96-0002227

**Department of Energy**
Washington, DC 20585

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

96/2227



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

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(04/93)

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# memorandum

Richland Operations Office

DATE: MAY 2 1996
REPLY TO ATTN OF: QSH:BMP

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
M. Gavrilas-Guinn, EM-25
R. Jones, EH-52
T. O'Toole, EH-1
J. Tseng, EM-4
M. Whitaker, S-3.1

***TAB***

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.

Attachments: 2

QSH:BMP
4/26/96

# ATTACHMENT 1

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.

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

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

- o 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.

o Planned Short Term Item:

- Three project managers within the Assistant Manager for Environmental Restoration (AME) 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.

o 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.

o 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.

- o 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.

- o 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 AME technical staff during November-December 1995.

- o 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, self-study, 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:

      o 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:

- o 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.

- o 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 theirorganizations. These POCs are a part of the RL team working with ESH on radiological control improvements at Hanford.

- o 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:

      o 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:

      o WHC will implement an initial normalized performance indicator system (complete).

      o 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.

QSH:BMP
4/26/96

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 Pangborn | Refine the radiological controls draft training course developed by RL-ESH staff. Adopt the course as a requirement for the Facility Representative qualification program. |
| 8 | 2 | 5/31/96 | RL | B Pangborn | Develop criteria for selecting the target population to be provided with the upgraded radiological controls training course. |
| 9 | 2 | ongoing | RL | B Pangborn | 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 normalized performance indicators to be used by FY 1997 in monitoring the radiological control program at Hanford. |

# 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 from 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 of 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 |

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| | | | | | |
|---|---|---|---|---|---|
| 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 presentations, etc., in conjunction with "Safely Speaking" to advertise goals, successes, and areas for improvement; utilize project managers 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 "Safely 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 and work package development. A sign-off line will be added to the package for a craft representative to sign |

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| 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 a listing of all applicable procedures and implementing documents at process 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 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 | BHI | 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 | 5/31/96 | 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). |

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| 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 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 manage, 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 (1.02.2.6.1.01). |
| 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 and 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 (1.02.3.03). |
| 85 | 5 | complete | PNNL | Internal Dosimetry | Internal 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).. |
| 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). |

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| 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 (1.02.2.5.1.02). |
| 102 | 1,6 | complete | PNNL | RC, LM | RCTS prepare an operating procedure & training module for access control; 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). |

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| 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 an 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. |

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| 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 ANAL | DS Mantooth | Prepare technical basis documents. |
| 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. |

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| 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 RAs, HRAs, HCAs, ARAs. |
| 166 | 8 | 5/3/96 | WHC B-Plant WESF | DD Beers | Perform an audit of RadCon routines and 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 HSRCM 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 FY96. |

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| 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 configuration. |
| 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 WESF | RJ Williams | Complete RadCon First Line Manager Certifications. |
| 195 | 2 | complete | 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 and facility responsibilities Line Managers and expectations created by the decentralization of Site RadCon. |

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| 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 upgraded 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 responsibility. |
| 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. |

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| 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 WESF | Plant Director | Identify crucial, top level RadCon program 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 Shuford | 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. |

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| 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 the 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 | L A 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 HSRCM training for non radiological control personnel. |

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| 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-Basins | RCM | Ensure all task descriptions reference the 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 of completion. |
| 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. |

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| 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 designees 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 | E. J. Adams | Participate in the RadCon Center of Expertise (COE)(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. |

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| 317 | 6 | 9/30/96 | WHC PFP | RCM and 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 | Upgrade 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 Manager | ALARA process action plan. |
| 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 Area is sometimes placed 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. |

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| 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 zone work practices and techniques as part of RadCon Conduct of Ops Champions Program. |
| 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 RCM | Provide "Improving Radiological Operations & Maintenance" (Conduct of Operations) training for 50% of facility Radiological workers. |
| 355 | 2 | complete | WHC PUREX | RCM | Provide instruction to RCTs on being proactive to work practice deficiencies. |
| 356 | 2 | complete | WHC PUREX | RCM | Provide lessons learned to RCTs on correct techniques for technical (100 cm2) 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. |

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| 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 into 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 the 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. |

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| 385 | 0 | complete | WHC SA&SS | RCM | Develop SA&SS RC professional staff resource acquisition plan |
| 386 | 1 | complete | WHC SA&SS | RCM | Evaluate and document SA&SS RC 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 Area. |
| 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 response requirements (i.e., decontamination facilities, emergency contact lists, communications etc.). |
| 393 | 5 | 9/30/96 | WHC SWM 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 SWM WRAP | RCM | Schedule technical 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 SWM WRAP | RCM | Establish Facility Interpretive Authority designees for SWM/WRAP-1 and implementing processes (WHC Path Forward Action #16). |
| 396 | 1 | complete | WHC SWM 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 SWM WRAP | RCM | Participate in the RadCon Center of Expertise (COE)(WHC Path Forward Action #4). |
| 398 | 3 | complete | WHC SWM WRAP | RCM | Evaluate and document SWM\WRAP-1 Radiological Engineering support functions and requirements(WHC Path Forward Action #17). |
| 399 | 3 | complete | WHC SWM WRAP | RCM | Evaluate Radiological Engineering resource acquisition plan for SWM/WRAP-1 (WHC Path Forward Action #18) |
| 400 | 4 | complete | WHC SWM WRAP | 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). |
| 401 | 1,2 | complete | WHC SWM WRAP | RCM | Conduct facility management training on facility responsibilities and expectations of the decentralized RadCon Organization (WHC Path Forward Action #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 designees 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). |

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| 406 | 1 | complete | WHC T-Plant | E. J. 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 West Tank Farms | RCM | Implement the use of the PCM-1B, or 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. |

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| 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 | Environmental Safety & 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 |
| HSRCM | 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 System | | |
| OSR | Operating Safety Requirements | | |