DOE/RL-93-89
Revision 0

Schedule Optimization Study Implementation Plan

United States
Department of Energy
Richland, Washington

Approved for Public Release

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EXECUTIVE SUMMARY

This Implementation Plan is intended to provide a basis for improvements in the conduct of the Environmental Restoration (ER) Program at Hanford. The Plan is based on the findings of the Schedule Optimization Study (SOS) team which was convened for two weeks in September 1992 at the request of the U.S. Department of Energy (DOE) Richland Operations Office (RL). The need for the study arose out of a schedule dispute regarding the submission of the 1100-EM-1 Operable Unit (OU) Remedial Investigation/Feasibility Study (RI/FS) Work Plan. The SOS team was comprised of independent professionals from other federal agencies and the private sector experienced in environmental restoration within the federal system. The objective of the team was to examine reasons for the lengthy RI/FS process and recommend ways to expedite it.

The SOS team issued their Final Report in December 1992. The report found the most serious impediments to cleanup relate to a series of management and policy issues which are within the control of the three parties managing and monitoring Hanford -- the DOE, U.S. Environmental Protection Agency (EPA), and the State of Washington Department of Ecology (Ecology).

The SOS Report identified the following eight cross-cutting issues as the root of major impediments to Hanford Site cleanup. Each of these eight issues is quoted from the SOS Report followed by a brief, general description of the proposed approach being developed.

CROSS-CUTTING ISSUES

ISSUE #1

The DOE and contractor management structure at Hanford still functions as a production operation. There is a lack of understanding and therefore commitment throughout the organization (RL and supporting contractors) to the environmental restoration mission at Hanford.

ACTION

Both DOE and its present ER Program support contractor, WHC, recognize the need to focus on cost effective Site restoration. DOE has translated its understanding into placement of an Environmental Restoration Management Contract (ERMC) which will bring an experienced environmental contractor with an established record to the Hanford cleanup mission. Current estimates are for the ERMC to be in place and functional in fiscal year (FY) 1994. The entire focus of the ERMC is the ER mission. RL has realigned its ER organization into a project structure to provide effective interfaces, and will collocate key staff with the ERMC contractor. WHC has recently initiated additional actions to improve management and lower costs, via a systems engineering approach, to projectize major segments of their cleanup mission responsibilities.

ISSUE #2

The history of the Site and its focus on nuclear material production leads to overly conservative interpretations of regulations and requirements that are designed to emphasize nuclear safety and to prevent catastrophic events. That history, combined with a lack of understanding of the environmental mission, leads to a focus on process as defined by directive, rather than a substantive interpretation of what is relevant to the environmental restoration (ER) mission.

ACTION

The focus of the ERMIC contractor will be the ER mission. The new RL-ER project team, in concert with the ERMIC, will develop a "graded" requirements based focus on restoration that matches the graded application of control systems, e.g., the Order system, to the risks and hazards associated with restoration work rather than production operations.

ISSUE #3

There is little focus on the overall goal of Site cleanup. Milestones are beyond most employees horizon (e.g., many managers will retire before RI/FS are complete in 2005 which shifts everyone's focus toward the administrative process and not the end product. A great deal of effort, time, and money is spent on generating "process" documents, reviewing them in great detail, and resolving the hundreds of comments generated by the Tri-Party Agreement members and their host of consultants. In short, "working the process" has become Hanford's goal rather than a means to a goal.

ACTION

Several actions contribute to the resolution of this issue.

- a. The ERMIC will be structured with incentives to continually have physical site cleanup in progress. This bias for action will be based on the fact that there are many opportunities for accelerated cleanup to achieve minimum site risk. The ERMIC will be directed to conduct risk reduction analysis as a basis for achieving agreement on continuing field action.
- b. As shown in response to several of the specific SOS recommendations, improvements in the process will help make actions more real time. RL has initiated an effort to optimize the existing Major System Acquisition Baseline for the ER Program; this activity, called the ER Optimized Baseline Project (OBP), will include the establishment of a technically sound requirements base, implementing the Hanford Past Practices Strategy (HPPS) and developing a large scale remediation (macroengineering) approach to site cleanup and facility decommissioning. The OBP will be used by DOE, EPA, and Ecology to reach technically sound, aggressive, affordable cleanup plans that will meet the values of the internal and external stakeholders.

ISSUE #4

The current structure at the Site hampers the integration of environmental restoration (ER) and waste management (WM) activities. This lack of integration may impede cleanup progress and could jeopardize the timely availability of adequate treatment, storage, and disposal capacity for waste generated through the ER program.

ACTION

Site strategic planning is being redirected to provide more quantitative exchange of data among the programs. The ER and WM Programs conducted a value engineering workshop which resulted in the integration of disposal requirements and a plan for developing a disposal trench for waste generated through the ER Program. Resolution of this issue will be expedited through implementation of the OBP for the ER Program and its cross-ties with WM program efforts.

ISSUE #5

There is a severe shortage of appropriate RL staff at the Site with the experience in ER work needed to plan and execute the EM mission. The culture and mission at Hanford cannot be changed without adequate strong, experienced DOE leadership and staff who understand what needs to be done and how to do it.

ACTION

RL has divided responsibility for managing the ER Program by establishing a new Environmental Remediation Division (END) and an Environmental Program Division (EPD). RL-EPD has created a Geotechnical Support Branch (largely staffed by experienced U.S. Army Corps of Engineers (USACE) personnel) to provide improved technical knowledge. A new Facility Decommissioning Branch has been added to the END to manage the D&D and N Reactor deactivation project elements. A new Contract Management Team that will manage task package administration and the ERMCM has also been added.

ISSUE #6

The parallel and vertical DOE and contractor organizations, each focused on its own mission and functional area, results in confusing lines of authority within and among contractors and lack of focus on the cleanup goals. This production oriented management structure results in a lack of project management accountability and a lack of empowerment at the field team level for achieving progress in ER.

ACTION

Previous recognition of this issue by DOE was a major reason for creation of the ERMC. The ERMC will contain evaluation criteria which will emphasize support and achieving progress with the environmental mission. This issue will be largely resolved by the initiation of the ERMC in FY 1994.

ISSUE #7

The shortage of DOE/ER staff also leads to a situation in which their ability to direct, oversee, and budget for technical work is severely impeded. Contractors appear to be running the cleanup activities at Hanford with directed authority and responsibility because there is insufficient ER staff with the capability to manage the program.

ACTION

The RL-EPD and END staff has been supplemented by General Support Service Contractors and assignment of USACE technical staff. Staff has increased from 24 to 37, and is expected to be 47 in FY 1994.

ISSUE #8

There has been a severe lack of timely and effective communication and coordination among the Tri-Party Agreement partners that appears to stem from a lack of trust among the three parties. This mistrust, and lack of communication has led to extensive time delays, rework, added unnecessary cost, and an attempt to build in quality through lengthy inspection and review processes. However this situation is improving and the three parties are beginning to develop a cooperative relationship.

ACTION

As the program matures, this situation is expected to continue to improve. Because of the complexity and uniqueness of decisions being made, some friction and conflict can be expected. Brown bag lunches with local line managers of all three parties have been initiated on a weekly basis to improve communications. The key to success will be to continue efforts to achieve assertive and open communication.

On March 31, 1993, the DOE committed to implement the recommendations of the Schedule Optimization Study in cooperation with Ecology and EPA where the recommendations are within DOE's authority of act. DOE will work with other parties as necessary to pursue implementation of the remaining recommendations where DOE lacks authority.

The SOS team provided general statements of issues, but no quantitative analysis of existing processes or the metrics to measure the impact of change. Also, the conclusions were written in audit format and there is no sense of the state of adequacy against which improvements are to be developed. Many of the issues in the Report had been previously identified by DOE, EPA and

Ecology in the course of their ongoing business, and improvement actions have been initiated or completed at the present time.

This Implementation Plan addresses all 57 recommendations in detail, identifying required actions and completion dates for DOE and the other TPA partners. For each recommendation either step-by-step actions are provided along with responsible individuals and target completion dates where available, or where a recommendation can not be implemented, the rationale for non-implementation is explained. The action plans were developed by soliciting input from a large sampling of subject matter experts throughout RL and WHC. The assorted input was combined and refined through an iterative Delphi process to create this Implementation Plan.

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1.0 INTRODUCTION

On March 31, 1993, the DOE agreed in the AGREEMENT IN PRINCIPLE, EVALUATION OF HANFORD TANK WASTE REMEDIATION ALTERNATIVES with the other TPA Senior Executive Committee members to...

Implement the recommendations of its Schedule Optimization Study in cooperation with Ecology and USEPA and where such recommendations are within USDOE's authority to act. Where USDOE lacks the authority to implement study recommendations, USDOE will work with other parties as necessary to pursue implementation of the remaining recommendations. Priority shall be given to recommendations which when implemented could result in significant cost savings and acceleration of environmental restoration activities.

This Plan has been developed to describe specific actions to be taken to resolve the recommendations identified in the *Schedule Optimization Study, Hanford RI/FS Program, Volume 2: Final Report* (EMO 1080 Vol. 2). It is DOE's intent that this Implementation Plan identify aggressive, good faith actions to implement the specific recommendations made by the SOS team and to reap the cost/schedule benefits from these actions for the continuing cleanup of Hanford under the TPA. This Implementation Plan lists all 57 findings and recommendations, identifying required actions and completion dates as well as those requirements for other TPA partners. Further information and background data describing the basis for each finding and recommendation can be found in the SOS Report.

This implementation plan is built on the basic assumption that all TPA participants are people of good faith, intent on solving Hanford's waste legacy adequately, safely and cost effectively to assure that clean-up objectives are met. This assumption leads to the perspective that issues should be addressed as TPA "partners" who work as a team, realizing that the regulatory agencies have different constraints and responsibilities than the regulated party, and that all parties are committed to protection of human health and the environment. A few ground rules for effective teamwork among "partners" with different requirements and responsibilities are:

- partners will consult each other in early stages of work to avoid later delays
- partners will explain to each other the basis and rationale behind why they must take a specific contrary position
- partners will not take resource conflicts and dispute resolution personally or as an affront to one's authority
- partners will maintain a focus on the objective of cleaning up Hanford within the flexibility and limitations of the regulations, available resources and potential danger to human health and the environment.

For each SOS recommendation either step by step actions are provided along with responsible individuals and target completion dates, or where a recommendation can not be implemented, the rationale for non-implementation is

explained. Many of the actions will require close communications between the TPA partner's and their technical staffs. Routine communication is assumed to occur regularly at the Unit Managers meetings and will not be specified in the IMPLEMENTATION ACTIONS sequence unless it is necessary for a formal acceptance or approval to assure closure of an action item.

DOE/RL individuals and TPA partners working on related efforts that impact actions that the ER Program will need to implement are shown below:

- Hanford Five Year Plan - J. M. (Jim) Peterson, DOE-RL
- Hanford Mission Plan - W. A. (Bill) Rutherford, DOE-RL
- Hanford Remedial Action Environmental Impact Statement - D. M. (Sue) Weissberg, DOE-RL
- Hanford Site Development Plan - R. W. (Randy) Small, DOE-RL
- Hanford Tri-Party Agreement - S. H. (Steve) Wisness, DOE-RL; D. R. (Doug) Sherwood, EPA; Roger Stanley, Ecology
- Northwest Citizens Forum - J. G. (John) Burk, W. T. (Bill) Dixon, WHC
- Programmatic Environmental Impact Statement on Environmental Restoration and Waste Management - Glen Sjoblom, DOE-HQ.

The DOE is in the process of placing an Environmental Restoration Management Contract (ERMC) at Hanford to take over the ER Program work scope presently being managed by WHC. As a result, the assignment of responsibility to WHC personnel for some tactical action items is expected to change when the ERMC award is resolved and the transition completed. Due to the fact that so many of the SOS Report implementation actions are ERMC contractor related, an extended delay of the ERMC award may require a revision of this Implementation Plan.

2.0 ACTION PLANS

2.1 MANAGEMENT STRUCTURE AND PROCESSES: DELIVERING WORK TO THE FIELD

This section in the SOS Report addressed the underlying management issues the SOS team felt were associated with excessive delays in conducting field work. A "production culture" at Hanford was identified as a major impediment to the expeditious environmental cleanup of the Site. Recommendations #1 through #9 below relay the SOS team's findings and concerns in this area.

RECOMMENDATION #1

Finding

Current DOE Orders do not adequately recognize the significant differences between production and ER activities. The existing structure at Hanford does not have a bias for ER activities. The Hanford ER program is forced to weave its mission into the existing DOE

production- and construction-oriented system. Resources and time are being wasted in an effort to comply with inappropriate or unnecessary requirements. Innovation to expedite ER is stifled by the cultural bias to comply with the letter of DOE Orders.

Recommendation

DOE Orders must be reviewed and changes incorporated appropriate to the dynamic nature and uncertainties of ER. Inappropriate or excessive requirements for ER should either be annotated to exempt ER activities or clarified as to the applicability of ER activities (screening criteria). Alternatively, separate Orders addressing ER activities could be promulgated. Innovation needs to be encouraged and rewarded.

Implementation Actions

The actions identified below are specifically directed at those DOE Orders which have been most problematic for ER activities. Consistent with Total Quality Management, RL will continue to evaluate Orders and implement improvement actions whenever possible and practical.

1. Initiate RL-EPD, RL Office of Primary Responsibility (OPR), and ER contractor (WHC/ERMC) team evaluation of significant DOE Orders with the objective of identifying specific alternative approaches, e.g., graded application of Orders, and recommendations to make these orders more applicable to ER operational needs; the Site's past five years of ER Program implementation experience and the work's risk potential should be considered when developing alternatives.

ORDER

Order 4700.1
Order 5400.4
Order 5440.1E
Order 5480.19
Orders 5481.1B & 5480.23
Order 5700.6C

RL-OPR

RL-PMD
RL-EPD
RL-EAP
RL-OTD
RL-QSH
RL-QSH

- Completed -- July 14, 1993
2. Prepare either a written justification for recommended changes to the Orders identified above that speak to parameters of concern, e.g., programmatic and/or operational needs and benefits, protective and/or control equivalency, etc., or a written explanation of how the recommendation has been adequately implemented in the interim since the SOS team's visit.
 - RL-EPD and contractor personnel
 - Completed -- September 3, 1993.

3. In addition, RL will request HQ to exempt all Hanford ER workscope from classification as "nuclear facilities" unless hazards exist which would necessitate classifying the facility or activity as a nuclear safety hazard, category 1, 2, or 3.

- RL
- January 30, 1994.

RECOMMENDATION #2

Finding

All facets of DOE ER activities are losing productivity as a direct result of DOE audit/surveillance requirements.

Recommendation

A single annual performance audit of each major area should suffice. Consideration should be given to focused reviews of priority issues

Implementation Actions

The SOS Report challenges the audit process but provides no analytical data demonstrating that audits are in fact reducing productivity. It is very likely that improvements can be made such that both the conduct and response to audits will be more effective in adding value to the program. However, it is necessary to establish a better understanding of the problem before changes are made. DOE-RL and WHC will conduct a quantitative review of audits during the past year as a basis for process improvements.

1. Review audits for the period June 1992 - June 1993 considering: a) what required the audit, b) how many hours of staff time, c) importance of findings, d) ability to close findings, e) value added to the program.
 - RL/WHC
 - Completed -- October 1, 1993.
2. Through the ER Technical Management Plan, standardize the audit/assessment process at the RL level by developing and establishing an annual audit schedule which is fully integrated to mitigate redundancy, conflicts and/or overlapping assessments conducted by the aforementioned assessment organizations.
 - RL/WHC
 - March 31, 1994.
3. Issue a formal request to EM-1 to coordinate HQ assessments with the goal of one assessment per year per functional area (reference: Cost and Management Efficiency Initiative #6).
 - RL
 - December 31, 1993.

RECOMMENDATION #3

Finding

Management systems designed for predictable production processes are not appropriate for the inherent uncertainty associated with ER programs.

Recommendation

Management systems must be streamlined to fit ER missions. Current systems are focused on production, requiring extensive reporting and documentation of activities and diverting resources from getting the real work done.

Implementation Actions

The SOS team seems to take exception with the detail and flexibility of DOE's financial planning system, which is not the same as that of some of the team member's federal agencies. RL-EPD and DOE recognized early in the ER Program that significant uncertainties would be encountered in the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) cleanup at Hanford. DOE has approached the Hanford cleanup effort from an "MSA-like" approach, rather than as an MSA. The difference being that DOE has authorized a planning system that allows the flexibility needed for uncertain environmental field work but is not inherent in DOE Order 4700.1.

Specific management strategies and systems for the ER mission have been developed by DOE and published in two companion documents, *EM-40 Management Policies and Requirements* (DOE/EM/RM-01), Revision 1, March 1992 and *EM-40 Management Plan* (DOE/EM/RM-02), Revision 1, March 1992.

Over the last two years, RL-EPD has had a computer based, flexible baseline development and cost estimating (BD/CE) process developed for use at Hanford. This BD/CE process enables rapid and efficient "what if" analysis necessary for real time evaluation of options, enables rapid tactical changes to the programmatic and financial baseline, and demonstrates an understanding of the work and its uncertainties for credibility with DOE senior officials, Congress and Hanford special interest groups.

In May, 1992, the Hanford ER Program produced the initial programmatic multi-year baseline. The baseline was validated in June, 1992, a formal independent cost estimate performed in October, 1992 and approved on October 30, 1992 by the Deputy Assistant Secretary, Office of ER. This BD/CE process is the product of a multi-organizational team consisting of RL, WHC, and the USACE. The product utilizes the automated Hanford RI/FS Cost and Schedule Model, developed and operated by WHC, the remedial action design/remedial action models and associated cost data produced by the USACE using MCACES Gold software, and automated costing spreadsheets.

This BD/CE process is continuing to evolve, as additional Site operating and cost data are developed. The BD/CE process enables focus, explanation, and understanding of the impact of technical, programmatic and financial

factors affecting the Hanford cleanup to all stakeholders, i.e., the TPA partners, DOE-HQ, OMB, Congress, special interest groups and the public. It's electronic automation will continue to be improved with experience. Regarding Recommendation #3, the BD/CE process is state-of-the-art within DOE and provides the basis for understanding important changes and/or impacts to the program. This process differs markedly from the rigidity of DOE Order 4700.1 and has been authorized and accepted for use at Hanford.

The magnitude of the ER Program is such that it falls within the purview of DOE Order 4700.1, Project Management System. However, the ER Program differs in two major respects from the DOE programs for which the DOE Project Management system was designed. First, the program does not consist of a single, integrated effort to develop and produce a facility, device or process, but rather of a multiplicity of actions at a large number of contaminated release sites and facilities, at storage and processing facilities and in the disposal of radioactive, hazardous, and mixed waste streams. Second, unlike the construction or process device or modification projects, ER projects are subject to major decisions (e.g., Records of Decisions (RODs) under CERCLA) not made by DOE. Each site, facility and waste stream has its own largely independent characteristics and such action has a different start and stop date. Necessary actions will be determined as the program progresses, based on previous actions such as site characterization or identification of the waste stream contents, technological developments, regulatory requirements, and consent decrees or agreements. Priorities will be assigned based largely on risk but with due consideration of schedules established by agreements and consent decrees. The scope of effort for many lower priority activities may not be known until very late in the program. The regulatory process required by the Resource Conservation and Recovery Act (RCRA) and the CERCLA provides a rigorous systematic approach for preparation of documentation for assessment, evaluation, design and cleanup of contaminated sites. Accordingly, the documentation required by RCRA and CERCLA will replace the preliminary design documentation required for construction projects under 4700.1. In addition, many other factors such as consent agreements, input from the States and the public, applicable or relevant and appropriate standards (ARARS), and technology developments introduce highly significant uncertainties into the technical, cost, and schedule baselines. Nevertheless, the provisions of DOE Order 4700.1 can be adapted so that this system of project management can be usefully applied to control activities and provide adequate reporting and tracking.

Additional evaluation and reduction of DOE Order 4700.1 requirements for ER work will be pursued through Recommendation #1.

No further actions required; this item is closed.

RECOMMENDATION #4

Finding

Development of a clear vision for the future use of the Hanford Site will help focus activities at the site, and assist in the movement from a production culture to an ER culture at the site.

Recommendation

Rapidly complete the programmatic Environmental Impact Statement (EIS), and refocus the site-wide EIS to develop such a vision for the future.

Implementation Actions

Citation of a sitewide EIS in the SOS Report was inappropriate. Section 2.4.4 of the Report is designated as "sitewide EIS", but makes reference to the HRA-EIS in the text. The authors of the Report appear to have mixed terms that have local significance. There is no sitewide EIS in progress, nor are there plans to initiate a sitewide EIS in the near future. The HRA-EIS is an ER Program EIS for Hanford only. The HRA-EIS is not intended to address all site issues. However, it will focus on two major topics. First, an assessment of the cumulative impact of completing the ER Program mission. This cumulative impact cannot be obtained under the site-by-site CERCLA process. This cumulative impact will be determined by selecting a range of technology categories, as opposed to specific techniques, thus establishing a bounding or worst case impact. As new technologies are developed, their specific level of impact would be evaluated to determine whether they are within the established bounding impact. If the level of impact is within the bounding impact, then no additional NEPA documentation would be required. Second, the HRA-EIS alternatives will utilize the six geographic areas developed by the Hanford Future Site Uses Working Group, and incorporate land-use based remediation goals similar to the cleanup scenarios used by the Working Group. The three remediation goals are: *unrestricted*, where contamination would not preclude human uses; *restricted*, where there would be limits on human uses due to contamination; and *exclusive*, where human uses would be strictly controlled due to the potential for contamination. These alternatives will be incorporated into the HRA-EIS as a guide for establishing remediation goals.

The EIS analyses will assume that *unrestricted* use would be achieved by removal or treatment action; *restricted* use would be achieved by a combination of institutional land use controls, engineered barriers, removal actions and treatment technologies; and *exclusive* use would be achieved primarily, by institutional land use controls and engineered barriers. Different combinations of the remediation goals will be combined to construct sitewide remediation alternatives for analysis comparisons in the HRA-EIS.

It should be noted that Hanford has received national recognition for the efforts of its Future Site Uses Working Group. The recommendations of that group were officially published in December 1992, and are currently incorporated into the HRA-EIS Implementation Plan.

With regard to the national Programmatic EIS (PEIS), both RL-EPD and its support contractors are coordinating with HQ staff to provide information to support the PEIS which is consistent with that being prepared for the HRA-EIS. The HRA-EIS portion of this recommendation has been implemented and there is no further action required at this time; this part is closed.

NOTE: Additional discussion and recommendations concerning the application of the NEPA process to CERCLA activities can be found in Recommendations #27 through #31.

RECOMMENDATION #5

Finding

The Hanford Site requires more senior technical managers experienced in ER to provide leadership and direction to contractors in the execution of its mission.

Recommendation

DOE should establish an EM multidisciplinary project Technical Support Team (TST) onsite at Hanford within DOE that will report directly to the site manager and act as a transition team to guide the implementation of the recommendations in this study and lay the foundation for integrating the new Environmental Restoration Management Contract (ERMC) to be put in place by July 1993.

Implementation Actions

Successful implementation of program improvements requires the cooperation of all key DOE-RL organizations supplemented with the best available technical knowledge. The RL organization has been structured to focus on the EM mission of the site with multi-disciplinary project teams formed and supported by a top level "corporate board" and functional teams to integrate across the various EM program offices. RL has also established a Strategic Planning Council to support the implementation of numerous improvement activities such as those identified in this study. As part of the preparation for the ERMC, RL has developed an ER project organization. It is intended that the project organization will be supported by a transition team consisting of managers from key organizations within RL.

- RL
- TBD - after resolution of ERMC protests.

RECOMMENDATION #6

Finding

RL has insufficient staff with the ER skills necessary to prepare and review cost estimates and budget requests, and to effectively select and oversee contractors.

Recommendation

More work should be conducted in-house by RL staff to maintain staff expertise. Shift personnel to ER work to increase the DOE work force in this area. (A review of DOE Orders, and elimination of unnecessary components of these Orders, should produce most of the needed staff full-time equivalents [FTEs].)

Implementation Actions

The RL-EPD and END staff has been supplemented by General Support Service Contractors and assignment of USACE technical staff. Staff has increased from 24 to 37, and is expected to be 47 in FY 1994.

As the owner, and ultimate responsible organization, DOE must provide effective leadership. An element of this is adequate technical involvement to assure cost-effective results. DOE-RL has created a Facility Decommissioning Branch and a new Geotechnical Support Branch to be staffed with USACE technical experts through the interagency MOA. The range of technical focus includes:

• Analytical and field characterization	• Field geophysics
• Regulatory analysis	• Groundwater
• Risk assessment	• Remediation systems
• Information management	• Technology development
	• Site mapping

These groups will be retained as part of the EPD and END and staffing will be increased over the next two years.

1. Complete initial staffing the Geotechnical Support Branch and Facility Decommissioning Branch with experienced USACE personnel to supplement the current RL staff.

- RL
- Completed -- May 1, 1993.

No further actions required; this item is closed.

RECOMMENDATION #7

Finding

Lack of integration between WM, ER, D&D, and Technology Development runs the risk that technical and capacity needs not being identified and addressed.

Recommendation

Streamline the RL and contractor organizational structure to better fit EM mission needs. The ER, D&D, and WM activities especially require an integrated project team approach, applying matrix management principles where the focus of work is on completing a project and the project manager controls the resources.

Implementation Actions

As described in Recommendation #5, RL has established an ER project organization to provide more effective integration of programs.

Consistent with projectization of the ER Program and establishment of ERM by RL, WHC will also adopt a project management approach for the ER Program. WHC will establish three integrated project teams to force and focus integration of Remedial Action, D&D, and Waste Management within the ER Program and the Hanford Site. Project Managers will control the resources and have the responsibility and authority to direct the team on a daily basis.

1. Review DOE-RL and WHC ER organizations, interfaces and communications. Develop recommendations to align organizations, as appropriate, ensure integration and enhance communications.
 - RL/WHC
 - February 28, 1994.
2. Complete reorganization of both the WHC Environmental and Restoration Operations Divisions into the above described project teams for all ER Program work considering the recommendations of item #1 above.
 - WHC
 - February 28, 1994.

RECOMMENDATION #8

Finding

The management structure is further complicated by a lack of clarity between the role of headquarters and the field offices, and by not delegating field decisions to the field.

Recommendation

The DOE must decentralize the management of ER and WM activities and give decision authority to field office program managers.

Implementation Actions

1. Decentralize day-to-day program execution and operations decisions for Environmental Restoration and Waste Management activities by giving decision authority to the RL Manager.
 - DOE-HQ
 - Completed -- April 1, 1993.
2. Issue a letter to HQ that details the roles and authorities which should be delegated from HQ to field office organizations.
 - RL
 - December 31, 1993.

RECOMMENDATION #9

Finding

The current contractor structure undercuts management accountability for the site.

Recommendation

Review the roles and responsibilities of the ERM and other contractors onsite to ensure that the ERM contractor is accountable for ER work and has full authority to direct needed resources.

Implementation Actions

1. Structure the ERM such that the ERM contractor is accountable for ER work and has maximum flexibility/autonomy and full authority to direct resources; minimize mandatory Site Services for recommended flexibility.
 - RL
 - TBD - after resolution of ERM protests.

2.2 TECHNICAL APPROACH TO THE SITE: OPTIMIZING TECHNICAL PROCESS

As DOE began to implement the TPA schedules, early RI/FS work plan schedules projected efforts lasting seven years with little cleanup performed for the large amounts of money spent. In an effort to circumvent these problems, the TPA partners developed the HPPS site cleanup strategy. This strategy is based on a "bias for action," and the recognition that existing data would be sufficient in many cases to take early corrective actions to reduce risks. This section addresses some of the underlying issues that may adversely affect long-term progress by reducing the focus on the technical approach and lessening integration of the technical elements of the remediation process.

RECOMMENDATIONS #10 and #11

Finding

Development of the HPPS is a significant improvement for the Hanford restoration program.

Recommendation #10

The HPPS should be implemented at all of the Hanford NPL sites upon the completion of appropriate baseline aggregate area studies.

Recommendation #11

The TPA members should apply the HPPS broadly to all remediation activities at Hanford.

Implementation Actions

The TPA partners have initiated implementation of the HPPS for all NPL sites. Aggregate area studies combine similar Operable Units (OUs) around facilities, e.g., Z Plant, to fully realize economies in sampling and characterization and to focus subsequent work plans. Aggregate area studies are either scheduled or completed and form the basis for additional work in the 200 Areas. Other aspects of this cost/schedule improvement strategy shown below are also being implemented including:

- limited field investigations: 100 Areas
- Analogous site approach: See Recommendation #16
- Observational sampling approach (e.g., sodium dichromate barrel ERA).

In addition, the OBP will consider the current implementation of the HPPS in conjunction with the technical, regulatory and budgetary constraints in order to develop an optimized remediation strategy. The strategy requires the flexibility to accept additional changes in all areas as they are identified. The purpose of this planning initiative is to optimize available technological, infrastructure, and budgetary resources to establish an optimum strategy for environmental restoration of the Hanford Site. The project addresses all activities under the scope of the ER Program at the Hanford Site. It will address the facilities and sites currently in the program and those that will be transitioned to the program over the next ten years.

Wider understanding and support for this strategy for capitalization of its benefits should be more effectively achieved if it is formally included in the TPA.

1. Reach consensus and agreement among TPA partners on an ER optimization strategy resulting from the OBP.
 - TPA partner representatives
 - March 1994.
2. Review selected ER optimization strategy with public.
 - TPA partner representatives
 - June 1994.
3. Place the selected optimization strategy, formally in TPA.
 - TPA partner representatives
 - September 30, 1994.

NOTE: Completion of item 3. constitutes closure for these recommendations.

RECOMMENDATIONS #12 and #13

Finding

Current TPA milestones do not adequately reflect the HPPS and, in particular, do not provide an aggressive focus for achieving cleanup.

Recommendation #12

Current TPA milestones and operable unit designations should be reformulated to reflect the HPPS.

Recommendation #13

A 30-month study schedule should be the goal of the planning process, but implementation of this goal should be flexible, and it must be revised for complex sites.

Implementation Actions

The OBP will consider the current implementation of the HPPS in conjunction with the technical, regulatory and budgetary constraints in order to develop an optimized remediation strategy. The strategy requires the flexibility to accept additional changes in all areas as they are identified. The purpose of this planning initiative is to optimize available technological, infrastructure, and budgetary resources to establish an optimum strategy for environmental restoration of the Hanford Site. The project addresses all activities under the scope of the ER Program at the Hanford Site. It will address the facilities and sites currently in the program and those that will be transitioned to the program over the next ten years.

A 30-month study schedule goal has been established for each Operable Unit. This time frame has been incorporated into the Five Year planning process and cost estimates and is integral to the OBP.

1. Reach consensus and agreement among TPA partners on an ER optimization strategy resulting from the OBP.
 - TPA partner representatives
 - March 1994.
2. Review selected ER optimization strategy with public.
 - TPA partner representatives
 - June 1994.
3. Place the selected optimization strategy, formally in TPA.
 - TPA partner representatives
 - September 30, 1994.

NOTE: Completion of action 3. constitutes closure of these recommendations.

RECOMMENDATION #14

Finding

If the HPPS is not conducted in a manner that integrates ER planning it will fail to optimize the progress of remedial activities. Implementing the HPPS approach can be best optimized by defining the preliminary remediation goals, site objectives, and DQOs for each operable unit and area at Hanford, and allowing for their continuous adjustment or revision as appropriate to the technical process.

Recommendation

The DOE ER planning process should be integrated for all ER and WM activities at Hanford, using a conceptual site model that includes a baseline qualitative risk assessment and treatment technology feasibility screening for the overall delisting ROD for each NPL site.

Implementation Actions

The OBP will consider the current implementation of the HPPS in conjunction with the technical, regulatory and budgetary constraints in order to develop an optimized remediation strategy for the ER Program. The strategy requires the flexibility to accept additional changes in all areas as they are identified. The purpose of this planning initiative is to optimize available technological, infrastructure, and budgetary resources to establish an optimum strategy for environmental restoration of the Hanford Site. The project addresses all activities under the scope of the ER Program at the Hanford Site. It will address the facilities and sites currently in the program and interfaces with other site activities that will be transitioned to the program over the next ten years.

Recommendations and considerations included in the Future Site Uses Working Group (Working Group) have been included in the recently issued Hanford Mission Plan Guidance. Overall integration of the Hanford Site Planning process was the focus of an Integrated Systems Engineering activity. This activity begins with definition of overall site goals and approaches and will form the basis of future integrated site plans.

Overall approach will build from the Working Group recommendations, and the upcoming citizen's forum activities to establish Site Level Cleanup Objectives, coupled with Site Level Qualitative Baseline Risk Assessment to drive and integrate the WM and ER planning processes and objectives.

1. Reach consensus and agreement among TPA partners on an ER optimization strategy resulting from the OBP.
 - TPA partner representatives
 - March 1994.

2. Integrate Systems Engineering functional analysis into the next issue of the Hanford Mission Plan Site Guidance.
 - RL
 - January 1, 1995.
3. Complete the site Systems Engineering activity for the entire Site program; this will develop a flexible, consistent, integrated set of Site cleanup objectives and remediation alternatives.
 - RL
 - January 1, 1995.

NOTE: Completion of item 3. will constitute closure of this recommendation.

RECOMMENDATIONS #15 and #16

Finding

A key area in optimizing schedules for the RI/FS (and all other RCRA/CERCLA) activities can be found in taking advantage of common features and activities at sites.

Recommendation #15

Generic documents should be used whenever possible to reduce redundant activities at the Hanford Site. These plans should be negotiated and incorporated into the TPA as agreed upon protocols, to the maximum extent practical. Generic plans can always be appended with site-specific details that would increase their effectiveness and reduce the length of the approval process.

Recommendation #16

The operable units should be examined under the HPPS for commonalities related to location, type of unit operation, and type of contamination.

Implementation Actions

Limited generic sections of work plans have been utilized in the past e.g., the community relations and quality assurance plans. Work plans also contain site specific information that cannot be rendered generically. Recently, work plans have been "baselined" by establishing 100-KR-1 (DOE/RL-90-20, Revision 0) as a model for subsequent work plans. For Engineering Evaluation/Cost Analysis (EE/CA) documents prepared for expedited response actions (ERAs), the baseline is the sodium dichromate EE/CA (DOE/RL-93-25). The formal use of these document baselines will be implemented in WHC documents by WHC's cognizant engineers and subcontractors after acceptance by the TPA partners.

When OUs were originally established, waste site location and proximity, type of past waste generating operations and expected types of contamination based on available historical information were considered in the grouping of individual waste sites into OUs. Subsequently RL and WHC have implemented the Analogous Site Approach (ASA) effective with the 200-UP-2 work plan (currently under review) and the 200 Area aggregate area studies. The ASA recognizes that similar types of waste sites, e.g., burial grounds, associated with a facility or operation, e.g., Nike missile sites, are basically equivalent vis-a-vis the waste received. Therefore, it is only necessary to sample one (or a few) of the sites to gain an adequate understanding of all of the sites within the type. The North Slope ERA investigation utilized the ASA for military landfills wherein only two of ten sites were sampled. Efforts continue to implement this concept in other future efforts because it allows a bias for action at lower cost with little added risk. This approach is an integral component of the HPPS authored by RL (see Recommendation #10).

1. Presentation of "baseline" approach as described above at Unit Managers meeting for discussion and acceptance.
 - RL
 - Completed -- August 1993 Unit Manager Meeting.
2. Prepare 100 Area-wide Phase III Feasibility Study and consolidation of the remaining 100 Area Operable Units.
 - WHC
 - February 28, 1994.

NOTE: Completion of item 2. constitutes closure for this recommendation.

RECOMMENDATION #17

Finding

The macroengineering approach has viable elements that should be integrated with the HPPS and the RCRA/CERCLA technical processes.

Recommendation

Develop an implementation strategy for incorporating the viable elements of macroengineering in the 100 Areas.

Implementation Actions

RL-END recognizes the potential schedule and costs savings advantages of the macroengineering, (large scale remediation), approach and has had an initial "pilot" implementation plan prepared for testing the approach at one of the 100 Area locations, 100 B/C Area (ref: WHC-SD-EN-AD-076, "100 B/C Area Large Scale Remediation Project Plan"). This plan addresses the project organization, requirements, schedules, costs, materials, equipment and manpower needed for the large scale contaminated materials handling that will

be needed to realize the potential savings the application of large scale remediation offers in other areas.

In addition, the OBP will consider the current implementation of the HPPS in conjunction with the technical, regulatory and budgetary constraints in order to develop an optimized remediation strategy. The strategy requires the flexibility to accept additional changes in all areas as they are identified. The purpose of this planning initiative is to optimize available technological, infrastructure, and budgetary resources to establish an optimum strategy for environmental restoration of the Hanford Site. The project addresses all activities under the scope of the ER Program at the Hanford Site. It will address the facilities and sites currently in the program and those that will be transitioned to the program over the next ten years.

1. Through the OBP, determine if the large scale remediation approach is a viable alternative, and if so, integrate it with the other ER activities and present it as one of the strategic alternatives to be considered.
 - RL
 - March 1994.
2. Implement large scale remediation by utilizing the 100 B/C Area plan for pilot testing the approach.
 - WHC
 - Initiate FY 1996.

NOTE: Reduced cleanup cost and schedule performance for this approach and extension to other 100 Area planning, if warranted, will constitute closure of this recommendation.

RECOMMENDATION #18

Finding

Failure to make an early decision on large scale remediation and to develop appropriate budget strategies will lead to failure to implement the strategy in a timely manner.

Recommendation

Develop a budget strategy as part of the implementation plan. Include appropriately phased funding as part of the strategy.

Implementation Actions

The OBP will consider the current implementation of the HPPS in conjunction with the technical, regulatory and budgetary constraints in order to develop an optimized remediation strategy. The strategy requires the flexibility to accept additional changes in all areas as they are identified. One of the key strategies that will be considered in the OBP will be the large

scale remediation process as it applies to remediation, decommissioning and decontamination.

1. Through the OBP, determine if the large scale remediation approach is a viable alternative, and if so integrate it with the other ER activities and present it as one of the strategic alternatives to be considered.

- RL
- March 1994.

RECOMMENDATIONS #19, #20 and #21

Finding

The technology development and transfer program was not developed to specifically deliver any products in support of Hanford's ER program within the time frame of the TPA. Current funding levels were developed for long-term research programs that are not user driven and would require an immediate increase in funding to respond to Hanford's needs.

Recommendation #19

Streamline the organizational interface between technology development and ER; realign the organization to link technology development with ER.

Recommendation #20

Hanford should directly link a technology development effort with the ongoing cleanup activities. Operable Unit 100-KR-1 has a work plan that might incorporate the trial application of new technology as a part of or subsequent to the interim remedial actions. The TPA members can incorporate a technology demonstration that enhances the remedial program if they remain focused on the overall objectives of the remedial program.

Recommendation #21

Increase technology development funding and staffing to directly support the Hanford site needs, beginning in FY 1993.

Implementation Actions

Prior to the publication of the SOS Report, several efforts were under way to streamline the interface between the Technology Development and ER Programs. These efforts are occurring on a local and regional level. A Technology Working Group has been formed to identify appropriate/potential technologies for the ER Program. It's membership is comprised of key staff from RL, PNL, WHC and KEH. Together this group developed technology needs which led to the WHC ER Technology Baseline Plan publication issued in the 4th

quarter of CY 1992. This Plan establishes the timeline, which meets the program's immediate needs, for development of site specific ER technologies. Technologies identified in this plan have had cost estimates developed and have been included in Activity Data Sheet (ADS) planning that was presented to DOE-HQ on April 21, 1993 as part of pre-validation review.

Through the development of the ER Technology Development Plan and related baseline cost estimates, funding for a fairly comprehensive Technology Adaptations effort has been incorporated into the ER Program baseline for FY 1995-1999. Both RL and the ER Program Office will make every effort to defend this funding request as it goes through the budget review and appropriations cycle.

Linking technology development with cleanup actions has successfully occurred at the carbon tetrachloride Expedited Response Action (ERA). A number of technologies in drilling, sensing, and waste destruction have been developed and transferred such as improved downhole soil gas sampling techniques. Inaction or delay, based on the hope of developing a "breakthrough" replacement technology would be inconsistent with the TPA commitments and approved work plans. The field testing of advanced technology development as part of necessary ERAs or Integrated Demonstrations is a proven approach that meets the needs of both large scale cost and performance testing and schedule compliant remedial action.

Technology has been recognized and supported by RL as a necessary and an integral part of the ER Program workscope since the beginning of the program. However, increasing requests for assessment of technologies from private sector vendors and opportunities identified by PNL, has resulted in an understaffed condition within the WHC technical organization that understands both the field and ER Program needs. Funding for general DOE complex-wide ER technology is planned and controlled by the Office of Technology Development. RL-EPD and Environmental Restoration Engineering personnel continue to interact with these programs and to identify specific needs that can provide near term benefit to specific Hanford cleanup efforts, e.g., construction and testing of a prototype Hanford barrier to prevent closed waste site water infiltration and contaminant migration to the assessable environment, and six highly leveraged cost saving technology needs for the implementation of large scale remediation (see Recommendation #17).

Work is currently under way on a prototype design of the Hanford barrier for utilization in the 200-BP-1 OU corrective action. This barrier concept has been developed under the Barrier Development Program which links ongoing cleanup activities with technology development. This approach has been sanctioned by the TPA partners and is certain to receive national recognition for its innovative efforts. A Value Engineering workshop attended by TPA partner representatives and technical staff reevaluated the remaining tasks in the Barrier Development Program and both added and eliminated some to complete the work. The Value Engineering both improved the remaining development program and began the process of gaining acceptance of the Barrier as a suitable *in-situ* disposal site cover.

1. Present FY 1995 - 1999 ER technology ADSs for validation at the program budget review with DOE-HQ PR-20.

- RL
- Completed -- May 25, 1993.

2. Identify qualified technical personnel to support more routine portions of the technical ER Program and transfer experienced, qualified staff into an enlarged technology needs identification and evaluation role consistent with the funding priorities resulting from closure of recommendations 19 and 20.

- WHC
- March 31, 1994.

NOTE: the three activities shown below identify completion of the lengthy prototypical barrier utilized at the 200-BP-1 OU.

3. Complete and issue for clearance review new Permanent Isolation Surface Barrier Development Plan based on results from Value Engineering efforts mentioned above; cost impact expected to be \$1-3 million favorable.

- WHC
- December 31, 1993.

4. Complete testing of prototypical barrier.

- WHC
- September, 1997.

5. Complete final design package for future barrier constructions.

- WHC
- September 1998. (

NOTE: Successful closure of these recommendations includes completion of item 2. and will be measured by the percentage of ADSs that get funded and achieved in their appropriate FY. DOE has recognized the need and has achieved streamlined organizational interfaces since the SOS Report was prepared; whereas, funding and/or priority determinations to achieve an optimal level of technology development at Hanford vis-a-vis the national ER Program needs and requirements will not be addressed here.

2.3 SAMPLING AND ANALYSIS ACTIVITIES

Findings and recommendations pertaining to sampling and analysis activities involve the data-gathering process, experience of the performing staff, execution and management of field work, analytical support capability and data quality needs. Issues that were identified include excessive site investigations due to the failure to generate data necessary for determining the extent of groundwater contamination, shortage of analytical capacity, and empowerment of field personnel.

RECOMMENDATION #22

Finding

Lack of personnel with ER experience in the conduct of sampling and analysis activities is leading to delays in progress at Hanford.

Recommendation

RL should develop a comprehensive sampling and analysis strategy for the site to ensure that data collection needs for the ER program are adequately planned, prioritized, and implemented.

Implementation Actions

NOTE: referral to the SOS Report narrative is required to obtain complete understanding of this finding and recommendation.

A number of activities were underway and have been initiated to address this finding and recommendation; these include (1) implementation of a more comprehensive approach to establishing data quality objectives (DQOs) in the investigation planning process (including training of staff on the DQO approach); (2) more complete implementation of the Hanford Past Practice Investigation Strategy (HPPS) (in both the 100 and 200 areas, with plans to consolidate Operable Units in the 300 Area); (3) development of Work Plan guidance for WHC subcontractors to make the plans (including the Sampling and Analysis Plan portions) consistent from subcontractor to subcontractor and from operable unit to operable unit; (4) improvements in analytical support to reduce laboratory turn-around times and data validation; (5) agreements with the regulatory agencies to streamline analyte lists; (6) agreement with the regulatory agencies on a Risk Assessment Methodology (promotes better DQO planning in securing data for baseline risk assessment - quantitative and qualitative); (7) ongoing negotiations with the regulators to reach agreement on an activity which will establish "site-wide background" values for soils, groundwater, and radioactivity (effort should significantly reduce sampling requirements needed for baseline risk assessments and RCRA closures); and (8) establishment of a focused field screening and mobile laboratory program to significantly streamline characterization activities.

Additional activities potentially leading to a sampling and analysis approach integrated into remediation are in the planning stages. This approach is to be discussed and negotiated as part of the effort agreed to in the recent TPA negotiations regarding redirecting the ER program into a more "remediation-oriented" program. Approaches for consideration will be included in the OBP. A large scale systems approach is presently planned as a treatability test for 100-BC-1.

Additional discussion and recommendations concerning the OBP can be found in Recommendations #10 through #13.

RECOMMENDATION #23

Finding

Currently, analytical shortfalls in quantity and quality are causing missed milestones, increasing the amount of conflict between the three parties involved in this remediation effort. All parties to the TPA share responsibilities for parts of this problem.

The long-term storage of samples prior to testing is a highly questionable practice, which should be undertaken only after concurrence of all parties to the TPA.

The RI/FS process at the 200-BP-1 Area has reached the point where the physical testing data from these high-level radioactive samples is critical to support a lower cost option determined by the RI/FS decision-making process.

Recommendation

Perform a performance evaluation review technique (PERT) analysis of all LLMW requirements for all RI/FS and treatability-type studies to determine the critical path and establish priorities for using existing capacity.

Implementation Actions

In August 1992, a procedure was initiated to forecast six-month sample load estimates and for analyzing variances between forecasts and actuals each month. Schedules for sampling are documented in work plans following a process of review, negotiation and approval including public review. Sample projections are then made on the basis of schedules dictated by the needs of field investigations and schedule performance, and are not completely within the control of RL or WHC. This procedure also contains provisions for prioritizing sample handling. Implementation of the RL authored HPPS has resulted in the reduction of sample loads from >1000 samples per month to <500 per month and the prioritization provisions have not yet been needed. These reduced sample loads have been achieved with the agreement of the TPA partners.

Sampling and analytical capacities are currently adequate to meet demand and avoid backlogs that can adversely effect cost, schedule performance, and cleanup decision making. Performance of a PERT analysis is felt to be unnecessary at this time. Analytical capacity problems are not expected to appear again based on these more efficient approaches to site investigation. If they do appear, the new mobile field screening laboratories currently being purchased are expected to provide adequate capacity along with new fixed laboratory contracts currently being placed.

This recommendation is closed.

RECOMMENDATIONS #24a & b

Finding

Currently, analytical shortfalls in quantity and quality are causing missed milestones, increasing the amount of conflict between the three parties involved in this remediation effort. All parties to the TPA share responsibilities for parts of this problem.

The long-term storage of samples prior to testing is a highly questionable practice, which should be undertaken only after concurrence of all parties to the TPA.

The RI/FS process at the 200-BP-1 Area has reached the point where the physical testing data from these high-level radioactive samples is critical to support a lower cost option determined by the RI/FS decision-making process.

Recommendation #24a

Increase available private sector capacity by reducing poorly designed statements of work (SOWs) which hinder laboratories from competitively bidding DOE work.

Recommendation #24b

DOE needs to build an LLMW facility with sufficient capacity to meet projected requirements, to supplement private sector capacity, and to perform QA oversight and methods-development technology functions.

Implementation Actions

A low level waste laboratory (WSCF) is currently under construction at Hanford. WSCF will provide QA oversight of commercial analytical laboratories managed by Hanford Analytical Services Management (HASM) (TPA milestone M-14-03).

Present plans are to place three commercial analytical contracts to provide low activity (< 10 mr/hr) services. It is RL's plan that within two years, 80% of the projected WHC sample load will be analyzed by a commercial laboratory located in the vicinity of the Hanford Site. This facility is to be operational in October, 1995. Two smaller contracts to handle 10% each of the remaining total are also planned.

Existing and future commercial contracts and WSCF will provide adequate analytical services to meet ER Program requirements. With recent Site management attention, laboratories currently under contract have demonstrated reduced turn around times, increased available capacity, and improved quality.

1. Award commercial low activity analytical services contracts.
 - WHC
 - Completed -- August 2, 1993.
2. Complete construction of WSCF.
 - WHC
 - Completed -- October 31, 1993.
3. Complete operational startup requirements and open for business.
 - WHC
 - April 29, 1994.

RECOMMENDATIONS #25a, b & c

Finding

Currently, analytical shortfalls in quantity and quality are causing missed milestones, increasing the amount of conflict between the three parties involved in this remediation effort. All parties to the TPA share responsibilities for parts of this problem.

The long-term storage of samples prior to testing is a highly questionable practice, which should be undertaken only after concurrence of all parties to the TPA.

The RI/FS process at the 200-BP-1 Area has reached the point where the physical testing data from these high-level radioactive samples is critical to support a lower cost option determined by the RI/FS decision-making process.

Recommendation #25a

The SOS suggests a team approach (TPA signatories) is suggested to determine and prioritize total program analytical requirements.

Recommendation #25b

RL needs to approach the regulators (EPA and Ecology) to obtain an agreement for permission to store high-level radioactive physical property samples for a period of time sufficient to ensure they can be successfully analyzed, since replacing these samples would cost several million dollars.

Recommendation #25c

RL needs to take whatever action is required to make the high-level radioactive testing laboratory operational as soon as possible, and then

prioritize stored sample analysis based upon 200-BP-1 RI/FS needs to make the most informed decisions possible for the RI/FS report.

Implementation Actions

A WHC team has been formed to prioritize program analytical requirements. This team meets weekly to review and track all aspects of analytical and validation performance. Rolling six month sample forecast estimates are provided each month to HASM and are reviewed at the weekly interface meetings. Team members brief the TPA Unit Managers monthly on performance status.

A Total Quality Management (TQM) process improvement team was formed to work analytical data verification and validation issues. As a result of this management focus on analytical capacity issues, laboratory turnaround, verification and validation times are improving. The last essential link in the process is validated data entry; there is presently a backlog of data to be entered as well as a continuing influx of new data each month. New data entry software is being introduced to overcome this unacceptable condition. An action plan and schedule for validated data entry into the HEIS database has been developed so that progress can be tracked. The HEIS data entry backlog is anticipated to be gone and data entry current with incoming new data by the end of the calendar year.

1. Execute validated data entry action plan and work off data backlog.

- WHC
- December 31, 1993.

NOTE: Completion of item 1. constitutes closure of recommendation #25a.

Recommendations #25b and #26c appear to be based on past problems the 200-BP-1 investigation was encountering at the time of the SOS team visit. Corrective sampling and analysis actions have markedly impacted that previous situation. Sufficient data has been analyzed by onsite high-level laboratories to enable the 200-BP-1 remedial investigation report to be prepared. The high activity analytical work was done at Hanford's 325 Laboratory and is complete. The physical properties testing for 200-BP-1 turned out not to require a "hot" laboratory and has also been completed.

In the future, the existing physical properties laboratory, which is now operational, will have both the capacity and the ability to handle samples up to 25 mrem/hour which will be sufficient for anticipated samples. An advantage of the Hanford geology is that Hanford's soils are highly stratified, with the contamination found mainly in the fines layers. It is possible to take physical property samples from regions of the desired strata in the borehole that are less contaminated than the regions from which analytical samples are taken. These lower activity physical properties samples are sufficient for collecting adequate data for contaminant transport and risk model input. This approach has been verified by the experience at 200-BP-1.

No additional action on these SOS recommendations is needed at this time. The physical properties testing laboratory has become operational since

the SOS team visit and is able to handle samples up to 25 mrem/hour. Recommendations #25b and #25c are closed.

RECOMMENDATIONS #26a & b

Finding

Failure to match the organizational and management structure to project needs results in gross inefficiencies and increased costs.

Recommendation #26a

Empower project managers and field team leaders with authority to organize and manage ER work without the constraints imposed by current contractual requirements.

Recommendation #26b

Establish matrixed project teams tailored to meet specific project requirements and integrate the necessary resources (e.g., labor skills and equipment) into an organization where responsibilities are clearly defined and delineated, and operational decisions can be made in a timely manner, improving efficiencies and reducing costs.

Implementation Actions

Implementation of the ERM is expected to significantly improve the situation that led to this finding. The problem prompting this finding is that due to multiple organizations, agreements and contracts, field operations are often inefficient and difficult to carry out. The ERM will be empowered, and in fact required, to integrate the resources and exercise field judgement needed to carry out effective field activities. In addition, the establishment of the ER project organization (see recommendation #5) will provide a mechanism by which ERM contractor can elevate issues beyond its control.

This item will be considered closed with the turnover of the ER Program to the ERM; If placement of the ERM continues to be delayed, near term resolution will be pursued by other means (see recommendation #7).

2.4 POLICY, LEGAL AND REGULATORY ISSUES

This section includes findings and recommendations involving policy, legal and regulatory issues centering around the implementation of the NEPA process for CERCLA activities and RCRA/CERCLA integration. NEPA issues include applicability of NEPA to CERCLA, utilization of Environmental Assessments (EAs) and Categorical Exclusions (CXs), and the direction of the Hanford Remedial Action EIS. Issues concerning the Hanford RCRA permit are identified with the RCRA/CERCLA integration issues.

RECOMMENDATION #27

Finding

The addition of NEPA documentation to the CERCLA process adds only marginal value, if any, to the quality of the cleanup.

Recommendation

DOE should alter its policy of applying NEPA to the CERCLA process.

Implementation Actions

The question of whether NEPA applies to CERCLA actions has been raised in the past. The Environment and Natural Resources Division (ENRD) of the Department of Justice (DOJ) issued an opinion in a 1991 "Attorney Work Product" that NEPA does not apply to CERCLA actions, but an Attorney Work Product has not been considered a formal legal opinion. In 1992, the President's Council on Environmental Quality (CEQ) and the DOJ's ENRD each asked DOJ's Office of Legal Counsel to rule on the issue; an opinion is not expected soon. As stated below, CEQ and the courts believe that NEPA applies, except for EPA's CERCLA actions.

Courts that have ruled on functional equivalency have based their findings on three criteria. First, the agency's organic statute must provide 'substantive and procedural standards that ensure full and adequate consideration of environmental issues.' Environmental Defense Fund v. EPA, 489 F.2d 1247 (d.c. Cir. 1973). Second, the agency must afford public participation before a final alternative is selected. Maryland v. Train, 415 F. Supp. 116, 12 (D. Md. 1976). Finally, the action must be undertaken by an agency engaged primarily in the examination of environmental issues. Warren County v. N. Carolina, 528 F. Supp. 276, 286 (E.D.N.C. 1981).

In interpreting the third criterion, the courts have declined to apply the doctrine to any agency other than EPA, including departments that have substantial environmental responsibilities. See Texas Committee on Natural Resources v. Bergland, 573 F.2d 201, 208, (5th Cir. 1978) (rejecting application of functional equivalence doctrine to the U.S. Forest Service), cert. denied, 439 U.S. 966 (1978), and Jones v. Gordon, 621 F. Supp. 7, 13 (D. Alaska 1985), aff'd in part, rev'd in part, 792 F.2d 821 (9th Cir. 1986) (declining to apply the functional equivalence doctrine to the National Marine Fisheries Service). Therefore, the functional equivalence doctrine is available only for actions taken by EPA and relieves only EPA of the obligation to comply with the procedural requirements of NEPA.

1. Prepare a White Paper summarizing existing legal background on this issue (in addition to that previously described).

- RL
- Completed -- August 3, 1993.

2. Based on the White Paper and other guidance, RL will request DOE-HQ to change the policy requiring NEPA analysis on Hanford CERCLA activities (this parallels the commitment in the Cost and Management Efficiency Initiative).
 - RL
 - Completed -- November 1, 1993.
3. EH-1 act on RL recommendation.
 - DOE-HQ
 - TBD.
4. Issue a letter detailing DOE-HQ's decision in Item 3, and any immediate tactical actions, to RL and TPA partners.
 - RL
 - TBD.

NOTE: Completion of item 4. closes this recommendation.

RECOMMENDATION #28

Finding

Full integration of NEPA and CERCLA and the terms of the TPA are undercut if NEPA and CERCLA decision authority are contained in different organizations.

Recommendation

Empower the project managers responsible for the CERCLA process with the responsibility and authority for approving the adequacy of NEPA documentation.

Implementation Actions

In 1991, EM-1 delegated authority to the RL Operations Manager to make Categorical Exclusion (CX) determinations. Authority to determine the level of NEPA review also was given for activities described in 10 Code of Federal Regulations (CFR) 1021, Subpart D, Appendices C and D. In July 1993, following a July, 1992 delegation to DOE Secretarial Officers by EH-1, EM-1 delegated to RL authority to determine actions not listed in 10 CFR 1021, Subpart D, Appendix C, that EAs were the appropriate level of NEPA review. This decentralization philosophy provides an opportunity for additional delegation of authority for NEPA determinations. NOTE: CX approval delegation is addressed in Recommendation #30. Additionally, no implementation plan is required if DOE determines that NEPA does not apply to CERCLA activities (see Recommendation #27).

1. Prepare a Position Paper to provide justification for delegation of additional NEPA determination authority to RL. Consider the following:
At what level the authority should be placed, what DOE concurrences are required, and should this delegation be for all RL activities or just ER activities addressed in the TPA?
 - RL
 - January 15, 1994.
2. Based on the Position Paper, petition EH-1 for needed delegations (e.g., EA/FONSI approval authority) and any changes/waivers required for DOE 5440.1E.
 - RL
 - Completed -- November 1, 1993.
3. EH-1 act on petition.
 - DOE-HQ
 - TBD.
4. Issue a letter to RL Programs and TPA partners, detailing new delegations of authority, and immediate tactical actions.
 - RL
 - TBD.

NOTE: Completion of item 4. closes this recommendation.

RECOMMENDATION #29

Finding

Integration of NEPA Environmental Assessments (EAs) into CERCLA decision documents risks the unnecessary challenge of those documents on the grounds that a finding of no significant environmental impact (FONSI) is unwarranted.

Recommendation

Since the CERCLA process already includes detailed analysis and public comment, the integrated document might as well be designated an EIS instead of an EA.

Implementation Actions

Integrated RI/FS-EISs may require a much higher level of effort than normally expected in the RI/FS process. The CEQ procedural requirements (40 CFR 1500-1508) for implementation of NEPA (i.e., publication of a Notice of Intent, conduct of public scoping, preparation of an implementation plan, preparation of a Mitigation Action Plan, etc.) could cause delays. Public involvement associated with an EIS is begun at an earlier stage than under

CERCLA. An integrated RI/FS-EIS would save time and money only when it is certain an EA would lead to an EIS rather than a FONSI.

Because the recommendation to prepare integrated RI/FS-EISs rather than EAs clearly will not expedite or streamline cleanup actions, it is concluded that the recommendation should not be pursued.

RECOMMENDATION #30

Finding

Documentation and review required to support CX designations undercuts the purpose of the CX and has the potential for causing delays in site work.

Recommendation

Complete no additional documentation (or documentation review) to justify a categorical exclusion. Simply file existing documentation in the Administrative Record that indicates which CX the activity falls under.

Implementation Actions

DOE Order 5440.1E, Paragraph 6(a)(10), authorizes DOE secretarial officers to delegate Operation Office Managers the authority to make decisions regarding the appropriate level of NEPA review for those categories of actions specifically listed in Subpart D of 10 CFR 1021. This order does not allow further delegation of this authority. RL has received such a delegation from EM-1. DOE operation offices with delegated authority are to send CX determinations to EH-25 for a 2-week review.

RL currently has an internal approval procedure that must be met before an activity covered by a CX can begin. The procedure calls for preparation of an Information Bulletin (IB) by the contractor. The IB provides RL summary information on a proposed activity, describes what 10 CFR 1021 CX it appears to fit under, and shows how the activity meets eligibility criteria for Categorical Exclusion. RL staff review the IB (currently 6 to 10 concurring signatures are required) which is then passed to the RL Manager for approval of the CX. The CX determination and IB are then transmitted to EH-25.

Using the system just described, RL has approved so-called "sitewide CXs" for a series of CXs contained in 10 CFR 1021, Subpart D, Appendix B. This includes, for example: B.1.3, for routine maintenance; B.1.5, for asbestos removal actions; B.3.1, for site characterization work; and B.3.6, for indoor bench-scale research. Contractor management determines applicability of these sitewide CXs to proposed activities and maintains records of their application. If determined applicable, these determinations are documented to the project file; no consultation with RL is required.

B.3.1, Site characterization work, is a sitewide CX directly applicable to CERCLA activities on Site. Other 10 CFR 1021, Appendix B CXs applicable to CERCLA activities will be reviewed to determine their suitability as sitewide CXs and satisfaction of applicable eligibility criteria. (Note: These implementation actions will be unnecessary if DOE determines NEPA is not applicable to CERCLA activities.)

1. Prepare a paper reviewing CERCLA applicable CXs, and their viability as sitewide CXs.
 - RL
 - December 31, 1993.
2. Based on the Position Paper, prepare IB/CX paperwork required to obtain approval of sitewide CXs and initiate concurrence.
 - RL
 - January 31, 1994.
3. Review and approve sitewide CXs.
 - RL
 - February 28, 1994.
4. Issue a letter to RL Programs, RL contractors and TPA partners, detailing determinations.
 - RL
 - March 31, 1994.

NOTE: Completion of item 4. closes this recommendation.

RECOMMENDATION #31

Finding

If the HRA EIS is not redirected into a different path, it will become a significant obstacle to CERCLA cleanup, rather than an aid to it.

Recommendation

The purpose of the HRA site-wide EIS should be reformed to focus solely on the range of appropriate uses of real property, instead of on cleanup methods or standards.

Implementation Actions

DOE's notice of intent to prepare the Hanford Remedial Action EIS was issued on August 21, 1992 (57 Federal Register [FR] 37959). The notice of intent states that the purpose of the Hanford Remedial Action EIS is "to assess the potential environmental consequences of the alternatives for

conducting a remedial action program at the Hanford Site" (57 FR 37960). "The Hanford Remedial Action EIS will evaluate a range of reasonable remedial action alternatives to accomplish the scope of the TPA within the framework of potential future site use/cleanup strategies" (57 FR 37961).

Four public scoping meetings were held in September and October 1992. Written comments on the scope of the Hanford Remedial Action EIS were accepted through January 15, 1993 (57 FR 55517, November 25, 1992).

As a result of public comments received during scoping, the HRA-EIS now focuses on remediating the Hanford Site to goals that support varying degrees of future use (i.e., unrestricted, restricted, and exclusive). The HRA-EIS public scoping process independently validated the recommendations of the SOS, allowing DOE to move forward while possessing public endorsement.

The HRA-EIS will not select cleanup methods; it is recognized that this will be done through the CERCLA process. The HRA-EIS will evaluate remediation methods and technologies that are representative of those that could be used at Hanford in order to perform the analysis of alternatives. It will address the impacts from removing and treating waste, and from constructing and operating storage and disposal facilities for environmental restoration generated waste.

The HRA-EIS will address the issue of "how clean to make the areas of contamination" from the broad perspective of providing information that can be used in considering the feasibility and practicality of cleaning up portions of the Hanford Site to the different goals of unrestricted, restricted, and exclusive uses. Addressing cleanup methodology in this broad manner will not interfere with CERCLA plans and schedules.

Public scoping has redirected the HRA-EIS as suggested in the SOS Report; no further action is required for this recommendation.

RECOMMENDATIONS #32, #33, #34 and #35

Finding

The draft RCRA permit addresses significant RCRA/CERCLA integration issues in a manner that will place unnecessary procedural restrictions on an already complex cleanup process at Hanford. If placed in the permit, and later found to be unnecessary and time and cost consuming, change can only be achieved through the sometimes lengthy permit modification process.

Recommendation #32

The RCRA permit for Hanford should be designed to promote the expedient and efficient cleanup with a minimum of unnecessary bureaucratic hurdles. The permit should recognize the United States versus Colorado (1991) decision.

Recommendation #33

Ecology and Hanford should continue to make substantial efforts to complete negotiations on the draft permit so that a final RCRA permit can be finalized, recognizing that cleanup of past-practice units will take place under the auspices of the TPA.

Recommendation #34

The RCRA/CERCLA Integration Group should be reconvened to address all issues not well addressed by the TPA, including those RCRA/CERCLA issues raised by the draft permit. The principles of total quality management (TQM) and team building should be actively applied to ensure the success of the group.

Recommendation #35

The conclusions of these negotiations should, for the most part, be embodied in amendments to the TPA rather than in the final permit (to the degree that it is necessary to document agreements in a legally enforceable agreement), as it is a more flexible document and more easily amended if all three parties agree than is the site-wide permit.

Implementation Actions

The U.S. v. Colorado case arose out of litigation related to closure and cleanup of a hazardous waste disposal pond (Basin F) at the Rocky Mountain Arsenal near Denver, Colorado. Basin F was listed on the national priorities list under CERCLA, effective April 12, 1989. Colorado sought to regulate Basin F activities under the Colorado Hazardous Waste Management Act. The federal district court held that because Basin F had been listed by the EPA on the national priorities list, Section 113(h) of CERCLA [42 U.S.C. 9613(h)] required that 1) the remedial action at Basin F cannot be reviewed by the court until the remedial action is completed, and 2) Colorado cannot enforce the Colorado Hazardous Waste Management Act against Basin F until the remedial action is completed. The U.S. Court of Appeals for the 10th Circuit reversed the district court decision on April 6, 1993 and ruled that Colorado could enforce its hazardous waste laws at the site without violating the pre-enforcement bar to review cleanup actions. The U.S. Army has notified the Department of Justice it will request a rehearing, however EPA is still undecided about it.

A draft of the *Permit for the Treatment, Storage, and Disposal of Dangerous Waste* for the Hanford Facility was originally issued for public comment in January 15, 1992, but the draft permit was withdrawn to incorporate public comments. RL issued extensive comments on the draft permit on March 16, 1992 (See Hanford Site Comments on the Draft Permit for the Treatment, Storage, and Disposal of Dangerous Waste for the Hanford Facility). Ecology and the EPA are currently revising the draft; issuance for public comment is currently not scheduled, but expected during calendar year 1993.

Since the issuance of the draft permit, negotiations have continued at the TPA Project Manager level concerning integration of CERCLA OU remediation and RCRA TSD unit closures. Through these negotiations, major progress has been made in key areas such as using the same clean-up levels, integration of sampling and analysis, and document coordinations. For example, TSD unit closures and past practice OUs are being coordinated; 216-B-3 Pond System with 200-B-11, 1301-N/1325-N and 1324-N/1324-NA with 100-N-1 and 100-N-2, and 300 Area Process Trenches with 300-FF-1. With the integration of the TSD unit closures and past practice remediation activities proceeding, the activation of the RCRA/CERCLA Integration Group should be convened only on an as need basis.

After the withdrawal of the draft permit in April 1992 for revisions to incorporate public comments, negotiations with Ecology and EPA on the content of the permit continued with RL through August 1992. During this time period, EPA rewrote the chapter concerning the RCRA past practice remediation. Most of the comments on this chapter were incorporated. The revised preliminary chapter states the most RCRA past practice remediation activities will be conducted in the TPA. However, certain areas of the Hanford Facility not covered in the TPA will be addressed in the permit but coordinated with the TPA past practice remediation activities.

Also, Ecology has agreed to revise the Soil Cleanup Policy that was contained in the draft permit, and to modify the WAC 173-303, Dangerous Waste Regulations, to allow closure of TSD facilities to health-based standards. These health-based standards will probably be based on the Model Toxics Control Act, WAC 173-340.

1. Revise draft Hanford dangerous waste permit to incorporate comments.

- Ecology
- TBD.

NOTE: Since Ecology has the lead on the Permit, it is appropriate that this TPA partner identify any additional action items, involved parties and target completion dates needed to close this recommendation.

REFERENCE

U.S. v. Colorado, Civil Action No. 89-C-1646, U.S. District Court for the District of Colorado, decided August 14, 1991. (1991 U.S. District LEXIS 13138, 33 Environment Reporter Cases (Bureau of National Affairs, Inc.) 1585, 22 Environmental Law Reporter 20088).

2.5 TECHNICAL DOCUMENT REVIEW PROCESS

Findings and recommendations pertaining to the technical document review process include issues relating to the mechanics of the lengthy review process, the quality of the document reviews, and the implementation effectiveness of strategic planning.

RECOMMENDATIONS #36 and #37

Finding

Interested parties within the document review and approval process work largely independently of one another. Primary communication occurs at the point of document review, comment, and response.

Recommendation #36

Emphasize a team approach that builds continuous, ongoing communication among all interested parties from the earliest stages of document preparation onward.

Recommendation #37

Up-front and continuous TPA scoping meetings should be held frequently to ensure that all parties participate in essential decisions early, and that there are no surprises when primary documents are ready for review.

Implementation Actions

Unit Managers meetings are held on a regular basis and provide a practical circumstance for previewing and presenting the strategies that will be followed in the preparation of primary documents and establishing regular communications concerning status of documents in the review and approval cycle. Recently some documents have been provided for public review in parallel with the formal regulator review. Increased communications concerning the preparation of primary documents should facilitate parallel review activities.

1. Establish regular communications for primary documents by initiating document status discussions as standard agenda items for all Unit Managers meetings.
 - Unit Managers
 - Completed -- started with July Unit Managers meeting.
2. Conduct initial scoping for primary documents by initiating document preview presentations as standard agenda items for all Unit Managers meetings.
 - Unit Managers
 - Completed -- started with July Unit Managers meeting.

RECOMMENDATION #38

Finding

Interested parties within the document review and approval process work largely independently of one another. Primary communication occurs at the point of document review, comment, and response.

Recommendation

The public review process should be conducted simultaneously with reviews by the Tri-Party Agreement partners.

Implementation Actions

The TPA partners have recognized the need for and potential advantage of parallel processes with increased public communications for the preparation of primary documents. In an effort to test whether real efficiencies are to be realized by parallel reviews, four formal drafts of primary documents, DOE/RL-93-27, Rev. 0, "Treatability Test Plan for the 200-BP-2 Prototype Surface Barrier", DOE/RL-93-04, Rev. 0 "100 Area Excavation Treatability Study Test Plan", DOE/RL-91-07, Rev. 0, "Remedial Investigation/Feasibility Study Work Plan for the 200-BC-2 Operable Unit", and DOE/RL-92-76, Draft A, "Remedial Investigation/Feasibility Study Work Plan for the 200-UP-1 Groundwater Operable Unit" have been submitted to the public for review in parallel with the regulatory partner's formal review. In each of these four cases, the final draft product is felt by the work team to be of greater quality than previous documents at this stage. This approach should yield both fewer review comments, and more rapid and less costly document preparation consistent with the SOS team's recommendation.

A parallel public review process has been initiated by the TPA partners and this recommendation is closed.

RECOMMENDATIONS #39, #40 and #41

Due to the similar nature of recommendations 39, 40 and 41, they have been combined below into one set of response action items.

Findings

#39...Comprehensive reviews by multiple reviewers leads to continuous second-guessing of documents and a never-ending cycle of review and comment.

#40...Multiple reviewers present numerous comments but fail to differentiate those that are most important to them. Thus, all comments receive attention in the formal response to comments.

#41...Too many nonsubstantive comments are documented in the formal response to comments process, draining time and resources from the ER process.

Recommendation #39

Define the purpose of each party's review and focus review accordingly.

Recommendation #40

Key issues should be identified and highlighted when forwarding documents for review.

Recommendation #41

Allow for informal, verbal resolution among all the appropriate players of many non-major comments.

Implementation Actions

RL-END has recognized the need for a centralized procedures manual that would control applicable administrative and technical field work associated with implementation of ER activities associated with the Tri-Party Agreement. In response to discussions with RL management, WHC has developed one procedure, EII 1.9, WHC-CM-7-7, for control of review within the contractor organization, WHC. Due to limits of authority, this manual has not been extended beyond WHC up to this time, but it has been accepted for control of geotechnical work by inclusion into CERCLA work plans and the Tri-Party Agreement as a secondary document.

1. Develop a document review procedure (possibly an adaptation of EII 1.9), applicable to all affected parties. This review procedure should include identification of key issues to focus the review on significant and important issues, criteria to lessen the number of and formality of comment closure for non-substantive comments, a requirement for written justification of substantive comments explaining why the comment is important and how it will effect the remedy.
 - Tri-Party Agreement partners/WHC
 - March 31, 1994.
2. Place revised procedure in the Tri-Party Agreement Handbook (RL-TPA-90-0001).
 - WHC
 - April 30, 1994

3. In parallel with above actions, RL unit managers can immediately start including key issues section to focus review in all review call letters to affected Tri-Party Agreement partners (and their contractors).

- Appropriate Unit Manager
- Completed -- started in June 1993.

RECOMMENDATION #42

Finding

Because similar documents are prepared by different contractors (and subcontractors), multiple formats emerge. These multiple formats make reviewing documents difficult, as reviewers have trouble finding important pieces of the document.

Recommendation

Developing common formats for document preparation may ease reviews and reduce time frames.

Implementation Actions

Common formats for documents in the ER Program are dictated by EPA guidance documents as required by the TPA, by regulations or by negotiations with the regulators. Recent documents have made an appreciable effort to standardize common sections of written products. It is not clear whether there is still a major issue with document format, although there was with initial ER work plans, or whether further format improvement is desired.

1. Develop new formats and present these recommendations for review and agreement at the Unit Managers meeting starting with 100 Area-wide Phase III Feasibility Studies.

- WHC
- February 28, 1994.

RECOMMENDATION #43

Finding

Extensive, detailed strategic planning has been done at Hanford, but the results have not been adequately consolidated or implemented.

Recommendation

Consolidate existing strategic/critical path planning activities.

Implementation Actions

DOE has created an integrated "Office of Planning and Integration" for the consolidation of all Strategic, Long Range, Multi-year, and Fiscal Year work plans for the Hanford Site; the intent is to integrate long range planning with implementation planning by the programs. WHC has consolidated all strategic, Long Range, Multi-year, and Fiscal year planning, as well as the integration of systems engineering for the site.

1. Issue "Hanford Integrated Planning Process" directive.
 - RL
 - Completed -- approved by J. D. Wagoner on June 2, 1993.
2. Reduce the number and complexity of various planning documents by implementation of the Hanford Integrated Planning Process; demonstrate reduction in the next generation of site planning documents.
 - RL
 - July 30, 1994.

RECOMMENDATION #44

Finding

Many of the strategic planning documents that do exist contain numerous recommendations for expediting the cleanup process at Hanford.

Recommendation

Implement existing planning documents.

Implementation Actions

The OBP will provide a framework in concert with new TPA negotiations for implementation of significant program improvements. Most needed improvements have been documented in existing plans and studies. Sufficient experience has been gained such that it is now possible to develop both a project and regulatory process for implementing such things as HPPS and large scale remediation. The ER Program will be rebaselined by FY 94 incorporating these concepts.

1. Rebaseline the ER Program in FY 1994 based on the OBP outcome and negotiated TPA workscope.
 - RL
 - September 30, 1994.

RECOMMENDATION #45

Finding

A key planning issue that must be resolved to expedite cleanup is the future land use of the site.

Recommendation

Complete land-use planning study and incorporate results into ER planning and decision documents.

Implementation Actions

As acknowledged in the SOS Report, DOE and the regulators have recognized the need and value of public involvement in land use planning. Copies of the report and executive summary from the Hanford Future Site Uses Working Group (Working Group) have been distributed widely within DOE-HQ, DOE-RL, EPA, Ecology, and Hanford contractors. The Agreement in Principle on Evaluation of Hanford Tank Waste Remediation Alternatives commits DOE, EPA, and Ecology to enact some of the Working Group recommendations. Specifically, they will expedite cleanup of the North Slope and Arid Lands Ecology Reserve by October 1994, accelerate decommissioning and decontamination of surplus facilities in the 100 Area, expedite encapsulation of the irradiated fuel in the K-East Basin and provide for final disposition of this fuel, and identify actions to support local economic development and diversification.

1. Develop the Implementation Plan for the Hanford Remedial Action Environmental Impact Statement around the Working Group's recommendations. Present the draft plan to former Working Group members for comment and issue.
 - RL
 - Completed -- April 29, 1993.
2. Include appropriate Working Group recommendations in the revised Hanford Mission Plan.
 - RL
 - Completed -- May 21, 1993.
3. Consider appropriate Working Group recommendations in revising the Hanford Site Development Plan.
 - RL
 - Completed -- May 1993.

4. Consider appropriate Working Group recommendations in decisions on the siting of the ER Disposal Facility. Provide the Site Evaluation Report to the regulators for comment.
 - RL
 - Completed -- April 15, 1993.
5. Briefing and training sessions on the Working Group's recommendations will be conducted for key cleanup program managers at DOE-HQ, DOE-RL, EPA, Ecology, and Hanford contractors.
 - RL
 - December 15, 1993.
7. Input the Working Group's recommendations to the Hanford Overview section of the next Five Year Plan.
 - RL
 - December 30, 1993.
8. The Working Group's recommendations will be used as the starting point for the Cleanup Negotiations Task Force.
 - RL/Ecology/EPA
 - Completed -- May 27, 1993.
9. The Working Group's recommendations will be used as the starting point for the new Hanford advisory board.
 - RL/Ecology/EPA
 - February 28, 1994.

REFERENCE

December 1992, *The Future of Hanford: Uses and Cleanup*, see Recommendation #31.

RECOMMENDATION #46

Finding

Many stakeholders appear to be unaware of the extensive strategic planning efforts that have been undertaken at Hanford.

Recommendation

Enhance communication among stakeholders.

Implementation Actions

The complexity of the planning and integration for the Hanford Site is not being conveyed to the Stakeholders in a form that can be easily understood.

A revised Hanford Integrated Planning Process is now being implemented for Hanford to provide blending of multiple programs and a firm traceable basis for budgeting. An element of this new process is enhanced stakeholder communication.

1. Complete Phase I Multi-Year Program Plan.

- RL
- October 1, 1994.

2. Develop and review with the other TPA partners, planning and integration approaches and presentations that can be used at Tri-Party Agreement meetings, stakeholder meetings and other public forums.

- RL
- Completed -- November 16, 1993.

2.6 PROCUREMENT OF GOODS AND SERVICES

Findings and recommendations pertaining to the procurement of goods and services involve issues of organizational structure and mission goals, coordination of TPA requirements and procurement objectives, incentives for procurement personnel, experience of procurement personnel and improved planning.

RECOMMENDATIONS #47 and #48

Finding

Neither RL nor WHC procurement are tied vertically (line management) or horizontally (program management) to ER.

Recommendation #47

Services groups, such as Procurement, must be redirected by RL and WHC management to become the agents for facilitating procurement actions, rather than barriers that ER managers must continually confront.

Recommendation #48

RL must resolve conflicting programmatic and procedural issues within itself and then develop an integrated, consistent set of guidelines and criteria for all Hanford contractors.

Implementation Actions

The WHC ER and Procurement organizations have been effective in facilitating the ER mission through the use of multimillion dollar indefinite quantity task order subcontracts. These subcontracts have provided a very short leadtime, responsive, and flexible means to obtain technical expertise in support of the RI/FS process. There is a specific assignment of the administration on these subcontracts to ER and the communication is regular and effective between the two organizations. ER advanced procurement planning difficulties are attributed, in a large part, to staff limitations which were inconsistent with the available funding and tasks to be accomplished. This required unplanned, short leadtime provision of supplemental technical resources through the procurement process.

One of the purposes of the ERMC is to provide procurement services totally dedicated to the ER mission. In anticipation of the ERMC, RL has developed an ER project organization which will include direct participation by RL procurement which will provide accountability and a mechanism by which ER procurement issues can be effectively managed.

In the interest of improving the quality and responsiveness of the ER procurement process between now and the ERMC contractor takeover, the following actions will be implemented:

1. Assign and co-allocate a dedicated field procurement representative to the ER function to assist with enhancing ER procurement planning, communications, training, and qualitative aspects of ER procurement documents (specifications, Statement of Work, contract types, etc.). In addition, the function will assure a clear and sustained focus on schedule requirements will be maintained within the procurement function.
 - WHC
 - Completed -- September 20, 1993.
2. Establish office space for ER Procurement personnel.
 - WHC
 - Completed -- September 13, 1993.
3. Implement training for ER technical personnel and interested TPA partner personnel to aid in understanding doing business efficiently within the approved procurement system process and providing effective planning and documentation. Training will address advanced acquisition planning, preparation of specifications and statement of work which enhance the total procurement process efficiency (minimize - basis for sustainable protests, RFP amendments, subcontract modifications, and maximize lowest responsible offeror source selection).
 - WHC
 - Completed -- October 15, 1993.

4. Support the ER project organization with integrated procurement participation.
 - RL
 - TBD - after resolution of ERM protest.

RECOMMENDATION #49

Finding

The possibility exists that numerous TPA milestones will continue to be missed as a result of a procurement process that does not focus on and is not obligated by higher management's schedule commitments to TPA milestones. Failure to meet milestones by the timely acquisition of goods and services can almost be guaranteed without a fully empowered decision maker in close coordination with Procurement.

Recommendation

Operable unit managers and appropriate higher authorities in DOE and WHC management must implement a regular coordination effort or process that clearly defines Procurement's responsibilities and goals in support of ER and the TPA.

Implementation Actions

Historically, procurement of goods and services has been marginally incorporated into the planning of actions to achieve TPA milestones. A number of improvement actions are being implemented to provide greater assurance of schedule conformity. These actions focus largely on integrating procurement more effectively and much earlier in the planning process. It is expected that such integration will result in identifying procurement needs earlier so effective actions can be taken. Further, there will be enhanced realism in certain parts of the scheduling process when procurement is accounted for.

1. The WHC (ERMC in the future) ER procurement representative (see recommendation #47) will attend the unit manager meetings to coordinate activities where procurement responsibilities and goals are established.
 - WHC
 - Completed -- started with June meetings.
2. The WHC (ERMC in the future) ER procurement representative as a part of the ER Unit Managers Team will participate in development and review and approve all procurement schedules prior to their use in finalizing a TPA Milestone Agreement.
 - WHC
 - Completed -- started June 1, 1993 and continuing.

3. Implement training for ER technical personnel and interested TPA partner personnel to aid in understanding doing business efficiently within the approved procurement system process and providing effective planning and documentation. Training will address advanced acquisition planning, preparation of specifications and statement of work which enhance the total procurement process efficiency (minimize - basis for sustainable protests, RFP amendments, subcontract modifications, and maximize lowest responsible offeror source selection).
 - WHC
 - Completed -- October 15, 1993.
4. Provide training for Procurement personnel to provide a better understanding of ER regulatory requirements, on an overview basis, the TPA and the criticality of commitments associated with schedule.
 - WHC
 - Completed -- June 14, 1993.

RECOMMENDATION #50

Finding

Procurement personnel interviewed displayed an attitude of "always play it safe." A predisposition exists to avoid claims or possible protest.

Recommendation

A broader interpretation of buying guidelines is required.

Implementation Actions

RL and WHC have completed an analysis by a select group of procurement experts serving on a Procurement Process Improvement Board. The Board focused on the process system time with the objective of eliminating unnecessary steps and streamlining the acquisition of goods and services. Actions were identified that are expected to achieve on the order of a 30 percent decrease in the time required to process certain procurements.

The requirement which must be met to retain an approved procurement system is based upon statutory and regulatory guidance and is implemented through the Contractor Purchasing System Review process. This process is required of all federal agencies which delegate procurement activity to prime contractors. The degree of competency and efficiency of the system is the basis for an agency to prescribe the dollar limitation of delegated authority. Hence, the better the system, the higher the threshold. The higher threshold means greater responsiveness to ER Procurement requirements without the time constraints of allowing for the RL review and approval process.

It is also judicious to maintain a proper balance between broader interpretations leading to undefensible protests and system disapproval (or reduced thresholds), and schedule mandates.

Training of ER and procurement personnel in the most efficient operations within the approved system must provide for an understanding of both system and schedule concerns as well as the preparation of Statements of Work and specifications which facilitate efficiency (minimize protests, RFP amendments, and contract modifications).

1. Implement training for ER technical personnel and interested TPA partner personnel to aid in understanding doing business efficiently within the approved procurement system process and providing effective planning and documentation. Training will address advanced acquisition planning, preparation of specifications and statement of work which enhance the total procurement process efficiency (minimize - basis for sustainable protests, RFP amendments, subcontract modifications, and maximize lowest responsible offeror source selection).
 - WHC
 - Completed -- October 15, 1993.
2. Provide training for Procurement personnel to provide a better understanding of ER regulatory requirements, on an overview basis, the TPA Agreement and the criticality of commitments associated with schedule.
 - WHC
 - Completed -- June 14, 1993.

No further actions required; this item is closed.

RECOMMENDATION #51

Finding

Procurement directives require the submission of pre-procurement plans. This process is an internally mandated activity that adds to the delay.

Recommendation

Eliminate all excessive "safety nets" or additional documentation not required under the FAR that impede the ER procurement process if not essential to meet the spirit and letter of the FAR.

Implementation Actions

1. Implement the recommendations of the Procurement Process Review Board (see recommendation #50) for streamlining the procurement process within

the limitations of certain Federal Laws, Executive Orders and Federal and DOE Regulations.

- WHC
- January 30, 1994.

2. Delete the requirement for RL approval of pre-procurement plans by utilizing the Site Management System.

- WHC
- Completed -- October 29, 1993.

RECOMMENDATION #52

Finding

Flexibility within Procurement is missing. In all cases reviewed by the SOS team, an ultra-conservative interpretation of the FAR was the norm. Regulatory review of contract documents will often result in a revision to the contract scope, which adds to the delay.

Recommendation

The procurement process must be flexible enough to allow for modifications and regulatory revisions to be easily incorporated.

Implementation Actions

This issue is symptomatic of the need to balance flexibility and specificity. Experience has shown that there is an increasing trend of protests when procurements lack specificity. Time consumed by protests can be very disruptive to milestone accomplishment. It is expected that this issue will be largely resolved by the enhanced involvement of procurement in the project organization. No unique action is planned in response to this recommendation.

RECOMMENDATION #53

Finding

WHC's interpretation of procurement procedures is apparently even more conservative and rigid than DOE's.

Recommendation

Reduce the incentives that dictate a "play-it-safe-at-all-costs" approach. Properly focus the CPSR review on the most important

substantive issues. Recognize the importance of the TPA milestones and the ER process in the performance and fee award criteria.

Implementation Actions

The CPSR system is designed to review the contractor management approach and delegate authority commensurate with their ability. This is a method by which the contractor can be given enhanced authority to act and is crucial to the maturing WHC procurement process. Some of the SOS Report text comments on the negative impact of the CPSR process on the system flexibility and conservatism. The regulatory requirements for DOE to retain the process is found in FAR Subpart 44.3 and DEAR Subpart 944.3, based on authority of Section 644 or the DOE Organization Act, Pub Law 95-91 (42 U.S.C. 7245), and Section 148 of the Atomic Energy Act of 1954, as amended (42 U.S.C. 2168).

Since the likelihood of achieving major concessions by DOE-HQ in the CPSR process may be limited, it is extremely important that WHC retain an approved system with the highest RL approval thresholds possible in order to retain maximum responsiveness to ER requirements. It is important to find the means to work more efficiently within the approved procurement system.

WHC participated in a number of reviews with commercial Westinghouse entities to determine if there were additional opportunities to streamline the procurement process. These reviews resulted in the conclusion that WHC's procurement process was equal to or more efficient than Westinghouse's commercial entities. WHC buyer authority thresholds were higher, less time was spent in management reviews of procurement decisions, WHC's use of electronic data interchange with suppliers was greater than in the commercial area, and WHC, unlike its commercial counterparts, seldom pre-qualifies suppliers prior to soliciting proposals because of the government's desire for maximum competition.

No further actions required; this item is closed.

RECOMMENDATION #54

Finding

Procurement goals do not include support to the ER program as a priority.

Recommendation

Management needs to ensure that the importance of the environmental mission is clear to all levels of the Hanford workforce, including RL and all contractors. RL should immediately modify the Hanford Operations Contract evaluation criteria for contractors to reflect the importance of the environmental mission.

Implementation Actions

With the initiation of the ERM contract in FY 1994, RL will modify the evaluation criteria for all contractors to emphasize support and implementation of the environmental mission.

1. Initiate the ERM contract.

- RL
- TBD.

RECOMMENDATION #55

Finding

There appears to be little understanding of ER needs on the part of procurement personnel.

Recommendation

Training in regulations, technologies, and procedures related to the ER mission, as well as an understanding of the TPA, need to be provided for personnel in procurement responsible for ER program support.

Implementation Actions

1. Implement training for ER technical personnel and interested TPA partner personnel to aid in understanding doing business efficiently within the approved procurement system process and providing effective planning and documentation. Training will address advanced acquisition planning, preparation of specifications and statement of work which enhance the total procurement process efficiency (minimize - basis for sustainable protests, RFP amendments, subcontract modifications, and maximize lowest responsible offeror source selection).

- WHC
- Completed -- October 15, 1993.

2. Provide training for Procurement personnel to provide a better understanding of ER regulatory requirements on an overview basis, the TPA and the criticality of commitments associated with schedule.

- WHC
- Completed -- June 14, 1993.

No further actions required; this item is closed.

RECOMMENDATION #56

Finding

Management commitment to TPA milestones needs clarification throughout RL and WHC.

Recommendation

RL and WHC need to show a unified commitment to accomplishment of the TPA. When dates or commitments to accomplish work are agreed to, those dates must be viewed as unchangeable by RL, WHC, and all subcontractors.

Implementation Actions

This issue is expected to be resolved by the enhanced involvement of procurement described under recommendation #48.

RECOMMENDATION #57

Finding

Lack of planning for contracting actions may be causing needless delays.

Recommendation

A joint Procurement/ER Program task force needs to put together a long-term contracting plan that will ensure that contracting capacity is in place on or before the dates needed.

Implementation Actions

1. An Advanced Acquisition Plan including a master list of goods and services will be prepared for the Five-Year Plan and ER validation documentation.
 - WHC
 - April 30, 1994.

END

DATE

FILMED

2/7/94