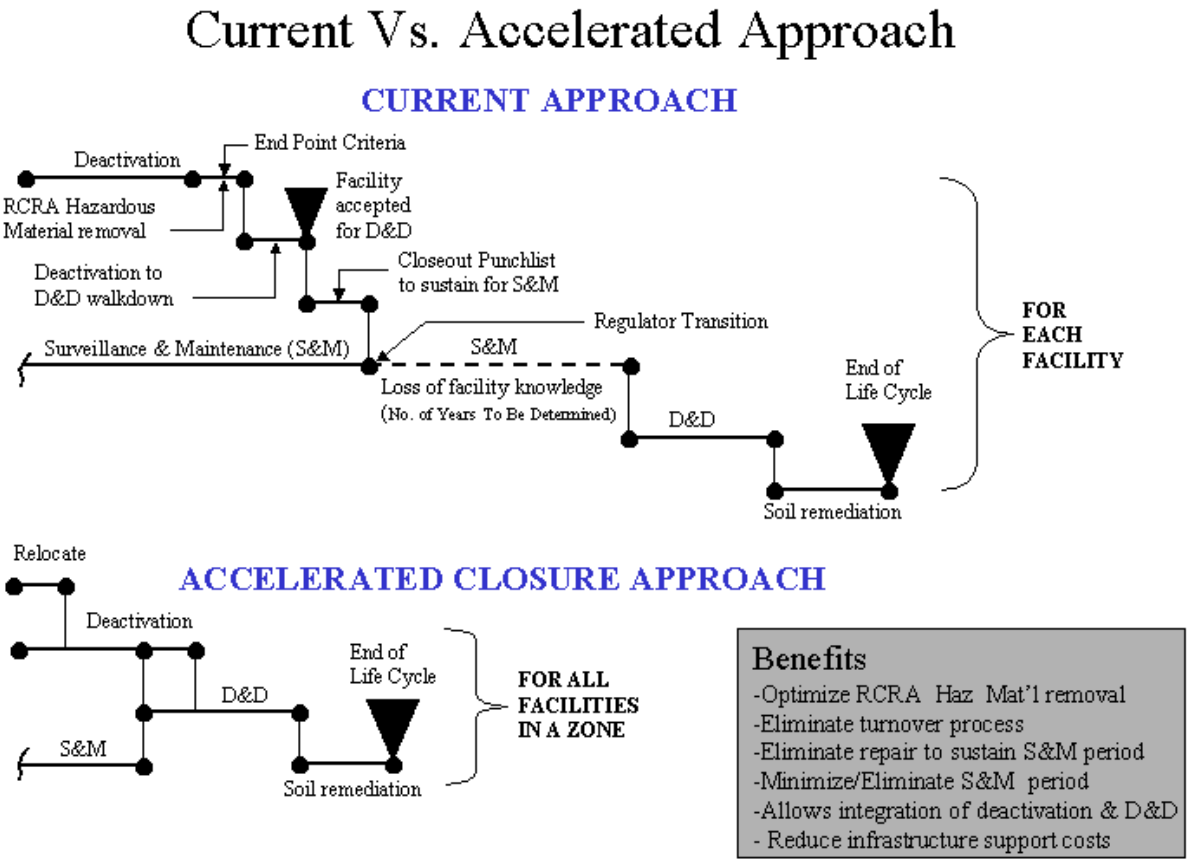

Fig. 3. Current vs. Accelerated Approach

COST ESTIMATE

The 300 Area ACP Cost Estimate was assembled by integrating the capabilities of resources and tools of FH, BHI, DynCorp, Flour Federal Services and Pacific Northwest.

CONTINGENCY PLANNING

The 300 Area Accelerated Closure Team (ACT) used a systematic estimating and risk/contingency assessment process in the development of the cost estimate for the 300 Area ACP. Risk/contingency assessment is an integral part of the cost estimating process to cover costs that may result from unforeseen and unpredictable field conditions, delays, or uncertainties in the defined project scope of work.

Each project team evaluated the significant risks associated with its projects and provided input to the risk/contingency assessment tools, assessing the worst case scenario and the best case scenario for each activity. The Monte Carlo simulation tools (Crystal Ball and BecRAC) calculated the probability of project overruns or underruns based upon the best and worst case parameters input to the model, with the output being a range of activity-specific contingency levels.

The 300 Area ACT evaluated two contingency levels, $60.3 million and $133.9 million. Although the $133.9 million contingency level would provide additional assurance that the project will not overrun, it was decided to adopt the $60.3 million contingency level for this plan. The following factors were considered in making this decision:

- Contingency is used to address risks to the baseline scope, not to add or change scope resulting from project uncertainties. The major project uncertainties relate to discovery of new waste sites, changes in historic property disposition, schedule delays outside the project's control, and changes to major assumptions. All of these uncertainties require change control and would not qualify for use of contingency.
- The $60.3 million contingency level probability calculations are consistent with contingency levels previously accepted by RL for Environmental Restoration Contractor projects.
- The $60.3 million contingency level provides a sufficient level of confidence to support both near-term (two years) and long-term (nine years) budgetary planning.

CRITICAL PATH SCHEDULE

The critical path for the completion of the 300 Area ACP has been determined to start with the deactivation of Building 324. Deactivation of Building 324 is a multi-year effort that is currently in progress. The critical path is scheduled to be complete with the completion of the final soil remediation efforts in the three easternmost work zones in September 2009. The critical path proceeds from the deactivation of Building 324 to the deactivation of Building 308 (fuels development laboratory), Building 3720 (Chemistry and Metals Sciences Laboratory) and Building3O9(SP-100 test reactor facility). These three deactivation projects are parallel critical path activities. Also on a parallel critical path are the design and construction of consolidated Pacific Northwest research laboratories, completion of the environmental decisions document, the relocation, deactivation, and D&D of the final occupied surplus office and support facilities in work zone J, and the deactivation of the 307 Retention Basins and 340 Waste Neutralization Facility, also in zone J.

Following the deactivation of Buildings 308, 3720, 309, 340 and the 307 Retention Basins the critical path passes through the D&D of these facilities, with Building 308 being the final structure demolished as part of the 300 Area ACP.

The final stages of the critical path are the remediation of the waste sites contained in the eastern work zones (Zone B, H, K, and L). Following the remediation of these zones final verification sampling is conducted, leading to the end-date of the project in September 2009.

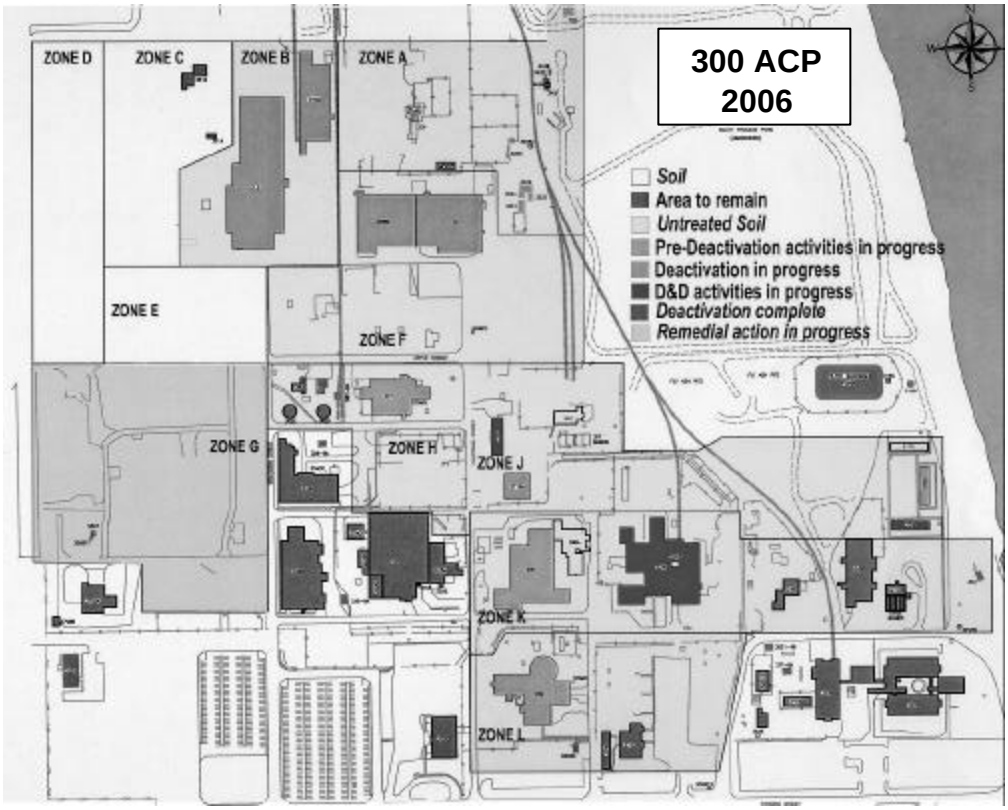

Fig. 4. 300 ACP 2006

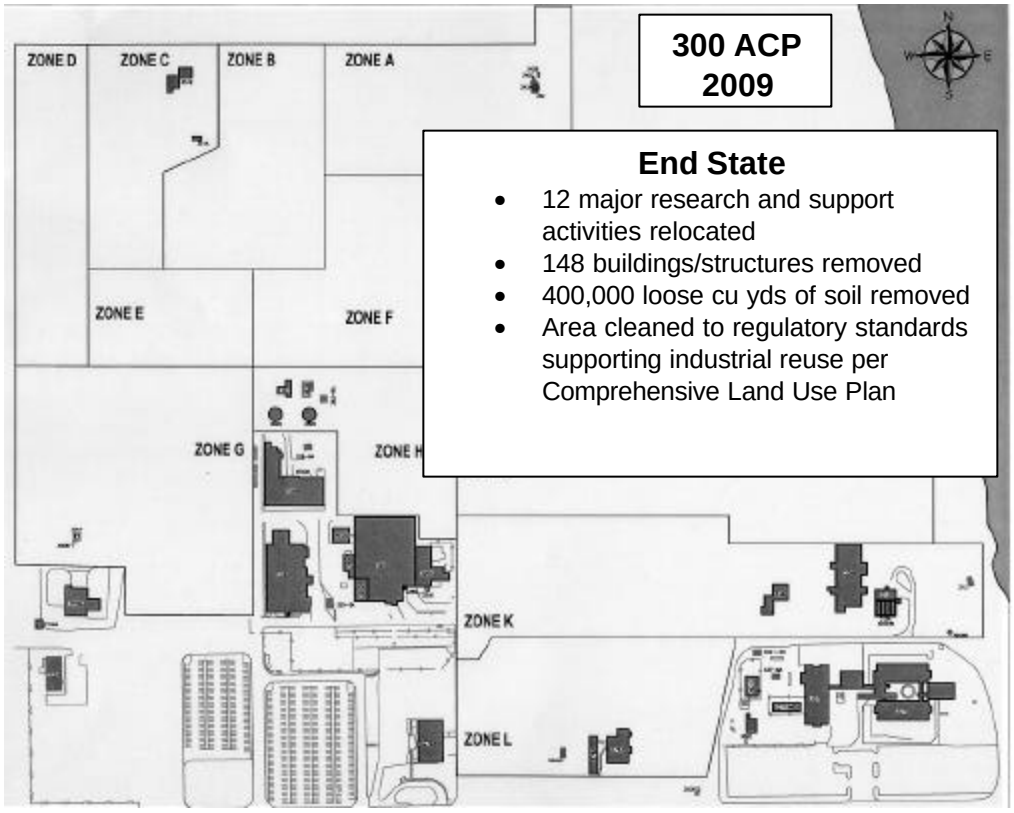

Fig. 5. 300 ACP 2009

CHALLENGES AND BREAKTHROUGH OPPORTUNITIES

The costs and schedules reflected in the 300 Area ACP plan incorporate breakthrough opportunities that were deemed to be viable and within the control of the 300 Area ACT to implement. The incorporation of these breakthrough opportunities, combined with items outside the control of the project, result in some cost and schedule risk. The following sections discuss the project's assessment of significant risks, the breakthrough opportunities that were incorporated into the plan, other significant breakthrough opportunities that should be pursued for additional cost reductions, and schedule enhancements.

Challenges

The most significant challenges to the 300 Area ACP Plan are associated with items outside of the contractors' control. The incorporation of new technologies into the plan also creates some risks. The most significant challenges include:

- Departure from an Integrated Plan - The 300 Area ACP Plan combines regulatory, relocation, utilities and infrastructure, deactivation, D&D, and remedial action activities into a fully integrated base plan. The schedule and cost estimate demonstrated in the plan rely totally on a fully integrated approach. Departure from the integrated approach would result in considerable cost increases and schedule extension.
- Regulatory Approval Schedules - The schedules in the regulatory section of the document assume all CERCLA authorization documents will be issued within 12 months of starting the Engineering Evaluation/Cost Analysis (EE/CA) preparation (27 months for the large removal action). If the CERCLA authorization documents are not approved and issued as scheduled, the deactivation and D&D schedules could be impacted. This would have a significant cost and schedule impact on the 300 Area ACP.
- Additional and Expanded Waste Sites - Additional waste sites may be identified within the 300 Area Complex that were not addressed in the Focused Feasibility Study for 300-FF-2 operable unit.
- Glove Box Size Reduction Facility - The estimate for deactivation of Building 308 includes the design, construction, and installation of a remote size reduction facility for the plutonium contaminated glove boxes. If the containment structure and/or the laser cutting system are not suitable for deployment to Hanford, Building 308 glove boxes will require size reduction via traditional methods (contact with hand tools). This will increase the time required for size reduction by 24 months and will have a cost impact of approximately $25 million.
- Stabilization and Deactivation - The current *324/327 Buildings Stabilization/Deactivation Project Project Management Plan* (HNF-IP-1289, Rev. 3) outlines the technical challenges that exist within the stabilization and deactivation baseline of Building 324. Those technical challenges and risks remain.
- Level of Estimate Accuracy for Relocation Costs - Because the estimating basis used in the development of facility design, modification, and construction was a standard unit rate (cost per square foot), there is an inherent risk that unique circumstances could cause these factors to be inaccurate. This risk is considered relatively high for modification and relocations of existing facilities, and for the planned construction of a new consolidated laboratory.
- Expense Funding for Construction Costs - The 300 Area ACP Plan assumes that all costs associated with the project will be expense funded. There is a need for construction activities to relocate utilities, including electrical systems, natural gas lines, Hanford Local Area Network, telephone, water, and sewer systems. Construction costs will also be incurred for the relocation of

the many 300 Area laboratories to either remodeled facilities or to a new laboratory facility. Pursuit of line item funding for construction work will impact construction activity and overall 300 Area ACP schedules.

- Historic Buildings - Thirty-one of the facilities contained in the 300 ACP scope have been determined to be historic properties. The 300 Area ACP Plan assumes that mitigation measures can be taken to preserve the history without leaving the buildings in place or relocating the buildings. If it is determined that these facilities must be preserved in place, the scope, cost, and schedule for elimination of utilities and for soil remediation will be impacted.
- Deactivation Cleanup Levels - Legacy amounts of contamination fixed in place underneath coats of paint (particularly alpha-emitting isotopes) could not be identified or verified during this estimate preparation. During characterization, it may be determined that certain areas of facilities will need significant decontamination beyond what was assumed and estimated.
- Safety Basis Strategy - Current safety basis approaches at Hanford vary somewhat between contractors. Current methodology for establishment of nuclear facility classification (Hazard Category 3) within the Fluor Hanford Project is conservative. The provided strategy defines a more realistic and consistent approach to establishing facility classification and a single approach to addressing hazards control for radiological and industrial facilities (CERCLA-based Health and Safety Plan). Lack of a consistent and realistic safety basis approach can cause significant safety basis document cost escalation and potential project delays.
- Process Sewer - The process sewer presently supporting Building 382 sanitary water facilities is assumed to be serviceable for the duration of the 300 Area ACP. If the existing line is found to be contaminated and has to be removed as a new waste site, a replacement line will be required, which will add cost and extend the schedule.
- Schedule for 305-B Storage Facility - The schedule for the 305-B Storage Facility assumes regulator cooperation in timely review and approval of the revised closure plan.
- Cleanup Levels to Industrial Standards - The remedial action planning is based on remediating waste sites to industrial cleanup levels. Any change to a more stringent cleanup standard, whether for the entire 300-FF-2 operable unit or for selected waste sites associated with RCRA units, has the potential to increase costs and extend the schedule for the 300 Area ACP.

BREAKTHROUGH OPPORTUNITIES INCORPORATED

The 300 Area ACP Plan incorporated many breakthrough opportunities. The initiatives described below are in addition to the innovations already described.

- Glove Box Size Reduction Facility - The size reduction facility is based on two technology demonstration projects funded by EM50; a glove box size reduction containment structure originally to be installed at Rocky Flats and a remote laser-cutting system originally to be tested at Los Alamos. It is intended to use these technologies in the deactivation activities for the Building 308 glove boxes.
- Transuranic (TRU) Waste Handling - Working closely with the FH TRU Project, the Deactivation Team developed a TRU waste management strategy to meet Waste Isolation Pilot Plant (WIPP) Waste Acceptance Criteria at the point of generation. Wastes will be packaged, visually inspected, and assayed in the 300 Area in accordance with WIPP-approved Hanford TRU procedures. While this doesn't reduce the 300 Area ACP Plan costs, it does reduce total Hanford costs by eliminating the need for additional waste verification steps prior to shipment to WIPP.

BREAKTHROUGH OPPORTUNITIES NOT INCORPORATED

Several other breakthrough opportunities have the potential to provide additional cost savings, but implementation of these initiatives requires acceptance by outside agencies (RL or regulators) or requires additional data before implementation would be viable. The breakthrough opportunities which should continue to be pursued are described below:

Building 324

The Building 324 closure could be accelerated with some key changes to the closure approach. Alternative closure actions that should be explored include deferring the decontamination/removal of piping and hot cell liners to the CERCLA removal action process (either as part of deactivation or initial D&D operations). This would accelerate Building 324 closure by up to one year and save approximately $10 million, while continuing to protect the environment and meet regulatory requirements. This approach would also generate less secondary waste and would reduce worker exposure, both of which are significant benefits since Building 324 has very high waste volume projections and experiences the largest personnel exposure levels on the Hanford Site. Ecology approval is required to change the exposure plan to implement this breakthrough opportunity.

Special Waste Handling Facility

A special waste handling facility in the 300 Area could serve as a clearinghouse for certain specially-handled wastes. The types of activities performed at the facility could include the collection, sorting, accumulation, and treatment of waste as necessary. Implementation of this breakthrough opportunity requires regulator acceptance to move waste across boundaries established in the Action Memorandum for each CERCLA removal action.

ACCOMPLISHMENTS TO DATE

As mentioned earlier, significant work has been accomplished toward cleanup of the 300 Area in the facilities that are on the critical path. These accomplishments include:

- Shutdown of the 308 Building, formerly used to provide laboratories and fuel fabrication facilities for the development of reactor fuels containing plutonium.
- Shutdown of the 309 Building, which housed the test reactor for the Plutonium Fuels Utilization Program.
- On-going cleanup of the 324 Building, known as the Chemical Materials Engineering Laboratory, it was a dual facility with both radiochemical and radiometallurgical hot cells and laboratories.
    - Completed cleanout of A Cell and C Cell
    - Shipped 17 Grout Containers to compliant storage
    - Completed 2A Rack Removal and Size Reduction three weeks early
    - Vitrified 8 million curies of waste into glass logs
- On-going cleanup of the 327 Building, which was formerly used to house, examine and test irradiated materials (fuel elements and fuel cladding materials) from and for the production reactors.
    - Removed 150,000 curies of spent fuel samples
    - Removed 400,000 curies of cesium
    - Completed interim cleanup of F Cell, G Cell, and H Cell
    - Shipped 32.5 m^3 of bulk waste exceeding fiscal-year target
    - Shipped 103 legacy waste buckets to compliant storage, 28 more than planned

- Shipped 90% of the 297 sample cans of radioactive materials from dry storage
- Shipped all 47 fuel pins
- Shipped all accountable fissile material in hot cells

- Resource Conservation & Recovery Act (RCRA) Closures
  - Completed fieldwork for the Waste Acid Treatment System, a tank system used to treat and store nonrecoverable uranium-bearing waste acid from reactor fuel fabrication operations.
  - Clean-closed the 304 Concretion Facility, which was used to secure pyrophoric chips and fines in concrete billets.
  - Clean-closed the 300 Area Solvent Evaporator

REALISTIC AND ACHIEVABLE

The 300 Area ACP Plan documents the workscope, cost, and schedule for completing accelerated closure by September 2009, at a cost of $784 million. The 300 Area ACP Plan provides the most credible estimate to date of the work needed to clean up and restore Hanford Site's 300 Area. It's realistic and achievable.