

[DOE LETTERHEAD]

June 3, 1996

The Honorable John T. Conway
Chairman
Defense Nuclear Facilities Safety Board
625 Indiana Avenue, N.W.
Washington, D.C. 20004

Dear Mr. Chairman:

A copy of the "Richland Operations Office Consolidated Strategy to Improve Radiological Control Performance," is enclosed. This Strategy comprises radiation protection improvement plans for the Richland Operations Office (DOE-RL) and its operating contractors. We believe the Strategy represents a good start toward achieving excellence in radiation protection at Hanford. The Office of Environmental Management (EM) will assist DOE-RL in achieving this goal of excellence.

Through the exercise of drafting the radiological control improvement plans, significant progress has been made in identifying and understanding the elements of integrated safety management. We will work with DOE-RL to build upon these gains and broaden the focus to all aspects of safety management, not just radiation protection. The radiological control improvement plans, safety management initiatives at K-Basins and the Tank Farms, plans to address technical procedures deficiencies, the response to the Office of Environment, Safety and Health oversight evaluation, authorization basis issues, necessary and sufficient and other relevant initiatives will be considered in developing an integrated safety management system. The system will embrace the tenets of competence commensurate with responsibility, line management responsibility for safety and an appropriate set of safety requirements.

Therefore, EM intends to follow up on this Strategy on two fronts. First, Headquarters staff will assist DOE-RL to integrate safety management, of which this Strategy is one piece. Second, EM will follow up on the specific actions identified in the DOE-RL and contractor radiation protection improvement plans by participating quarterly in DOE-RL's Radiological Control Steering Committee meetings which will track commitments and evaluate the effectiveness of corrective actions contained in the plans. I am now actively assisting John Wagoner in obtaining needed radiological protection expertise.

Mr. John Tseng is my Safety and Health Officer and can be reached at (202) 586-0383.

Sincerely,

Alvin L. Alm
Assistant Secretary for
Environmental Management

Enclosure

**RL CONSOLIDATED STRATEGY TO IMPROVE
RADCON PERFORMANCE AT HANFORD
- REQUEST FOR HQ SUPPORT**

[DOE MEMORANDUM]

DATE: May 2, 1996
REPLY
TO QSH:BMP
ATTN OF:
SUBJECT: RICHLAND OPERATIONS OFFICE (RL) CONSOLIDATED STRATEGY TO
IMPROVE RADIOLOGICAL CONTROL PERFORMANCE AT HANFORD -
REQUEST FOR HQ SUPPORT
TO: Thomas P. Grumbly, Assistant Secretary
for Environmental Management, EM-1, HQ

This memorandum provides information relative to RL activities taken over the past two years and accelerated over the past several months, to improve radiological control performance at Hanford. These activities were initiated based on RL's analysis of occurrence reporting and processing system data, performance indicators, and issues identified by Facility Representatives which show that radiological control performance at Hanford fell short of the expectations of RL. Specific areas where the contractors needed improvement included:

- Increasing the depth of technical competence in the existing radiological control staff,
- Clearly defining and maximizing the effective use of the Radiological Engineering staff in the work planning process,
- Improving conduct of radiological operations (the implementation of radiological controls in the field), and
- Improving contractor self-assessment programs.

RL also performed an internal evaluation and has concluded that the effectiveness of RL oversight of contractor radiological control activities needs improvement to strengthen the radiological control posture at Hanford. Specific areas requiring attention are:

- The roles and responsibilities for radiological control oversight require clarification and incorporation into the Authorities and Responsibilities Manual,
- The RL radiological control level of expertise (staffing level) needs to be increased,
- The knowledge level of all RL on radiological control requirements and how they should be applied by the contractor needs improvement,
- RL staff (line management, project managers, etc.) need to hold the contractors more accountable for good radiological control performance, and
- The RL and Hanford sitewide performance indicator system needs to be upgraded to provide normalized data for measuring performance trends and setting objective goals in safety, health, and radiological controls.

The RL Consolidated Strategy for Improving Radiological Control Performance at Hanford is described in the enclosure and contains a detailed description of the RL Internal Radiological

Control Improvement Plan and a summary of the contractors' improvement plans. This strategy is based on a process of continuous improvement and expectations of excellence in radiological performance centered on the eight Radiological Health and Safety Policy objectives described in the DOE Radiological Control Manual.

My managers and I are personally committed to driving the radiological control posture at Hanford towards excellence. I have charged my line and support organizations to work together to meet this goal. I will personally monitor and ensure the completion of the milestones associated with these action plans by reviewing them monthly at my Division Director/Assistant Manager staff meetings. The Radiological Control Improvement Plan (attached to the enclosure) is only the first phase. These plans will be periodically reevaluated by the contractors and RL to identify additional actions needed to meet our goal. HQ technical support is needed to attain necessary improvements in radiological controls. I am also requesting HQ support in obtaining approval to hire six radiological control experts through the Excepted Service program.

Pursuant to the Defense Nuclear Facilities Safety Board request of February 21, 1996, it is requested that this information be transmitted formally to the DNFSB to document Hanford's aggressive posture to correct radiological control program weaknesses.

Please contact me, or your staff may call Paul Kruger, Director of the Office of Environment, Safety and Health, at (509) 376-7387, should you have any questions concerning this memorandum.

John D. Wagoner
Manager

Enclosure

cc w/o encl:

D. Berkowitz, EM-20
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Enclosure

**RICHLAND OPERATIONS OFFICE (RL) CONSOLIDATED STRATEGY TO
IMPROVE RADIOLOGICAL CONTROL PERFORMANCE AT HANFORD**

Background

RL has taken actions over the past two years to improve the radiological control performance at Hanford. Initial efforts were focused at Pacific Northwest National Laboratory (PNNL) in mid 1994 when, due to a series of radiological control incidents, one of the PNNL facilities was shut down. An RL assessment of PNNL's radiological control program indicated unsatisfactory performance. As a result of this assessment, and additional RL concerns, PNNL established an

Operational Improvement Program (OIP) in November 1994.

RL then turned its attention to Westinghouse Hanford Company (WHC) and Bechtel Hanford, Inc. (BHI). Based on an analysis of occurrence reporting and processing system data, performance indicators, and issues raised by Facility Representatives and others, RL concluded that radiological control performance at WHC and BHI also needed improvement. In the summer of 1995, at the direction of RL, WHC and BHI brought in outside assistance to perform an assessment of their radiological operations. Each company developed plans for improvement.

Specific improvements initiated within the contractors' radiological control programs, based on contractors' self-assessments, DOE assessments, and input from the Defense Nuclear Facilities Safety Board (DNFSB), include:

- Increasing the depth of technical competence in the existing radiological control staff,
- Clearly defining and maximizing the effective use of the Radiological Engineering staff in the planning process,
- Improving conduct of radiological operations (implementation of radiological controls in the field), and
- Improving contractor self-assessment programs.

RL has both regulatory responsibilities for oversight of the contractors' radiological control programs, and has management responsibility to ensure cleanup operations are performed cost effectively. At the direction of the RL Office of Environment, Safety and Health (ESH), RL performed an internal review of the effectiveness of its oversight of the contractors' radiological control programs. This review concluded the following improvements were needed:

- The roles and responsibilities for radiological control oversight needs to be clarified and incorporated into the Authorities and Responsibilities Manual.
- Radiological control expertise (health physics staffing level) needs to be increased.
- The knowledge level of RL technical staff on radiological control requirements and how they should be applied by the contractor needs improvement.
- RL staff (line management, project managers, etc.) need to hold the contractor more accountable for good radiological control performance.
- The sitewide performance indicator system needs to be upgraded to provide normalized data for measuring performance trends and setting objective goals in safety, health, and radiological controls.

Immediate corrective actions were taken within RL to increase the efficiency of existing radiological control expertise, and to develop training for RL technical staff with radiological control oversight and line program responsibilities. Additionally, the RL Internal Radiological Control Improvement Plan (Attachment 1) identifies short-term and long-term corrective actions, which will enhance our ability to effectively address known weaknesses.

The Policy and Strategy

RL and Hanford Site Contractors are committed to a process of continuous improvement centered on the following Department of Energy Radiological Health and Safety Policy objectives:

1. Establish and maintain the necessary processes and functions to implement DOE's system of regulatory policy and guidance which is reflective of national and international radiation

- protection standards and recommendations.
2. Ensure that the personnel responsible for performing radiological work activities are appropriately trained.
 3. Ensure the technical competency of personnel responsible for implementing and overseeing the Radiological Control program.
 4. Establish and maintain, from the lowest to the highest organizational levels, line management involvement and accountability for the company's radiological control performance.
 5. Ensure that radiological measurements, analyses, worker monitoring results and estimates of public exposures are accurately and appropriately made and recorded.
 6. Conduct radiological work activities in a manner that adequately controls the spread of radioactive materials and reduces exposure to the work force and the general public, utilizing a process that seeks to maintain radiation exposures at levels that are as low as reasonably achievable.
 7. Incorporate dose reduction, contamination reduction, and waste minimization features into the design of new facilities and significant modifications to existing facilities in the earliest planning stages.
 8. Conduct appropriate levels of self-assessment and oversight to ensure departmental requirements are being complied with and appropriate radiological work practices are being implemented.

It is the goal of RL and its contractors to attain excellence in meeting these policy objectives. To meet this goal, the following actions have been put into place:

- Hanford has established a site-level process of continuous improvement in radiological performance.
- RL has worked with each contractor to develop tailored radiological control improvement plans. A summary of these plans is contained in Attachment 2. The contractor plans are being evaluated and modified on a periodic basis to identify and direct appropriate management attention and resources toward those areas of greatest identified need.
- Each contractor is held responsible for evaluating its radiological control performance and progress towards meeting their commitments. As current plans are executed, the contractors will use their ongoing assessment process to develop and refine future improvements.
- RL will conduct regular oversight of contractor progress to evaluate and hold contractors accountable for meeting their commitments. The summary of contractor commitments (Attachment 2) is intended for information only. RL will assess against the living commitments in the individual contractor plans. Contractors provide regular progress reports which status the accomplishments of planned objectives.

Summary of Contractor Progress

The Hanford radiological control improvement strategy has undergone an evolutionary development process over the last two years. As a result, the radiological control improvement plans of the site contractors are presently in various stages of maturity. A perspective of where each of the Hanford contractors is in its improvement process is provided below:

PNNL

In November 1994, PNNL established an Operations Improvement Program (OIP) to identify, prioritize and implement initiatives for strengthening PNNL's operations. One of the initiatives identified under the OIP was the Radiological Control Initiative. The objective of the Radiological

Control Initiative is to achieve compliance with 10 CFR 835 and the DOE Radiological Control Manual. Immediate actions under the Radiological Control Initiative included development and submittal of implementation and project management plans, upgrades in radiological control technician (RCT) staff (radiological engineers and operations management), and assignment of a project manager. All subsequent actions under this initiative are defined by the project management plans. The plan for 10 CFR 835 was completed on schedule, while the plan for the DOE Radiological Control Manual is scheduled for completion in September 1996. External assessments (DNFSB, EH-22, and RL Office of Training) and self-assessments have confirmed that the Radiological Control OIP Initiative has resulted in significant improvements in the PNNL radiological control program. Areas that have received positive external reviews include radiological worker and RCT training programs, technical qualifications of radiological control staff, and integration of radiological engineering functions.

WHC

WHC has been involved in a comprehensive process of improving its radiological control program. Targeted areas in which significant achievements have been made include improving the technical competency of the staff, making reductions in outdoor contamination areas, providing increased use of engineered controls, implementation of a state of the art dosimetry system, achieving full, documented compliance with 10 CFR 835, and developing a good Price-Anderson compliance self-evaluation and reporting system. In addition, the company has used re-engineering as a vehicle to systematically evaluate and redesign as necessary all essential processes, putting WHC in a position to effect smooth transition to the Management and Integration (M&I) contract concept at Hanford.

Although significant and measurable progress has been made in the above areas, development of a better-defined path forward was essential to ensure continuous improvement in its radiological control program. The WHC .

Radiological Control Path Forward document was completed and approved in February 1996. During development, input was received from RL, and EH mentors as well as from independent consultants. Within WHC, facility specific Radiological Control Path Forward documents were approved by their respective RL line representatives as well as the RL radiological control program office. As of March 31, 1996, WHC has achieved a 96% accomplishment rate for all scheduled central and facility path forward milestones.

BHI

The Environmental Restoration Contractor (ERC) consists of BHI and its preselected subcontractors Thermal Hanford, Inc., CH2MHill Hanford, Inc., and IT Hanford, Inc. Upon arrival on the Hanford Site in mid 1994, ERC set an initial objective to create an ERC specific radiological control program with concentration on building infrastructure and the development of a 10 CFR 835 compliant program. This effort required the augmentation of the initial radiological control staff. These objectives were accomplished with 10 CFR 835 compliance achieved three months ahead of schedule.

Operating experience during mid 1995 showed an increase in unfavorable radiological occurrences and radiological indicators. Because of these indicators, reviews were commissioned

of the Radiological Control and Conduct of Operations programs in the fall of 1995. These reviews identified several areas that warranted improvement. The issues involved many areas of the ERC work flow process including work planning, role definitions, staffing and qualifications, radiological control program weaknesses, communications and some unclear management expectations.

An action plan was developed to address the identified areas. This plan included 36 corrective action recommendations and 62 planned actions to address the recommendations. Through March 1996, the ERC has completed 95% of the identified actions. The remaining actions are on schedule for completion by the end of Fiscal Year 1996.

Completed actions were included at the discretion of the contractors in their plans to show the progress made in correcting identified deficiencies.

SUMMARY

RL and its contractors have taken and will continue to take actions to improve the radiological control posture at Hanford. It is our goal to achieve excellence in meeting the Radiological Health and Safety Policy objectives described in the DOE Radiological Control Manual.

Attachment 1

RICHLAND OPERATIONS OFFICE (RL) INTERNAL RADIOLOGICAL CONTROL IMPROVEMENT PLAN

RL has performed an internal review and has concluded that the effectiveness of RL oversight of contractor radiological control activities needs improvement in the following specific areas:

- The roles and responsibilities for radiological control oversight needs to be clarified and incorporated into the Authorities and Responsibilities Manual (ARM).
 - Radiological control expertise (health physics staffing level) needs to be increased.
 - The knowledge level of RL technical staff on radiological control requirements and how they should be applied by the contractor needs improvement.
 - RL staff (line management, project managers, etc.) need to hold the contractors more accountable for good radiological control performance.
 - The sitewide performance indicator system needs to be upgraded to provide normalized data for measuring performance trends and setting objective goals in safety, health, and radiological controls.
1. The roles and responsibilities for radiological control oversight needs to be clarified and incorporated into the Authorities and Responsibilities Manual (ARM).
 - a. Completed Item:

- The RL Manager issued a memorandum on October 24, 1995, delineating, on a broad level, the roles and responsibilities of the line organizations and ESH in radiological control.

b. Planned Short Term Item:

- The broad guidance from the Manager will be refined and institutionalized by incorporation into the ARM.
 - Complete refinement of roles and responsibilities by May 22, 1996.
 - Incorporate refinement into the ARM by June 21, 1996.

2. Radiological control expertise (health physics staffing level) needs to be increased.

Multiple tactics are being employed to increase the radiological controls expertise at RL. Each Assistant Manager is taking a different approach to accomplish the same end goal of having dedicated radiological control support within the line organization.

- Reorganization of existing expertise to increase efficiency and focus attention on resolving problems.
- Training and certification of health physics staff.
- Perform needs assessment for additional radiological control expertise.
- Increase staffing.

a. Reorganization of existing expertise to increase efficiency and focus attention on resolving problems.

- Completed Items:

Reorganization of Quality, Safety, and Health Programs Division (QSH).

QSH was reorganized on December 15, 1995. A new team, Nuclear Safety and Radiation Protection (NSR), was established within QSH to provide additional focus in these areas. Three additional health physics staff were brought in, two from the Performance Assessment Division, and one qualified Facility Representative. The new staff have extensive field experience and bring this perspective to the program.

- Reassign duties of some line organization personnel to augment radiological control oversight capabilities; make better use of Facility Representatives with strong background in Radiological Controls.
- The Assistant Manager for Facility Transition has evaluated the best strategy for their organization, and has reassigned a qualified Facility Representative with a Masters Degree in health physics as a full-time Radiological Control Specialist.

- Significant improvements in radiological controls performance at Tank Farms (e.g., increased radiological engineering controls, reduction in contamination areas) have been attributed to having a dedicated Health Physics Specialist within the line organization. This approach has also been successful at Savannah River (Office of Environment, Safety and Health [ESH] radiological control field support to the line organizations).
- ESH has established a policy for the organization to provide field matrix support to RL line organizations. The Nuclear Safety and Radiation Protection Team has fully implemented this policy for its health physics staff. Currently staff, on average, spend more than 50 percent of their time in the field.

b. Training and certification of health physics staff.

- Planned Short Term Item:
 - Three project managers within the Assistant Manager for Environmental Restoration (ABE) organization are registered to take an extensive (5-week) health physics/basic radiation safety course given at Oak Ridge, Tennessee (training will be completed by June 1, 1996). This course is designed to satisfy most of the basic science training hours required for license in medical uses of by-product material and provides 200 hours towards licensing requirements for nuclear power plant health physics personnel.
- Planned Long Term Items:
 - RL is promoting voluntary completion of American Board of Health Physics certification for its staff. Two health physicists passed Part I of the certification examination last year and are taking Part II this year. Three RL staff have applied for Part I this year.

c. Perform needs assessment for additional radiological control expertise.

- RL performed a needs assessment to identify ES&H staffing needs. This assessment included needs for health physics, radiological engineering, and nuclear safety staff. RL has submitted a request to DOE Headquarters to hire six health physicists or radiological engineers and two nuclear safety personnel through the Excepted Service program.

d. Increasing staff.

- Obtain additional staffing. The preliminary needs assessment indicated six additional FTEs were needed in health physics and radiological engineering, one within ESH, and five within the line organizations. (Action to be completed by July 30, 1996.)
3. The knowledge level of RL technical staff on radiological control requirements and how they should be applied by the contractor needs improvement.
- a. Develop improved training for Facility Representatives and RL technical staff.
 - Completed Item:
 - A draft training course to satisfy the base qualification standard for reactor physics and radiation protection has been developed. This course also covers radiological control requirements, their intent, and how they are typically implemented. The pilot course was provided to ABE technical staff during November-December 1995.
 - Planned Short Term Items:
 - Refine the draft training course.

The training course is being refined to incorporate comments from the pilot course. DOE-HQ will provide RL technical consultation to complete the training package. This training will also be adapted for the Facility Representative Program (student study guide, instructor guides, and approved test bank will be completed by June 30, 1996).
 - Determine population within DOE that needs training.

RL will develop criteria to be applied to determine the target population within RL that needs this training. (Action to be completed by May 31, 1996.)

Personnel who do not pass the initial training course will be given additional training, selfstudy, and will be given another examination.
 - Complete training of RL personnel.

The expected completion date will depend on the size of the target population. Facility Representatives undergoing qualification and personnel performing radiological controls oversight will be given priority.
4. RL staff (line management, project managers, etc.) need to hold the contractors more

accountable for good radiological control performance.

a. RL Commitment:

- The RL manager and his management team are personally committed to improving the radiological control posture at Hanford. The overall goal is to attain excellence in implementation of the DOE Radiological Control Policy objectives. The manager has charged his line and support organizations to work together to meet this goal. Additionally, the following improvements are being made to ensure RL carries out its responsibilities efficiently:

- Staffing:

- The five FTEs of Health Physics staff targeted for the line organizations will be used to provide additional oversight of the contractors' radiological control performance. Personnel will be selected who have extensive experience in performance based assessment technique.

- Improvements in Communication:

- RL has and will continue to take significant steps to improve radiological controls at Hanford. To continue this effort, communication and cooperation between RL line and ESH staff personnel is being improved. Increased communications within RL will ensure that a consistent set of expectations is communicated to the contractor, and will result in more rapid resolution of radiological control issues. This will ultimately result in holding the contractor more accountable for achieving expected performance relative to existing radiological control requirements.

b. Completed Items:

- On October 24, 1995, a team comprised of RL program and line representatives from each AM was formed to improve communication within RL concerning Radiological Control Program matters and to provide a forum for resolving radiological issues. This team met on November 30, 1995, to discuss the goals for improving radiological control, and the processes for meeting those goals. Additional meetings have been held to identify specific actions and milestones toward goal achievement.
- Each AM has assigned personnel within their organization to be points-of-contact (POCs) for Radiological Control Program matters. The radiological control POCs will function as the radiological control experts for their organizations, tasked with monitoring all aspects of the contractors' Radiological Control Programs. The POCs will be the focal points for resolution of all radiological control issues in their organizations. These POCs are a part of the RL team working with ESH on radiological control improvements at Hanford.
- Improvement in the RL Facility Representative Program in coordination with

the RL line management has resulted in the following:

- Upgrades in contractor management accountability at the 325 Pacific Northwest National Laboratory resulted in increases in the effectiveness of the corrective action management system and reduction in the size of contamination areas, thereby minimizing the need for protective clothing and improving work efficiency.
 - Technical issues identified at the Plutonium Finishing Plant have resulted in plutonium worker dosimetry improvements, radiological engineering upgrades for demolition activities, plans to reduce contamination areas, and increased worker accountability to comply with radiological control requirements.
 - Cooperation among the Facility Representatives and RL ESH staff resulted in significant improvements regarding the use of engineered radiological controls at K Basins and proper survey release methodologies at B Plant. This activity also represents a recent change in direction for RL ESH personnel to increase field presence in support of line operations.
 - Weaknesses identified at the 222-S Analytical Laboratory have resulted in improvements in radiation work procedures compliance, control of high radiation areas, and positive accountability of respirator issuance. Weaknesses in extremity exposure controls were corrected through improved radiological engineering and resulted in process changes that improved the efficiency of the laboratory analysis.
 - It is anticipated that continued daily involvement of the Facility Representatives, the change in strategy for increased field presence of RL ESH personnel, and the increased teamwork between the line organizations and ESH, will continue to effect radiological control improvement at Hanford.
5. The sitewide performance indicator system needs to be upgraded to provide normalized data for measuring improvements in safety and health.

Radiological control performance monitoring and reporting capabilities at Hanford needs improvement. Currently, performance indicators are not all normalized to work load. Westinghouse Hanford Company (WHC) has made a commitment to upgrade their program to provide normalized data. Normalized data is necessary to ensure corporate goals are tracked, and performance indicators provide information necessary for RL to assess and proactively address negative trends in radiological performance.

a. Completed Item:

- Assess RL line organization and ESH needs to identify the sitewide radiological control performance indicators to be tracked (action completed).

b. Planned Short Term Items:

- WHC will implement an initial normalized performance indicator system (complete).
- Sitewide implementation of reporting radiological performance indicators (target date will depend on the expectation determined as a result of the indicator identification activity).

The following figure provides a summary of RL's Internal Radiological Control Improvement Plan.

**DOE-RL
Rad Con Path Forward Summary Matrix**

No.	Policy Obj.	Due Date or Status	Contractor	Responsible	Corrective Actions for Identified Deficiencies
Improving RL Staffing Levels:					
1	2	complete	RL	P Kruger	Reorganize and increase radiological controls technical competency of the RL-QSH organization.
2	2	complete	RL	AMs	Reassign duties of selected line organization personnel to augment radiological controls oversight.
3	2	complete	RL	AMs	Restructure Facility Rep. program to improve use of personnel with strong RadCon background.
4	2	complete	RL	P Kruger	Perform and submit an assessment of needs to HQ for approval to hire additional radiological control experts within RL.
5	2	7/31/96	RL	AMs and P Kruger	HP Staffing: obtain additional staff.
Improving RL Knowledge Levels:					
6	2	complete	RL	B Pangborn	Develop pilot training course to satisfy base qualification standards for reactor physics and radiation protection.
7	2	6/30/96	RL	B Panghorn	Refine the radiological controls draft training course developed RL-ESH staff. Adopt the course as a requirement for the Facility Representative qualification program.
8	2	5/31/96	RL	B Panghorn	Develop the criteria for selecting the target population to be provided with the upgraded

9	2	ongoing	RL	B Pangborn	radiological controls training course. Provide upgraded radiological controls training to selected RL personnel.
10	2	6/11/96	RL	L McClain	Three Project Managers within RL-ER to complete a five-week health physics and radiation safety course at Oak Ridge, TN.
11	2	ongoing	RL	AMs and QSH	Continue to promote and provide incentives for voluntary completion of certification by the American Board of Health Physics. RL Staff Needs to Hold Contractors More Accountable:
12	1	5/22/96	RL	S Veitenheimer	Clearly define the roles, functions, and responsibilities within RL for oversight of the radiological control program at Hanford.
13	8	6/21/96	RL	S Veitenheimer	Document clarifications to RL's radiological control program oversight responsibilities within the ARM.
14	3	ongoing	RL	AMs and QSH	RL-ESH will work in cooperation with appropriate program line organizations to track successful completion of contractor identified improvement milestones.
15	3	ongoing	RL	AMs and QSH	RL-ESH will work in cooperation with appropriate line organizations to monitor field radiological control activities.
16	3	ongoing	RL	AMs and QSH	Radiological control experts within ESH and line organizations will align to provide the field presence and focus necessary to adequately evaluate contractor performance. Improve Performance Indicator System:
17	1	complete	RL	D Groce	Assess line organizations and ESH needs and identify appropriate radiological controls indicators to meet these needs.
18	1	6/19/96	RL	P Kruger	Issue a directive identifying performance indicators to be used by FY 1997 in monitoring the radiological control program at Hanford.

Contractor RadCon Path Forward Summary Matrix Attachment 2

No.	Policy Obj.	Due Date or Status	Contractor	Responsible	Corrective Actions for Identified Deficiencies
1	2	complete	BHI	RCM	Complete training on revised assessment programs
2	2,4	complete	BHI	RCM	Provide overview of procedure document system

3	7,8	9/30/96	BHI	RCM	Modify critique procedure to include requirement for causal factors analysis. Train appropriate staff to the revised procedure
4	2	complete	BHI	RCM	A one-page visitor requirements checklist shall be developed for distribution and posting at all work locations
5	2	complete	BHI	RCM	Document OJT experience for craft personnel for inclusion in training records
6	2	complete	BHI	RCM	For multi-volume manuals the table of contents will be revised to display the complete contents of the manuals in each volume
7	2	complete	BHI	RCM	Functional managers shall appoint lessons learned coordinators to assure that critiques are being completed
8	2	complete	BHI	RCM	Procedures will be placed on computer system via Netscape
9	2	complete	BHI	RCM	Provide required reading training for RCTs
10	2	complete	BHI	RCM	Train RCTs on technical elements of job (OJT)
11	2	complete	BHI	RCM	Visitor requirements shall be communicated to ERC personnel via "Safety Speaking"
12	3	complete	BHI	RCM	Assess the types of administrative duties that can be removed for field supervisors responsibilities; determine adequacy of staffing levels to accomplish objectives; recommend changes (if necessary) to management
13	3	complete	BHI	RCM	Provide ALARA training for engineers
14	3	complete	BHI	RCM	RCT supervisor requalification training
15	4	complete	BHI	RCM	A standardized list of job titles heavily weighted toward existing field terminology will be developed for ERC-wide use
16	5	complete	BHI	RCM	Develop standard definition of terms for use by RadCon personnel who write RWPs; modify applicable procedures as necessary to incorporate standard definitions
17	6	complete	BHI	RCM	A "Plan-of-the-day" checklist will be modified to include reference to potential safety conditions
18	6	complete	BHI	RCM	Determine and implement a method for increased prominence or RWP at the worksite
19	6	complete	BHI	RCM	ERC lessons learned bulletins shall be issued (as required by BHI-MA-02, Procedure 2.5) on a routine basis, with new distribution requirements
20	6	complete	BHI	RCM	The work package and control procedure will be revised to facilitate change/entry sheet revisions

21	6	complete BHI	RCM	The work process model being developed for projects will include job titles for all key personnel involved in projects
22	7	complete BHI	RCM	Develop and complete the work planning flow process model
23	7	complete BHI	RCM	Incorporate standard subcontractor radiological control roles and responsibilities in applicable bid packages (boilerplates)
24	7	complete BHI	RCM	Require Safety and RadCon participation in prebid conferences for applicable bid packages
25	8	complete BHI	RCM	Assign an individual to assess the linkage between critiques and CAR procedures to lessons learned and to ORPS
26	8	complete BHI	RCM	Complete an implementation plan for revised assessment programs
27	8	complete BHI	RCM	Complete review of existing assessment programs
28	1,2	complete BHI	RCM	Assess use of cc:Mail, video presentation, etc., in conjunction with "Safely Speaking" to advertise goals, successes, and areas for improvement; utilize project manager to communicate
29	1,2	complete BHI	RCM	Modify work control practices to assure that craft copies of work controlling documents are provided for use in work zones
30	2,3	complete BHI	RCM	Initiate ongoing training utilizing Bechtel supervisory training modules
31	2,3	complete BHI	RCM	Initiate training of managers in Hanford Site Radiological Control Manual and Price-Anderson Amendments Act
32	2,3	complete BHI	RCM	Issue a procedure on "Writing RWPs" to address limiting conditions, thresholds, and safety envelope
33	2,3	complete BHI	RCM	Prepare job descriptions for RCTs
34	2,3	complete BHI	RCM	Provide ERC-specific radiation worker training refresher
35	2,3	complete BHI	RCM	Train applicable staff in developing hold points and in applicability of generic RWPs
36	2,3	complete BHI	RCM	Train RCTs on job duties
37	2,3	complete BHI	RCM	Train supervisors on BHI methodology for managing field operations (disciplined operations), including roles and responsibilities and use of BHI procedural system
38	2,4	complete BHI	RCM	Field Support and RadCon organizations evaluate assigned reading and assess if additional training is required

39	2,4	complete BHI	RCM	Hold meeting to open communication with employees regarding safety, work quality, and importance of disciplined operations
40	2,4	complete BHI	RCM	Include radiological control programmatic changes as "Safety Speaking" topics
41	2,5	complete BHI	RCM	RCT requalification training
42	2,5	complete BHI	RCM	Redirect existing monthly RCT meetings to include radiological control programmatic changes
43	3,4	complete BHI	RCM	Assess qualifications of craft workers based on experience history and make appropriate work assignments
44	3,4	complete BHI	RCM	Train field personnel on BHI methodology for conducting field operations, including roles and responsibilities and use of BHI procedural document system
45	3,6	complete BHI	RCM	Provide RadCon Program details through publication of "RadConnection"
46	4,6	complete BHI	RCM	Use of turnover checklist items contained in Field Support procedure 10.0 will be emphasized to cover shift turnover when work packages extend more than a single shift
47	4,7	complete BHI	RCM	Concurrence from both organizations will be required on all work planning documents
48	4,7	complete BHI	RCM	Craft participate informally in work planning process as a result of assessments
49	4,7	complete BHI	RCM	Revised work flow process model will clearly delineate roles and responsibilities at field sites
50	4,7	complete BHI	RCM	Work control procedure will be revised to involve crafts throughout work planning work package development. A sign-off line will be added to the package for a craft representative to sign
51	4,8	complete BHI	RCM	Increase management presence in the field by assigning RadCon and Field Support managers to collocated field site
52	4,8	complete BHI	RCM	S. D. Liedle directs staff to document visits to field site by management by signing visitors log
53	5,6	complete BHI	RCM	Stand down with field personnel to discuss RadCon findings from the Radiological Controls report
54	6,7	complete BHI	RCM	Modify the "Prejob Briefing" form and "Plan-of-the-Day" checklist to include items for discussion at prejob briefing/"Plan-of-the-Day" meeting (e.g., RWP requirements)
55	6,7	complete BHI	RCM	The revised work process model will include listing of all applicable procedures and

					implementing documents at progress steps
56	6,7	complete	BHI	RCM	The work planning and control procedure will be revised to include the requirement for addressing abnormal and safety conditions
57	6,7	complete	BHI	RCM	Train supervisors/RCTs in utilizing a "Plan-of-the-Day" checklist to include items for discussion at prejob briefing/"Plan-of-the-Day" checklist that includes addressing the RWP and other RadCon issues
58	6,8	complete	BHI	RCM	Develop schedule for conducting self-assessments by field supervisors in accordance with applicable procedure
59	6,8	complete	BHI	RCM	Relocate key management personnel to field
60	5,6	ongoing	BHI	RCM	Commission a team to develop a systematic process to prioritize ERC facilities/sites for inspection of postings, conduct inspection of the facilities, and post the facilities based on current conditions
61	5,6	ongoing	PNNL	RCM	Procedures will be revised as appropriate to include standard job titles
62	2,3	complete	PNNL	LM, RC	Line management will ensure work planners are appropriately trained, RCTs verify (1.02.3.11)
63	6,7	complete	PNNL	RC, LM	RCTs prepare an operating procedure & training module for temporary shielding; Line management train staff and implement; RCTs ensure implementation (1.02.2.3.1.02)
64	2,4	5/31/96	PNNL	RC, LM	RCTs prepare an operating procedure & training module for pre/post job reviews; Line management train staff and implement; RCTs ensure implementation (1.02.2.3.2.03)
64	3,6	5/32/96	PNNL	RC	RCTs prepare an operating procedure and train staff on job coverage; RCTs ensure implementation (1.02.2.3.4.01)
65	4	6/30/96	PNNL	RC, LM	RCTs prepare an operating procedure & training module for the critique process; Line management train staff and implement; RCTs ensure implementation (1.02.2.1.2.02)
66	4	6/30/96	PNNL	RC, LM	RCTs prepare an operating procedure & training module for workplace awareness reports; Line management train staff and implement; RCTs ensure implementation (1.02.2.1.3.01)
67	1,2	6/30/96	PNNL	RC	RCTs modify the posting procedure to provide additional guidance on posting for underground contamination; RC train staff and implement; RCTs ensure implementation (1.02.2.2.3.01B)
68	1,6	6/30/96	PNNL	RC, LM	RCTs prepare an operating procedure &

					training module for radiological visitor requirements; Line management train staff and implement; RCTs ensure implementation (1.02.2.3.3.03)
69	4,6	6/30/96	PNNL	RC, LM	RCTs prepare an operating procedure & training module for planning radiological work; Line management train staff and implement; RCTs ensure implementation (1.02.2.3.1.01)
70	6	9/30/96	PNNL	RC, LM	RCTs prepare an operating procedure & training module for work in fume hood and on benchtops; Line management train staff and implement; RCTs ensure implementation (1.02.2.3.4.04)
71	6	9/30/96	PNNL	RC, LM	RCTs prepare an operating procedure & training module for work in gloveboxes; Line management train staff and implement; RCTs ensure implement; RCTs ensure implementation (1.02.2.3.4.05)
72	6,7	9/30/96	PNNL	RC, LM	RCTs prepare an operating procedure & training module for control of radiological vacuum cleaners; Line management train staff and implement; RCTs ensure implementation (1.02.2.4.6.03)
73	6	10/31/96	PNNL	RC, LM	Line management will ensure radiological protective clothing used in their facility is marked appropriately; RCTs verify (1.02.3.09)
74	2,3	10/31/96	PNNL	ES&H, RC	ES&H Training and Qualification will review core training material for line managers who manager, supervise or provide oversight of radiological programs and make appropriate changes to the training program; RCTs verify (1.02.12)
75	2,3	10/31/96	PNNL	RC	Radiological Engineering will ensure appropriate staff receive ALARA design training; RCTs verify (1.02.3.13)
76	2,4	10/31/96	PNNL	RC and LM	RC Technical Support (TS) prepare an operating procedure & training module for resolving staff concerns about radiation exposure; Line management train staff and implement; RCTs ensure implementation (1.02.2.1.2.01)
77	1	complete	PNNL	RC	Development and submittal of 10 CFR 835 and the DOE Radiological Control Manual Implementation Plans
78	1	complete	PNNL	Performance Assurance, RC	Performance Assurance will ensure appropriate staff are trained in the emergency response requirements of 10 CFR 835; RCTs verify (1.02.3.02)

79	1	complete PNNL	RC, LM	RCTs prepare an operating procedure & training module for radiological records management; Line management train staff and implement; RCTs ensure implementation (1.02.2.7.1.01)
80	2	complete PNNL	RC, LM	Line management will ensure all required staff receive GERT; RCTs ensure implementation (1.02.2.7.1.01)
81	3	complete PNNL	ES&H	Assignment of a project manager for the Operations Improvement Program Radiological Control Initiative
82	3	complete PNNL	RC	Augmentation of Radiological Control's Radiological Engineering Operations staff
83	3	complete PNNL	RC	RCTs prepare a technical equivalency for the existing worker responsibility poster
84	5	complete PNNL	External Dosimetry	External Dosimetry will ensure appropriate procedures are in place and implemented for responses to personnel involved in a nuclear accident; RCTs verify (1.02.3.04)
85	5	complete PNNL	Internal Dosimetry	Internal Dosimetry will ensure appropriate procedures are in place and implemented for response to personnel involved in a nuclear accident; RCTs verify (1.02.3.04)
86	5	complete PNNL	Personnel Dosimetry, RC	Personnel dosimetry will ensure annual reports to personnel will contain the required information: RCTs verify (1.02.3.01)
87	5	complete PNNL	RC	RCTs prepare an operating procedure & train staff on assessment of non-uniform dose to the skin; RCTs ensure implementation (1.02.2.2.1.02)
88	5	complete PNNL	RC	RCTs prepare an operating procedure & train staff on internal and external dosimetry investigations; RCTs ensure implementation (1.02.2.5.1.03)
89	5	complete PNNL	RC	RCTs prepare an operating procedure & train staff on placement/evaluation of air sampling/monitoring equipment; RCTs ensure implementation (1.02.2.5.5.24)
90	5	complete PNNL	RC	RCTs prepare an operating procedure & train staff on radiological surveys; RCTs ensure implementation (1.02.2.5.5.11)
91	5	complete PNNL	RC, LM	RCTs prepare an operating procedure & training module for tracking exposure to airborne radioactive material; Line management train staff and implement; RCTs ensure implementation (1.02.2.2.1.04)
92	6	complete PNNL	RC, LM	Line management ensure staff comply with controls for hot particles; RCTs ensure

				implementation (1.02.2.3.4.06)
93	6	complete PNNL	RC	RCTs prepare an operating procedure & train staff on personnel decontaminations; RCTs ensure implementation (1.02.2.5.4.02)
94	6	complete PNNL	RC, LM	RCTs prepare an operating procedure & training module for control of respiratory protection equipment; Line management train staff and implement; RCTs ensure implementation (1.02.2.5.3.01)
95	6	complete PNNL	RC, LM	RCTs prepare an operating procedure & training module for radioactive material storage, control, and labeling; Line management train staff and implement; RCTs ensure implementation (1.02.2.4.1.01)
96	1,2	complete PNNL	RC, LM	RCTs modify the posting procedure to provide additional guidance on posting for airborne contamination; Line management train staff and implement; RCTs ensure implementation (1.02.2.2.3.01A)
97	1,5	complete PNNL	RC, LM	RCTs prepare an operating procedure & training module for bioassay requirements; Line management train staff and implement; RCTs ensure implementation (1.02.2.5.2.01)
98	1,5	complete PNNL	RC, LM	RCTs prepare an operating procedure & training module for controlling exposure to the embryo/fetus; Line management train staff and implement; RCTs ensure implementation (1.02.2.2.1.03)
99	1,5	complete PNNL	RC, LM	RCTs prepare an operating procedure & training module for dose limits; Line management train staff and implement; RCTs ensure implementation (1.02.2.2.1.01)
100	1,5	complete PNNL	RC, LM	RCTs prepare an operating procedure & training module for issuance of personnel dosimeters; Line management train staff and implement; RCTs ensure implementation (1.02.2.5.1.01)
101	1,5	complete PNNL	RC, LM	RCTs prepare an operating procedure & training module for use of supplemental dosimeters; Line management train staff and implement; RCTs ensure implementation (1.02.2.5.02)
102	1,6	complete PNNL	RC, LM	RCTs prepare an operating procedure & training module for access control line; Line management train staff and implement; RCTs ensure implementation (1.02.2.3.3.01)
103	1,6	complete PNNL	RC, LM	RCTs prepare an operating procedure & training module for control of high and very

				high radiation areas; Line management train staff and implement; RCTs ensure implementation (1.02.2.3.3.02)
104	4,5	complete PNNL	RC, LM	RCTs prepare an operating procedure & training module for annual review of bioassay and dosimeter results; Line management train staff and implement; RCTs ensure implementation (1.02.2.5.2.03)
105	4,6	complete PNNL	RC, LM	RCTs prepare an operating procedure & training module for problem reports and stop work orders; Line management train staff and implement; RCTs ensure implementation (1.02.2.3.4.07)
106	4,8	complete PNNL	RC	RCTs prepare an operating procedure & train staff on radiological surveillance, RCTs ensure implementation (1.02.2.5.5.02)
107	4,8	complete PNNL	RC, LM	RCTs prepare an operating procedure & training module for assessments and internal audits; Line management train staff and implement; RCTs ensure implementation (1.02.2.1.3.02)
108	5,6	complete PNNL	RC, LM	RCTs prepare an operating procedure & training module for release of material from radiological control; Line management train staff and implement; RCTs ensure implementation (1.02.2.4.2.01)
109	5,7	complete PNNL	RC	RCTs prepare an operating procedure & train staff on air sampling; RCTs ensure implementation (1.02.2.5.5.05)
110	5,7	complete PNNL	RC, LM	RCTs prepare an operating procedure & training module for air monitoring requirements; Line management train staff and implement; RCTs ensure implementation (1.02.2.5.5.01)
111	6,7	complete PNNL	RC, LM	RCTs prepare an operating procedure & training module for control of fixed contamination; Line management train staff and implement; RCTs ensure implementation (1.02.2.2.2.01)
112	6,7	complete PNNL	RC, LM	RCTs prepare and operating procedure & training module for radiological design reviews (including recordkeeping); Line management train staff and implement; RCTs ensure implementation ((1.02.2.1.2.03)
113	6,7	complete PNNL	RC, LM	RCTs prepare an operating procedure & training module for technical work documents; Line management train staff and implement; RCTs ensure implementation (1.02.2.3.1.03)
114	6,8	complete PNNL	RC	Verify that the source control program complies

					with RCM requirements
115	3	complete	PNNL	Environmental Technology, RC	Ensure that the Sequim RSO is appropriately trained; RCTs verify (1.02.3.07)
116	1	complete	WHC	CSG Manager	Evaluate career path options for health physicists, radiological analysts, and technicians, and make recommendations to the site RCM
117	2	complete	WHC	CSG Manager	Evaluate and enhance existing processes to disseminate lessons learned and share/integrate information
118	5	complete	WHC	Site REM	Complete draft of GOCO Radiological Engineering Manual
119	2	7/31/96	WHC	Site REM	Establish an ALARA Center of Technology
120	5	9/30/96	WHC	CSG Manager	Replace WHC-CM-4-4 and IP-0718 with WHC-CM-4-27
121	1	complete	WHC	CSG Manager	Formally define and implement organizational roles and responsibilities and implementing processes for the COE, CSG, IA, Site RCM
122	0	complete	WHC	Site RCM	Use GOCO committees as a sounding board
123	0	complete	WHC	Site RCM	Utilize the Hanford RC Forum as an external review feedback mechanism
124	1	complete	WHC	Site Radiological Engineering Manager	Clearly define what radiological engineering is, the mission of Radiological Engineering, and the functions
125	1	complete	WHC	Site RCM and Facility Line Managers	Conduct facility management training on facility responsibilities and expectations of the decentralized RadCon organization
126	1	complete	WHC	Fac. RCMs	Establish Facility Interpretative Authority designees and implementing process
127	1	complete	WHC	Site RCM and Facility Managers	Establish RadCon Center of Expertise (COE), Central Support Group (CSG), and WHC Site Interpretative Authority (IA)
128	1	complete	WHC	RadCon CSG Manager	Implement a process to provide for sound documentation and easy retrieval of RadCon program technical basis
129	1	complete	WHC	RadCon Central Support Group	Implement rigorous completed staff work and decision making package process for the COE
130	2	complete	WHC	Various	Provide technical continuing training for professional staff and promote CHP and NRRPT certification and recertification
131	3	complete	WHC	Site REM and CSG	Develop method for facilities to use in obtaining appropriate levels of technical support resources

132	3	complete	WHC	Site REM and Facility RCMs	Develop Radiological Engineering resource acquisition plans
133	3	complete	WHC	RC Reengineering Team	Establish specific responsibilities and non-technical qualifications; experience requirements, and weighted selection criteria for each identified position in the Central RadCon organization
134	3	complete	WHC	Site REM and Facility RCMs	Evaluate and determine the support functions and requirements for the central and facility RadCon organizations
135	3	complete	WHC	Site RCM	Hire top caliber Radiological Engineering Manager
136	3	complete	WHC	Site RCM	Reselect the entire site RadCon professional organization, including recruiting qualified candidates both internally and externally as necessary
137	6	complete	WHC	Site RCM	Complete and issue Radiological Worker Practices Manual as guidance document
138	6	complete	WHC	Site RCM	Establish and pilot a series of facility RadCon status joint presentations to WHC line management, DOE-RL line management, and DOE RL program representatives
139	6	complete	WHC	Site RCM	Establish External Advisory Team
140	6	complete	WHC	Site RCM	Issue GOCO Containment Guide as guidance for field use
141	8	complete	WHC	CSG Manager	Establish initial consistent RadCon assessment criteria for the facilities and FEB
142	3,4	complete	WHC	Site and Facility RCMs	Develop RadCon Path Forward plans for each facility encompassing the following areas and including establishing of corrective action plans
143	4,6	complete	WHC	CSG Manager	Enhance the existing tracking/trending program which identifies site and facility programmatic deficiencies
144	6,2	complete	WHC	Site RCM	Issue pocket Radiological Control Handbook
145	4,6	complete	WHC ANAL	JL Parsons	Improve ALARA program implementation
146	6,8	complete	WHC ANAL	DS Mantooth	Technical/efficiency evaluation of specific work place activities that are impacting operations at AS
147	3	5/3/96	WHC ANAL	DS Mantooth	Improve planning and scheduling of RCT resources
148	5,6	5/5/96	WHC ANAL	DS Mantooth	Optimize efficiency
149	5	5/30/96	WHC ANAL	JL Miller	Increase instrument availability to optimize work progress
150	6	5/30/96	WHC	DS Mantooth	Prepare technical basis documents

			ANAL			
151	5,6	5/30/96	WHC ANAL	DS Mantooth	Track exposures	
152	6	6/30/96	WHC ANAL	RCM	Improve radiological material storage	
153	6	7/31/96	WHC ANAL	DS Mantooth	Obtain assistance of Mentors	
154	6	8/30/96	WHC ANAL	DS Mantooth	Perform radiological control technical reviews in accordance with HSRCM	
155	2,6	9/30/96	WHC ANAL	JL Parsons	Improve radiological performance through training	
156	2,6,8	9/30/96	WHC ANAL	RCM	Conduct a radiological baseline and self-assessment	
157	6	12/31/96	WHC ANAL	GB Griffinn	Reduce handling of contaminated equipment	
158	6	complete	WHC B- Plant WESF	RCM	Implement a process to incorporate Radiological Engineering controls into fieldwork documents and RadCon reviews of new and revised facility operating and maintenance procedures having radiological implications	
159	6	complete	WHC B- Plant WESF	Facility Managers	Approve and issue HRA & HRA access procedure to replace current Standing Orders	
160	0	complete	WHC B- Plant WESF	RCM	Establish a draft proposal for a formal MOU with 300 Area facilities to formalize process of supplying B-Plant back shift RCT support to access/egress of emergency security personnel in 300 Area	
161	5	complete	WHC B- Plant WESF	RCM	Obtain appropriate alarming self-reading dosimetry to enable radiological worker time self-monitoring in HCAs and ARAs	
162	5	complete	WHC B- Plant WESF	RCM	Obtain appropriate dose rate instrumentation, to allow for detailed dose rate surveys in support of pit entries while minimizing exposure	
163	8	complete	WHC B- Plant WESF	RCM	Develop RadCon Self-Assessment quarterly schedule, post, track and incorporate into the facility integrated self-assessment program	
164	3	complete	WHC B- Plant WESF	RCM	Augment facility RadCon staff with an additional Radiological Engineer for upfront ALARA/Radiological Engineer planning in work packages and operating procedures	
165	6	complete	WHC B- Plant WESF	MS Watkins	Implement revised RadCon area posting surveillance task description to include validated inventories of RA, HRAs, HCAs, ARAs	
166	8	5/3/96	WHC B-	DD Beers	Perform an audit of RadCon routines and	

			Plant WESF		surveillances, include assessment of current surveillance task documentation and control area survey map utilization
167	0	6/1/96	WHC B- Plant WESF	RCM	Define the appropriate realignment of the RadCon Organization in support of B-Plant/WESF reengineered multi-disciplined work teams
168	6	6/7/96	WHC B- Plant WESF	DD Beers	Establish Radiological End Point Criteria for mitigation/release of facility outdoor contamination areas
169	8	6/14/96	WHC B- Plant WESF	GL Greene	Perform a requirement-based compliance assessment of facility RadCon training
170	2	6/17/96	WHC B- Plant WESF	Line Management	Complete HRSCM Article 651 training for B-Plant/WESF management
171	2,3	6/17/96	WHC B- Plant WESF	RCM	Identify required support from B-Plant/WESF to assist Site Radiological Engineering Manager in the establishment of the ALARA Center of Technology
172	2	6/30/96	WHC B- Plant WESF	RCM	Achieve a minimum of 50% participation of RadCon Staff in Continuing Training technical seminars to be implemented by CSG Staff
173	2	6/30/96	WHC B- Plant WESF	DW Craig	Facility RCM participate in NRRPT Exam
174	6	6/30/96	WHC B- Plant WESF	Line Management	Participate in the formulation of the enhanced Site Wide RadCon Lessons Learned Program undertaken by CSG Manager. Implement applicable recommendations at B-Plant/WESF
175	8	6/30/96	WHC B- Plant WESF	RCM	Incorporate consistent facility self-assessment criteria to be developed by CSG (04/15/96) into the facility Self-Assessment Program, beginning with 4th Quarter FY 96
176	6	7/19/96	WHC B- Plant WESF	RCM	Evaluate effectiveness of current facility RadCon performance indicators and trending processes. Identify new or modified performance indicators to enhance communications and performance
177	6	7/22/96	WHC B- Plant WESF	RCM	Evaluate applicability of site work place air sampling requirements of WHC-CM-4-14, incorporate COE established site standard
178	6	7/30/96	WHC B- Plant WESF	RCM	Evaluate applicability of other Hanford Site facility programs currently not using pencil dosimetry for some controlled area entries
179	5	8/5/96	WHC B- Plant WESF	RCM	Evaluate the need to re-baseline the WESF facility radiological instrumentation requirements and reconfiguration

180	6	8/30/96	WHC B-Plant WESF	RCM	Participate in technical assist visit from DOE/HQ mentoring and RadCon support groups
181	1	9/30/96	WHC B-Plant WESF	Facility Managers	Develop or modify facility implementing procedures, as needed, to appropriately implement RadCon site standards as established by the COE
182	2	9/30/96	WHC B-Plant WESF	Line Management	Complete HSRCM training for all facility qualified Radiological workers
183	2	9/30/96	WHC B-Plant WESF	RCM	Hold facility RCT certification oral boards, to achieve 100% recertification in accordance with the approved RCT continuing training schedule
184	2	9/30/96	WHC B-Plant WESF	RCM	Identify the appropriate facility participation in the advanced Radiological Work Practices training and engineered controls training
185	4	9/30/96	WHC B-Plant WESF	ALARA Chair	Continue ALARA Employee Of The Month recognition per ALARA Goal #10, for at least 4 of 6 months between 4/96 and 9/96
186	6	9/30/96	WHC B-Plant WESF	Project Manager	Achieve technical resolution allowing transfer of B-Plant residual aqueous solution
187	6	9/30/96	WHC B-Plant WESF	RCM	Achieve technical resolution and procedural implementation of release criteria for Sr-90 contamination/potential contamination
188	6	9/30/96	WHC B-Plant WESF	RN Smith	Complete 60,000 square feet of radiological area reduction, utilizing end point criteria defined in #43
189	6	9/30/96	WHC B-Plant WESF	Transition Project Manager	Complete a cost/risk/benefit study on plans for the K-3 ductwork clean-out, to support CY96 ALARA Goal #6
190	6	9/30/96	WHC B-Plant WESF	RCM	Identify the technically correct engineered controls to reduce radiological hazards encountered Radiological Engineering in 291A/B water seal & filter pits
191	8	5/10/96	WHC B-Plant WESF	Line Management	Complete ALARA training for B-Plant/WESF technical support personnel
192	0	complete	WHC B-Plant WESF	Plant Director and RCM	Determine mutually agreeable implementation date, by which time all DOE-RL Program Manager comments on deliverables of RCM this Path Forward
193	1	complete	WHC B-Plant WESF	Project Director and RCM	Appoint facility interpretive authority designees in accordance with the implementing process approved by COE
194	2	complete	WHC B-Plant	RJ Williams	Complete RadCon First Line Manager Certifications

195	2	complete	WESF WHC B-Plant WESF	G Resnick	Complete technical procedures training for writers, validators, users and managers
196	2	complete	WHC B-Plant WESF	RCM	Conduct facility management training on the COE facility responsibilities; Line managers expectations created by the decentralization of Site RadCon
197	2	complete	WHC B-Plant WESF	Plant Manager and Training Manager	Include all assigned RadCon organization personnel in the B-Plant/WESF facility specific continuing training program
198	2	complete	WHC B-Plant WESF	GL Green	Provide "Improving Radiological Operations & Maintenance" training for a minimum of 40% of facility qualified Radiological workers
199	3	complete	WHC B-Plant WESF	Plant Director	Augment staff with a highly qualified, seasoned Engineer/Compliance Engineer
200	3	complete	WHC B-Plant WESF	RCM	Develop Radiological Engineering Resource Acquisition Plan to provide appropriate levels of technical support functions identified in Goal #30 above
201	3	complete	WHC B-Plant WESF	Plant Director	Hire a highly qualified, broadly experienced facility RadCon Manager
202	4	complete	WHC B-Plant WESF	Plant Director	Address radiological control expectations and processes in an updated B-Plant/WESF Safety Management Procedure
203	4	complete	WHC B-Plant WESF	Plant Director	Appoint the RCM as COE representative
204	4	complete	WHC B-Plant WESF	DD Beers	Determine the Radiological engineering support functions required for B-Plant/WESF RadCon programs
205	4	complete	WHC B-Plant WESF	Operations Manager	Establish ALARA pre-job planning and post-job review as a line management
206	4	complete	WHC B-Plant WESF	RCM	Forward proposed draft of this Forward Plan to RL B-Plant/WESF Program Manager and Facility Representative and the RL Nuclear Safety and Radiological Protection Team Leader
207	4	complete	WHC B-Plant WESF	Plant Director	Include a RadCon Technician (RCT) on the B-Plant/WESF Board of Directors
208	5	complete	WHC B-Plant WESF	SL Hathaway	Establish a process to accomplish a complete review of 10 CFR 835 compliance affidavits on a 36 month cycle to ensure current practices are

					reflected and documents updated
209	6	complete	WHC B-Plant WESF	RCM	Compile a thorough listing and description of all required RadCon surveillance routines and complete an Activity Based Cost estimate and staffing analysis
210	6	complete	WHC B-Plant WESF	RCM	Distribute draft (for approval) of ALARA Rev. 1 to facility addressing Cost Benefit Analysis & RCM Records Retention responsibilities
211	6	complete	WHC B-Plant WESF	Plant Director	Establish a facility specific Radiological Work Practices Improvement Team representing all non-management field personnel
212	6	complete	WHC B-Plant WESF	SL Hathaway	Establish a temporary shielding label, inventory and surveillance program per WHC-CM-4-14
213	6	complete	WHC B-Plant WESF	SL Hathaway	Evaluate discrepancies identified in CY95 RadCon Self-Assessments for inclusion in the Hanford Action Tracking System (HATS)
214	6	complete	WHC B-Plant WESF	SL Hathaway	Evaluate the B-Plant/WESF RadCon Organization's ability to fulfill the increased work scope of Quality Records Retention created by the decentralization of Site RadCon
215	6	complete	WHC B-Plant WESF	DW Craig	Implement RadCon organization approval of facility Administrative Manual & Conduct of Operations Manual procedures
216	6	complete	WHC B-Plant WESF	SL Hathaway	Improve HRA surveillance task descriptions to include approved, validated listings of facility HRAs
217	6	complete	WHC B-Plant WESF	Plant Manager	Integrate facility specific RadCon procedures into the B-Plant/WESF procedure control process
218	6	complete	WHC B-Plant WESF	Operations Manager	Reduce standing inventory of active RWPs, to drive real time ALARA planning and hazard recognition and mitigation (RWP inventory reduced from 64 to 26, of which 15 RWPs are general)
219	6	complete	WHC B-Plant WESF	SL Hathaway	Upgrade Fixed Contamination Surveillance Program documentation (discussed in Section 4.0, 3G)
220	8	complete	WHC B-Plant WESF	Plant Director	Implement an aggressive RadCon self-assessment process and include the facility RCM in the B-Plant/WESF Management Oversight and Assessment Program (MOAP)
221	9	complete	WHC B-Plant WESF	Radiological Work Practice Champion	Complete Conduct of Operations performance based assessment Work Practices of field radiological work practices in contamination areas
222	4,6	complete	WHC B-	Plant Director	Identify crucial, top level RadCon program

			Plant WESF			performance indicators to be included in B-Plant/WESF Critical Plant Performance Indicator Reports
223	6	5/31/96	WHC CPO	JS Lee		Improve radiological material storage in Farms
224	8	5/31/96	WHC CPO	RCM		Incorporate RadCon into work
225	6,8	6/28/96	WHC CPO	JM Garcia		Obtain assistance of Mentors
226	2,6	7/31/96	WHC CPO	RCM		Conduct a radiological baseline and self-assessment
227	6	8/30/96	WHC CPO	Burton and Garcia		Develop a plan to act on Mentor's suggestions if funding is available
228	6	9/30/96	WHC CPO	DC Langlois		Develop decontamination capabilities
229	4,6	9/30/96	WHC CPO	RCM		Increase accountability of all personnel
230	6	4/30/97	WHC CPO	JM Garcia		Prepare technical basis document
231	1	complete	WHC CPO	JE Kane		Achieve full compliance with 10 CFR 835
232	5	complete	WHC CPO	RCM		Establish Radiological Control Focus Week
233	6	complete	WHC CPO	JE Kane		Improve ALARA program implementation
234	6	complete	WHC CPO	DH Shurford		Participate in Champions Program
235	2,5	complete	WHC CPO	JM Garcia		Optimize efficiency
236	3,6	complete	WHC CPO	RCM		Improve planning and scheduling of RCT resources
237	5,6	complete	WHC CPO	JM Garcia		Track exposures
238	2	ongoing	WHC CPO	JE Kane		Improve radiological performance through training
239	2,5	5/31/96	WHC East Tank Farms	RCM		Miscellaneous areas needing improvement: SCA discovered, improve source check documentation, laundered clothing control, respirator control
240	6,7	6/1/96	WHC East Tank Farms	RCM		Fundamental contamination control practices need improvement. Teamwork and communications between the radiological workers in the field needs to be strengthened
241	2,8	7/1/96	WHC East Tank Farms	RCM		Frequent changes in rad control policies and procedures caused workers to lapse in attention to detail concerning rad control practices.

					Radiological review of procedures is inadequate. Review and communication of procedure changes needs to be emphasized
242	6	8/15/96	WHC East Tank Farms	CL Caldwell and AD Olguin	The required routine radiological surveillance program is not scheduled as part of the work planning process. Lack of hard scheduling results in inefficient use of resources
243	4,6	9/1/96	WHC East Tank Farms	RCM	The ALARA planning process does not adequately provide for timely recognition, evaluation and integration of rad controls during work planning and execution. Radiological occurrences are not closed in a timely manner and communicated to appropriate staff
244	2	complete	WHC East Tank Farms	CL Caldwell	Increased management attention to training and reduced turnover of personnel is needed to enhance skill and knowledge level of HPT technicians
245	6	complete	WHC East Tank Farms	RCM	Increased management oversight and commitment is needed to make the RPR program an effective tool for identification and correction of the radiological deficiencies
246	6	6/1/96	WHC FFTF	LA Nelson	Inventory and control of Radioactive material storage area needs to be enhanced
247	6	6/1/96	WHC FFTF	SJ Gary	The inclusion of RWPs in work packages and posting of the correct RWPs, be it general or job specific, has shown evidence of needing attention
248	8	6/1/96	WHC FFTF	LA Nelson	The RadCon Self Assessment program needs formalization and scheduling
249	6	7/1/96	WHC FFTF	LA Nelson	FFTF Engineering Instructions, EI-80, which delineate incorporation of RadCon issues into work packages needs to be adhered to by the Work Control and RadCon organizations
250	6	8/5/96	WHC FFTF	LA Nelson	WHC-IP-0718 and desk instructions need to be incorporated into the FFTF procedure process
251	2	9/30/96	WHC FFTF	SJ Thorsten	Improve posting and employee awareness with respect to Radiological Material Areas (RMA) and Radiological Buffer Areas (RBA)
252	4	9/30/96	WHC FFTF	SJ Thorsten	Employees need to be held accountable and made aware of their self-responsibility with regard to RadCon issues. There is an over reliance on the presence of an RCT precluding RadCon issues
253	6	9/30/96	WHC FFTF	LA Nelson	Strengthen attention to RadCon issues as part of the prejob brief. Focus should be on talking to specifics pertinent to the job rather than plant generalities

254	6	9/30/96	WHC FFTF	SJ Thorsten	Strengthen RadCon posting understanding and compliance
255	1	complete	WHC FFTF	LA Nelson	An assessment has been done on the technical skills mix needed for the RadCon organization
256	6	complete	WHC FFTF	LA Nelson	The ALARA Management Worksheet (AMW) and Post ALARA Review (PAR) processes needs to be strengthened in documentation and adherence
257	6	complete	WHC K- Basins	RCM	Evaluate water sampling
258	6	5/31/96	WHC K- Basins	RCM	Develop desk instruction for temporary HRA control
259	6	6/30/96	WHC K- Basins	RCM	Ensure that K-Basins RC exempt personnel have access to the JCS electronic network
260	6	6/30/96	WHC K- Basins	RCM	Expand radiological control champion program to include maintenance personnel
261	2	7/31/96	WHC K- Basins	RCM	Provide PIC training on how to improve pre-job briefings
262	6	7/31/96	WHC K- Basins	RCM	Determine if more effective controls may be implemented over the transport of materials across RBAs
263	6	7/31/96	WHC K- Basins	RCM	Work to implement tool storage program
264	2	8/31/96	WHC K- Basins	RCM	Develop and administer HRA awareness refresher training
265	2	8/31/96	WHC K- Basins	RCM	Develop HRSCM training for non radiological control personnel
266	6	8/31/96	WHC K- Basins	RCM	Establish a protocol which ensures that first line managers and HPTs are knowledgeable on the hold points and radiological work instructions in active technical documents
267	4	9/30/96	WHC K- Basins	RCM	The K-Basins management will coordinate with Facility Representative on milestone progress
268	6	9/30/96	WHC K- Basins	RCM	Improve coordination among RWP writers and first line managers
269	6	10/31/96	WHC K- Basins	RCM	Develop a plan to secure funding for decontamination of 105 K West chiller bay
270	6	10/31/96	WHC K- Basins	RCM	Develop scheduling process for review of technical work documents
271	2	12/31/96	WHC K- Basins	RCM	Assist RadCon Champions in becoming more proficient
272	2	12/31/96	WHC K- Basins	RCM	Maximize use of 305 Cold Test Facility for mock up training
273	6	12/31/96	WHC K- Basins	RCM	Coat and seal 105 K East bath tub ring and raise water level
274	6	12/31/96	WHC K-	RCM	Ensure all task description reference the

			Basins		applicable Articles found in 10 CFR 835 and DOE RadCon Manual
275	6	12/31/96	WHC K-Basins	RCM	Evaluate using catch trays for water leaks
276	6	12/31/96	WHC K-Basins	RCM	Improve radiological engineering controls
277	6	2/28/97	WHC K-Basins	RCM	Target "troubled" water system leaks
278	6	5/31/96	WHC K-Basins	RCM	Determine effective means of transferring WHC-CM-4-14 and WHC-IP-0718 requirements to facility procedures
279	2	complete	WHC K-Basins	RCM	Develop training module on Safety Analysis, Technical Specifications, and OSRs
280	3	complete	WHC K-Basins	RCM	Determine skills mix for K-Basins RadCon
281	6	complete	WHC K-Basins	RCM	Develop Safety Improvement Program
282	6	complete	WHC K-Basins	RCM	Ensure that K-Basins RC participate in Plan of the Week and Plan of the Day meetings
283	2	periodic	WHC K-Basins	RCM	Encourage participation in NRRPT courses
284	2	periodic	WHC K-Basins	RCM	Maintain 98% first line management qualifications
285	4	periodic	WHC K-Basins	RCM	Improve ALARA
286	4	periodic	WHC K-Basins	RCM	Periodically evaluate the effectiveness of the practices used to communicate radiological problems to management
287	6	periodic	WHC K-Basins	RCM	Continue to involve HPTs in the revision process of task descriptions
288	6	periodic	WHC K-Basins	RCM	Ensure that results of required surveillances are reviewed by management within 8 hours
289	6	periodic	WHC K-Basins	RCM	Maintain task description program
290	6	periodic	WHC K-Basins	RCM	Professional personnel participate as ALARA committee member
291	1,2,6,8	periodic	WHC K-Basins	RCM	Assist and participate in the Center of Expertise (COE)
292	2,5	periodic	WHC K-Basins	RCM	Conduct quarterly self-assessments including desk instructions, RWPs, work document review, posting, QA, instrumentation, shielding, RPRs, dosimetry, access control, hold points, turnover, respiratory protection, rad areas, source control, housekeeping
293	2,5,6,8	periodic	WHC K-Basins	RCM	Conduct quarterly self-assessments on engineering controls, lessons learned, required

					reading, 10 CFR 835, SRIDs
294	2,5,6,8	periodic	WHC K-Basins	RCM	Conduct quarterly self-assessments on various areas of the K-Basins radiological control program including, but not limited to air sampling, surveys, surveillances, logs, records, OJT, job coverage, radiological material storage, contamination areas
295	6,8	periodic	WHC K-Basins	RCM	Conduct quarterly self-assessments including desk instructions, RWPs, work document review, posting, QA, instrumentation, shielding, RPRs, dosimetry, access control, hold points, turnover, respiratory protection, rad areas, source control, housekeeping
296	2	complete	WHC LEF	RCM	Schedule technical continuing training seminars for the professional staff and promote CHP and NRRPT certification and recertification (WHC Path Forward Action #12)
297	6	9/30/96	WHC LEF	RCM	Replace the existing Level III WHC-CM-4-14 and IP-0718 manuals with facility level implementing procedures as appropriate (WHC Path Forward Action #30)
298	1	complete	WHC LEF	RCM	Establish Facility Interpretive Authority design and implementing processes (WHC Path Forward Action #16)
299	1	complete	WHC LEF	RCM	Implement a process to provide for sound documentation and easy retrievability of RadCon program technical basis (WHC Path Forward Action #19)
300	1	complete	WHC LEF	EJ Adams	Participate in the RadCon Center of Expertise (DOE) (WHC Path Forward Action #4)
301	3	complete	WHC LEF	RCM	Evaluate and document facility Radiological Engineering support functions and requirements (WHC Path Forward Action #17)
302	3	complete	WHC LEF	RCM	Evaluate Radiological Engineering resource acquisition plan (WHC Path Forward Action #18)
303	4	complete	WHC LEF	RCM	Establish and pilot a series of facility RadCon status joint presentations to WHC line management, DOE-RL line management, and DOE-RL program representatives (WHC Path Forward Action #20)
304	2,4	complete	WHC LEF	RCM	Conduct facility management training on facility responsibilities and expectations of the decentralized RadCon Organization (WHC Path Forward Action #22)
305	6	6/30/96	WHC PFP	RCM and Plant Manager	Improve the planning of radiological work
306	6	6/30/96	WHC PFP	RCM	Improve the respirator control program

307	6	6/30/96	WHC PFP Gardner and Carey	Improve the use of radiological performance indicators
308	6	6/30/96	WHC PFP RCM	Rewrite the routine monitoring program to have a more auditable system
309	6	6/30/96	WHC PFP RCM	The Plant Improvement Team (PIT) has been tasked with developing the method of transition to laundered protective clothing
310	8	6/30/96	WHC PFP RCM and Carey	Developed a radiological self-assessment program
311	5,6	6/30/96	WHC PFP RCM	Improve the survey methods being employed by Radiological Control Technicians especially with reference to periodic surveys of Buffer Areas, Contamination Area boundaries, and Step-Off pads
312	2	9/30/96	WHC PFP Radiological Engineering	Improve Radiological Control Technician and RC Staff knowledge of the theory of operation of instrumentation in use
313	4	9/30/96	WHC PFP RCM and Plant Manager	Improve line Management ownership of radiological control requirements improvement plan
314	6	9/30/96	WHC PFP RCM	Develop a system to easily retrieve dose rate and contamination level information
315	6	9/30/96	WHC PFP Wedlick	Evaluate removing the CAMs in the storage vaults
316	6	9/30/96	WHC PFP Radiological Engineering	Improve the ability of radiological workers to handle unexpected radiological events
317	6	9/30/96	WHC PFP RCM Plant Manager	Increase the use of engineered barriers for the control of contamination and airborne radioactivity
318	5,6	9/30/96	WHC PFP Plant Manager	Update monitoring of radiation levels in non-radiological areas
319	6	2/28/97	WHC PFP RCM	Implement the approved downposting plan to reduce posted contamination areas
320	2	5/30/96	WHC PFP RCM and Plant Manager	Improve Duty Radiological Control Manager knowledge of plant operations
321	6	5/30/96	WHC PFP RCM and Plant Manager	Resolve self-survey issues
322	5,6	9/30/96	WHC PFP Engineering Manager	Improve the methods being employed at PFP for monitoring, reporting and protecting personnel from airborne radioactivity
323	1	complete	WHC PFP Lacey/Wedlick	Improve the documentation of implementation of 10 CFR 835 requirements
324	5	complete	WHC PFP RCM	Dosimetry being used by patrol action plan
325	5	complete	WHC PFP RCM	Survey documentation action plan
326	6	complete	WHC PFP RCM and Facility	ALARA process action plan

				Manager	
327	6	complete	WHC PFP	RCM	Continuous Air Monitor alarm response action plan
328	6	complete	WHC PFP	RCM and Plant Manager	Improve radiological work practices
329	6	complete	WHC PFP	RCM and Plant Manager	Include the Radiological Control Organization as a review signatory on Standard Operating Procedures used to perform hands on work with radioactive material
330	6	complete	WHC PFP	RCM	Many areas within the PFP complex are Fixed Contamination Areas, yet the majority of these areas are not posted and controlled as required by the HSRCM
331	6	complete	WHC PFP	RCM	Some stepoff pad/rope configurations are not crisp. The barrier to the Contamination Areas, yet the majority of these areas are not posted in a manner that causes the stepoff pad to be both in and out of the Contamination Area
332	2,6	complete	WHC PFP	RCM and Plant Manager	Improve lessons learned generated from event critiques and occurrence reports
333	4,6	complete	WHC PFP	RCM	Facility/Radiological Control communication enhancement
334	5,6	complete	WHC PFP	Wedlick	Remove the supplemental neutron dosimetry (neutron pencil) from use at the facility. It has not been approved for use by the Hanford Instrumentation Evaluation Committee and has not been calibrated against a known standard
335	6	complete	WHC PFP	RCM and Plant Manager	Lessons learned upgrade
336	6	complete	WHC PUREX	Radiological Engineering	Revise PUREX RadCon corrective action management program to improve prioritization, corrective action assignment, and long term corrective action management
337	8	complete	WHC PUREX	RCM	Develop RadCon self-assessment quarterly schedule, post, track and incorporate self-assessment program
338	2	complete	WHC PUREX	RCM	Provide additional training to RCTs and team workers on RWPs and other observed work practice problems during session with each work team
339	6	5/3/96	WHC PUREX	RCM	Implement a process to incorporate Radiological Engineering controls into field work documents
340	6	5/3/96	WHC PUREX	Radiological Engineering	Test and remove questionable pencil dosimeters from service as the work force decreases
341	3	5/10/96	WHC PUREX	RCM	Develop Radiological Engineering Resource Acquisition Plan to provide appropriate levels

					of technical support. Identify methods and criteria for obtaining assistance and expertise in radiological engineering
342	6	5/10/96	WHC PUREX	RCM and Plant Director	Evaluate and revise as appropriate facility RadCon performance indicators and trending processes. Identify new or modified performance indicators to enhance communications and performance
343	8	5/10/96	WHC PUREX	RCM and Radiological Engineering	Evaluate skills of RCTs, and RadCon Experts to recognize the need for, and incorporate Radiological Engineering into work documents
344	6,8	5/10/96	WHC PUREX	RCM	Perform self-assessments of PUREX Radiological work planning to improve recognition of hazards and processes for incorporating appropriate radiological controls into field work
345	2	5/17/96	WHC PUREX	RCM	Identify areas of improvement for facility radiological operations training. PUREX Radiological Control Technician OJTs and PUREX Specific Radiological Worker Training, will be evaluated
346	6	5/17/96	WHC PUREX	RCM	Prepare monthly RadCon improvement reports by the middle of the month
347	6	5/24/96	WHC PUREX	Project Director	Revise PUREX Radiological work planning to improve recognition of hazards and processes for incorporating appropriate radiological controls into field work
348	2	6/7/96	WHC PUREX	RCM	Complete training/coaching of all PUREX work teams on proper radiation of hazards and processes for incorporating appropriate radiological controls into field work
349	2	6/24/96	WHC PUREX	Project Director	Complete HSRCM Article 651 training for PUREX management
350	2	7/19/96	WHC PUREX	RCM	Develop and provide additional training to PUREX personnel as identified in action item 40 to assure that RCTs have the skills needed
351	4	9/30/96	WHC PUREX	RCM	Maintain visible management involvement, and worker attention to proper work practices
352	6	9/30/96	WHC PUREX	RCM	Achieve technical resolution and procedural implementation of release criteria for alpha contamination in areas with low potential plutonium contamination
353	6	9/30/96	WHC PUREX	RCM	Revise PUREX RadCon procedures as necessary. This includes weekly updates to the RCTs keeping them informed of changing requirements and procedures
354	2	complete	WHC PUREX	Project Director and	Provide "Improving Radiological Operations & Maintenance" (Conduct of Operations) training

355	2	complete	WHC PUREX	RCM RCM	for 50% of facility Radiological workers Provide instruction to RCTs on being proactive work practice deficiencies
356	2	complete	WHC PUREX	RCM	Provide lessons learned to RCTs on correct techniques for technical (100 cm ²) smears for releasing alpha materials. Present technical seminar to RCTs on high energy beta radiation
357	3	complete	WHC PUREX	Project Director	Augment staff with a highly qualified, seasoned Radiological Engineer
358	3	complete	WHC PUREX	RCM	Determine the correct RadCon technical skills mix capabilities needed for PUREX RadCon Technicians, the facility RadCon Manager, RadCon Experts
359	3	complete	WHC PUREX	Project Director	Hire a highly qualified, broadly experienced facility RadCon Manager
360	4	complete	WHC PUREX	Project Director	Appoint the RCM as COE representative
361	4	complete	WHC PUREX	Project Director	Establish management expectations with letter from director and small group sessions
362	6	complete	WHC PUREX	Project Director	Establish pre-job briefing as team leader responsibility. Provide pre-job briefing training to teams
363	6	complete	WHC PUREX	Project Director	Evaluate and improve the RWPs. Change the RWP process based on team findings
364	6	complete	WHC PUREX	RCM	Evaluate ways to improve zone housekeeping. Designate special field days to clean up zones. Include waste handling in work instructions
365	6	complete	WHC PUREX	Project Director and RCM	Implement a Conduct of Ops RadCon work practice champion program and conduct work practice self-assessments
366	6	complete	WHC PUREX	HP Analyst	Perform work practice field observations of work team activities
367	6	complete	WHC PUREX	RCM	Post signs with larger print providing SWP removal instruction at contamination area exits
368	6	complete	WHC PUREX	RCM	Reduce the use of general RWPs and increase use of job-specific RWPs to drive real time ALARA planning and hazard recognition
369	6	complete	WHC PUREX	Project Director	Reengineer organization and work management structure to improve work planning and control
370	6	complete	WHC PUREX	Radiological Engineering	Review and analyze old RadCon deficiencies and corrective actions
371	6	complete	WHC PUREX	RCM	Rewrite procedures and provide instruction on how to decrease surveying of materials being placed in burial boxes
372	6,8	complete	WHC PUREX	RCM	Implement program of RCT observation of worker SWP removal and frisking

373	6	n/a	WHC PUREX	RCM	Develop a PUREX RadCon Procedure revision plan. This plan will identify needs after procedures, requirements, and the planned changes/location of the requirement (requirement matrix) is identified
374	6	n/a	WHC PUREX	RCM	Identify changes to PUREX RadCon Procedures to meet the new COE site consistency standards (WHC-CM-4-27)
375	5	complete	WHC SA&SS	RCM	Develop a technical justification for documentation of verification survey methods and results
376	6	complete	WHC SA&SS	RCM	Develop a process specifically addressing how SA&SS RC will incorporate ALARA and radiological control requirements into procedures, and technical work documents
377	8	complete	WHC SA&SS	RCM	Develop/implement a self-assessment program for the RC group in cooperation with line management with the main focus on work planning, ALARA and work practices
378	8	complete	WHC SA&SS	RCM	Develop/implement an RC management/exempt level self-assessment program which would focus on radiological program requirements and conduct of operations
379	5,6	complete	WHC SA&SS	RCM	Develop and issue a SA&SS RC conduct of operations letter to be issued to the organization clearly stating the expectations for documentation and procedure compliance
380	8	5/31/96	WHC SA&SS	1st Line RCM Managers	Review where appropriate, all Required Surveillance Action Levels to correspond with survey methodology chosen
381	6	7/30/96	WHC SA&SS	RCM	Develop a SA&SS RC conduct of operations procedure for inclusion in the SA&SS RC procedures manual
382	1	9/30/96	WHC SA&SS	RCM	Develop a procedure manual for SA&SS RC which incorporates the site consistency standards and all procedures that SA&SS RC require for compliance with WHC Radiation Protection Program Implementation of 10 CFR 835
383	1,2	9/30/96	WHC SA&SS	1st Line RCM Managers	Perform an assessment of each groups OJT program to ensure tasks no longer covered by a procedure, that require guidance for HPTs are incorporated into the OJT program
384	0	complete	WHC SA&SS	RCM	Develop a PBI for Technical training seminar attendance and CHP/NRRPT certification
385	0	complete	WHC SA&SS	RCM	Develop SA&SS RC professional staff resource acquisition plan
386	1	complete	WHC	RCM	Evaluate and document SA&SS RC

			SA&SS		requirements for Radiological Engineering support functions
387	3	complete	WHC SA&SS	RCM	Determination of the technical skills mix/capabilities needed for SA&SS RC
388	6	complete	WHC SA&SS	1st Line RCM Managers	Prepare and conduct a training class for SA&SS RC documentation reviewers which details requirements and expectations
389	6	complete	WHC SA&SS	RCM	Prepare and submit a Technical Equivalence Document for the posting of "Underground Radioactive Material" areas in the 300 Areas
390	6	complete	WHC SA&SS	RCM	Resolve the TEDF posting issue with the RC Interpretive Authority and issue a position paper detailing requirements
391	2	TBD	WHC SA&SS	RCM	Assist training with the necessary resources in the development of the task analysis for all identified training deficiencies
392	6	TBD	WHC SA&SS	RCM	Assist in the development of site wide RC emergency responses requirements (i.e., decontamination facilities, emergency contact lists, communications, etc.)
393	5	9/30/96	WHC WRAP	RCM	Replace the existing Level III WHC-CM-4-14 and IP-0718 manuals with facility level implementing procedures as appropriate (WHC Path Forward Action #30)
394	2	complete	WHC WRAP	RCM	Schedule training continuing training seminars for the SWM/WRAP-1 RadCon professional staff and promote CHP and NRRPT certification and recertification (WHC Path Forward Action #12)
395	1	complete	WHC WRAP	RCM	Establish Facility Interpretive Authority designees for SWM/WRAP-1 and implementing process (WHC Path Forward Action #16)
396	1	complete	WHC WRAP	RCM	Implement a process to provide for sound documentation and easy retrievability of RadCon program technical basis (WHC Path Forward Action #19)
397	1	complete	WHC WRAP	RCM	Participate in the RadCon Center of Expertise (COE) (WHC Path Forward Action #4)
398	3	complete	WHC WRAP	RCM	Evaluate and document SWM/WRAP-1 Radiological Engineering support functions and requirements (WHC Path Forward Action #17)
399	3	complete	WHC WRAP	RCM	Evaluate Radiological Engineering resource acquisition plan for SWM/WRAP-1 (WHC Path Forward Action #18)
400	4	complete	WHC WRAP	RCM	Establish and pilot a series of facility RadCon status joining presentations to WHC line

					management, DOE-RL line management, and DOE-RL program representatives (WHC Path Forward Action #20)
401	1,2	complete	WHC WRAP	RCM	Conduct facility management training on facility responsibilities and expectations of the decentralized RadCon Organization (WHC Path Forward #22)
402	2	complete	WHC T-Plant	RCM	Schedule technical continuing training seminars for the T-Plant RadCon professional staff and promote CHP and NRRPT certification and recertification (WHC Path Forward Action #12)
403	6	9/30/96	WHC T-Plant	RCM	Replace the existing Level III WHC-CM-4-14 and IP-0718 manuals with facility level implementing procedures as appropriate (WHC Path Forward Action #30)
404	1	complete	WHC T-Plant	RCM	Establish Facility Interpretive Authority design and implementing processes (WHC Path Forward Action #16)
405	1	complete	WHC T-Plant	RCM	Implement a process to provide for sound documentation and easy retrievability of RadCon program technical basis (WHC Path Forward Action #19)
406	1	complete	WHC T-Plant	EJ Adams	Participate in the RadCon Center of Expertise (COE) (WHC Path Forward Action #4)
407	2	complete	WHC T-Plant	RCM	Conduct facility management training on facility responsibilities and expectations of the decentralized RadCon Organization (WHC Path Forward Action #22)
408	3	complete	WHC T-Plant	RCM	Evaluate and document T-Plant Radiological Engineering support functions and requirements (WHC Path Forward Action #17)
409	3	complete	WHC T-Plant	RCM	Evaluate Radiological Engineering resource acquisition plan for SWDRC (WHC Path Forward Action #18)
410	4	complete	WHC T-Plant	RCM	Establish and pilot a series of facility RadCon status joint presentations to WHC line management, DOE-RL line management, and DOE-RL program representatives (WHC Path Forward Action #20)
411	6	complete	WHC West Tank Farms	DJ Bracamontes	Track and trend data from scheduled surveillance program
412	6	5/6/96	WHC West Tank Farms	Project Management Team	Improve housekeeping in radiological areas, radiological buffer areas and change trailers
413	2,6	6/1/96	WHC	RCM	Implement the use of the PCM-1B, or

			West Tank Farms		equivalent system, as a personnel release instrument
414	6	6/28/96	WHC West Tank Farms	RL Brown	Assess work air sampling
415	6	6/28/96	WHC West Tank Farms	Central Task Team	Determine appropriate specifications for the radiological posting signs to be used to minimize weather and wind effects
416	5,6	7/31/96	WHC West Tank Farms	RJ Rohner	Implement effective program to ensure that appropriate release surveys requirements are in place
417	2,6	8/1/96	WHC West Tank Farms	Project Management Team	Implement a process for implementing radiological engineering controls into field work documents
418	6	10/1/96	WHC West Tank Farms	Operation and RadCon	Establish a radioactive material storage program
419	6	10/1/96	WHC West Tank Farms	Project Management Team	Implement facility RadCon reviews of facility operating procedures
420	2	11/1/96	WHC West Tank Farms	RCM	Develop radiological training modules
421	2	complete	WHC West Tank Farms	SL Bump	Increase the management attention to training and reduce turnover of personnel
422	4,8	complete	WHC West Tank Farms	DJ Bracamontes	Implement a comprehensive self-assessment program
423	5,8	complete	WHC West Tank Farms	GH Miller and RJ Rohner	Improve radiological control instrument control
424	6,7	complete	WHC West Tank Farms	RCM	Improve radiological issues management and tracking system

ALARA As Low As Reasonably Achievable PAR Post ALARA Review

AM	Assistant Manager	PBI	Program Baseline Integration
AMW	ALARA Management Worksheet	PCM	Personnel Contamination Monitor
ANAL	Analytical	PFP	Plutonium Finishing Plant
ARA	Airborne Radiation Areas	PIC	Person-In-Charge
AS	Analytical Services	PIT	Plant Improvement Team
BHI	Bechtel Hanford, Inc.	PNNL	Pacific National Northwest Laboratory
CAM	Continuous Air Monitor	PUREX	Plutonium Uranium Extraction (Facility)
CAR	Corrective Action Report	QA	Quality Assurance
CFR	Code of Federal Regulations	QSH	Quality, Safety & Health Programs Division
CHP	Certified Health Physicist	RA	Radiation Area
CM	Control Manual	RADCON	Radiological Control
COE	Center of Expertise	RBA	Radiological Buffer Area
CPO	Characterization Project Operations	RC	Radiological Control
CSG	Central Support Group	RCM	Radiological Control Manager
CY	Calendar Year	RCT	Radiological Control Technician
EI	Engineering Instruction	REM	Radiological Engineering Manager
ERC	Environmental Restoration Contractor	RL	U.S. Department of Energy, Richland Operations Office
ES&H	Environment, Safety and Health	RMA	Radioactive Material Areas
FEB	Facility Evaluation Board	RPR	Radiological Problem Report
FFTF	Fast Flux Test Facility	RSO	Radiological Safety Officer
GERT	General Employee Radiological Training	RWP	Radiation Work Permit
GOCO	Government-owned contractor, company, or corporation	SA&SS	Southern Areas and Support Services
HATS	Hanford Action Tracking System	SCA	Surface Contamination Area
HCA	High Contamination Area	SRID	Standard Requirement Identification Document
HP	Health Physics	SWM	Solid Waste Management
HPT	Health Physics Technician	SWP	Special Work Permit
HQ	U.S. Department of Energy, Headquarters	TBD	To be determined
HRA	High Radiation Area	TEDF	Treated Effluent Disposal Facility
HRSCM	Hanford Site Radiological Control Manual	TS	Technical Support
IA	Interpretative Authority	WESF	Waste Encapsulation and Storage Facility
IP	Implementation Plan	WHC	Westinghouse Hanford Company
JCS	Job Control System	WRAP	Waste Repackaging and Processing (Facility)

LEF Liquid Effluent Facilities
LM Line Management
MOAP Management Oversight and
Assessment Program
MOU Memorandum of Understanding
NRRPT National Registry of Radiation
Protection Technologists
OJT On-the-Job-Training
ORPS Occurrence Reporting and Processing
Facility
OSR Operating Safety Requirements