

United States Government

Department of Energy

Hanford Site

memorandum

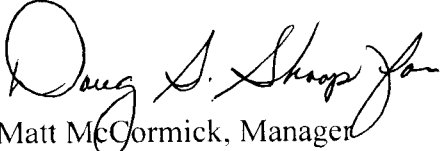
DATE: AUG 30 2010
REPLY TO
ATTN OF: SED:PJG/10-SED-0161


SUBJECT: CORRECTIVE ACTION PLAN IN RESPONSE TO OFFICE OF HEALTH, SAFETY
AND SECURITY (HSS) BERYLLIUM ASSESSMENT

TO: I. R. Triay, Assistant Secretary
for Environmental Management, EM-1, HQ

Attached please find the Richland Operations Office (RL)/Office of River Protection (ORP) Corrective Action Plan (CAP) developed in response to the HSS beryllium inspection at Hanford. This CAP was developed in conjunction with the Hanford Atomic Metals Trade Council and the Beryllium Awareness Group, and the President and Chairperson, respectively, of those organizations are signatories to the list of corrective actions contained within the CAP. RL and ORP provided briefings to HQ staff from EM and HSS during the development of this CAP, including a site visit by EM-HQ staff. Briefings were also provided to the Hanford Advisory Board and HSS during the development of the CAP. As this CAP contains many actions and associated due dates, RL and ORP request EM approval at your earliest convenience. Once the CAP is approved, RL, ORP and the affected contractors will enter the appropriate actions into their respective corrective action management systems and track actions to closure.

If you have any questions, please contact us, or you may contact Doug Shoop, RL Deputy Manager, on (509) 376-7395.


Matt McCormick, Manager
Richland Operations Office


David A. Brockman, Manager
Office of River Protection

Attachment

cc w/attach:
S. S. Patel, EM-51
C. D. West, EM-51

Corrective Action Plan

Independent Oversight Inspection of the Hanford Site Chronic Beryllium Disease Prevention Program




August 2010

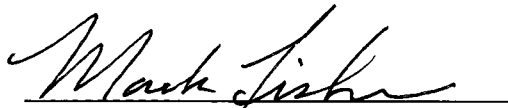
Corrective Action Plan


Independent Oversight Inspection of the Hanford Site Chronic Beryllium Disease Prevention Program

The corrective actions contained within this Corrective Action Plan were developed in coordination with the Richland Operations Office, Office of River Protection, Beryllium Awareness Group, and Hanford Atomic Metal Trades Council.


Matt McCormick, Manager
Richland Operations Office


David A. Brockman, Manager
Office of River Protection


Mark Fisher, Chairman
Beryllium Awareness Group


Dave Molnaa, President
Hanford Atomic Metal Trades Council

Executive Summary

The DOE Headquarters Office of Health Safety and Security (HSS) conducted an assist visit to evaluate the status of implementation of the Hanford Site Chronic Beryllium Disease Prevention Program (CBDPP). The visit was conducted over a 3 month timeframe, beginning in February of 2010 and concluding with the issuance of the inspection report on June 2, 2010. The report identified 4 Findings and 12 Cross-Cutting Opportunities for Improvement (OFIs), which are discussed in detail in the following sections of this Corrective Action Plan (CAP). The CAP also addresses the contractor specific recommendations and appropriate cross-cutting recommendations contained in the appendices of the report.

During the course of the assist visit, RL and ORP identified necessary actions for DOE and the site contractors based on out-briefs conducted by the inspection team. Several quick fix items were identified and implemented by RL and ORP. A letter of direction was sent to the site contractors involved in the visit that contained 11 specific actions to be completed within 30 days of the letter and instructions to develop implementation plans for 4 other actions. Those actions have been completed and verification of completion was performed by RL and ORP.

Upon issuance of the final report, RL and ORP directed the affected site contractors to identify dedicated resources to participate in the development of this CAP. DOE also directly involved representatives from the Beryllium Awareness Group (BAG) and the Hanford Atomic Metals Trade Council (HAMTC) in the development of the CAP. The Hanford Advisory Board (HAB) is being provided regular status briefings by RL and ORP, which is the level of involvement requested by the HAB Chairperson.

RL and ORP are committed to addressing the Findings, OFIs, contractor specific recommendations, as well as the applicable OFIs in Appendix H, contained in the HSS report. Each Finding, OFI and recommendation was identified, binned, and assigned a specific identifier. Each of these specific elements will have a responsible individual, start date, and completion date, as documented in this CAP. The attached spreadsheet provides the specific action to be implemented, responsible organization and staff, and start and end dates. Table 1 provides a general description of the areas covered by the Findings and OFIs.

Table 1

Findings	OFIs
Beryllium Inventory and Assessment	Hanford-wide CBDPP Implementation Plan
Beryllium Training	Communication
Beryllium Epidemiological Analysis	CBDPP Improvement Plan Effectiveness
Beryllium Work Controls	Medical Surveillance, Medical Removal, and Counseling

RL has established an Independent Beryllium Oversight Team (IBOT), under the direction of the RL Quality Assurance Manager, to assist RL and ORP during the implementation of this CAP by conducting closure verification audits, independent sampling and other oversight responsibilities as assigned by the QA Manager. RL has directed the Mission Support Contractor to obtain independent resources to support the IBOT.

Implementation of the majority of the corrective actions contained in this CAP is expected to take six months from the date of EM HQ approval and HSS concurrence of the CAP. RL/ORP, or the affected contractors, will verify closure of each CAP item, and will conduct effectiveness reviews to ensure corrective actions have properly addressed the Findings and OFIs in the HSS report. An additional three months may be needed to address any additional actions identified by these effectiveness reviews. During this timeframe, RL and ORP will provide updates to EM HQ. At the conclusion of this period, RL and ORP will extend an invitation to the HSS team to re-evaluate the implementation of the Hanford Site CBDPP.

Introduction

An independent inspection was conducted by the U.S. Department of Energy (DOE) Office of Health, Safety and Security (HSS) at the request of the Assistant Secretary for Environmental Management (EM) in response to concerns regarding the adequacy of implementation of the Hanford Site chronic beryllium disease prevention program (CBDPP). This CBDPP was developed as the implementing document for the requirements of the beryllium rule – 10 CFR 850, *Chronic Beryllium Disease Prevention Program*.

The inspection focused on the implementation of the current Hanford Site CBDPP, which covers the four EM operating contractors – CH2M-Hill Plateau Remediation Company (CHPRC), Mission Support Alliance (MSA), Washington Closure Hanford (WCH), and Washington River Protection Solutions (WRPS) – and the site medical contractor, AdvanceMed Hanford (AMH). The inspection evaluated the current practices for protecting workers against beryllium hazards at the Hanford Site and the beryllium medical surveillance programs for current workers. The inspection was conducted in a transparent manner that engaged representatives of various stakeholder groups, including the HAB, the BAG, and the HAMTC. Independent medical and technical experts from National Jewish Hospital and Simon Fraser University were included on the HSS team to further bolster independence and technical credibility.

The inspection resulted in 4 Findings and 12 Cross-Cutting Opportunities for Improvement (OFI):

Finding #1: RL and ORP have not ensured that contractor baseline beryllium inventory and hazard assessments have been completed, as required by 10 CFR 850.20, 10 CFR 850.21, and the corresponding portions of the CBDPP.

Finding #2: RL and ORP have not ensured that several categories of workers at the Hanford Site are receiving the minimum beryllium-related training, as required by 10 CFR 850.37 and 10 CFR 851.25.

Finding #3: AMH has not always analyzed medical, job, and exposure data for employees diagnosed as sensitized or having CBD and thus is not collecting information needed to identify workers at risk

for exposure, understand the beryllium health risks, and identify appropriate actions to improve the CBDPP, as required by the CBDPP, 10 CFR 850.39, and 10 CFR 850.34.

Finding #4: WRPS, CHPRC, MSA, and WCH have not ensured that their work planning and control processes and their implementation of those processes in beryllium-controlled facilities and areas are sufficient to fully ensure protection of workers, co-located employees, and transient personnel, as required by 10 CFR 850.22 through 10 CFR 850.30, 10 CFR 850.38, and the corresponding portions of the CBDPP.

OFI #1: RL should promptly direct AMH to develop a comprehensive improvement plan that addresses the deficiencies and opportunities for improvement identified in this report.

OFI #2: RL and ORP should promptly direct operating contractors to identify and prioritize identified deficiencies (including those identified in this report and others identified by other assessments or gap analyses) and, where warranted, develop timely corrective actions and/or interim protective measures.

OFI #3: On a priority and risk basis, RL and ORP should require operating contractors to develop and implement comprehensive implementation plans for completing efforts to achieve full and effective implementation of the site CBDPP.

OFI #4: RL and ORP should consider ensuring that site contractors strengthen their processes for baseline beryllium inventories and hazards assessments.

OFI #5: RL, ORP, and contractor organizations should determine methods to strengthen assessment and issues management processes for beryllium processes and activities.

OFI #6: RL, ORP, and contractor organizations should identify appropriate timely actions to ensure that accurate information about beryllium is available.

OFI #7: To ensure the long-term effectiveness of the CBDPP, RL and ORP should consider further formalizing expectations and governance of the CBDPP (i.e., maintenance and implementation).

OFI #8: RL and ORP should identify actions to improve communications with stakeholder organizations and use their feedback and experience as a resource to improve the Hanford Site CBDPP.

OFI # 9: RL should strengthen support mechanisms and communications with beryllium-affected workers.

OFI #10: RL, ORP, and contractor organizations should identify actions to raise site managers' and supervisors' awareness of the risks to workers associated with legacy beryllium contamination and to build trust among workers.

OFI #11: DOE line management should ensure that adequate assessments of the CBDPP are performed.

OFI #12: EM should closely monitor site progress in implementing and improving the CBDPP at the Hanford Site and take an active role in ensuring timely and effective implementation. This OFI is not addressed by this CAP.

Corrective Action Methodology

A process based on DOE O 470.2B, Independent Oversight and Performance Assurance Program, Attachment 2, Contractor Requirements Document was used by RL and ORP to develop this CAP. The following key steps define the process:

- Examination of the findings statements and supporting data documented in the report.
- Determination of the causal factors for each finding.
- Development of corrective actions for the findings and OFIs.
- Assignment of responsibilities for the corrective actions.
- Development of an Oversight Plan to provide identification of performance expectations and measures to monitor corrective action effectiveness.
- Final acceptance of the CAP by RL/ORP prior to submittal to EM-HQ for approval.

Additionally, RL and ORP developed a strategy to address each OFI and each recommended actions attributed to each site contractor in the appendices of the report.

Corrective Action Plan Development

RL and ORP evaluated the corrective actions in this CAP to ensure that all the specific details of the findings and OFI statements in the report are addressed. RL/ORP and the affected contractors performed a root cause analysis to determine that, collectively, the corrective actions will address CBDPP programmatic weaknesses and therefore will resolve, and prevent recurrence, of the findings.

Corrective Action Plan Structure

The CAP structure is as follows:

Identifier: F-1, F-2, etc. is the identifier sequence for the findings with OFIs being identified in the same method, e.g. OFI-1, OFI-2, etc.

Finding/OFI Statement: Finding or OFI as stated in the report.

Finding/OFI Manager: Individual accountable for closure of the finding or OFI.

Analysis Results: A summary of the assignment of causal factors and other supporting information. This activity was performed only for the findings identified in the report.

Extent of Condition Review: A summary of the review performed to identify the scope and depth of the issue within the appropriate contractor or DOE organization. This activity was performed only for the findings identified in the report.

Corrective Actions: Table showing descriptions of corrective actions taken or to be taken, deliverable, action owner, planned completion date, and what actions(s) will be taken to address performance measurement and effectiveness verification.

Review and Approval of Contractor Corrective Actions

This CAP was a collaborative effort between RL, ORP, the BAG, HAMTC, AMH, CHPRC, MSA, WCH and WRPS in order to achieve consistency in the methodology used to evaluate the report, evaluate the findings and OFIs, identify the causal factors and the develop corrective actions. The BAG and HAMTC actively participated in the development, review and concurrence with this CAP. Their participation was invaluable in assuring all concerns were properly addressed and to help gain acceptance by the workforce and other stakeholders. RL and ORP provided EM headquarters regular status updates during the development of this CAP, including an update to Headquarter EM staff during a site visit. Status briefings were also provided to members of the Hanford Advisory Board (HAB) and HSS staff.

Corrective Action Plan Reporting and Closure

The affected site contractors will enter the corrective actions identified for findings and OFIs into their respective corrective action management systems. Actions will be tracked and verified in accordance with contractor specific procedures.

RL and ORP will enter the corrective actions identified for RL and ORP findings and OFIs into the RL and ORP corrective action management systems to monitor implementation progress. RL and ORP will track all CAP actions through project management mechanisms and provide quarterly reporting of CAP progress to EM Headquarters.

Effectiveness Verification of Corrective Actions

Effectiveness reviews will be performed by the assigned contractor or DOE organization as outlined in the Independent Beryllium Oversight Plan. The effectiveness reviews will be conducted after the associated actions are completed and sufficient time has passed to verify corrective actions have precluded recurrence. These reviews can be done by any approved methodology as deemed appropriate by the Finding Owner. Individuals that are assigned to lead these reviews will be independent of the responsibility for the corrective actions contained in the CAP.

RL/ORP or contractor independent oversight organizations will verify the completion of each action in the CAP as appropriate. In addition, RL/ORP will request that HSS perform a final, independent effectiveness review of the completed actions. The Office of Standards and Quality Assurance (EM-23) onsite representative will evaluate closure verification activities in coordination with the IBOT and RL Quality Assurance Manager. Continued evaluation of the effectiveness of the Hanford Site CBDPP will be conducted through the Integrated Safety Management System process and regular oversight activities performed by RL, ORP, the IBOT and contractor management self-assessment groups.

Causal Analysis

As requested in the HSS report, RL/ORP and the site contractors performed Causal analysis of the applicable findings. RL/ORP performed this analysis for Findings 1 and 2, AMH for Finding 3 and the remaining contractors for Finding 4. The following information was extracted from the Causal analysis reports prepared by each party. The entire reports are available for review.

Finding F-1 (RL, ORP)

Finding ID: F-1

Finding Statement:

RL and ORP have not ensured that contractor baseline beryllium inventory and hazard assessments have been completed, as required by 10 CFR 850.20, 10 CFR 850.21, and the corresponding portions of the CBDPP.

Finding Manager: Pete Garcia, Division Director, Safety and Engineering Division

Analysis Results:

This was the first formal independent assessment of the newly generated site-wide CBDPP. However, an earlier review of the Hanford beryllium program was conducted by the Hanford Joint Council for Resolving Employee Concerns, which issued an assessment report on March 23, 2002. The report was used as the basis for performing a root cause analysis and for developing corrective actions to fix the problems identified in the report. There was later an independent assessment conducted by FHI to determine if the corrective action process had been effective for the CBDPP issues identified. That report listed 4 findings and 10 observations that were subsequently analyzed and corrected. Some of the same issues, or types of issues, were identified in the HSS report.

The single site-wide CBDPP was approved in May, 2009. However the individual contractors used procedures to implement the portions they believed applied to them, which led to an inconsistent implementation approach and concern among the stakeholders that the process was inadequate. The very nature of the regulation, which is performance based for some requirements, leads to interpretation. Interpretations are by nature subjective and open to dispute. The process used to develop the site-wide program was not adequately coordinated with external stakeholder organizations and thus did not adequately reflect their expectations. A lack of appropriate DOE guidance also contributed to this issue (A4B1C01).

The DOE field element offices RL and ORP conducted formal surveillances and Operational Awareness reviews over the period of 5 years from January 2005 to February 2010. While deficiencies were noted, most notably the issue on training which surfaced again during the HSS assessment, they were resolved and the programs implemented by the site contractors were believed

to be adequate. This leads to the conclusion that the corrective actions for these previously identified problems or events were not adequate to prevent recurrence (A4B1C09). In addition, it also indicates that the oversight processes used to monitor these activities did not identify the problems documented by the HSS team in the inspection report (A4B1C04).

RL and ORP office resources are in place to ensure contractor performance. These resources spend many hours reviewing programs and data to complete assessments and oversight reviews. These resources were also utilized for responding to issues associated with issuance of the new Hanford operating contracts. This competition for resources took away from the primary duties of ensuring the contractors were performing adequately in many aspects (A4B2C03).

The American Recovery and Reinvestment Act of 2009 provided funding to accelerate cleanup of some areas of the Hanford site. This funding started to arrive for implementation in about April of 2009. The nature of the work to be performed under this act includes complex and dangerous work to be performed by new workers, some of which have little or no experience at the Hanford site. The priority for some of the resources was shifted to ensure the new projects received adequate oversight to ensure the worker's safety. The need for additional personnel to perform oversight was noted and resources were requested, only to be denied. Thus it was not an unknown problem, but one that had to be dealt with (A4B2C05).

To ensure consistency across the Hanford site, a mandatory Site-Wide CBDPP was put into development starting in August of 2008. Development of this program was monitored closely by the DOE RL and ORP SMEs to ensure the requirements of 10 CFR 850 were addressed by the program. This was believed to be an effort that resulted in an adequate program being issued for implementation on June 16, 2009 (A4B1C01). However, the HSS investigation determined it was less-than-adequate (LTA).

The Hanford Advisory Board provided input into what they believed were inadequacies in the CBDPP implementation and the Beryllium worker compensation program. These letters were reviewed, analyzed and responses made. The reply from the HAB indicated they did not believe the responses were adequate, and that additional actions were still required. The DOE belief that the site-wide contractor CBDPP met the requirements of 10 CFR 850 perhaps clouded the responses.

The implementation of the CBDPP was directed by individual letter to the contractors by both RL and ORP. The contractor responses provided were mainly dealing with contract issues, not specifics on implementation. MSA letter MSA-0900129 provided the requested Integrated Implementation Plan. This plan was not accompanied by any meaningful gap analysis or significantly thought out resource loading. The oversight effort did not detect an issue with this process. Partly because of the perception that each contractor had a CBDPP process that was being adequately implemented, no additional specific oversight was scheduled to assess the development of the processes required to implement the new Site-Wide CBDPP.

Root Causes:

The methodology used for this Root Cause Analysis, Event and Causal Factor charting, along with the "Why" staircase, identified a combination of A4B1C01, A4B1C04, and A4B1C09 as root/apparent causes.

A4B1C01 is defined as a lack of understanding of existing policy and/or expectations, policy/expectations were not well-defined, or policy/expectation were not enforced. The CBDPP

was believed to be adequate to ensure compliance with the 10 CFR 850 performance based requirements. Based on the existing guidance, the DOE SMEs monitoring the development of the CBDPP believed the rule was adequately addressed by the site-wide CBDPP. That belief was supported by the fact that no significant issues were identified during routine surveillances and awareness reviews. Following the 2002 Hanford Joint Council report, issues that surfaced were relatively minor and didn't appear to indicate a significant weakness in the program itself. Many of the issues identified in the HSS report resulted from expectations for complying with performance based aspects of the rule that were not clearly articulated in the existing guidance. This causal factor was therefore determined to be a root cause.

A4B1C04 is defined as management follow-up or monitoring of activities did not identify problems. Had RL and ORP assessments and other oversight processes indicated consistent issues with the CBDPP implementation across the site, more attention would have been brought to bear on the implementation of the site-wide program developed. In addition, since the program was replacing an existing program for each contractor which was thought to be adequate, more frequent or in-depth monitoring was not scheduled or performed. Had the monitoring process been more proactive for the CBDPP, the shortcomings of the implementation would have been eliminated or significantly reduced. This causal factor was therefore identified as a root cause.

A4B1C09, defined as the corrective action for a previously identified problem or event was not adequate to prevent recurrence, was considered as a potential root cause. The base finding had been identified during earlier RL oversight and corrective actions implemented. However, the contractor failed to maintain the corrective actions through contract transitions. Had the corrective actions been maintained, this issue should have been eliminated or severely mitigated. It was not; therefore, this is being listed as a root cause.

A4B2C03 is defined as insufficient manpower to support identified goal / objective. Because resources were shifted to provide oversight for the major contract shift for operations at Hanford, there was less time available to ensure adequate oversight of site programs. While this may have mitigated the problem, the lack of depth on the oversight process as listed above would still have resulted in the problem identified. Therefore this causal factor is listed as a contributing cause.

A4B2C05 is defined as needed resource changes not approved/funded. RL/ORP recognized a need for more resources to ensure adequate oversight of both the normal contractor work and the additional work that was being brought in with the ARRA contracts. The request for additional resources was not granted. Because of this, existing resources were siphoned off to do double duty in monitoring ARRA issues and following contract transition issues. In-depth monitoring of the implementation of the CBDPP was not feasible due to competing priorities. Additional personnel would have allowed a better review of the implementation; however, the lack of depth on the oversight process as listed above would still have resulted in the problems identified. Therefore this causal factor is listed as a contributing cause.

Extent of Condition Review:

The Root Cause Team determined the extent of condition to be implementation of the requirements of 10 CFR 850 at the Hanford Site.

Corrective Actions:

1. For Root Cause A4B1C01 (Management Policy Guidance/expectations not well defined, understood or enforced), RL/ORP needs actions to correct the following:

- *Involvement of stakeholder/customers with the HSS technical experts to help assure that appropriate corrective actions are identified in the Corrective Action Plan (CAP).*

Corrective Action: RL/ORP will seek to involve Hanford stakeholder groups (BAG, HAMTC and HAB) during the development of the CAP for the HSS report. RL/ORP will also involve EM and HSS headquarters personnel during the development of the CAP and Oversight Plan. RL/ORP will obtain concurrence on the CAP from the BAG and HAMTC. RL/ORP will request that EM approve the CAP and HSS concur on the CAP.

Deliverable: Final CAP approved by EM-HQ, with concurrence from HSS, BAG and HAMTC.

- *Ensure collaborative agreement on the implementation of the corrective actions and the resulting revision of the CBDPP.*

Corrective Action: Using national and local experts and in collaboration with stakeholders, RL/ORP will establish a new technical basis and specific guidance for implementing 10 CFR 850 requirements. RL/ORP will ensure the CBDPP is revised to incorporate the new technical basis and guidance.

Deliverable: Revised Hanford Site CBDPP, with concurrence of the CBDPP Committee (BAG/HAMTC) and RL/ORP approval. RL/ORP will also request that HSS perform an effectiveness review of the implementation of the corrective actions.

2. For Root Cause A4B1C04 (Management follow-up or monitoring of activities did not identify problems), RL/ORP needs actions to correct the following:

- *Clear expectations of what is needed to correctly implement new guidance.*

Corrective Action: RL/ORP will ensure the CAP contains clearly defined deliverables that establish DOE expectations on correct implementation of processes, procedures and policies related to the implementation of the Hanford Site CBDPP.

Deliverable: Final CAP approved by EM-HQ, with concurrence from HSS, BAG and HAMTC.

- *Ensure there are requirements for contractors to provide adequate management oversight of the CBDPP and other site-wide safety programs at a sufficient level and depth.*

Corrective Action: During the implementation of the CAP and the associated revisions to the Hanford Site CBDPP, RL/ORP will ensure that a management self-assessment process is incorporated into the CBDPP that requires contractors to review each program element on a frequency that ensures the entire CBDPP is reviewed at least every three years. RL/ORP will implement a similar process.

Deliverable: Revised Hanford Site CBDPP, with concurrence of the CBDPP Committee (BAG/HAMTC) and RL/ORP approval.

Deliverable: Revised oversight planning process that requires DOE to review each program element on a frequency that ensures the entire CBDPP is reviewed at least every three years.

Deliverable: A Beryllium Oversight Plan which addresses oversight by RL/ORP and contractors, to verify adequate completion/implementation of the CAP.

3. For Root Cause A4B1C09 (Corrective Action for previously identified problem or event was not adequate to prevent recurrence. Note: issue is effective corrective actions were allowed to lapse or were not institutionalized), RL/ORP needs actions to correct the following:

- *Ensure configuration control of commitments and corrective actions.*

Corrective Action: RL/ORP will ensure the CBDPP captures commitments and corrective actions. RL/ORP will ensure the CBDPP cannot be revised except through a process including Be Committee review and approval.

Deliverable: Revised Hanford Site CBDPP, with concurrence of the CBDPP Committee (BAG/HAMTC) and RL/ORP approval

4. For Contributing Causes A4B2C03 (Insufficient Manpower to support identified goal/objective) and A4B2C05 (Needed resource changes not approved /funded), RL/ORP needs actions to correct the following:

- *Assess the level of resources available, request more if required, then provide adequate DOE monitoring of the contractor's oversight processes at an increased depth and level.*

Corrective Action: RL/ORP will analyze resources available to provide DOE monitoring of contractor activities associated with the implementation of the Hanford Site CBDPP in the Annual Workforce Analysis and Staffing Plan and, if needed, request additional resources.

Deliverable: RL/ORP Annual Workforce Analysis and Staffing Plan

Finding F-2 (RL, ORP)

Finding ID: F-2

Finding Statement:

RL and ORP have not ensured that several categories of workers at the Hanford Site are receiving the minimum beryllium-related training, as required by 10 CFR 850.37 and 10 CFR 851.25.

Finding Manager: Pete Garcia, Division Director, Safety and Engineering Division

Analysis Results: See Finding F-1

Root Causes: See Finding F-1

Extent of Condition Review: See Finding F-1

Corrective Actions: See Finding F-1

Finding F-3 (AMH)

Finding ID: F-3

Finding Statement:

AMH has not always analyzed medical, job, and exposure data for employees diagnosed as sensitized or having CBD and thus is not collecting information needed to identify workers at risk for exposure, understand the beryllium health risks, and identify appropriate actions to improve the CBDPP, as required by the CBDPP, 10 CFR 850.39, and 10 CFR 850.34.

Finding Manager: Brian Fawcett, SOMD

Analysis Results:

This focused on the following section from page 15 of the DOE/HSS Report, AdvanceMed Hanford Opportunity for Improvement #5, as follows:

“AMH has not always analyzed medical, job, and exposure data for employees diagnosed as sensitized or having CBD and thus is not collecting information needed to identify workers as risk for exposure, understand the beryllium health risks, and identify appropriate actions to improve the CBDPP, as required by the CBDPP, 10 CFR 850.39 and 10 CFR 850.34.”

AMH began the Risk Cause Analysis (RCA) by attempting to determine where the disconnect occurred that resulted in the lack of data analysis. In summary, based on input provided by the Subject Matter Experts (SME) at the RCA event the following root causes and solutions were identified:

Root Causes	Solutions
-------------	-----------

Limited IH data came electronically for registry submittal but not used internally	Develop process to use the limited IH registry data for SOMC to comply with 850.34.
Epidemiology procedure requiring Beryllium data analysis doesn't exist	Develop a procedure that supports Population Health Management Program document and provides compliance with 10 CFR 850
Epidemiology procedure requiring Beryllium data analysis doesn't exist	Incorporate data analysis requirement into Beryllium policy document
AMH compliance assessment based on compliance to CBDPP	Enhance assessment plans to start with first cross checking CBDPP against compliance with applicable CFRs
CBDPP inadequately addressed certain parts of 10 CFR 850.	Recommend revisions to CBDPP to provide clarification regarding data analysis requirement. Also address ambiguity of term "responsible employer."
Contractor IH data not integrated with SOMC	Site-wide IHDDC addressing these issues.
Job location, history data not easily available	Interview affected workers to determine where they've been working for other sources of exposure to Beryllium. Enter job location information into database for data analysis Create database for job location and history data.
Epidemiologist assumed existing program document adequate	Establish position based list of required procedures, starting with Epidemiologist
Case manager in sole possession of specific data	Take steps to ensure Epidemiologist has access to all data required for analysis
Ambiguous language "responsible employer" - used	Request revision, clarification within CBDPP document
Used form with incomplete Beryllium locations	Update Work History Questionnaire to include information how to locate the latest beryllium facilities on the web.

Corrective Actions: Corrective actions for this Finding are detailed in the spreadsheet attached to this CAP. No additional corrective actions were determined to be necessary.

Finding F-4 (CHPRC, MSA WCH, WRPS)

Finding ID: F-4

Finding Statement:

WRPS, CHPRC, MSA, and WCH have not ensured that their work planning and control processes and their implementation of those processes in beryllium-controlled facilities and areas

are sufficient to fully ensure protection of workers, co-located employees, and transient personnel, as required by 10 CFR 850.22 through 10 CFR 850.30, 10 CFR 850.38, and the corresponding portions of the CBDPP.

MSA Causal Analysis

Finding Manager: Paul Kruger

Analysis Results:

To support the Hanford projects rebid and consolidation of services, DOE in 2006 decided to include Site-Wide Safety Programs in each of the contracts. To facilitate this process, the Hanford Site-Wide Safety Program Plan (originally HNF-MP-41080) was developed and issued in June, 2009. The original purpose of this plan, as stated by the plan owner, was to get the programs developed, not to get them implemented.

Plan HNF-MP-41080 was developed following the implementation of two site-wide programs, the Hoisting & Rigging Program and the Hanford Site Lock Out / Tag Out Program, while the CBDPP was being developed and issued. A comment in one of the lessons learned from the development of those two site-wide programs that were discovered included the comment “run it like a project”. The concepts of project management principles, such as gap analysis, resource loaded schedule, and clearly identified training requirements, could have been used to make the plan more effective for implementation of the site-wide programs.

- Contributing Cause: A4B1C06 – Previous industry or in-house experience was not effectively used to prevent recurrence; defined as industry or in-house experience relating to a current problem that existed prior to the event, but was not assimilated by the organization.

The Site-Wide CBDPP was developed and approved by RL on May 14, 2009. At that point MSC-MP-41080 directs the development of an Implementation & Maintenance (I&M) Committee. Some of the stated key activities listed for the I&M Committee in the plan included establishing schedules, identifying resources, training and materials for implementation; also supporting assessments of implementation and effectiveness. The I&M Committee in this case is the CBDPP Committee, which does have a charter, but that charter did not address the items listed above, perhaps because it was issued before HNF-MP-41080 was issued (The charter was part of the approved program document on May 14, 2009). It was stated in letter MSA-0900129 that the committee did assist with the development of the integrated implementation plan promulgated to RL.

- Contributing Cause: A4B5C09 – Change-related documents were not developed or revised; defined as changes to processes resulted in a need for new forms of written communication which were not created or changes to existing documents which were not revised.

Had HNF-MP-41080 been issued and followed, there should have been an implementation schedule developed that included identifying the resources, specifics on training, and further

directions on how to implement this process and the oversight required to ensure compliance. Due to the lack of specific direction in the plan and the fact it had not been issued, it is unsure if this would have prevented the issue from occurring. This occurred even though at the inception of each site-wide safety program committee, specific training on the Site-Wide Safety Program Plan is given to ensure all participants understand the requirements. In addition, the review of plan MSC-MP-41080 indicated that the implementation phase instructions could be consideration for another cause.

- Root Cause: A5B2C05 – Ambiguous instructions/requirements; defined as the instruction in written communication were unclear, uncertain, or interpretable in more than one way.

The plan, section 4.6, discusses the I&M Committee as functioning to maintain the long term stewardship of the selected program. It is virtually silent on implementation issues. Section 5.2 is the section that does discuss implementation for the I&M Committee, so there is a disconnect in the process.

When queried by the investigator, the Managers of the DOE Offices responsible for the implementation of the site-wide safety programs stated they were working as Senior Management Team (SMT) members per plan HNF-MP-41080. The SMT is specific to development of the site-wide program, not the implementation of that program. The section of the plan that does have impact for implementation is 4.2 “DOE Field Offices”. In this section it states that DOE will assign a representative to the I&M Committees that will represent DOE Policy and Technical positions. Representatives were assigned. The plan goes on to state that Key Responsibilities and Duties of DOE include establishing priorities and major milestones/schedules. The plan does not make clear how those responsibilities are carried out.

- Root Cause: A5B2C05 – Ambiguous instructions/requirements; defined as the instruction in written communications were unclear, uncertain, or interpretable in more than one way.

In the clear light of an investigation, it is reasonable to assume there should have been things such as requiring a Gap Analysis be performed, Major Milestone resource loaded schedule developed, and several early intervention type assessments scheduled directed for each contractor as part of an implementation plan. These requirements were not part of the promulgated implementation schedule. These are all excellent project management tools used to implement complex processes. This is a very complex process with a decided lack of detailed information to go on in some cases. These items were not prescribed for a variety of reasons. One is that there is not procedural guidance to drive the expectation.

- Root Cause: A4B1C01 – Management Policy guidance / expectations not well defined, understood, or enforced; defined as Personnel exhibited a lack of understanding of existing policy and/or expectations, or policy/expectations were not well defined or policy/expectation is not enforced.

Had the plan specifically required use of implementation management or project management tools, or had lessons learned been clearly used to review the processes already implemented, this issue may not have occurred.

Root Causes:

A4B1C01 and A5B2C05 co-exist as root causes. The plan MSC-MP-41080 had some elements of the requirements, which if properly implemented, would have prevented this issue from happening or greatly reduced the problem. However, the plan clearly lacks specifics in implementation protocols that could have prevented this from occurring. Correction of these two issues with this plan will prevent a similar issue in subsequent implementations of site-wide safety programs.

Extent of Condition Review:

This issue exists for all new Site-Wide Safety Programs which require implementation. Mission Support Contract Performance Execution Plan, section 9.1, indicates that all of the elements in this implementation process could have been avoided had it been run through the Portfolio Management Implementation of Scope, which is supposed to provide “an integrated approach to planning, performance measuring, procurement, funding and budget analysis across government and contracting entities responsible for environmental cleanup at the Hanford Site.” To support this process, a new procedure, MSC-PRO-015, “Requirement Management Process”, was recently issued. Because this is a new process it will present a barrier to this occurring on a new or revised requirement other than site-wide safety programs, but did not have an effect on the implementation of the CBDPP.

Corrective Actions:

In addition to the corrective actions assigned to MSA in the attached spreadsheet, the following corrective actions were identified as a result of the Causal analysis:

- 1) Change plan MSC-MP-41080 to include a separate section on implementation. Divorce this section from the maintenance of the program and make it an entity of its own. This process should be under the oversight of the Senior Management Team members who have the ability to commit to the requirements generated to accomplish complete implementation in a timely manner. This team should be directed and responsible for the development of the plan, have it approved through the SMT with final approval and dissemination by the appropriate Field Office/Contracting Officers that direct a consistent start and completion time. (A4B1C01, A4B1C06 & A4B5C09)
- 2) Clarify and remove any ambiguity in plan MSC-MP-41080 sections 4.2, 4.3, and 4.4 to specifically address the implementation process. This also applies to the implementation portion that is broken off of section 4.6 in corrective action 1 above. (A5B2C05)

- 3) Conduct an independent assessment as an effectiveness review of these corrective actions to ensure the process now performs as desired and the corrective actions were effective in making the change. The report for this review should include:
 - a) Problem Issue and summary of corrective actions
 - b) Approach/plan for conducting the review
 - c) Acceptance criteria
 - d) Results/conclusions
 - e) Recommendations/additional corrective actions.
 - f) An assignment of an overall effectiveness rating of Effective, Partially Effective, or Ineffective.
 - g) Capture any issue identified within the issue management process.

CHPRC Causal Analysis

Finding Manager: J. C. Hoffman, Director, Operations Program

Analysis Results:

The supporting language of the finding references Appendix D of the assessment report to identify the observed weaknesses in CHPRC's work control process with respect to beryllium. In the 'Work Controls' portion of Appendix D, the assessment report reviewed CHPRC's execution of beryllium exposure controls at the Plutonium Finishing Plant (PFP), the U-Plant Canyon, the Effluent Treatment Facility (Building 2025E), and the Groundwater Protection Warehouse (Building 1713H).

The assessment identified deficiencies in CHPRC's execution of beryllium interim-controlled facilities. These deficiencies included inappropriate use of limited scope procedures, inadequate execution of procedural instructions, incomplete postings, and inadequate communication regarding beryllium hazards.

Root Causes:

The root cause of these issues with the interim control process is that the execution of this limited duration activity was not adequately planned and communicated appropriately, A5B2C02, *Written Communication Content LTA*. The interim control actions were identified to be accomplished with limited concrete direction. The instructions for the activities were first communicated to project management via email and then through a Management Directive.

A related cause is A4B1C01, *Management Methods LTA*. The initial less than adequate guidance coupled with not well understood expectations and without appropriate level of management attention led to inconsistent application among CHPRC projects as noted by the team.

Extent of Condition Review:

The work control process issues are being addressed CHPRC wide. The interim control process for active facilities is no longer in use; all actions conducted as part of that process are being re-evaluated and, where necessary, re-performed under current or future processes.

Corrective Actions: Corrective actions for this finding are detailed in the spreadsheet attached to this CAP. No additional corrective actions were determined to be necessary.

WCH Causal Analysis

Finding Manager: Dale Bignell

Analysis Results:

Work planning and control deficiencies were evident at multiple facilities and for all four EM operating contractors, indicating a need for increased attention to the control of ongoing work involving the potential for exposure to beryllium. Deficiencies were identified in various aspects of procedures for hazard analysis regarding beryllium (e.g., job hazard analysis procedures that do not address beryllium hazards or controls).

The interfaces between contractors were not sufficiently defined to address the responsibilities and processes for work planning and control for beryllium activities performed in facilities controlled by other contractors. Procedures and practices were insufficiently defined and implemented for establishing and maintaining the boundaries of beryllium-controlled areas and for downgrading beryllium-controlled areas after cessation of dust-producing activities, as well as implementing the BWP. As a result, BWPs sometimes contained insufficient details or inappropriate requirements, or otherwise did not comply with CBDPP requirements. For example, a standing BWP for “no dust producing activities” included “removal of ceiling tiles” as a covered activity, and another standing BWP did not identify and controls. In some cases, beryllium controlled and interim-controlled facilities were not posted as required, and in other cases, postings did not conform to the CBDPP provisions. Appendices D through G identify the specific deficiencies applicable to the four EM operating contractors.

WCH concurs that work planning and control processes and the implementation of those processes in beryllium-controlled facilities and areas require improvement to fully ensure protection of workers, co-located employees, and transient personnel. The approach taken by WCH processes to ensure protection of the workers from Beryllium hazards was to use industry accepted practices which rely on the professional judgment of Industrial Hygienists. In order to ensure work planning and control processes result in further assurance of worker protection, additional procedural detail and documentation expectations are needed to shift from a judgment based control process towards a compliance based process.

The U.S. Department of Energy Headquarters Office of Safety, Health and Security (HSS) assessment of the Hanford Site Chronic Beryllium Disease Prevention Program resulted in four specific findings and numerous opportunities for improvement. An apparent cause analysis of finding four was performed using much of the provided cause analysis documented in the HSS report and comparisons between industry

standards for industrial hygiene practices and expectations established in the HSS assessment.

Root Causes:

A5B2C05: Ambiguous instructions/requirements.

A4B1CO1: Management policy guidance/expectations not well-defined, understood or enforced

Extent of Condition Review:

Implementation of 10 CFR 850

Corrective Actions: Corrective actions for this finding are detailed in the spreadsheet attached to this CAP. No additional corrective actions were deemed to be necessary.

WRPS Causal Analysis

Finding Manager: Ray Skwarek

Analysis Results:

Purpose: During the performance of an Independent Inspection of the Hanford Site Chronic Beryllium Disease Prevention Program (CBDPP), Washington River Protection Solutions, LLC (WRPS) the Tank Operations Contractor was evaluated along with the U.S. Department of Energy, Richland Operations (RL) and Office of River Protection (ORP) and the other three Environmental Management Contractors. The team evaluated the current practices for protecting workers against beryllium hazards at the Hanford Site and the beryllium medical surveillance programs for current workers. The results of this inspection were transmitted to WRPS via contract letter “Contract No. DE-AC27-08RV14800 – U.S. Department of Energy (DOE), Office of Health Safety and Security (HSS) Assessment of Hanford Site Chronic Beryllium Disease Prevention Program (CBDPP),” 10-ESQ-196, June 9, 2010, S. J. Olinger, ORP to C. G. Spencer, WRPS.

The purpose of this report to document the causal analysis completed for Problem Evaluation Request (PER) number WRPS-PER-2010-1773 established to track the issue for Finding #4 of the above report. The causal analysis was performed in accordance with Tank Operations Contractor procedure TFC-ESHQ-Q_C-C-01, “Problem Evaluation Request.”

Finding #4: WRPS, CH2MHill Project Remediation Company (CHPRC), Mission Support Alliance (MSA), and Washington Closure Hanford (WCH) have not ensured that their work planning and control processes and their implementation of those processes in beryllium-controlled facilities and areas are sufficient to fully ensure protection of workers, co-located employees, and transient personnel, as

required by 10CFR850.22 through 10CFR850.30, 10CFR850.38, and the corresponding portions of the CBDPP.

Background: WRPS has been party to the Hanford Site Chronic Beryllium Disease Prevention Program (CBDPP) (DOE-0342) established to integrate and implement the controls necessary to minimize exposure to beryllium of employees working at Hanford. This program establishes action levels and a background level for beryllium at the Hanford Site. This program also defines beryllium activities, beryllium-affected workers, beryllium-associated workers, acceptable levels of beryllium contaminated material, beryllium-controlled facilities, controlled areas (BCAs), and regulated areas (BRAs), and what is considered a clean facility. This program also establishes the Hanford Site Beryllium Work Permit (BWP), among other critical program attributes. The CBDPP was signed by all Hanford prime contractors for implementation on May 14, 2009.

WRPS implements the CBDPP through TFC-PLN-24, "Chronic Beryllium Disease Prevention Program Plan." This document establishes the roles and responsibilities for the Safety and Health Program Manager, the Beryllium Coordinator, Operations/Project Industrial Hygienists, and Project Management. This plan defines the WRPS baseline beryllium inventory and tasks with potential exposure. The plan also manages beryllium-affected worker exposures, tracks performance feedback, and establishes subcontractor compliance. Beryllium hazards are assessed via TFC-OPS-MAINT-C-01, "Tank Operations Contractor Work Control," TFC-ESHQ-S_SAF-C-02, "Job Hazard Analysis," and the invoked Beryllium Work Permit established for the Hanford Site.

During the development of the HSS Report Corrective Action Plan, WRPS has agreed, with the other prime contractors, to implement changes with respect to:

1. Posting facilities being characterized (complete)
2. Modifying Beryllium Contamination Area (BCA) sign color through the CBDPP Committee
3. Sampling Beryllium-affected worker work areas via a site-wide process
4. Developing a site-wide pre-job checklist for Beryllium work
5. Supplementing the site-wide Beryllium Work Permit with a checklist to reinforce the need for BWPs
6. Developing a site-wide guide to address how to assess, document, and report beryllium exposures associated with radioactivity
7. Updating Beryllium Website to better communicate with workers
8. Developing a formal resolution form for multi-contractor work
9. Providing the WRPS Beryllium Assessment schedule to ORP
10. Implementing interim controls based on direction from ORP
11. Improving the definition of "dust producing activities" (criteria for BCAs and BRAs)
12. Developing a site-wide approach to handling dust producing work (use of physical barriers for BCAs and BRAs)

13. Developing a basis for downgrading personal protective equipment (PPE) via establishing a site-wide approach to dust producing work
14. Establishing a process for review and revision of BWPs
15. Communicating monitoring data
16. Addressing the 10CFR850 exemption for ATL (WRPS action)
17. Reviewing work control systems
18. Supporting the development and implementation of the site-wide process for use and down-posting BCAs
19. Review hazards assessment process
20. Review and update, as required, beryllium procedures in accordance with the CBDPP.

PER Problem Statement: WRPS has not ensured that work planning and control processes and their implementation of those processes in beryllium-controlled facilities and areas are sufficient to fully ensure the protection of workers, co-located employees, and transient personnel.

(1) Why are the processes for beryllium-controlled facilities being questioned?

Questions exist as to the confidence of known beryllium facilities.

(1a) Why is the number of beryllium facilities being questioned?

Legacy data was used to establish the beryllium baseline. WRPS upon receipt of the Tank Operations Contract (TOC) assumed responsibility for legacy beryllium facilities at Tank Farms. In 1999, along with the rule, the Hanford Site issued a listing of beryllium legacy facilities. Since then, four (4) additional TOC facilities have been evaluated and found not to have surface beryllium above natural background. In addition to the five (5) legacy beryllium facilities, low levels of beryllium may be present in liquid waste and sludge stored in sixteen (16) of the one-hundred seventy-seven (177) underground tanks. It is also known that beryllium-copper tools were a source of facility contamination. These tools were replaced in 2000 and tool removal was performed in accordance with a job-specific Job Hazards Analysis. The tools were disposed of as waste in accordance with applicable state and local requirements. Results of personal and area (tool crib) monitoring conducted during removal activities showed airborne exposures below detectable levels.

(1b) Why would the number of beryllium facilities change?

Based on on-going assessment plans and improvements in sampling techniques and strategies developed by the site-wide CBDPP, additional sampling will occur and required controls will be implemented. Communication of change will be required to ensure worker understanding. Corrective actions developed to monitor and improve hazard applicability (reliability) include:

Communication

1. Update Beryllium Website (A4B5C06)
2. Develop a formal resolution form for multi-contractor work (A4B5C05)
3. Communicate monitoring data (A4B5C11)
4. Address the 10CFR850 exemption for ATL (WRPS action) (A4B5C01)

Sampling

5. Sample Beryllium-affected worker work areas via a site-wide process (A4B5C01)
6. Provide the WRPS Beryllium Assessment schedule to ORP (A4B5C02)
7. Implement interim controls based on direction from ORP (A4B5C02)

(2) Why is the implementation of the CBDPP being questioned?

Additional site-wide processes are being developed to address site-wide standardization.

(2a) Why are additional site-wide standards being sought?

Beryllium-sensitive workers continue to be diagnosed.

(2b) Why are additional workers being diagnosed?

There exists a potential for inadequate facility/hazard control.

Corrective actions to improve facility characterization and control:

Communication/Posting

1. Post facilities being characterized (complete)(A5B2C08)
2. Modify Beryllium Contamination Area (BCA) sign color through the CBDPP Committee (A5B1C04)

Site-wide Standards

3. Develop a site-wide pre-job checklist for Beryllium work (A5B4C02)
4. Supplement the site-wide Beryllium Work Permit with a checklist to reinforce the need for BWPs (A5B1C03)
5. Develop a site-wide guide to address how to assess, document, and report beryllium exposures associated with radioactivity (A5B2C08)
6. Improve the definition of “dust producing activities” (criteria for BCAs and BRAs) (A5B2C01)
7. Develop a site-wide approach to handling dust producing work (use of physical barriers for BCAs and BRAs) (A5B2C08)
8. Develop a basis for downgrading personal protective equipment (PPE) via establishing a site-wide approach to dust producing work (A5B2C08)
9. Establish a process for review and revision of BWPs (A5B3C01)
10. Support the development and implementation of the site-wide process for use and down-posting BCAs (A5B2C08)

Supplementation Reviews of Contractor Processes

11. Review work control systems (A5B2C01)
12. Review hazards assessment process (A5B2C01)
13. Review and update, as required, beryllium procedures in accordance with the CBDPP (A5B2C01).

Extent of Condition Review:

Implementation of 10 CFR 850

Corrective Actions: Corrective actions for this finding are detailed in the spreadsheet attached to this CAP. No additional corrective actions were deemed to be necessary.

Corrective Actions for Hanford Site Chronic Beryllium Disease Prevention Program

MSP Line ID	ID	Action Items:	Deliverable	Owner*	Resource	Start Date:	Completion Date
1	F-1	Finding #1: RL and ORP have not ensured that contractor baseline beryllium inventory and hazard assessments have been completed, as required by 10 CFR 850.20, 10 CFR 850.21, and the corresponding portions of the CBDPP. (CHPRC, MSA, WCH, WRPS, DOE)					
2	F-1.1	Develop a more rigorous process for performing initial beryllium assessments of facilities, and reassess facilities previously declared beryllium-clean facilities.	Single site-wide process documented by contractors in the CBDPP.	CHPRC	M. Hughey	8/1/2010	11/30/2010
3	F-1.1.2	Definitive criteria for determining whether a facility is a beryllium-controlled or beryllium clean facility	Single site-wide process documented by contractors in the CBDPP.	MSA	R. Gilmore	8/1/2010	11/30/2010
4	F-1.1.3	Training requirements for individuals who will be performing assessments	Single site-wide process documented by contractors in the CBDPP.	WCH	D. Bignell	8/1/2010	11/30/2010
5	F-1.1.4	Requirements to document information provided by contacted individuals (employee interviews)	Single site-wide process documented by contractors in the CBDPP.	WRPS	L. Gurney	8/1/2010	11/30/2010
6	F-1.1.5	Requirements to describe possible handling/storage/maintenance/usage of beryllium in the facility	Incorporated into the response for F-1.1	CHPRC	M. Hughey	8/1/2010	11/30/2010
7	F-1.1.6	Requirements for assessment of circuit breakers, switchgear, bus bars, and other items known to potentially contain beryllium	Incorporated into the response for F-1.1	MSA	R. Gilmore	8/1/2010	11/30/2010
8	F-1.1.7	Guidance and requirements for statistically-based validation sampling of facilities determined to be beryllium clean, including schedule, responsibility, and locations to be sampled	Incorporated into the response for F-1.1	WCH	D. Bignell	8/1/2010	11/30/2010

* Lead organization for site-wide products is shown in bold.

Corrective Actions for Hanford Site Chronic Beryllium Disease Prevention Program

MSP Line ID	ID	Action Items:	Deliverable	Owner*	Resource	Start Date:	Completion Date
9	F-1.1.1.8	Guidance and requirements for classifying facility history as fully or partially known	Incorporated into the response for F-1.1	CHPRC	M. Hughey	8/1/2010	11/30/2010
			Incorporated into the response for F-1.1	MSA	R. Gilmore	8/1/2010	11/30/2010
			Incorporated into the response for F-1.1	WCH	D. Bignell	8/1/2010	11/30/2010
			Incorporated into the response for F-1.1	WRPS	L. Gurney	8/1/2010	11/30/2010
10	F-1.1.1.9	Defined responsibility assignments and qualifications for individuals completing and approving assessment forms	Incorporated into the response for F-1.1	CHPRC	M. Hughey	8/1/2010	11/30/2010
			Incorporated into the response for F-1.1	MSA	R. Gilmore	8/1/2010	11/30/2010
			Incorporated into the response for F-1.1	WCH	D. Bignell	8/1/2010	11/30/2010
			Incorporated into the response for F-1.1	WRPS	L. Gurney	8/1/2010	11/30/2010
11	F-1.1.1.10	Requirement for a documented evaluation that provides a basis for conclusions of the facility assessment form	Incorporated into the response for F-1.1	CHPRC	M. Hughey	8/1/2010	11/30/2010
			Incorporated into the response for F-1.1	MSA	R. Gilmore	8/1/2010	11/30/2010
			Incorporated into the response for F-1.1	WCH	D. Bignell	8/1/2010	11/30/2010
			Incorporated into the response for F-1.1	WRPS	L. Gurney	8/1/2010	11/30/2010
12	F-1.1.1.11	Signatures and dates of those preparing and approving assessment forms	Incorporated into the response for F-1.1	CHPRC	M. Hughey	8/1/2010	11/30/2010
			Incorporated into the response for F-1.1	MSA	R. Gilmore	8/1/2010	11/30/2010
			Incorporated into the response for F-1.1	WCH	D. Bignell	8/1/2010	11/30/2010
			Incorporated into the response for F-1.1	WRPS	L. Gurney	8/1/2010	11/30/2010
13	F-1.1.1.12	Review the beryllium rule to ensure the revised process meets the minimum requirements of 10 CFR 850	Incorporated into the response for F-1.1	CHPRC	M. Hughey	8/1/2010	11/30/2010
			Incorporated into the response for F-1.1	MSA	R. Gilmore	8/1/2010	11/30/2010
			Incorporated into the response for F-1.1	WCH	D. Bignell	8/1/2010	11/30/2010
			Incorporated into the response for F-1.1	WRPS	L. Gurney	8/1/2010	11/30/2010
14	F-1.2	Finalize and approve the baseline beryllium contamination reassessment reports per the new characterization requirements for facilities	Completed assessment forms per the process in F-1.1	CHPRC	M. Hughey	10/1/2010	1/31/2011
			Completed assessment forms per the process in F-1.1	MSA	R. Gilmore	10/1/2010	1/31/2011
			Completed assessment forms per the process in F-1.1	WCH	D. Bignell	10/1/2010	1/31/2011
			Completed assessment forms per the process in F-1.1	WRPS	L. Gurney	10/1/2010	1/31/2011

Corrective Actions for Hanford Site Chronic Beryllium Disease Prevention Program

MSP Line ID	ID	Action Items:	Deliverable	Owner*	Resource	Start Date:	Completion Date
15	F-1.2.1	Review and correct omissions and errors. Clarify inconsistencies in sampling and recommended controls for electrical switchgear with potential for beryllium contamination.	Completed assessment forms per the process developed in F-1.1, which will address electrical switchgear.	CHPRC	M. Hughey	10/1/2010	1/31/2011
			Completed assessment forms per the process developed in F-1.1, which will address electrical switchgear.	MSA	R. Gilmore	10/1/2010	1/31/2011
			Completed assessment forms per the process developed in F-1.1, which will address electrical switchgear.	WCH	D. Bignell	10/1/2010	1/31/2011
			Completed assessment forms per the process developed in F-1.1, which will address electrical switchgear.	WRPS	L. Gurney	10/1/2010	1/31/2011
			This action is specific to WCH. MSA will need to be involved at building handover.	MSA	L. Sweeney	10/1/2010	1/31/2011
16	F-1.2.2	Address the recommendations for additional sampling at Building 105B (B Reactor).	Appropriate sampling plan will be developed and sampling completed for 105B.	WCH	D. Bignell	10/1/2010	1/31/2011
			Documented review of the process/procedures utilized for the receipt and verification of potential Be-contaminated/containing components at the 210IM warehouse. Implementation of recommended actions, if any, shall be included. Perform facility characterization.	MSA	W. Geer	10/1/2010	1/31/2011
17	F-1.2.3	Conduct a review of materials moved from other Hanford facilities to storage in the 2102M (corrected to 2101M) warehouse, and conduct additional inspection and sampling for beryllium contamination. (This item is specific to MSA.)	Addressed by the interim action direction and/or F-1.1	CHPRC	M. Hughey	10/1/2010	1/31/2011
			Addressed by the interim action direction and/or F-1.1	MSA	R. Gilmore	10/1/2010	1/31/2011
			Addressed by the interim action direction and/or F-1.1	WCH	D. Bignell	10/1/2010	1/31/2011
			Addressed by the interim action direction and/or F-1.1	WRPS	L. Gurney	10/1/2010	1/31/2011
			Completed assessment forms per the process in F-1.1	CHPRC	M. Hughey	10/1/2010	1/31/2011
18	F-1.2.4	For facilities that contain electrical switchgear cabinets that are considered to be potentially contaminated internally with beryllium but that have not been surface sampled internally, either (1) re-categorize and post the facilities as beryllium-controlled facilities or (2) conduct internal characterization sampling of suspect cabinets.	Completed assessment forms per the process in F-1.1	MSA	R. Gilmore	10/1/2010	1/31/2011
			Completed assessment forms per the process in F-1.1	WCH	D. Bignell	10/1/2010	1/31/2011
			Completed assessment forms per the process in F-1.1	WRPS	L. Gurney	10/1/2010	1/31/2011
			Completed assessment forms per the process in F-1.1	MSA	R. Gilmore	10/1/2010	1/31/2011
			Completed assessment forms per the process in F-1.1	WCH	D. Bignell	10/1/2010	1/31/2011
19	F-1.2.5	Revise assessment reports to reflect the level of effort and source of information reviewed regarding past practices that reflect the use of beryllium materials in Hanford facilities, and identify the information obtained from interviews with individuals cited on the assessment form.	Completed assessment forms per the process in F-1.1	WRPS	L. Gurney	10/1/2010	1/31/2011
			Completed assessment forms per the process in F-1.1	CHPRC	M. Hughey	10/1/2010	1/31/2011
			Completed assessment forms per the process in F-1.1	MSA	R. Gilmore	10/1/2010	1/31/2011
			Completed assessment forms per the process in F-1.1	WCH	D. Bignell	10/1/2010	1/31/2011
			Completed assessment forms per the process in F-1.1	WRPS	L. Gurney	10/1/2010	1/31/2011

Corrective Actions for Hanford Site Chronic Beryllium Disease Prevention Program

MSP Line ID	ID	Action Items:	Deliverable	Owner*	Resource	Start Date:	Completion Date
20	F-1.2.6	Have the qualified, designated individuals for each contractor formally approve and sign all final assessment forms and reports. The forms will be available for BAG, HAMTC, & DOE review.	Completed assessment forms per the process in F-1.1	CHPRC	M. Hughey	10/1/2010	1/31/2011
			Completed assessment forms per the process in F-1.1	MSA	R. Gilmore	10/1/2010	1/31/2011
			Completed assessment forms per the process in F-1.1	WCH	D. Bignell	10/1/2010	1/31/2011
			Completed assessment forms per the process in F-1.1	WRPS	L. Gurney	10/1/2010	1/31/2011
21	F-1.3	Improve and document the process for conducting and documenting building facility assessments and facility characterizations for beryllium.	Completed assessment forms per the process in F-1.1	CHPRC	M. Hughey	10/1/2010	1/31/2011
			Completed assessment forms per the process in F-1.1	MSA	R. Gilmore	10/1/2010	1/31/2011
			Completed assessment forms per the process in F-1.1	WCH	D. Bignell	10/1/2010	1/31/2011
			Completed assessment forms per the process in F-1.1	WRPS	L. Gurney	10/1/2010	1/31/2011
22	F-1.3.1	Revise the existing facility assessment forms. Review and correct omissions and errors. Provide additional documentation on each form with respect to the basis for the various "yes" or "no" responses identified on the form. Identify individuals who participated in the assessment by title and knowledge/history of the building, in addition to names. Remove apparent conflicts on the form, such as indicating that the history is known on the building but not knowing when the building was built. Establish a review and approval process with signatures for each facility assessment form. (Use the revised assessment form.)	Completed assessment forms per the process in F-1.1	CHPRC	M. Hughey	10/1/2010	1/31/2011
			Completed assessment forms per the process in F-1.1	MSA	R. Gilmore	10/1/2010	1/31/2011
			Completed assessment forms per the process in F-1.1	WCH	D. Bignell	10/1/2010	1/31/2011
			Completed assessment forms per the process in F-1.1	WRPS	L. Gurney	10/1/2010	1/31/2011
23	F-1.3.2	Provide a technical basis document that describes the "rating" or "scoring" system used on the form as well as how this data is used to determine facility categorization and characterization priorities. Eliminate use of the scoring system, but keep the existing completed forms for use as historic information.	Completed assessment forms per the process in F-1.1	CHPRC	M. Hughey	10/1/2010	1/31/2011
			Completed assessment forms per the process in F-1.1	MSA	R. Gilmore	10/1/2010	1/31/2011
			Completed assessment forms per the process in F-1.1	WCH	D. Bignell	10/1/2010	1/31/2011
			Completed assessment forms per the process in F-1.1	WRPS	L. Gurney	10/1/2010	1/31/2011

Corrective Actions for Hanford Site Chronic Beryllium Disease Prevention Program

MSP Line ID	ID	Action Items:	Deliverable	Owner*	Resource	Start Date:	Completion Date
24	F-1.3.3	Provide BAG/HAMTC opportunities and resources for a walk-down of each facility as part of the assessment process. Use the walk-down as a basis for estimating the cost for characterization and/or sampling.	Documentation that BAG/HAMTC have been offered opportunities to participate in facility walk-downs.	CHPRC	M. Hughey	10/1/2010	1/31/2011
			Documentation that BAG/HAMTC have been offered opportunities to participate in facility walk-downs.	MSA	R. Gilmore	10/1/2010	1/31/2011
			Documentation that BAG/HAMTC have been offered opportunities to participate in facility walk-downs.	WCH	D. Bignell	10/1/2010	1/31/2011
25	F-1.3.4	Update the building characterization segments of the WRPS beryllium website, and ensure that information on the website is current. (This response will be specific to WRPS.)	Documentation that BAG/HAMTC have been offered opportunities to participate in facility walk-downs.	WRPS	L. Gurney	10/1/2010	1/31/2011
			Documented initial update of the WRPS Beryllium website.	WRPS	L. Gurney	6/7/2010	9/30/2010
26	F-1.3.5	Reassess the basis for excluding buildings from characterization based on the use of Be-Cu tools or beryllium articles that may have been subject to modification (e.g., cutting, grinding) that could have generated dispersible beryllium.	Completed assessment forms per the process in F-1.1	CHPRC	M. Hughey	10/1/2010	1/31/2011
			Completed assessment forms per the process in F-1.1	MSA	R. Gilmore	10/1/2010	1/31/2011
			Completed assessment forms per the process in F-1.1	WCH	D. Bignell	10/1/2010	1/31/2011
			Completed assessment forms per the process in F-1.1	WRPS	L. Gurney	10/1/2010	1/31/2011

Corrective Actions for Hanford Site Chronic Beryllium Disease Prevention Program

MSP Line ID	ID	Action Items:	Deliverable	Owner*	Resource	Start Date:	Completion Date
27	F-1.3.6	Update and maintain the Hanford beryllium building website to include the facility assessment form and all data points for pre- and post-2010 BCF and Be-clean facilities.	Provide data to MSA in accordance with the process, to include the facility assessment form and all data points for pre- and post-2010 BCF and Be-clean facilities, and provide initial input. Develop a process to update and maintain the Hanford beryllium building website, and perform the initial update to include MSA facilities. Provide data to MSA in accordance with the process, to include the facility assessment form and all data points for pre- and post-2010 BCF and Be-clean facilities, and provide initial input. Provide data to MSA in accordance with the process, to include the facility assessment form and all data points for pre- and post-2010 BCF and Be-clean facilities, and provide initial input.	CHPRC MSA WCH WRPS	M. Hughey R. Gilmore D. Bignell L. Gurney	9/1/2010 9/1/2010 9/1/2010 9/1/2010	2/28/2011 (and on-going) 3/31/2011 (and on-going) 2/28/2011 (and on-going) 2/28/2011 (and on-going)
28	F-1.4	Evaluate facilities already characterized as beryllium-clean facilities to determine if they require re-designation as beryllium-controlled facilities and application of associated interim controls to prevent the possibility of employee exposure to beryllium.	Documentation of implementation of the interim direction provided by RL and ORP. Documentation of implementation of the interim direction provided by RL and ORP. Documentation of implementation of the interim direction provided by RL and ORP. Documentation of implementation of the interim direction provided by RL and ORP.	CHPRC MSA WCH WRPS	M. Hughey R. Gilmore D. Bignell L. Gurney	9/15/2010 9/15/2010 9/15/2010 9/15/2010	11/30/2010 11/30/2010 11/30/2010 11/30/2010
29	F-1.4.1	Consider establishing an interim threshold based on the 95% lower confidence level of background beryllium levels, with appropriate consideration of any background sample results below the limit of detection.	Issue interim action letters containing criteria agreed to by RL/ORP, the BAG, and HAMTC. Incorporated into the response for F-1.4 Incorporated into the response for F-1.4 Incorporated into the response for F-1.4 Incorporated into the response for F-1.4	RL/ORP CHPRC MSA WCH WRPS RL/ORP	P. Garcia/ W. Taylor M. Hughey R. Gilmore D. Bignell L. Gurney P. Garcia/ W. Taylor	7/1/2010 9/15/2010 9/15/2010 9/15/2010 9/15/2010 9/15/2010 7/1/2010	9/15/2010 11/30/2010 11/30/2010 11/30/2010 11/30/2010 11/30/2010 9/15/2010

* Lead organization for site-wide products is shown in bold.

Corrective Actions for Hanford Site Chronic Beryllium Disease Prevention Program

MSP Line ID	ID	Action Items:	Deliverable	Owner*	Resource	Start Date:	Completion Date
30	F-1.4.2	Evaluate existing facility characterization bulk sample results against the interim threshold. For facilities with a sufficient number of samples, consider using a statistical comparison of the 95% upper confidence level of the facility sample population against the 95% lower confidence level of the background beryllium sample population. In addition, consider outlier results within the characterization data that may indicate localized areas of potential beryllium contamination.	Incorporated into the response for F-1.4	CHPRC	M. Hughey	9/15/2010	11/30/2010
			Incorporated into the response for F-1.4	MSA	R. Gilmore	9/15/2010	11/30/2010
			Incorporated into the response for F-1.4	WCH	D. Bignell	9/15/2010	11/30/2010
			Incorporated into the response for F-1.4	WRPS	L. Gurney	9/15/2010	11/30/2010
		Incorporated into the response for F-1.4	RL/ORP	P. Garcia/ W. Taylor		7/1/2010	9/15/2010
31	F-1.4.3	Identify and implement appropriate interim control measures.	Incorporated into the response for F-1.4	CHPRC	M. Hughey	9/15/2010	11/30/2010
			Incorporated into the response for F-1.4	MSA	R. Gilmore	9/15/2010	11/30/2010
			Incorporated into the response for F-1.4	WCH	D. Bignell	9/15/2010	11/30/2010
			Incorporated into the response for F-1.4	WRPS	L. Gurney	9/15/2010	11/30/2010
		Incorporated into the response for F-1.4	RL/ORP	P. Garcia/ W. Taylor		7/1/2010	9/15/2010
32	F-1.4.4	Communicate process and results of review to workers and other interested parties including BAG/HAMTC and DOE.	Documentation that the revised process and results of reviews have been communicated to workers, BAG, HAMTC, and DOE.	CHPRC	M. Hughey	9/1/2010	11/30/2010
			Documentation that the revised process and results of reviews have been communicated to workers, BAG, HAMTC, and DOE.	MSA	R. Gilmore	9/1/2010	11/30/2010
			Documentation that the revised process and results of reviews have been communicated to workers, BAG, HAMTC, and DOE.	WCH	D. Bignell	9/1/2010	11/30/2010
			Documentation that the revised process and results of reviews have been communicated to workers, BAG, HAMTC, and DOE.	WRPS	L. Gurney	9/1/2010	11/30/2010
		Incorporated into the response for F-1.1 and F-1.2	CHPRC	M. Hughey		9/1/2010	11/30/2010
33	F-1.4.5	Use the CBDPP Committee or another appropriate mechanism to ensure appropriate levels of consistency among contractors.	Incorporated into the response for F-1.1 and F-1.2	MSA	R. Gilmore	9/1/2010	11/30/2010
			Incorporated into the response for F-1.1 and F-1.2	WCH	D. Bignell	9/1/2010	11/30/2010
			Incorporated into the response for F-1.1 and F-1.2	WRPS	L. Gurney	9/1/2010	11/30/2010
			Incorporated into the response for F-1.1 and F-1.2	WRPS	L. Gurney	9/1/2010	11/30/2010

Corrective Actions for Hanford Site Chronic Beryllium Disease Prevention Program

MSP Line ID	ID	Action Items:	Deliverable	Owner*	Resource	Start Date:	Completion Date
34	F-1.5	Consider a revised characterization process that compares the relative ratio of beryllium to other constituents to "fingerprint" the naturally-occurring beryllium in local soils.	Addressed by F-1.1 Addressed by F-1.1 Addressed by F-1.1 Addressed by F-1.1	CHPRC MSA WCH WRPS	M. Hughey R. Gilmore D. Bignell L. Gurney	8/1/2010 8/1/2010 8/1/2010 8/1/2010	11/30/2010 11/30/2010 11/30/2010 11/30/2010
35	F-1.5.1	Determine if it is possible to identify statistically valid ratios of beryllium to other soil constituents for comparison to building wipe samples that exceed 0.2 µg/100cm ² or bulk samples with beryllium concentrations that exceed the 95 % lower confidence level concentration in the background distribution.	Addressed by F-1.1 Addressed by F-1.1 Addressed by F-1.1 Addressed by F-1.1	CHPRC MSA WCH WRPS	M. Hughey R. Gilmore D. Bignell L. Gurney	8/1/2010 8/1/2010 8/1/2010 8/1/2010	11/30/2010 11/30/2010 11/30/2010 11/30/2010
36	F-1.5.2	Contact laboratories used for past sample analyses to determine whether data on those constituents of interest is available in archived analytical results.	Addressed by F-1.1 Addressed by F-1.1 Addressed by F-1.1 Addressed by F-1.1	CHPRC MSA WCH WRPS	M. Hughey R. Gilmore D. Bignell L. Gurney	8/1/2010 8/1/2010 8/1/2010 8/1/2010	11/30/2010 11/30/2010 11/30/2010 11/30/2010
37	F-1.5.3	Ensure that future analysis of samples includes reporting of those constituents of interest.	Addressed by F-1.1 Addressed by F-1.1 Addressed by F-1.1 Addressed by F-1.1	CHPRC MSA WCH WRPS	M. Hughey R. Gilmore D. Bignell L. Gurney	8/1/2010 8/1/2010 8/1/2010 8/1/2010	11/30/2010 11/30/2010 11/30/2010 11/30/2010
38	F-1.5.4	If feasible, develop and implement requirements to apply this model for determining whether the surrounding soil is the source of beryllium found in samples.	Addressed by F-1.2 Addressed by F-1.2 Addressed by F-1.2 Addressed by F-1.2	CHPRC MSA WCH WRPS	M. Hughey R. Gilmore D. Bignell L. Gurney	10/1/2010 10/1/2010 10/1/2010 10/1/2010	1/31/2011 1/31/2011 1/31/2011 1/31/2011
39	F-1.6	Implement the revised characterization process and applicable controls.	Addressed by F-1.2 Addressed by F-1.2 Addressed by F-1.2 Addressed by F-1.2	CHPRC MSA WCH WRPS	M. Hughey R. Gilmore D. Bignell L. Gurney	10/1/2010 10/1/2010 10/1/2010 10/1/2010	12/30/2010 12/30/2010 12/30/2010 12/30/2010
40	F-1.6.1	Provide training/instruction to individuals who will implement the revised characterization process.	Documented delivery of the training required by F-1.1.3. Documented delivery of the training required by F-1.1.3. Documented delivery of the training required by F-1.1.3. Documented delivery of the training required by F-1.1.3.	CHPRC MSA WCH WRPS	M. Hughey R. Gilmore D. Bignell L. Gurney	10/1/2010 10/1/2010 10/1/2010 10/1/2010	12/30/2010 12/30/2010 12/30/2010 12/30/2010

* Lead organization for site-wide products is shown in bold.

Corrective Actions for Hanford Site Chronic Beryllium Disease Prevention Program

MSP Line ID	ID	Action Items:	Deliverable	Owner*	Resource	Start Date:	Completion Date
41	F-1.6.2	Review existing characterization data and prioritize facilities for implementing the revised characterization process.	Addressed by F-1.2	CHPRC	M. Hughey	10/1/2010	1/31/2011
			Addressed by F-1.2	MSA	R. Gilmore	10/1/2010	1/31/2011
			Addressed by F-1.2	WCH	D. Bignell	10/1/2010	1/31/2011
			Addressed by F-1.2	WRPS	L. Gurney	10/1/2010	1/31/2011
42	F-1.6.3	Inform workers and other interested parties of the revised characterization process and how it will be implemented.	Addressed by F-1.4.4	CHPRC	M. Hughey	10/1/2010	12/30/2010
			Addressed by F-1.4.4	MSA	R. Gilmore	10/1/2010	12/30/2010
			Addressed by F-1.4.4	WCH	D. Bignell	10/1/2010	12/30/2010
			Addressed by F-1.4.4	WRPS	L. Gurney	10/1/2010	12/30/2010
43	F-1.6.4	Implement the revised characterization process.	Addressed by F-1.2	CHPRC	M. Hughey	10/1/2010	1/31/2011
			Addressed by F-1.2	MSA	R. Gilmore	10/1/2010	1/31/2011
			Addressed by F-1.2	WCH	D. Bignell	10/1/2010	1/31/2011
			Addressed by F-1.2	WRPS	L. Gurney	10/1/2010	1/31/2011
44	F-1.6.5	Implement compensatory measures based on the results of that review. Such measures may include additional characterization sampling, routine air monitoring and wipe sampling on a more frequent basis, informing beryllium affected workers and their supervisors of changes in the contamination status of buildings, updated postings, and other appropriate measures.	Addressed by F-1.2	CHPRC	M. Hughey	10/1/2010	1/31/2011
			Addressed by F-1.2	MSA	R. Gilmore	10/1/2010	1/31/2011
			Addressed by F-1.2	WCH	D. Bignell	10/1/2010	1/31/2011
			Addressed by F-1.2	WRPS	L. Gurney	10/1/2010	1/31/2011
45	F-1.6.6	Inform workers and other interested parties of the characterization results, any compensatory measures, and any additional planned actions. Post characterization results at entrances to BCAs and beryllium-regulated areas.	Addressed by F-1.4.4	CHPRC	M. Hughey	10/1/2010	1/31/2011
			Addressed by F-1.4.4	MSA	R. Gilmore	10/1/2010	1/31/2011
			Addressed by F-1.4.4	WCH	D. Bignell	10/1/2010	1/31/2011
			Addressed by F-1.4.4	WRPS	L. Gurney	10/1/2010	1/31/2011
46	F-1.6.7	After the revised processes are in place, perform one or more focused audits/appraisals to determine the effectiveness of implementation.	Assessment of effectiveness of implementation of the revised process.	CHPRC	M. Hughey	1/1/2011	4/1/2011
			Assessment of effectiveness of implementation of the revised process.	MSA	R. Gilmore	1/1/2011	4/1/2011
			Assessment of effectiveness of implementation of the revised process.	WCH	D. Bignell	1/1/2011	4/1/2011
			Assessment of effectiveness of implementation of the revised process.	WRPS	L. Gurney	1/1/2011	4/1/2011

Corrective Actions for Hanford Site Chronic Beryllium Disease Prevention Program

MSP Line ID	ID	Action Items:	Deliverable	Owner*	Resource	Start Date:	Completion Date
47	F-1.7	RL/ORP will seek to involve Hanford stakeholder groups (BAG, HAMTC and HAB) during the development of the CAP for the HSS report. RL/ORP will also involve EM and HSS headquarters personnel during the development of the CAP and Oversight Plan. RL/ORP will obtain concurrence on the CAP from the BAG and HAMTC. RL/ORP will request that EM approve the CAP and HSS concur on the CAP.	Final CAP approved by EM-HQ, with concurrence from HSS, BAG and HAMTC.	RL	P. Garcia	6/3/2010	9/30/2010
48	F-1.8	Using national and local experts and in collaboration with stakeholders, RL/ORP will establish a new technical basis and specific guidance for implementing 10 CFR 850 requirements. RL/ORP will revise the CBDPP to incorporate the new technical basis and guidance.	Revised Hanford Site CBDPP, with concurrence of the CBDPP Committee (BAG/HAMTC) and RL/ORP approval. Also addressed by OFI-11.5.	RL/ORP	P. Garcia/W. Taylor	8/1/2010	8/1/2011
49	F-1.9	RL/ORP will ensure the CAP contains clearly defined deliverables that establish DOE expectations on correct implementation of processes, procedures and policies related to the implementation of the Hanford Site CBDPP.	Final CAP approved by EM-HQ, with concurrence from HSS, BAG and HAMTC.	RL	P. Garcia	6/3/2010	9/30/2010
50	F-1.10	During the implementation of the CAP and the associated revisions to the Hanford Site CBDPP, RL/ORP will ensure that a management self-assessment process is incorporated into the CBDPP that requires contractors to review each program element on a frequency that ensures the entire CBDPP is reviewed at least every three years. RL/ORP will implement a similar process.	Revised Hanford Site CBDPP, with concurrence of the CBDPP Committee (BAG/HAMTC) and RL/ORP approval. Also addressed by OFI-11.5.	RL/ORP	P. Garcia/W. Taylor	8/1/2010	8/1/2011
			Revised oversight planning process that requires DOE to review each program element on a frequency that ensures the entire CBDPP is reviewed at least every three years.	RL/ORP	P. Garcia/W. Taylor	8/1/2010	11/1/2010
51	F-1.11	RL/ORP will ensure the CBDPP captures commitments and corrective actions. RL/ORP will ensure the CBDPP cannot be revised except through a process including Be Committee review and approval.	Develop a Beryllium Oversight Plan, which addresses oversight by RL/ORP and contractors, to verify adequate completion/implementation of the CAP.	RL	A. Hawkins	8/1/2010	10/1/2010
			Revised Hanford Site CBDPP, with concurrence of the CBDPP Committee and RL/ORP approval	RL/ORP	M McCormick/D. Brockman	6/3/2010	8/1/2011
52	F-1.12	RL/ORP will analyze resources available to provide DOE monitoring of contractor activities associated with the implementation of the Hanford Site CBDPP in the Annual Workforce Analysis and Staffing Plan and, if needed, request additional resources.	RL/ORP Annual Workforce Analysis and Staffing Plan	RL	R. Corey	6/3/2010	9/30/2011

Corrective Actions for Hanford Site Chronic Beryllium Disease Prevention Program

MSP Line ID	ID	Action Items:	Deliverable	Owner*	Resource	Start Date:	Completion Date
53	F-2	Finding #2: RL and ORP have not ensured that several categories of workers at the Hanford Site are receiving the minimum beryllium-related training, as required by 10 CFR					
54	F-2.1	Develop and implement training courses targeted to beryllium-associated workers other than beryllium workers as defined in 10 CFR 850. (Only applies to MSA.)	Documented gap analysis of the training program for Be-associated workers against the requirements of 10 CFR 850.37, and implementation of corrective actions, if necessary.	MSA	R. Gilmore	6/30/2010	9/30/2010
			Documented review of the gap analysis and corrective actions.	RL/ORP	R. Corey/ W. Taylor	10/1/2010	11/30/2010
55	F-2.2	Provide all workers, support staff, and supervisors the appropriate beryllium training to enable them to effectively perform their jobs as required by applicable regulations.	Documentation of completion of the training required by the supporting items below by planners, Persons In Charge, and First line supervisors, ES&H support staff (including industrial hygienists and IHTs), Human Resources personnel, Employee Concerns program personnel, Be Health Advocates (both contractor and site). Update qualification requirements for these positions to incorporate the training requirements of the supporting items below.	All Contractors and RL/ORP	See below	6/1/2010	12/30/2010
			Incorporated into the response for F-2.2	AMH	K. Conley	6/1/2010	12/30/2010
			Incorporated into the response for F-2.2	CHPRC	J. Morris	6/1/2010	12/30/2010
			Incorporated into the response for F-2.2	MSA	R. Gilmore	6/1/2010	12/30/2010
			Incorporated into the response for F-2.2	WCH	D. Bignell	6/1/2010	12/30/2010
56	F-2.2.1	Require all personnel associated with beryllium work or beryllium workers to attend Beryllium Worker Training to ensure that they understand the roles, responsibilities, and expectations for beryllium workers. Ensure that personnel, such as planners; Persons in Charge; first line supervisors; building managers; BEDs; ES&H support staff (including industrial hygienists and IHTs); and Human Resources and employee concerns program personnel are included.	Incorporated into the response for F-2.2	WRPS	L. Gurney/ L. Keith	6/1/2010	12/30/2010
			Incorporated into the response for F-2.2	RL/ORP	M. McCormick/ D. Brockman	6/1/2010	12/30/2010

Corrective Actions for Hanford Site Chronic Beryllium Disease Prevention Program

MSP Line ID	ID	Action Items:	Deliverable	Owner*	Resource	Start Date:	Completion Date
57	F-2.2.2	<p>Establish a training course for Beryllium PICs/Planners/Managers, Human Resources personnel, Employee Concerns program personnel, Be Health Advocates (both contractor and site), Building Managers and BEDs to be presented in addition to the Beryllium Worker Training course. Ensure that they are aware of the procedures and processes for addressing the needs of beryllium-affected workers, as well as all employees with medical restrictions.</p>	Develop and document attendance at training course to supplement the Beryllium Worker Training Course, and coordinate the content of the course with BAG/HAMTC using the flowchart developed by HAMMER.	AMH	K. Conley	6/1/2010	12/30/2010
			Develop and document attendance at training course to supplement the Beryllium Worker Training Course, and coordinate the content of the course with BAG/HAMTC using the flowchart developed by HAMMER.	CHPRC	J. Morris	6/1/2010	12/30/2010
			Develop and document attendance at training course to supplement the Beryllium Worker Training Course, and coordinate the content of the course with BAG/HAMTC using the flowchart developed by HAMMER.	MSA	R. Gilmore	6/1/2010	12/30/2010
			Develop and document attendance at training course to supplement the Beryllium Worker Training Course, and coordinate the content of the course with BAG/HAMTC using the flowchart developed by HAMMER.	WCH	D. Bignell	6/1/2010	12/30/2010
			Develop and document attendance at training course to supplement the Beryllium Worker Training Course, and coordinate the content of the course with BAG/HAMTC using the flowchart developed by HAMMER.	WRPS	L. Gurney/ L. Keith	6/1/2010	12/30/2010
			Documented attendance at training course to supplement the Beryllium Worker Training Course as appropriate.	RI/ORP	M. McCormick/ D. Brockman	6/1/2010	12/30/2010
58	F-2.2.3	<p>Require work supervisors, work planners, building managers, BEDs, and IH personnel to attend Beryllium Worker Training, and require the beryllium health advocate and personnel responsible for counseling beryllium-affected workers to attend additional training on CBDPP requirements beyond GET (bullet moved from Finding 4).</p>	Addressed by F-2.2.1 and F-2.2.2	AMH	K. Conley	6/1/2010	12/30/2010
			Addressed by F-2.2.1 and F-2.2.2	CHPRC	J. Morris	6/1/2010	12/30/2010
59	F-2.3	<p>Develop additional training for managers to address:</p>	Addressed by F-2.2.1 and F-2.2.2	MSA	R. Gilmore	6/1/2010	12/30/2010
			Addressed by F-2.2.1 and F-2.2.2	WCH	D. Bignell	6/1/2010	12/30/2010
60	F-2.3.1	<p>Limits on the ability to detect beryllium contamination,</p>	Addressed by F-2.2.1 and F-2.2.2	WRPS	L. Gurney/ L. Keith	6/1/2010	12/30/2010
			Incorporated into the response for F-2.2.2	MSA	P. Aldridge	6/1/2010	9/15/2010
			Incorporated into the response for F-2.2.2	MSA	P. Aldridge	6/1/2010	9/15/2010

Corrective Actions for Hanford Site Chronic Beryllium Disease Prevention Program

MSP Line ID	ID	Action Items:	Deliverable	Owner*	Resource	Start Date:	Completion Date
61	F-2.3.2	Risks associated with transient beryllium disturbance conditions that would not be detected by airborne sampling,	Incorporated into the response for F-2.2.2	MSA	P. Aldridge	6/1/2010	9/15/2010
62	F-2.3.3	The potential for beryllium contamination via dermal exposure,	Incorporated into the response for F-2.2.2	MSA	P. Aldridge	6/1/2010	9/15/2010
63	F-2.3.4	Genetic factors make some individuals very susceptible to beryllium health effects (explanation of genetic factors).	Incorporated into the response for F-2.2.2	MSA	P. Aldridge	6/1/2010	9/15/2010
64	F-2.4	Improve communications between the HAMMER training organization and outside organizations by facilitating the sharing of comments or concerns with training courses.	Development and implementation of a new formalized communication/training review plan for HAMMER/CBDPPP Committee/BAG/HAMTC.	MSA	P. Aldridge	Complete	Complete
65	F-2.4.1	Develop a formal feedback mechanism where individuals with comments or concerns can submit written feedback that includes a feature to provide communication back to the originator on the disposition of the comments, if requested by the originator.	Addressed by F-2.4.	MSA	P. Aldridge	Complete	Complete
66	F-2.5	Increase efforts to ensure that beryllium training course content is factually accurate. Review with the BAG/HAMTC existing beryllium training to ensure it contains:	Documented review of beryllium course content for factual accuracy of medical information presented, following coordination with BAG/HAMTC.	AMH	B. Fawcett	8/1/2010	9/30/2010
67	F-2.5.1	Accurate discussion of beryllium particle characteristics and mechanism of biological effects in the lungs.	Documented review of beryllium course content for factual accuracy of information presented, following coordination with BAG/HAMTC. Documented interface process with AMH to ensure beryllium training contains up-to-date, accurate medical information.	MSA	P. Aldridge	4/15/2010	9/30/2010
68	F-2.5.2	Accurate representation of the number of beryllium-affected employees.	Incorporated into the response for F-2.5	AMH	B. Fawcett	8/1/2010	9/30/2010
69	F-2.5.3	Accurate representation of the different types of beryllium areas and facilities.	Incorporated into the response for F-2.5	MSA	P. Aldridge	4/15/2010	9/30/2010
70	F-2.5.4	Accurate representation and description of the current posting and labeling required by the Hanford Site CBDPPP.	Incorporated into the response for F-2.5	MSA	P. Aldridge	4/15/2010	9/30/2010

Corrective Actions for Hanford Site Chronic Beryllium Disease Prevention Program

MSP Line ID	ID	Action Items:	Deliverable	Owner*	Resource	Start Date:	Completion Date
71	F-2.5.5	Accurate, but simplified description of the AdvanceMed Hanford flowchart for beryllium lymphocyte proliferation test results.	Incorporated into the response for F-2.5	AMH	B. Fawcett	8/1/2010	9/30/2010
72	F-2.5.6	Accurate, but simplified presentation of current beryllium exposure, release, and contamination limits, both regulatory and administrative.	Incorporated into the response for F-2.5	MSA	P. Aldridge	4/15/2010	9/30/2010
73	F-2.6	Review all aspects of the beryllium training to ensure that employees are adequately trained and qualified to perform work activities in beryllium areas.	Incorporated into the response for F-2.5	MSA	P. Aldridge	4/15/2010	9/30/2010
74	F-2.6.1	Establish training requirements for IHTs and IH professionals who conduct beryllium sampling or work in potential beryllium-contaminated facilities.	Documented review of training programs to verify the requirements of 10 CFR 850 and the CAP are met, and listed in the CBDPP.	MSA	R. Gilmore	9/1/2010	12/30/2010
75	F-2.6.2	Update the beryllium training program requirements currently posted on the contractor's beryllium website.	Develop site-wide criteria for the training of IHTs and IHTs.	CHPRC	M. Hughey	8/1/2010	9/15/2010
76	F-2.6.3	Communicate to each worker the 2009 ACGIH TLV and the current status of ongoing evaluations within OSHA, at the site, and at Headquarters concerning the plausibility of adopting this value at Hanford and across the DOE complex.	Develop site-wide criteria for the training of IHTs and IHTs.	MSA	R. Gilmore	8/1/2010	9/15/2010
77	F-2.6.4	Train beryllium associated workers as required by 10 CFR 850.37	Develop site-wide criteria for the training of IHTs and IHTs.	WRPS	L. Gurney	8/1/2010	9/15/2010
78	F-3	Finding #3: AMH has not always analyzed medical, job, and exposure data for employees diagnosed as sensitized or having CBD and thus is not collecting information needed to	Documentation that the Beryllium Worker Training Manual and the Beryllium Associated Worker Training Module are posted on the Beryllium website.	MSA	R. Gilmore	6/30/2010	8/31/2010
79	F-3.1	Develop a process to ensure that the required beryllium workplace monitoring (exposure, personal protective equipment, work location, exposure monitoring, etc.) information and data from contractors is provided in a timely manner to AMH to be included in worker medical records so that clinicians can access the data during medical monitoring examinations as required by the Hanford CBDPP.	Incorporate this information into the Beryllium Worker training.	MSA	R. Gilmore	8/1/2010	10/1/2010
			Incorporate the new revised Beryllium module into HGET (module subject to revision per F-2.1).	MSA	R. Gilmore	6/30/2010	Complete
			Develop and implement a process to ensure data required by 10 CFR 850.39 and 10 CFR 850.34 is provided to AMH pending the development of the Hanford site-wide IH database.	All Contractors except AMH	See below	8/1/2010	10/1/2010
			Develop and implement a process to ensure data required by 10 CFR 850.39 and 10 CFR 850.34 is received, reviewed, and managed by AMH pending the development of the Hanford site-wide IH database.	AMH	L. Gates	8/1/2010	10/1/2010

Corrective Actions for Hanford Site Chronic Beryllium Disease Prevention Program

MSP Line ID	ID	Action Items:	Deliverable	Owner*	Resource	Start Date:	Completion Date
80	F-3.1.1	Determine the information necessary to create a comprehensive occupational history and methods contractors can use to provide their portion of that data in an effective and efficient manner.	Incorporated into the response for F-3.1	AMH	B. Fawcett	8/1/2010	10/1/2010
			Incorporated into the response for F-3.1	CHPRC	M. Hughey	8/1/2010	10/1/2010
			Incorporated into the response for F-3.1	MSA	R. Gilmore	8/1/2010	10/1/2010
			Incorporated into the response for F-3.1	WCH	D. Bignell	8/1/2010	10/1/2010
			Incorporated into the response for F-3.1	WRPS	L. Gurney	8/1/2010	10/1/2010
81	F-3.1.2	Determine whether any creative changes to the EJTA can provide data for AMH to use in this manner and in their evaluation of beryllium-affected workers. (Verified by the BAG.)	Support development of, and implement, a new site-wide EJTA process.	AMH	B. Fawcett	9/1/2010	9/30/2011
			Support development of, and implement, a new site-wide EJTA process.	CHPRC	M. Hughey	9/1/2010	9/30/2011
			(1) Develop requirements document for new site-wide EJTA and coordinate with contractor representatives and BAG/HAMTC, (2) Implement new site-wide EJTA process	MSA	R. Gilmore	9/1/2010	1) 3/1/2011 2) 9/30/2011
			Support development of, and implement, a new site-wide EJTA process.	WCH	D. Bignell	9/1/2010	9/30/2011
			Support development of, and implement, a new site-wide EJTA process.	WRPS	L. Gurney	9/1/2010	9/30/2011
82	F-3.1.3	Review each contractor's process for sending beryllium workplace monitoring results to AMH and identify areas for improvement. Ensure that areas for improvement are addressed by AMH and the contractors.	Incorporated into the response for F-3.1	AMH	B. Fawcett	8/1/2010	10/1/2010
			Incorporated into the response for F-3.1	CHPRC	M. Hughey	8/1/2010	10/1/2010
			Incorporated into the response for F-3.1	MSA	R. Gilmore	8/1/2010	10/1/2010
			Incorporated into the response for F-3.1	WCH	D. Bignell	8/1/2010	10/1/2010
			Incorporated into the response for F-3.1	WRPS	L. Gurney	8/1/2010	10/1/2010
83	F-3.1.4	Provide feedback mechanisms from AMH to the Hanford contractors on the status of beryllium workplace monitoring submittals and/or the lack of submittals. Quarterly report deficiencies in this area to RL, ORP, the Hanford contractor(s), the BAG, and the CBDPP Committee.	Incorporated into the response for F-3.1	AMH	B. Fawcett	8/1/2010	10/1/2010
			Incorporated into the response for F-3.1	CHPRC	M. Hughey	8/1/2010	10/1/2010
			Incorporated into the response for F-3.1	MSA	R. Gilmore	8/1/2010	10/1/2010
			Incorporated into the response for F-3.1	WCH	D. Bignell	8/1/2010	10/1/2010
			Incorporated into the response for F-3.1	WRPS	L. Gurney	8/1/2010	10/1/2010
84	F-3.1.5	Using an audit process with RL/ORP/BAG and an external group to help with an annual evaluation of the AMH Medical Support Plan (MSP) and to evaluate changes when deficiencies are noted. (This response only applies to AMH/DOE.)	Documented plan for self assessment audits of the AMH MSP.	AMH	B. Fawcett	8/1/2010	10/1/2010
			Establish contract with the Federal Occupational Health office to oversee the AMH MSP.	RL	K. Flynn	7/1/2010	8/13/2010

Corrective Actions for Hanford Site Chronic Beryllium Disease Prevention Program

MSP Line ID	ID	Action Items:	Deliverable	Owner*	Resource	Start Date:	Completion Date
85	F-3.1.6	Develop milestones to be achieved for the CBDPP for AMH and contractors.	This item is addressed by this CAP	AMH	J. Zaccaria	7/1/2010	9/30/2010
			This item is addressed by this CAP	CHPRC	M. Hughey	7/1/2010	9/30/2010
			This item is addressed by this CAP	MSA	R. Gilmore	7/1/2010	9/30/2010
			This item is addressed by this CAP	WCH	D. Bignell	7/1/2010	9/30/2010
			This item is addressed by this CAP	WRPS	L. Gurney	7/1/2010	9/30/2010
86	F-3.1.7	Ensure that the requirements of 10 CFR 850.39 and 10 CFR 850.34 are being appropriately implemented, including baseline medical monitoring for beryllium-associated workers. (This response only applies to AMH.)	Development of a process for meeting the requirements of 10 CFR 850.39 and 10 CFR 850.34, including a questionnaire for 1) new workers, 2) affected workers, and 3) current site workers; coordinate with the BAG.	AMH	B. Fawcett	8/1/2010	12/1/2010
87	F-3.2	Establish responsibilities of AMH and the Hanford contractors for collecting, communicating, and entering data into the beryllium registry.	Root cause analysis document.	AMH	L. Zaccaria	8/1/2010	10/1/2010
88	F-3.2.1	Determine the root cause for Hanford contractors providing incomplete and inaccurate information to the beryllium registry database.	Provide input to root cause analysis.	CHPRC	M. Hughey	8/1/2010	10/1/2010
			Provide input to root cause analysis.	MSA	R. Gilmore	8/1/2010	10/1/2010
			Provide input to root cause analysis.	WCH	D. Bignell	8/1/2010	10/1/2010
			Provide input to root cause analysis.	WRPS	L. Gurney	8/1/2010	10/1/2010
			Develop and implement a process for transmitting the information required by 10 CFR 850.39 and the CBDPP to the beryllium registry.	AMH	B. Fawcett	8/1/2010	10/1/2010
89	F-3.2.2	Develop a process that addresses these root cause(s).	Develop and implement a process for transmitting the information required by 10 CFR 850.39 and the CBDPP to the beryllium registry.	CHPRC	M. Hughey	8/1/2010	10/1/2010
			Develop and implement a process for transmitting the information required by 10 CFR 850.39 and the CBDPP to the beryllium registry.	MSA	R. Gilmore	8/1/2010	10/1/2010
			Develop and implement a process for transmitting the information required by 10 CFR 850.39 and the CBDPP to the beryllium registry.	WCH	D. Bignell	8/1/2010	10/1/2010
			Develop and implement a process for transmitting the information required by 10 CFR 850.39 and the CBDPP to the beryllium registry.	WRPS	L. Gurney	8/1/2010	10/1/2010
			Incorporate oversight of beryllium registry input into the DOE oversight planning process.	RL/ORP	R. Corey/ W. Taylor	9/1/2010	9/30/2010

* Lead organization for site-wide products is shown in bold.

Corrective Actions for Hanford Site Chronic Beryllium Disease Prevention Program

MSP Line ID	ID	Action Items:	Deliverable	Owner*	Resource	Start Date:	Completion Date
91	F-3.2.4	Provide training for the Hanford contractors on the data submission process	Develop and conduct training for beryllium registry input, including AMH personnel.	AMH	B. Fawcett	10/1/2010	12/1/2010
			Documented participation in beryllium registry training.	CHPRC	M. Hughey	10/1/2010	12/1/2010
			Documented participation in beryllium registry training.	MSA	R. Gilmore	10/1/2010	12/1/2010
			Documented participation in beryllium registry training.	WCH	D. Bignell	10/1/2010	12/1/2010
			Documented participation in beryllium registry training.	WRPS	L. Gurney	10/1/2010	12/1/2010
92	F-3.3	Coordinate with the BAG to improve the requirements in the Hanford CBDPP concerning the interface between AMH and the contractor industrial hygiene staff regarding beryllium workplace monitoring information and in the data analysis of newly diagnosed sensitized or CBD workers.	The revision to the CBDPP concerning the interface between AMH and the contractors, as part of the process in F-3.1.	All Contractors	See below	10/1/2010	12/1/2010
			This item shall be incorporated into the response for F-3.3.2.	AMH	B. Fawcett	11/1/2010	4/1/2011
93	F-3.3.1	Establish a contractor safety and health staff/AMH coordination process to gather accurate and complete information on work histories for inclusion in the beryllium data analysis process. The process should consist of questionnaires and interviews so that examples and suggestions from staff familiar with the work environment can provide assistance to the workers.	Support development of database and process per F-3.3.2 below.	CHPRC	M. Hughey	11/1/2010	4/1/2011
			Support development of database and process per F-3.3.2 below.	MSA	R. Gilmore	11/1/2010	4/1/2011
			Support development of database and process per F-3.3.2 below.	WCH	D. Bignell	11/1/2010	4/1/2011
			Support development of database and process per F-3.3.2 below.	WRPS	L. Gurney	11/1/2010	4/1/2011
94	F-3.3.2	In conjunction with the BAG/HAMTC, develop an integrated epidemiologic approach for beryllium worker data analysis that would include researching information on buildings, job tasks, classifications, year of first hire, EJTA data, and other such information that may have resulted in beryllium sensitization and CBD. Include the integration of data/information derived from medical surveillance with industrial hygiene/workplace risk factors. Include reinstatement of a work history questionnaire and supplement the questionnaire with interviews of affected workers to address relevant workplace risk factors.	1) Hire IH to conduct interviews, 2) Develop database and process, 3) Issue report analyzing data.	AMH	B. Fawcett	11/1/2010	1) 12/1/2010 2) 4/1/2011 3) 9/30/2011

Corrective Actions for Hanford Site Chronic Beryllium Disease Prevention Program

MSP Line ID	ID	Action Items:	Deliverable	Owner*	Resource	Start Date:	Completion Date
95	F-3.3.3	Charter a separate/independent epidemiologic study by a qualified entity (e.g., a university) to assemble the Hanford surveillance data in cohort design to clearly describe beryllium sensitization and CBD risk in the workforce and help identify opportunities for prevention. (This response only applies to MSA.)	In consultation with RL/ORP/BAG, develop scope of work and issue contract.	MSA	R. Gilmore	10/1/2010	5/1/2011
96	F-3.3.4	Interview workers who have been sensitized or developed CBD and that are not long-term employees who worked at Hanford before the beryllium rule was issued (e.g., employed at Hanford less than 12 years) to obtain as much detail about work history details as possible to identify potential locations or sources of beryllium contamination. (This response only applies to MSA.)	Develop and implement a public relations campaign to solicit information from former workers. The campaign shall be coordinated with the BAG/HAMTC before implementation.	MSA	R. Gilmore	9/1/2010	3/1/2011
97	F-3.3.5	Use the beryllium registry data as an important risk management tool that can assist medical and contractor safety and health staff in focusing their efforts and soliciting issues related to the CBDPPP. (This response only applies to AMH.)	Host a documented teleconference with ORISE, contractors, including a BAG and HAMTC representative	AMH	B. Fawcett	1/1/2011	3/1/2011
98	F-3.3.6	Re-review the information related to the beryllium medical surveillance program. Track and analyze this data to identify the rates, times, and locations of Hanford workers' beryllium testing results, which may provide some trends or data to establish possible beryllium job tasks or locations of concern. (Only applies to AMH.)	Revise the medical surveillance program based on a documented review of other DOE-complex programs, such as Los Alamos, and coordinate with the BAG/HAMTC.	AMH	B. Fawcett	10/1/2010	3/1/2011
99	F-3.3.7	Use these improvement items when performing the current task to reinitiate and complete the data analysis that was deferred over the last few years. (This response only applies to AMH.)	Perform completed analysis of deferred data in accordance with 10 CFR 850.34(h).	AMH	B. Fawcett	1/1/2011	5/1/2011
100	F-3.3.8	Consistently apply the EJTA program across the site to include participation between the manager, employee, and IH and inform workers of their ability to either formally agree or disagree with the final EJTA form sent to medical.	Incorporated into the Response for F-3.1.2	AMH	B. Fawcett	9/1/2010	3/1/2011
			Incorporated into the Response for F-3.1.2	CHPRC	M. Hughey	9/1/2010	3/1/2011
			Incorporated into the Response for F-3.1.2	MSA	R. Gilmore	9/1/2010	3/1/2011
			Incorporated into the Response for F-3.1.2	WCH	D. Bignell	9/1/2010	3/1/2011
			Incorporated into the Response for F-3.1.2	WRPS	L. Gurney	9/1/2010	3/1/2011
101	F-3.4	Solicit comments to improve the work history questionnaire from several sources including current beryllium workers, past beryllium workers, sensitized/CBD workers, Beryllium Awareness Group members, Hanford Advisory Board members, etc.	Revise the work history questionnaire based on coordination with the BAG/HAMTC and provide the questionnaire to the HAB for comment.	AMH	B. Fawcett	8/1/2010	11/1/2010

Corrective Actions for Hanford Site Chronic Beryllium Disease Prevention Program

MSP Line ID	ID	Action Items:	Deliverable	Owner*	Resource	Start Date:	Completion Date
102	F-3.4.1	Establish a new beryllium coordinator who is tasked with re-vitalizing the association between AMH and other stakeholders, such as the Beryllium Awareness Group; contractor advocates; contractor environment, safety, and health staff (including industrial hygiene staff); and other groups interested in beryllium issues.	Hiring of a new Beryllium Coordinator.	AMH	B. Fawcett	10/1/2010	12/1/2010
103	F-3.4.2	Provide sufficient AMH staff to adequately support the beryllium program so that all of the requirements of 10 CFR 850 are met, including: worker exposures are included in worker records; beryllium-affected workers are properly protected from ongoing beryllium exposures; newly sensitized workers are interviewed regarding their current and past beryllium exposures; and records and documents related to beryllium-associated workers are properly maintained.	Hiring of a new Beryllium Case Manager, a IH to conduct interviews, and a beryllium administrative FTE	AMH	B. Fawcett	10/1/2010	12/1/2010
104	F-4	Finding #4: WRPS, CHPRC, MSA, and WCH have not ensured that their work planning and control processes and their implementation of those processes in beryllium-controlled	Implementation of interim direction provided by RL/ORP.	AMH	B. Fawcett	9/15/2010	11/30/2010
			Implementation of interim direction provided by RL/ORP.	CHPRC	M. Hughey	9/15/2010	11/30/2010
			Implementation of interim direction provided by RL/ORP.	MSA	R. Gilmore	9/15/2010	11/30/2010
			Implementation of interim direction provided by RL/ORP.	WCH	D. Bignell	9/15/2010	11/30/2010
			Implementation of interim direction provided by RL/ORP.	WRPS	L. Gurney	9/15/2010	11/30/2010
			Issue interim action letters.	RL/ORP	P. Garcia/ W. Taylor	7/1/2010	9/15/2010
105	F-4.1	Post facilities as beryllium-controlled facilities in accordance with the CBDPP when there is some evidence that beryllium activity may have occurred in the past and characterization sampling has not been completed. Include facilities under interim controls that are awaiting characterization.					

* Lead organization for site-wide products is shown in bold.

Corrective Actions for Hanford Site Chronic Beryllium Disease Prevention Program

MSP Line ID	ID	Action Items:	Deliverable	Owner*	Resource	Start Date:	Completion Date
106	F-4.2	Beryllium-controlled area postings shall be changed to comply with ANSI recommendations (orange background) and all postings shall be updated.	Documentation that the updated signs have been posted. Update of the CBDPP to reflect the new postings. Documentation that the updated signs have been posted. Update of the CBDPP to reflect the new postings. Documentation that the updated signs have been posted. Update of the CBDPP to reflect the new postings. Update HAMMER Be training. Documentation that the updated signs have been posted. Update of the CBDPP to reflect the new postings. Documentation that the updated signs have been posted. Update of the CBDPP to reflect the new postings.	AMH CHPRC MSA WCH WRPS	B. Fawcett M. Hughey R. Gilmore D. Bignell L. Gurney	7/1/2010 8/1/2010 8/1/2010 8/1/2010 8/1/2010	12/1/2010 12/1/2010 12/1/2010 12/1/2010 12/1/2010
107	F-4.3	Strengthen implementation of beryllium work controls.					
108	F-4.3.1	Establish a procedure for sampling the workplace and secondary workplaces of beryllium-affected workers in accordance with Section 6.14 of the CBDPP. Assign responsibilities and provide instructions for collecting wipe, bulk, and/or air samples and reporting results within specified time limits. Include a process for tracking the status of implementation.	Documented implementation of a site-wide process for characterization of the work areas of the affected workers that includes wipe/bulk sampling; and, in addition, each affected worker being offered air sampling. Documented implementation of a site-wide process for characterization of the work areas of the affected workers that includes wipe/bulk sampling; and, in addition, each affected worker being offered air sampling. Documented implementation of a site-wide process for characterization of the work areas of the affected workers that includes wipe/bulk sampling; and, in addition, each affected worker being offered air sampling. Documented implementation of a site-wide process for characterization of the work areas of the affected workers that includes wipe/bulk sampling; and, in addition, each affected worker being offered air sampling. Documented implementation of a site-wide process for characterization of the work areas of the affected workers that includes wipe/bulk sampling; and, in addition, each affected worker being offered air sampling.	AMH CHPRC MSA WCH WRPS	B. Fawcett M. Hughey W. Geer D. Bignell L. Gurney	8/1/2010 8/1/2010 8/1/2010 8/1/2010 8/1/2010	12/30/2010 12/30/2010 12/30/2010 12/30/2010 12/30/2010

* Lead organization for site-wide products is shown in bold.

Corrective Actions for Hanford Site Chronic Beryllium Disease Prevention Program

MSP Line ID	ID	Action Items:	Deliverable	Owner*	Resource	Start Date:	Completion Date
109	F-4.3.2	Establish a checklist for conducting pre-job briefings that includes a discussion of what can go wrong and steps to be taken if this should happen. Involve the project industrial hygienists in pre-job briefings for work involving potential exposures to beryllium.	<p>Development and implementation of a site-wide checklist for Be pre-jobs. The checklist will include a prerequisite to ensure that the BWP covers the planned beryllium activity, a description of what needs to be discussed during the pre-job, and a signing page to document attendance at the pre-job and review of the BWP.</p> <p>Development and implementation of a site-wide checklist for Be pre-jobs. The checklist will include a prerequisite to ensure that the BWP covers the planned beryllium activity, a description of what needs to be discussed during the pre-job, and a signing page to document attendance at the pre-job and review of the BWP.</p> <p>Development and implementation of a site-wide checklist for Be pre-jobs. The checklist will include a prerequisite to ensure that the BWP covers the planned beryllium activity, a description of what needs to be discussed during the pre-job, and a signing page to document attendance at the pre-job and review of the BWP.</p> <p>Development and implementation of a site-wide checklist for Be pre-jobs. The checklist will include a prerequisite to ensure that the BWP covers the planned beryllium activity, a description of what needs to be discussed during the pre-job, and a signing page to document attendance at the pre-job and review of the BWP.</p>	CHPRC	M. Hughey	8/1/2010	11/1/2010
				MSA	M. Hermanson	8/1/2010	11/1/2010
				WCH	D. Bignell	8/1/2010	11/1/2010
				WRPS	L. Gurney	8/1/2010	11/1/2010

* Lead organization for site-wide products is shown in bold.

Corrective Actions for Hanford Site Chronic Beryllium Disease Prevention Program

MSP Line ID	ID	Action Items:	Deliverable	Owner*	Resource	Start Date:	Completion Date
110	F-4.3.3	Reinforce the need to establish job-specific BWPs when job-specific controls are needed and when some controls specified on an applicable standing BWP are not applicable.	Develop a site-wide process for identifying when a job-specific BWP is appropriate and provide the process for review to DOE/BAG/HAMTC.	CHPRC	M. Hughey	8/1/2010	11/1/2010
			Develop a site-wide process for identifying when a job-specific BWP is appropriate and provide the process for review to DOE/BAG/HAMTC.	MSA	M. Hermanson	8/1/2010	11/1/2010
			Develop a site-wide process for identifying when a job-specific BWP is appropriate and provide the process for review to DOE/BAG/HAMTC.	WCH	D. Bignell	8/1/2010	11/1/2010
111	F-4.3.4	Establish a process for assessing, documenting, and reporting beryllium exposures when beryllium is associated with radioactivity, and when radioactivity measurements indicate the presence of airborne radioactivity (corrected to beryllium).	Develop a site-wide process for identifying when a job-specific BWP is appropriate and provide the process for review to DOE/BAG/HAMTC.	WRPS	L. Gurney	8/1/2010	11/1/2010
			Development and coordination with DOE/BAG/HAMTC of a site-wide guide that describes how to assess, document, and report beryllium exposures that are associated with radioactivity.	CHPRC	M. Hughey	9/1/2010	12/30/2010
			Development and coordination with DOE/BAG/HAMTC of a site-wide guide that describes how to assess, document, and report beryllium exposures that are associated with radioactivity.	MSA	R. Gilmore	9/1/2010	12/30/2010
			Development and coordination with DOE/BAG/HAMTC of a site-wide guide that describes how to assess, document, and report beryllium exposures that are associated with radioactivity.	WCH	D. Bignell	9/1/2010	12/30/2010
			Development and coordination with DOE/BAG/HAMTC of a site-wide guide that describes how to assess, document, and report beryllium exposures that are associated with radioactivity.	WRPS	L. Gurney	9/1/2010	12/30/2010

* Lead organization for site-wide products is shown in bold.

Corrective Actions for Hanford Site Chronic Beryllium Disease Prevention Program

MSP Line ID	ID	Action Items:	Deliverable	Owner*	Resource	Start Date:	Completion Date
112	F-4.4	Promptly develop and implement additional controls to ensure the adequacy of work planning related to beryllium exposures.					
		Issue a directive to all planning, industrial hygiene and supervisory personnel, stating that previously published lists of beryllium-contaminated or potentially contaminated buildings are in error and are not to be used as a basis for work planning without confirming current classifications and status with the contractor's beryllium program subject matter expert or an official current contractor facility classification listing.	To be addressed as part of an interim action.	CHPRC	M. Hughey	9/15/2010	11/30/2010
113	F-4.4.1		To be addressed as part of an interim action.	MSA	R. Gilmore	9/15/2010	11/30/2010
			To be addressed as part of an interim action.	WCH	D. Bignell	9/15/2010	11/30/2010
			To be addressed as part of an interim action.	WRPS	L. Gurney	9/15/2010	11/30/2010
		Issue interim action letters.		RL/ORP	P. Garcia/ W. Taylor	7/1/2010	9/15/2010
		Develop a site-wide process with clear roles and responsibilities for coordinating activities for employees performing work in facilities controlled by other contractors.		CHPRC	M. Hughey	8/1/2010	11/1/2010
114	F-4.4.2	Establish formal and consistent methodologies for organizations to coordinate work planning activities for employees who provide services or conduct inspections and tests in facilities controlled by other contractors. Establish a mechanism for review and oversight of work planning conducted by other contractors for work performed by MSA employees.	Develop a site-wide process with clear roles and responsibilities for coordinating activities for employees performing work in facilities controlled by other contractors.	MSA	R. Gilmore	8/1/2010	11/1/2010
			Develop a site-wide process with clear roles and responsibilities for coordinating activities for employees performing work in facilities controlled by other contractors.	WCH	D. Bignell	8/1/2010	11/1/2010
			Develop a site-wide process with clear roles and responsibilities for coordinating activities for employees performing work in facilities controlled by other contractors.	WRPS	L. Gurney	8/1/2010	11/1/2010
			Addressed by F-1.1.6	CHPRC	M. Hughey	8/1/2010	11/30/2010
			Addressed by F-1.1.6	MSA	R. Gilmore	8/1/2010	11/30/2010
			Addressed by F-1.1.6	WCH	D. Bignell	8/1/2010	11/30/2010
115	F-4.4.3	Establish a formal process to address the controls needed to perform maintenance on electrical switchgear, switchgear cabinet internals, and overhead crane equipment or maintenance in other areas (e.g., Building 105B above six feet) that have a potential for beryllium contamination. Pending internal sampling, consider posting electrical switchgear cabinets that contain (or previously contained) breakers that may have had beryllium-containing components as "potential beryllium internal contamination" to provide another barrier protecting maintenance workers.	Addressed by F-1.1.6	WRPS	L. Gurney	8/1/2010	11/30/2010

* Lead organization for site-wide products is shown in bold.

Corrective Actions for Hanford Site Chronic Beryllium Disease Prevention Program

MSP Line ID	ID	Action Items:	Deliverable	Owner*	Resource	Start Date:	Completion Date
116	F-4.4.4	Focus the attention of upcoming CBDPP assessments on work control and protection of workers from inadvertent exposure to beryllium.	Already required by the CBDPP. Each contractor to provide an assessment schedule for work controls and protection of workers to their Field Office.	CHPRC	M. Hughey	8/1/2010	9/30/2010
			Already required by the CBDPP. Each contractor to provide an assessment schedule for work controls and protection of workers to their Field Office.	AMH	B. Fawcett	8/1/2010	9/30/2010
			Already required by the CBDPP. Each contractor to provide an assessment schedule for work controls and protection of workers to their Field Office.	MSA	R. Gilmore	8/1/2010	9/30/2010
			Already required by the CBDPP. Each contractor to provide an assessment schedule for work controls and protection of workers to their Field Office.	WCH	D. Bignell	8/1/2010	9/30/2010
			Already required by the CBDPP. Each contractor to provide an assessment schedule for work controls and protection of workers to their Field Office.	WRPS	L. Gurney	8/1/2010	9/30/2010
117	F-4.5	Identify and implement interim compensatory measures to protect workers and subcontractor workers until the Hanford CBDPP is fully implemented, assess the effectiveness of completed actions, and resolve any observed deficiencies.	To be addressed as part of an interim action.	AMH	B. Fawcett	9/15/2010	11/30/2010
			To be addressed as part of an interim action.	CHPRC	M. Hughey	9/15/2010	11/30/2010
			To be addressed as part of an interim action.	MSA	R. Gilmore	9/15/2010	11/30/2010
			To be addressed as part of an interim action.	WCH	D. Bignell	9/15/2010	11/30/2010
			To be addressed as part of an interim action.	WRPS	L. Gurney	9/15/2010	11/30/2010
			Issue interim action letters.	RL/ORP	P. Garcia/ W. Taylor	7/1/2010	9/15/2010

Corrective Actions for Hanford Site Chronic Beryllium Disease Prevention Program

MSP Line ID	ID	Action Items:	Deliverable	Owner*	Resource	Start Date:	Completion Date
118	F-4.6	Review and revise work control processes to minimize the potential for worker exposure and spread of beryllium contamination.	Document review and revision (if necessary) of work control process which addresses the hazard assessment requirements of section 6.8 of the site-wide CBDPP. Document review and revision (if necessary) of work control process which addresses the hazard assessment requirements of section 6.8 of the site-wide CBDPP. Document review and revision (if necessary) of work control process which addresses the hazard assessment requirements of section 6.8 of the site-wide CBDPP. Document review and revision (if necessary) of work control process which addresses the hazard assessment requirements of section 6.8 of the site-wide CBDPP.	CHPRC MSA WCH	M. Hughey R. Gilmore D. Bignell	9/1/2010 9/1/2010 9/1/2010	11/30/2010 11/30/2010 11/30/2010
119	F-4.6.1	Review and revise criteria for establishing BCAs and BRAs to ensure that disturbed beryllium contamination does not migrate beyond the area perimeter.	Develop a site-wide approach for how to handle dust producing work that includes consideration of engineering controls in accordance with section 6.17 of the site wide CBDPP. Develop a site-wide approach for how to handle dust producing work that includes consideration of engineering controls in accordance with section 6.17 of the site wide CBDPP. Develop a site-wide approach for how to handle dust producing work that includes consideration of engineering controls in accordance with section 6.17 of the site wide CBDPP. Develop a site-wide approach for how to handle dust producing work that includes consideration of engineering controls in accordance with section 6.17 of the site wide CBDPP.	CHPRC MSA WCH	M. Hughey R. Gilmore D. Bignell	10/1/2010 10/1/2010 10/1/2010	12/1/2010 12/1/2010 12/1/2010

* Lead organization for site-wide products is shown in bold.

Corrective Actions for Hanford Site Chronic Beryllium Disease Prevention Program

MSP Line ID	ID	Action Items:	Deliverable	Owner*	Resource	Start Date:	Completion Date
120	F-4.6.2	Consider using physical barriers in lieu of rope barriers for BCAs where appropriate in areas where dust producing activities occur.	<p>Develop a site-wide process for how to manage dust producing work that includes a graded approach based on feasibility and size of the BCA/BRA, in accordance with sections 6.8 and 6.17 of the CBDPPP.</p> <p>Develop a site-wide process for how to manage dust producing work that includes a graded approach based on feasibility and size of the BCA/BRA, in accordance with sections 6.8 and 6.17 of the CBDPPP.</p> <p>Develop a site-wide process for how to manage dust producing work that includes a graded approach based on feasibility and size of the BCA/BRA, in accordance with sections 6.8 and 6.17 of the CBDPPP.</p> <p>Develop a site-wide process for how to manage dust producing work that includes a graded approach based on feasibility and size of the BCA/BRA, in accordance with sections 6.8 and 6.17 of the CBDPPP.</p>	CHPRC MSA WCH	M. Hughey R. Gilmore D. Bignell	10/1/2010 10/1/2010 10/1/2010	12/1/2010 12/1/2010 12/1/2010
121	F-4.6.3	Analyze air monitoring data from BCAs and BRAs to document the basis for decisions to downgrade PPE requirements following activities that may disturb beryllium contamination.	<p>Develop a site-wide process for how to manage dust producing work that includes criteria for downgrading PPE requirements, in accordance with section 6.11.2 of the CBDPPP, that requires the use of area air monitoring.</p> <p>Develop a site-wide process for how to manage dust producing work that includes criteria for downgrading PPE requirements, in accordance with section 6.11.2 of the CBDPPP, that requires the use of area air monitoring.</p> <p>Develop a site-wide process for how to manage dust producing work that includes criteria for downgrading PPE requirements, in accordance with section 6.11.2 of the CBDPPP, that requires the use of area air monitoring.</p>	CHPRC MSA WCH	M. Hughey R. Gilmore D. Bignell	10/1/2010 10/1/2010 10/1/2010	12/1/2010 12/1/2010 12/1/2010

* Lead organization for site-wide products is shown in bold.

Corrective Actions for Hanford Site Chronic Beryllium Disease Prevention Program

MSP Line ID	ID	Action Items:	Deliverable	Owner*	Resource	Start Date:	Completion Date
122	F-4.6.4	Review and revise the BWPs to reflect revisions.	Document a process for configuration control of BWPs, as required by Attachment 3 of the CBDPP. Document a process for configuration control of BWPs, as required by Attachment 3 of the CBDPP. Document a process for configuration control of BWPs, as required by Attachment 3 of the CBDPP. Document a process for configuration control of BWPs, as required by Attachment 3 of the CBDPP.	CHPRC MSA WCH	M. Hughey R. Gilmore D. Bignell	10/1/2010 10/1/2010 10/1/2010	12/1/2010 12/1/2010 12/1/2010
123	F-4.7	Enhance communication of personal air monitoring data to workers.	Revise section 6.11.8 of the CBDPP to enhance communication of personal and area air monitoring data to workers and implement revised program.	All Contractors	See below	9/1/2010	12/1/2010
124	F-4.7.1	Establish central posting areas in reasonable proximity to where employees work.	Incorporated into the response for F-4.7 Incorporated into the response for F-4.7 Incorporated into the response for F-4.7 Incorporated into the response for F-4.7 Incorporated into the response for F-4.7 Incorporated into the response for F-4.7	AMH CHPRC MSA WCH WRPS	B. Fawcett M. Hughey R. Gilmore D. Bignell L. Gurney	9/1/2010 9/1/2010 9/1/2010 9/1/2010 9/1/2010	12/1/2010 12/1/2010 12/1/2010 12/1/2010 12/1/2010
125	F-4.7.2	Provide reminders to workers that personal air monitoring results are centrally posted. Include a brief statement in BWPs, discuss at pre-evolution briefings, and inform workers through other appropriate means (e.g., Be worker training).	Incorporated into the response for F-4.7 Incorporated into the response for F-4.7 Incorporated into the response for F-4.7 Incorporated into the response for F-4.7	AMH CHPRC MSA WCH WRPS	B. Fawcett M. Hughey R. Gilmore D. Bignell L. Gurney	9/1/2010 9/1/2010 9/1/2010 9/1/2010 9/1/2010	12/1/2010 12/1/2010 12/1/2010 12/1/2010 12/1/2010
126	F-4.8	Evaluate the benefits (e.g., consistency across the site) and challenges associated with requiring all operations at the 222-S Laboratory and WSCF to comply with the requirements of the Hanford Site CBDPP.	Documented review of specific actions taken to assure equivalent or greater protection and protective benefits to laboratory workers handling/using Be materials when the 'exemption' in 10 CFR 850.2 is utilized. Documented review of specific actions taken to assure equivalent or greater protection and protective benefits to laboratory workers handling/using Be materials when the 'exemption' in 10 CFR 850.2 is utilized.	WRPS	J. Hwang/ L. Gurney	7/1/2010	10/1/2010
127	F-4.8.1	Assess the validity of the ATL determination (F-4.8) that all ATL activities fall under the scope of 29 CFR 1910.1450 and, therefore, are exempt from the requirements of 10 CFR 850.	Documented determination of the applicability of 10 CFR 850 to laboratory operations at 222-S and WSCF.	RL/ORP	M. McCormick/ D. Brockman	10/1/2010	12/1/2010

* Lead organization for site-wide products is shown in bold.

Corrective Actions for Hanford Site Chronic Beryllium Disease Prevention Program

MSP Line ID	ID	Action Items:	Deliverable	Owner*	Resource	Start Date:	Completion Date
128	F-4.8.2	Perform a gap analysis for the 222-S facility and WSCF to identify the worker protection benefits provided under 10 CFR 850, that may not be afforded under 29 CFR 1910.1450 with respect to beryllium use (e.g., beryllium associate training for ATL employees who previously worked at other Hanford beryllium facilities, medical surveillance, medical removal protection).	Incorporated into the response for F-4.8	WRPS	J. Hwang/ L. Gurney	7/1/2010	10/1/2010
129	F-4.8.3	Evaluate the impact of having co-located workers (i.e., ATL and WRPS) following different requirements for beryllium in the same facility.	Incorporated into the response for F-4.8	WRPS	J. Hwang/ L. Gurney	7/1/2010	10/1/2010
130	F-4.9	Provide all workers who are potentially exposed to beryllium either through work activities or work location the protective benefits of the CBDPP, including ATL and WRPS workers at the 222-S Laboratories.	Incorporated into the response for F-4.8	MSA	L. Lockrem	7/1/2010	10/1/2010
131	F-4.9.1	Verify that WRPS employees within the 222-S Laboratories are working under the CBDPP requirements, particularly with respect to performing maintenance in laboratory areas that are suspected to have potential beryllium contamination (e.g., chemical fume hoods and ducting).	Incorporated into the response for F-4.8	WRPS	J. Hwang/ L. Gurney	7/1/2010	10/1/2010
132	F-4.9.2	Complete the re-sampling of the hazardous material control cabinet(s) for beryllium and post accordingly.	Verification that WRPS employees working within the 222-S laboratory are working under the CBDPP requirements. Verification that non-lab operations MSA employees working within WSCF are working under the CBDPP requirements.	WRPS	L. Lockrem	7/1/2010	10/1/2010
133	F-4.9.3	Revise the 222-S facility assessment forms to include a more robust past history, and include ancillary facilities or cabinets that may have been used for tool storage.	Complete resampling of cabinet discussed in HSS report. Other cabinets will be addressed as part of F-4.9.3. Revised 222-S facility assessment forms in accordance with updated characterization process (F-1.3). Revised WSCF facility assessment forms in accordance with updated characterization process (F-1.3).	WRPS	L. Gurney	7/1/2010	9/15/2010
				WRPS	L. Gurney	10/1/2010	1/31/2011
				MSA	L. Lockrem	10/1/2010	1/31/2011

* Lead organization for site-wide products is shown in bold.

Corrective Actions for Hanford Site Chronic Beryllium Disease Prevention Program

MSP Line ID	ID	Action Items:	Deliverable	Owner*	Resource	Start Date:	Completion Date
134	F-4.10	Review all aspects of contractor work control systems to ensure that current and planned beryllium work activities are sufficiently addressed.					
135	F-4.10.1	Develop and provide detailed instructions on the use and completion of the BWP.	Development of consistent requirements for each contractor's procedure on use and completion of the BWP which addresses the hazard assessment requirements of sections 6.7 and 6.8 of the site-wide CBDPP.	CHPRC	M. Hughey	9/1/2010	11/30/2010
			Development of consistent requirements for each contractor's procedure on use and completion of the BWP which addresses the hazard assessment requirements of sections 6.7 and 6.8 of the site-wide CBDPP.	MSA	R. Gilmore	9/1/2010	11/30/2010
			Development of consistent requirements for each contractor's procedure on use and completion of the BWP which addresses the hazard assessment requirements of sections 6.7 and 6.8 of the site-wide CBDPP.	WCH	D. Bignell	9/1/2010	11/30/2010
			Development of consistent requirements for each contractor's procedure on use and completion of the BWP which addresses the hazard assessment requirements of sections 6.7 and 6.8 of the site-wide CBDPP.	WRPS	C. Salinas/ L. Gurney	9/1/2010	11/30/2010
136	F-4.10.2	Define the expectations for the work control planners with respect to the implementation of the CBDPP, and provide training and modifications to work control procedures, as appropriate.	Incorporate expectations for work control planners with respect to the implementation of the CBDPP into the training for PICs, Planners, and FW5s (F-2.2).	CHPRC	M. Hughey	6/1/2010	12/30/2010
			Incorporate expectations for work control planners with respect to the implementation of the CBDPP into the training for PICs, Planners, and FW5s (F-2.2).	MSA	R. Gilmore	6/1/2010	12/30/2010
			Incorporate expectations for work control planners with respect to the implementation of the CBDPP into the training for PICs, Planners, and FW5s (F-2.2).	WCH	D. Bignell	6/1/2010	12/30/2010
			Incorporate expectations for work control planners with respect to the implementation of the CBDPP into the training for PICs, Planners, and FW5s (F-2.2).	WRPS	L. Gurney/ L. Keith	6/1/2010	12/30/2010

* Lead organization for site-wide products is shown in bold.

Corrective Actions for Hanford Site Chronic Beryllium Disease Prevention Program

MSP Line ID	ID	Action Items:	Deliverable	Owner*	Resource	Start Date:	Completion Date
137	F-4.10.3	Train workers involved in waste handling and packaging to the labeling requirements of the CBDPP and provide them with current labels as indicated in the CBDPP.	Provide current labels in accordance with the CBDPP to workers, and ensure that workers packaging beryllium waste are briefed on their use. Incorporate this information into the Beryllium Worker training. Provide current labels in accordance with the CBDPP to workers, and brief workers on their use. Provide current labels in accordance with the CBDPP to workers, and brief workers on their use. Provide current labels in accordance with the CBDPP to workers, and brief workers on their use.	CHPRC MSA WCH WRPS	M. Hughey P. Aldridge D. Bignell L. Gurney	7/30/2010 7/30/2010 7/30/2010 7/30/2010	9/30/2010 9/30/2010 9/30/2010 9/30/2010
138	F-4.10.4	Verify that all buildings awaiting beryllium characterization are posted as BCFs, in accordance with the requirements of the CBDPP.	Addressed in F-4.1 Addressed in F-4.1 Addressed in F-4.1 Addressed in F-4.1	CHPRC MSA WCH WRPS	M. Hughey R. Gilmore D. Bignell L. Gurney	9/15/2010 9/15/2010 9/15/2010 9/15/2010	11/30/2010 11/30/2010 11/30/2010 11/30/2010
139	F-4.10.5	Verify that all facility postings for BCAs are appropriately posted per the CBDPP.	Addressed in F-4.1 Addressed in F-4.1 Addressed in F-4.1 Addressed in F-4.1	CHPRC MSA WCH WRPS	M. Hughey R. Gilmore D. Bignell L. Gurney	9/15/2010 9/15/2010 9/15/2010 9/15/2010	11/30/2010 11/30/2010 11/30/2010 11/30/2010
140	F-4.10.6	Establish procedures for the establishment, use, and down-posting of BCFs and BCAs.	Develop site-wide criteria. Procedures for implementation of the site-wide criteria will be contractor specific. Develop site-wide criteria. Procedures for implementation of the site-wide criteria will be contractor specific. Develop site-wide criteria. Procedures for implementation of the site-wide criteria will be contractor specific. Develop site-wide criteria. Procedures for implementation of the site-wide criteria will be contractor specific.	CHPRC MSA WCH WRPS	M. Hughey R. Gilmore D. Bignell L. Gurney	10/1/2010 10/1/2010 10/1/2010 10/1/2010	12/1/2010 12/1/2010 12/1/2010 12/1/2010
141	F-4.10.7	Revisit the work control process to ensure that facility beryllium hazards are identified, assessed, communicated, and controlled for work activities are incorporated into the BWP and the hazard assessment requirements of the CBDPP.	Incorporated into the response for F-4.6 Incorporated into the response for F-4.6 Incorporated into the response for F-4.6 Incorporated into the response for F-4.6	CHPRC MSA WCH WRPS	M. Hughey R. Gilmore D. Bignell L. Gurney	9/1/2010 9/1/2010 9/1/2010 9/1/2010	11/30/2010 11/30/2010 11/30/2010 11/30/2010

* Lead organization for site-wide products is shown in bold.

Corrective Actions for Hanford Site Chronic Beryllium Disease Prevention Program

MSP Line ID	ID	Action Items:	Deliverable	Owner*	Resource	Start Date:	Completion Date
142	F-4.10.8	Review the JHA process to ensure that beryllium hazards and controls are identified.	Incorporated into the response for F-4.6	CHPRC	M. Hughey	9/1/2010	11/30/2010
			Incorporated into the response for F-4.6	MSA	R. Gilmore	9/1/2010	11/30/2010
			Incorporated into the response for F-4.6	WCH	D. Bignell	9/1/2010	11/30/2010
			Incorporated into the response for F-4.6	WRPS	L. Gurney	9/1/2010	11/30/2010
143	F-4.10.9	Review and updating of all procedures and guidance related to the CBDPP.	Each contractor will review and update their procedures and guidance related to the CBDPP.	CHPRC	M. Hughey	11/1/2010	1/31/2011
			Each contractor will review and update their procedures and guidance related to the CBDPP.	MSA	R. Gilmore	11/1/2010	1/31/2011
			Each contractor will review and update their procedures and guidance related to the CBDPP.	WCH	D. Bignell	11/1/2010	1/31/2011
			Each contractor will review and update their procedures and guidance related to the CBDPP.	WRPS	L. Gurney	11/1/2010	1/31/2011
144	F-4.11	Change plan MSC-MP-41080 to include a separate section on Implementation. This process should be under the oversight of the Senior Management Team.	Documentation of procedure change.	MSA	D. Jackson	8/24/2010	9/30/2010
145	F-4.12	Clarify and remove any ambiguity in plan MSC-MP-41080 sections 4.2, 4.3, and 4.4 to specifically address the Implementation process.	Documentation of procedure change.	MSA	D. Jackson	8/24/2010	9/30/2010
146	F-4.13	Conduct an independent assessment as an effectiveness review of these corrective actions to ensure the process now performs as desired and the corrective actions were effective in making the change. The report for this review should include: a) Problem Issue and Summary of Corrective Actions; b) Approach/Plan for conducting review; c) Acceptance criteria; d) Results/conclusions; e) Recommendations/additional corrective actions; f) Assignment of an overall effectiveness rating of Effective, Partially Effective, or Ineffective.	Documentation of the Effectiveness Review	MSA	M. Sheriff	6/30/2011	8/30/2011
147			OFI's				
148	OFI-1	(1) RI should promptly direct AMH to develop a comprehensive improvement plan that addresses the deficiencies and opportunities for improvement identified in Appendix C of					
149	OFI-1.1	Initiate and/or reinstate various communication mechanisms directed at affected workers (both current and former) to ensure that correct and current information about this program is provided to these individuals.	Preparation of communication plan which addresses communication with affected workers.	AMH	K. Conley	9/1/2010	11/1/2010
150	OFI-1.1.1	Work with stakeholders to obtain, evaluate, and address the areas where there are misunderstandings about the current program that are possibly preventing participation. Set appropriate goals to achieve and ensure that there is follow-up on these goals.	Preparation of communication plan which addresses communication with stakeholders. Approve communication plan.	AMH RL/ORP	K. Conley C. French/ E. Olds	9/1/2010 9/1/2010	11/1/2010 12/1/2010

* Lead organization for site-wide products is shown in bold.

Corrective Actions for Hanford Site Chronic Beryllium Disease Prevention Program

MSP Line ID	ID	Action Items:	Deliverable	Owner*	Resource	Start Date:	Completion Date
151	OFI-1.1.2	Once HSS resolves the conflicting requirements in 10 CFR 850 (see opportunity for improvement for HSS, below), RL and AMH should communicate to all potential volunteer participants the interpretation on releasing test results to employers for volunteer participants.	Prepare draft announcement communicating HSS interpretation to workers. Issue final announcement communicating HSS interpretation to workers.	AMH	B. Fawcett	Pending HSS Resolution	9/1/2011
152	OFI-1.1.3	Ensure that the AMH information on the beryllium worker and the volunteer beryllium medical monitoring program is correct and that other resources providing this information are also correct. These resources include information on the AMH website, AMH printed materials, letters to affected workers, and informational e-mails from both contractors and DOE. Reassess this information and the implementation of the program on a periodic basis.	Proceduralize an annual review of the beryllium worker and volunteer beryllium medical monitoring program to ensure information is accurate, and perform and document the initial review.	AMH	B. Fawcett	1/1/2011	3/1/2011
153	OFI-1.1.4	Develop and implement additional targeted outreach tactics to these workers, with the goal of a specific increase in participation rates. Include outreach tactics in quality improvement efforts in the near future.	Preparation of communication plan which addresses communication with affected workers. Approve communication plan.	AMH	K. Conley	9/1/2010	11/1/2010
154	OFI-1.2	Review and revise the beryllium exam test result protocols/algorithms to ensure that clear thresholds for temporary restrictions are included and that these processes may be easily followed by staff without specific expertise in beryllium.	Complete new algorithm for BelPT, X-ray and Spirometry which address OFI-1.2.1 and OFI-1.2.2 and implement. Algorithm will include clear indications for referral, restrictions (temporary and permanent) and beryllium work clearances. Update exam protocols and external referral process to include 2nd opinions with NJH to determine appropriateness of referral. Conduct training on the revised algorithms and incorporate into annual provider training requirements.	AMH	B. Fawcett	6/23/2010	9/30/2010
155	OFI-1.2.1	Revise the chart/algorithm for the BelPT and the chest x-ray test procedures to include temporary restrictions as outlined above. If spirometry is part of the medical surveillance testing, develop an algorithm for spirometry results, and action plans depending on results.	Addressed by OFI-1.2	AMH	B. Fawcett	6/23/2010	9/30/2010

Corrective Actions for Hanford Site Chronic Beryllium Disease Prevention Program

MSP Line ID	ID	Action Items:	Deliverable	Owner*	Resource	Start Date:	Completion Date
156	OFI-1.2.2	Integrate the various protocols, including using standard language, so that the process for medical surveillance is clear to all providers, not just one. For example, ensure indications for exam types, definitions of sensitization, and determination of when a referral is necessary are clearly specified.	Addressed by OFI-1.2	AMH	B. Fawcett	6/23/2010	9/30/2010
157	OFI-1.2.3	Conduct training on the revised test procedures with the AMH staff on a regular basis, not just once. Ensure that there is sufficient trained staff to keep the program running if someone is on vacation, leaves employment, or is on sick leave.	Addressed by OFI-1.2	AMH	B. Fawcett	6/23/2010	9/30/2010
158	OFI-1.3	Use the current risk communicator or a facilitator to establish and implement defined actions for solving beryllium-related questions and concerns from workers.	The AMH communication plan in item OFI-1.1 above will address actions for collecting and solving beryllium-related questions and concerns from workers.	AMH	K. Conley	9/1/2010	11/1/2010
159	OFI-1.3.1	Using the AMH risk communicators and contractor patient advocates, with input from the BAG, sponsor informational meetings by the Federal DOL, Washington State DOL and Industries (including the Office of Self-Insured Ombudsman), Penser North America, Inc., and/or Washington State Labor Council Project Help. Such meetings should be open to employees and their physicians. Provide fact sheets that clarify common errors in submitting documentation for claims and benefits.	The AMH communication plan in item OFI-1.1 above will address sponsoring and conducting informational meetings.	AMH	K. Conley	9/1/2010	11/1/2010
160	OFI-1.3.2	Utilize external expert risk communicators in conjunction with AMH personnel who are already involved in the beryllium program at Hanford to more effectively to solve beryllium-related issues at Hanford.	The AMH communication plan in item OFI-1.1 above will address the use of an external expert risk communicator to more effectively solve beryllium-related issues at Hanford.	AMH	K. Conley	9/1/2010	11/1/2010
161	OFI-1.3.3	Integrate either an AMH risk communicator or facilitator to establish defined goals for solving beryllium-related questions and concerns. Include site-specific data and topical expertise in as many as possible beryllium hazards group discussions to help focus the discussion on solving issues and providing accurate information.	The AMH communication plan in item OFI-1.1 above will address the use of a risk communicator to establish defined goals for solving beryllium-related questions and concerns.	AMH	K. Conley	9/1/2010	11/1/2010

* Lead organization for site-wide products is shown in bold.

Corrective Actions for Hanford Site Chronic Beryllium Disease Prevention Program

MSP Line ID	ID	Action Items:	Deliverable	Owner*	Resource	Start Date:	Completion Date
162	OFI-1.3.4	Standardize risk communication across contractors; information obtained from the site should be distributed to workers using risk communication.	Development by the contractors and HAMMER of a Risk Communication course, and documented delivery of the course to all personnel involved with risk communication. AMH risk communicator will provide recommendations for course development.	AMH	S. Rock	11/1/2010	3/1/2011
			Development by the contractors and HAMMER of a Risk Communication course, and documented delivery of the course to all personnel involved with risk communication.	CHPRC	M. Hughey	11/1/2010	3/1/2011
			Development by the contractors and HAMMER of a Risk Communication course, and documented delivery of the course to all personnel involved with risk communication.	WCH	D. Bignell	11/1/2010	3/1/2011
			Development by the contractors and HAMMER of a Risk Communication course, and documented delivery of the course to all personnel involved with risk communication.	WRPS	L. Gurney	11/1/2010	3/1/2011
			Development by the contractors and HAMMER of a Risk Communication course, and documented delivery of the course to all personnel involved with risk communication.	MSA	P. Aldridge	11/1/2010	3/1/2011
163	OFI-1.3.5	Continue to develop methods to reach out to and communicate with the local medical community to better understand the complexities, resources, and solutions to treating CBD patients (e.g., the relationship between sarcoidosis and CBD diagnoses).	Preparation of a plan which addresses methods to reach out to and communicate with the local medical community.	AMH	K. Conley	10/1/2010	12/1/2010
164	OFI-1.4	AMH should reinvigorate their efforts to ensure sufficient qualified staff to perform the required functions.	Hire a new beryllium case manager. Hire a medical doctor and physician assistant. Budget for additional beryllium staff in FY11 pending DOE-RL approval.	AMH	B. Fawcett	6/28/2010	12/1/2010
165	OFI-1.4.1	Increase efforts to fill vacant Medical Doctor positions at AMH with individuals with beryllium experience. Identify and attempt to address the factors that are contributing to current difficulties in filling the positions (e.g., compensation, working conditions).	Hire a new beryllium case manager. Hire a medical doctor and physician assistant. Budget for additional beryllium staff in FY11 pending DOE-RL approval.	AMH	B. Fawcett	6/28/2010	12/1/2010
166	OFI-1.4.2	Continue to use external expertise more effectively through various mechanisms (e.g., phone consultation or contracting for periodic clinics).	Establish protocols for using external expertise.	AMH	B. Fawcett	9/1/2010	12/1/2010

* Lead organization for site-wide products is shown in bold.

Corrective Actions for Hanford Site Chronic Beryllium Disease Prevention Program

MSP Line ID	ID	Action Items:	Deliverable	Owner*	Resource	Start Date:	Completion Date
167	OFI-1.4.3	Continue to use National Jewish Hospital (NJH) as a resource to train/orient new-hire clinicians concerning the CBDPP protocols and processes.	Establish protocols for using NJH as a resource.	AMH	B. Fawcett	9/1/2010	12/1/2010
168	OFI-1.4.4	Work with National Jewish hospital to define and implement a process for determining when a trip to NJH is warranted for a second opinion, and communicate the right to a second opinion to workers	Documented process to be used for making the determination, and a plan for communicating with workers	AMH	B. Fawcett	8/1/2010	11/1/2010
169	OFI-1.4.5	Clearly define the multiple physician review process per 10 CFR 850	Procedure defining multiple physician review process	AMH	B. Fawcett	8/1/2010	10/1/2010
170	OFI-1.4.6	Investigate the feasibility of hiring a DOE (RL/ORP) physician	Documented evaluation of feasibility	RL/ORP	D. Shoop/ J. Dowell	9/1/2010	12/1/2010
171	OFI-2	(2) RL and ORP should promptly direct operating contractors to identify and prioritize identified deficiencies (including those identified in this report and others identified by other					
172	OFI-2.1	Identify corrective actions and develop interim protective measures that recognize the current risks that result from the currently inadequate baseline beryllium inventory and hazards assessments.	Implementation of interim direction provided by RL/ORP.	AMH	B. Fawcett	9/15/2010	11/30/2010
			Implementation of interim direction provided by RL/ORP.	CHPRC	M. Hughey	9/15/2010	11/30/2010
			Implementation of interim direction provided by RL/ORP.	MSA	R. Gilmore	9/15/2010	11/30/2010
			Implementation of interim direction provided by RL/ORP.	WCH	D. Bignell	9/15/2010	11/30/2010
			Implementation of interim direction provided by RL/ORP.	WRPS	L. Gurney	9/15/2010	11/30/2010
			Issue interim action letters.	RL/ORP	P. Garcia/ W. Taylor	7/1/2010	9/15/2010
173	OFI-2.2	Place priority attention on establishing controls that reduce the risk of worker exposure to beryllium contamination in facilities that were inaccurately designated as beryllium-clean facilities (e.g., accurate postings, clear boundaries, and conservative approaches to allowing access to areas that cannot be reliably verified to be free of beryllium contamination).	Implementation of interim direction provided by RL/ORP.	AMH	B. Fawcett	9/15/2010	11/30/2010
			Implementation of interim direction provided by RL/ORP.	CHPRC	M. Hughey	9/15/2010	11/30/2010
			Implementation of interim direction provided by RL/ORP.	MSA	R. Gilmore	9/15/2010	11/30/2010
			Implementation of interim direction provided by RL/ORP.	WCH	D. Bignell	9/15/2010	11/30/2010
			Implementation of interim direction provided by RL/ORP.	WRPS	L. Gurney	9/15/2010	11/30/2010
			Issue interim action letters.	RL/ORP	P. Garcia/ W. Taylor	7/1/2010	9/15/2010
174	OFI-2.3	Review the Hanford Joint Council report to ensure that the recommendations of that report are addressed by this CAP.	Crosswalk comparing the Joint Council recommendations to this CAP, and incorporation of items into issues tracking systems as necessary.	RL/ORP	P. Garcia/ W. Taylor	7/1/2010	9/15/2010
			Crosswalk comparing the Joint Council recommendations to this CAP, and incorporation of items into issues tracking systems as necessary.	RL/ORP	P. Garcia/M. Moreno	9/1/2010	11/1/2010

Corrective Actions for Hanford Site Chronic Beryllium Disease Prevention Program

MSP Line ID	ID	Action Items:	Deliverable	Owner*	Resource	Start Date:	Completion Date
175	OFI-2.4	Review the Heart of America (HOA) 272W report and the associated RL surveillance report to ensure that the recommendations of those reports are addressed by this CAP.	Crosswalk comparing the HOA and RL recommendations to this CAP, and incorporation of items into issues tracking systems as necessary.	RL/ORP	P. Garcia/M. Moreno	9/1/2010	11/1/2010
176	OFI-3	(3) On a priority and risk basis, RL and ORP should require operating contractors to develop and implement comprehensive implementation plans for completing efforts to achieve full					
177	OFI-3.1	Reassess the overall WRPS strategy for identifying, scheduling, and resource loading the activities required to fully implement the Hanford Site CBDPP.	Addressed by OFI-3.2 Issue letter addressing three-phase approach Each contractor will have a detailed resource loaded and prioritized schedule and a process for status and tracking items in their resource loaded schedule to ensure timely completion. Each contractor will have a detailed resource loaded and prioritized schedule and a process for status and tracking items in their resource loaded schedule to ensure timely completion. Each contractor will have a detailed resource loaded and prioritized schedule and a process for status and tracking items in their resource loaded schedule to ensure timely completion.	WRPS ORP AMH CHPRC	L. Gurney W. Taylor B. Fawcett M. Hughey	9/1/2010 Complete 9/1/2010 9/1/2010	12/30/2010 Complete 11/30/2010 11/30/2010
178	OFI-3.2	Develop and implement a comprehensive management plan for implementing the site-wide CBDPP that includes gap analyses, schedules, responsibility assignments, training, resources, and verification of implementation.	Each contractor will have a detailed resource loaded and prioritized schedule and a process for status and tracking items in their resource loaded schedule to ensure timely completion. Each contractor will have a detailed resource loaded and prioritized schedule and a process for status and tracking items in their resource loaded schedule to ensure timely completion. Each contractor will have a detailed resource loaded and prioritized schedule and a process for status and tracking items in their resource loaded schedule to ensure timely completion.	MSA WCH	R. Gilmore D. Bignell	9/1/2010 9/1/2010	11/30/2010 11/30/2010
179	OFI-3.3	Develop and implement a comprehensive beryllium program implementation plan.	This item is addressed by OFI-3.2 This item is addressed by OFI-3.2 This item is addressed by OFI-3.2 This item is addressed by OFI-3.2 This item is addressed by OFI-3.2 This item is addressed by OFI-3.2	AMH CHPRC MSA WCH WRPS	J. Zaccaria M. Hughey R. Gilmore D. Bignell L. Gurney	9/1/2010 9/1/2010 9/1/2010 9/1/2010 9/1/2010	11/30/2010 11/30/2010 11/30/2010 11/30/2010 11/30/2010
180	OFI-3.3.1	Conduct a formal gap analysis to identify all actions required to implement the Hanford Site CBDPP and contractual requirements related to the CBDPP, prioritize the actions, and establish milestones and responsible parties. Maintain the implementation schedule to completion.	This item is addressed by OFI-3.2 This item is addressed by OFI-3.2 This item is addressed by OFI-3.2 This item is addressed by OFI-3.2	AMH CHPRC MSA WCH WRPS	J. Zaccaria M. Hughey R. Gilmore D. Bignell L. Gurney	9/1/2010 9/1/2010 9/1/2010 9/1/2010 9/1/2010	11/30/2010 11/30/2010 11/30/2010 11/30/2010 11/30/2010

* Lead organization for site-wide products is shown in bold.

Corrective Actions for Hanford Site Chronic Beryllium Disease Prevention Program

MSP Line ID	ID	Action Items:	Deliverable	Owner*	Resource	Start Date:	Completion Date
181	OFI-3.3.2	Establish a procedure and expectations for developing the required beryllium facilities lists, including interim controls for maintenance, publication, and use of these lists pending completion of re-base lining and characterization activities.	This item is addressed by an interim action.	AMH	B. Fawcett	9/15/2010	11/30/2010
			This item is addressed by an interim action.	CHPRC	M. Hughey	9/15/2010	11/30/2010
			Establish a procedure for maintenance and publication of the required beryllium facilities lists. Use of these lists is addressed in the interim action.	MSA	R. Gilmore	9/15/2010	11/30/2010
182	OFI-3.3.3	Consider evaluating the application of the exemption for the WSCF and 222-S laboratories with a particular focus on the worker protection and medical rights (e.g., are WSCF and 222-S workers covered by the beryllium rule protections for workers, such as the medical removal protection benefits), and evaluating the potential benefits (e.g., consistency across the site) of covering all workers under the CBDPP.	This item is addressed by an interim action.	WCH	D. Bignell	9/15/2010	11/30/2010
			This item is addressed by an interim action.	WRPS	L. Gurney	9/15/2010	11/30/2010
			Issue interim action letters.	RL/ORP	P. Garcia/ W. Taylor	7/1/2010	9/15/2010
183	OFI-3.4	Develop and implement a comprehensive management plan for implementing the Hanford site-wide CBDPP.	This OFI will be addressed by the action for F-4.8	MSA	L. Lockrem	7/1/2010	10/1/2010
			This OFI will be addressed by the action for F-4.8	WRPS	J. Hwang/ L. Gurney	7/1/2010	10/1/2010
			This OFI will be addressed by the action for F-4.8	RL/ORP	M. McCormick/ D. Brockman	9/1/2010	12/1/2010
184	OFI-3.4.1	Perform a gap analysis between the Hanford Site CBDPP and the current WRPS CBDPP implementation plan. (This item is specific to WRPS.)	This item is addressed by OFI-3.2	AMH	B. Fawcett	9/1/2010	11/30/2010
			This item is addressed by OFI-3.2	CHPRC	M. Hughey	9/1/2010	11/30/2010
			This item is addressed by OFI-3.2	MSA	R. Gilmore	9/1/2010	11/30/2010
185	OFI-3.4.2	Develop a comprehensive CBDPP implementation plan to encompass all three phases of the current plan that also addresses the wide variety of tasks required to fully implement the various elements of the Hanford CBDPP. Ensure that the CBDPP implementation plan addresses schedule, scope, milestones, and resources.	This item is addressed by OFI-3.2	WCH	D. Bignell	9/1/2010	11/30/2010
			This item is addressed by OFI-3.2	WRPS	L. Gurney	9/1/2010	11/30/2010
			This item is addressed by OFI-3.2	WRPS	L. Gurney	9/1/2010	11/30/2010
185	OFI-3.4.2	Develop a comprehensive CBDPP implementation plan to encompass all three phases of the current plan that also addresses the wide variety of tasks required to fully implement the various elements of the Hanford CBDPP. Ensure that the CBDPP implementation plan addresses schedule, scope, milestones, and resources.	This item is addressed by OFI-3.2	AMH	B. Fawcett	9/1/2010	11/30/2010
			This item is addressed by OFI-3.2	CHPRC	M. Hughey	9/1/2010	11/30/2010
			This item is addressed by OFI-3.2	MSA	R. Gilmore	9/1/2010	11/30/2010
185	OFI-3.4.2	Develop a comprehensive CBDPP implementation plan to encompass all three phases of the current plan that also addresses the wide variety of tasks required to fully implement the various elements of the Hanford CBDPP. Ensure that the CBDPP implementation plan addresses schedule, scope, milestones, and resources.	This item is addressed by OFI-3.2	WCH	D. Bignell	9/1/2010	11/30/2010
			This item is addressed by OFI-3.2	WRPS	L. Gurney	9/1/2010	11/30/2010
			This item is addressed by OFI-3.2	WRPS	L. Gurney	9/1/2010	11/30/2010

* Lead organization for site-wide products is shown in bold.

Corrective Actions for Hanford Site Chronic Beryllium Disease Prevention Program

MSP Line ID	ID	Action Items:	Deliverable	Owner*	Resource	Start Date:	Completion Date
186	OFI-3.4.3	Identify interim compensatory measures to ensure that adequate measures are in place to address short-term non-conformances with the Hanford Site CBDPP while the WRPS beryllium program is being implemented. Particular attention should be devoted to the posting of additional BCFs while awaiting characterization of those buildings, and a review and sampling of areas in which beryllium-affected workers are currently working, particularly those who are working in BCFs.	Confirmation that the items from the DOE 30-day action letter are complete. Confirmation that the items from the DOE 30-day action letter are complete. Confirmation that the items from the DOE 30-day action letter are complete. Confirmation that the items from the DOE 30-day action letter are complete. Confirmation that the items from the DOE 30-day action letter are complete.	AMH CHPRC MSA WCH WRPS	B. Fawcett M. Hughey R. Gilmore D. Bignell L. Gurney	Complete Complete Complete Complete Complete	Complete Complete Complete Complete Complete
			Issue 30-day action letters.	RL/ORP	D. Brockman/ S. Olinger	Complete	Complete
			This item is addressed by OFI-3.2	AMH	G. Baxter	9/1/2010	12/30/2010
			This item is addressed by OFI-3.2	CHPRC	J. Lehw	9/1/2010	12/30/2010
			This item is addressed by OFI-3.2	MSA	F. Armijo	9/1/2010	12/30/2010
187	OFI-3.4.4	Ensure adequate resources are allocated to complete the CBDPP implementation plan, and that specialty skills (e.g., Multi-Agency Radiation Survey and Site Investigation Manual characterization) are optimally used.	This item is addressed by OFI-3.2 This item is addressed by OFI-3.2	WCH WRPS	N. Brosee C. Spencer	9/1/2010 9/1/2010	12/30/2010 12/30/2010
188	OFI-4	(4) RL and ORP should consider ensuring that site contractors strengthen their processes for baseline beryllium inventories and hazards assessment(RL, ORP).	RL/ORP action items will be entered into tracking systems and tracked to completion.	RL/ORP	M. McCormick/ D. Brockman	9/1/2010	12/30/2010
189			SEE ACTIONS UNDER FINDING # 1				

Corrective Actions for Hanford Site Chronic Beryllium Disease Prevention Program

MSP Line ID	ID	Action Items:	Deliverable	Owner*	Resource	Start Date:	Completion Date
190	OFI-5	<i>(5) RL, ORP, and contractor organizations should determine methods to strengthen assessment and issues management processes for beryllium processes and activities.</i>					
191	OFI-5.1	Strengthen/review issues management process implementation to ensure that corrective actions and recurrence controls are effective in identifying the extent of condition, addressing the identified problems, and preventing recurrence.	Conduct a documented review of the AMH issues management process as described in this OFI and enter corrective actions for identified weaknesses into the issues tracking system.	AMH	K. Conley	9/1/2010	12/30/2010
			Conduct a documented review of the CHPRC issues management process as described in this OFI and enter corrective actions for identified weaknesses into the issues tracking system.	CHPRC	S. Kelley	9/1/2010	12/30/2010
			Conduct a documented review of the MSA issues management process as described in this OFI and enter corrective actions for identified weaknesses into the issues tracking system.	MSA	R. Gilmore	9/1/2010	12/30/2010
			Conduct a documented review of the WCH issues management process as described in this OFI and enter corrective actions for identified weaknesses into the issues tracking system.	WCH	D. Bignell	9/1/2010	12/30/2010
			Conduct a documented review of the WRPS issues management process as described in this OFI and enter corrective actions for identified weaknesses into the issues tracking system.	WRPS	J. McDonald/ L. Gurney	9/1/2010	12/30/2010
192	OFI-5.1.1	Evaluate current and former issue reports with respect to trends, proper categorization, adequacy of corrective actions, effectiveness of closure, and extent of condition.	Conduct a documented review of their issues management process as described in this OFI and enter corrective actions for identified weaknesses into the issues tracking system.	RL/ORP	A. Hawkins/ P. Carier	9/1/2010	12/30/2010
			Addressed by OFI-5.1	AMH	K. Conley	9/1/2010	12/30/2010
			Addressed by OFI-5.1	CHPRC	S. Kelley	9/1/2010	12/30/2010
			Addressed by OFI-5.1	MSA	R. Gilmore	9/1/2010	12/30/2010
			Addressed by OFI-5.1	WCH	D. Bignell	9/1/2010	12/30/2010
			Addressed by OFI-5.1	WRPS	J. McDonald/ L. Gurney	9/1/2010	12/30/2010
			Addressed by OFI-5.1	RL/ORP	A. Hawkins/ P. Carier	9/1/2010	12/30/2010

* Lead organization for site-wide products is shown in bold.

Corrective Actions for Hanford Site Chronic Beryllium Disease Prevention Program

MSP Line ID	ID	Action Items:	Deliverable	Owner*	Resource	Start Date:	Completion Date
193	OFI-5.1.2	Require beryllium subject matter expert review of the disposition on all issues related to beryllium.	To be incorporated into OFI-5.1	AMH	K. Conley	9/1/2010	12/30/2010
			To be incorporated into OFI-5.1	CHPRC	S. Kelley	9/1/2010	12/30/2010
			To be incorporated into OFI-5.1	MSA	R. Gilmore	9/1/2010	12/30/2010
			To be incorporated into OFI-5.1	WCH	D. Bignell	9/1/2010	12/30/2010
			To be incorporated into OFI-5.1	WRPS	J. McDonald/ L. Gurney	9/1/2010	12/30/2010
194	OFI-5.1.3	Ensure that rigorous reviews of the resolutions for all issues related to beryllium are included in the annual CBDPP program assessments.	To be incorporated into OFI-5.1	RL/ORP	A. Hawkins/ P. Carier	9/1/2010	12/30/2010
			Approved modification of the Hanford Site CBDPP to include a requirement for an annual review of identified beryllium-related issues and their resolution.	AMH	B. Fawcett	9/1/2010	11/1/2010
			Approved modification of the Hanford Site CBDPP to include a requirement for an annual review of identified beryllium-related issues and their resolution.	CHPRC	S. Seydel	9/1/2010	11/1/2010
			Approved modification of the Hanford Site CBDPP to include a requirement for an annual review of identified beryllium-related issues and their resolution.	MSA	R. Gilmore	9/1/2010	11/1/2010
			Approved modification of the Hanford Site CBDPP to include a requirement for an annual review of identified beryllium-related issues and their resolution.	WCH	D. Bignell	9/1/2010	11/1/2010
			Approved modification of the Hanford Site CBDPP to include a requirement for an annual review of identified beryllium-related issues and their resolution.	WRPS	L. Gurney	9/1/2010	11/1/2010

Corrective Actions for Hanford Site Chronic Beryllium Disease Prevention Program

MSP Line ID	ID	Action Items:	Deliverable	Owner*	Resource	Start Date:	Completion Date
195	OFI-5.2	Develop a schedule of assessments that focus on beryllium work activities and work controls to protect workers from beryllium exposure.	Already required by the CBDPP. Each contractor to provide an assessment schedule for work controls and protection of workers to their Field Office.	AMH	B. Fawcett	8/1/2010	9/30/2010
			Already required by the CBDPP. Each contractor to provide an assessment schedule for work controls and protection of workers to their Field Office.	CHPRC	M. Hughey	8/1/2010	9/30/2010
			Already required by the CBDPP. Each contractor to provide an assessment schedule for work controls and protection of workers to their Field Office.	MSA	R. Gilmore	8/1/2010	9/30/2010
			Already required by the CBDPP. Each contractor to provide an assessment schedule for work controls and protection of workers to their Field Office.	WCH	D. Bignell	8/1/2010	9/30/2010
			Already required by the CBDPP. Each contractor to provide an assessment schedule for work controls and protection of workers to their Field Office.	WRPS	L. Gurney	8/1/2010	9/30/2010
			Incorporate beryllium oversight activities into the DOE oversight planning process.	RL/ORP	R. Corey/ W. Taylor	8/1/2010	9/30/2010

* Lead organization for site-wide products is shown in bold.

Corrective Actions for Hanford Site Chronic Beryllium Disease Prevention Program

MSP Line ID	ID	Action Items:	Deliverable	Owner*	Resource	Start Date:	Completion Date
196	OFI-5.3	Create a process to communicate results of assessments to workers, line managers, planners, safety and health staff, the BAG, the HAB, and the CBDPP Committee as required by the Hanford CBDPP. Include a lessons learned function in order to support internal management assessment planning.	Develop a site-wide communication process for performance assessment results, including a lessons learned function to support internal management assessment planning.	AMH	S. Rock	9/1/2010	12/1/2010
			Develop a site-wide communication process for performance assessment results, including a lessons learned function to support internal management assessment planning.	CHPRC	M. Hughey	9/1/2010	12/1/2010
			Develop a site-wide communication process for performance assessment results, including a lessons learned function to support internal management assessment planning.	MSA	R. Gilmore	9/1/2010	12/1/2010
			Develop a site-wide communication process for performance assessment results, including a lessons learned function to support internal management assessment planning.	WCH	D. Bignell	9/1/2010	12/1/2010
			Develop a site-wide communication process for performance assessment results, including a lessons learned function to support internal management assessment planning.	WRPS	L. Gurney	9/1/2010	12/1/2010
			Develop a site-wide communication process for performance assessment results, including a lessons learned function to support internal management assessment planning.	RL/ORP	C. French/ E. Olds	9/1/2010	12/1/2010

* Lead organization for site-wide products is shown in bold.

Corrective Actions for Hanford Site Chronic Beryllium Disease Prevention Program

MSP Line ID	ID	Action Items:	Deliverable	Owner*	Resource	Start Date:	Completion Date
197	OFI-5.4	Establish a formal extent-of-condition review across contractor programs for identified deficiencies and weaknesses should be considered.	Procedure requiring extent-of-condition reviews for identified Be program deficiencies and weaknesses	AMH	K. Conley	10/1/2010	12/31/2010
			Procedure requiring extent-of-condition reviews for identified Be program deficiencies and weaknesses	CHPRC	M. Hughey	10/1/2010	12/31/2010
			Procedure requiring extent-of-condition reviews for identified Be program deficiencies and weaknesses	MSA	R. Gilmore	10/1/2010	12/31/2010
			Procedure requiring extent-of-condition reviews for identified Be program deficiencies and weaknesses	WCH	D. Bignell	10/1/2010	12/31/2010
			Revised procedure requiring extent-of-condition reviews for identified Be program deficiencies and weaknesses	WRPS	J. McDonald/ L. Gurney	10/1/2010	12/31/2010

* Lead organization for site-wide products is shown in bold.

Corrective Actions for Hanford Site Chronic Beryllium Disease Prevention Program

MSP Line ID	ID	Action Items:	Deliverable	Owner*	Resource	Start Date:	Completion Date
198	OFI-5.5	Enter deficiencies and weaknesses in the CBDPP and its implementation into site corrective action systems and verify the effectiveness of actions in correcting the specific problems and implementing effective recurrence controls.	Develop an interface process with the CBDPP committee to address CBDPP content issues. Documented review of the AMH issues management process to assure that Be implementation issues identified are entered into the system.	AMH	K. Conley	1/1/2011	3/1/2011
			Develop an interface process with the CBDPP committee to address CBDPP content issues. Documented review of the CHPRC issues management process to assure that Be implementation issues identified are entered into the system.	CHPRC	M. Hughey	1/1/2011	3/1/2011
			Develop an interface process with the CBDPP committee to address CBDPP content issues. Documented review of the MSA issues management process to assure that Be implementation issues identified are entered into the system.	MSA	R. Gilmore	1/1/2011	3/1/2011
			Develop an interface process with the CBDPP committee to address CBDPP content issues. Documented review of the WCH issues management process to assure that Be implementation issues identified are entered into the system.	WCH	D. Bignell	1/1/2011	3/1/2011
			Develop an interface process with the CBDPP committee to address CBDPP content issues. Documented review of the WRPS issues management process to assure that Be implementation issues identified are entered into the system.	WRPS	J. McDonald/ L. Gurney	1/1/2011	3/1/2011

* Lead organization for site-wide products is shown in bold.

Corrective Actions for Hanford Site Chronic Beryllium Disease Prevention Program

MSP Line ID	ID	Action Items:	Deliverable	Owner*	Resource	Start Date:	Completion Date
199	OFI-5.6	Develop and apply an issues management processes to address issues and recommendations provided by stakeholder groups and concerned individuals.	Documented review of the issues management process to verify that input from stakeholders and concerned individuals is appropriately entered into the process.	AMH	K. Conley	1/1/2011	3/1/2011
			Documented review of the issues management process to verify that input from stakeholders and concerned individuals is appropriately entered into the process.	CHPRC	S. Kelley	1/1/2011	3/1/2011
			Documented review of the issues management process to verify that input from stakeholders and concerned individuals is appropriately entered into the process.	MSA	R. Gilmore	1/1/2011	3/1/2011
			Documented review of the issues management process to verify that input from stakeholders and concerned individuals is appropriately entered into the process.	WCH	D. Bignell	1/1/2011	3/1/2011
200	OFI-5.7	Establish formal feedback and improvement procedures and schedule periodic self-assessments of processes and implementation of the Hanford Site CBDPP. (Moved from OFI 1)	Documented review of the issues management process to verify that input from stakeholders and concerned individuals is appropriately entered into the process.	WRPS	J. McDonald/ L. Gurney	1/1/2011	3/1/2011
			Documented review of the issues management process to verify that input from stakeholders and concerned individuals is appropriately entered into the process.	RL/ORP	A. Hawkins/ P. Carier	1/1/2011	3/1/2011
			Already required by section 6.31 of the CBDPP. Each contractor to provide an assessment schedule to their Field Office.	AMH	B. Fawcett	1/1/2011	3/1/2011
			Already required by section 6.31 of the CBDPP. Each contractor to provide an assessment schedule to their Field Office.	CHPRC	M. Hughey	1/1/2011	3/1/2011
200	OFI-5.7	Establish formal feedback and improvement procedures and schedule periodic self-assessments of processes and implementation of the Hanford Site CBDPP. (Moved from OFI 1)	Already required by section 6.31 of the CBDPP. Each contractor to provide an assessment schedule to their Field Office.	MSA	R. Gilmore	1/1/2011	3/1/2011
			Already required by section 6.31 of the CBDPP. Each contractor to provide an assessment schedule to their Field Office.	WCH	D. Bignell	1/1/2011	3/1/2011
			Already required by section 6.31 of the CBDPP. Each contractor to provide an assessment schedule to their Field Office.	WRPS	L. Gurney	1/1/2011	3/1/2011
			Already required by section 6.31 of the CBDPP. Each contractor to provide an assessment schedule to their Field Office.				

* Lead organization for site-wide products is shown in bold.

Corrective Actions for Hanford Site Chronic Beryllium Disease Prevention Program

MSP Line ID	ID	Action Items:	Deliverable	Owner*	Resource	Start Date:	Completion Date
201	OFI-5.7.1	Develop formal procedures for self-assessment and management of issues.	Documented review and update, if necessary, of procedures for self-assessment and management of issues to assure adequacy.	AMH	B. Fawcett	8/1/2010	12/30/2010
			Documented review and update, if necessary, of procedures for self-assessment and management of issues to assure adequacy.	CHPRC	S. Kelley	8/1/2010	12/30/2010
			Documented review and update, if necessary, of procedures for self-assessment and management of issues to assure adequacy.	MSA	R. Gilmore	8/1/2010	12/30/2010
			Documented review and update, if necessary, of procedures for self-assessment and management of issues to assure adequacy.	WCH	D. Bignell	8/1/2010	12/30/2010
			Documented review and update, if necessary, of procedures for self-assessment and management of issues to assure adequacy.	WRPS	L. Gurney	8/1/2010	12/30/2010
			Documented review and update, if necessary, of procedures for self-assessment and management of issues to assure adequacy.	RL/ORP	A. Hawkins/ P. Carier	8/1/2010	12/30/2010
			Addressed by OFI-5.2	AMH	B. Fawcett	9/1/2010	12/30/2010
			Addressed by OFI-5.2	CHPRC	M. Hughey	9/1/2010	12/30/2010
			Addressed by OFI-5.2	MSA	R. Gilmore	9/1/2010	12/30/2010
			Addressed by OFI-5.2	WCH	D. Bignell	9/1/2010	12/30/2010
202	OFI-5.7.2	Focus the assessments on evaluation of objective evidence and processes against requirements.	Addressed by OFI-5.2	WRPS	L. Gurney	9/1/2010	12/30/2010
			Addressed by OFI-5.2	RL/ORP	A. Hawkins/ P. Carier	9/1/2010	12/30/2010
			Addressed by OFI-5.2	AMH	B. Fawcett	8/1/2010	9/30/2010
			Addressed by OFI-5.2	CHPRC	M. Hughey	8/1/2010	9/30/2010
			Addressed by OFI-5.2	MSA	R. Gilmore	8/1/2010	9/30/2010
			Addressed by OFI-5.2	WCH	D. Bignell	8/1/2010	9/30/2010
			Addressed by OFI-5.2	WRPS	L. Gurney	8/1/2010	9/30/2010
			Addressed by OFI-5.2	RL/ORP	A. Hawkins/ P. Carier	8/1/2010	9/30/2010
			Addressed by OFI-5.2	AMH	B. Fawcett	8/1/2010	9/30/2010
			Addressed by OFI-5.2	CHPRC	M. Hughey	8/1/2010	9/30/2010
203	OFI-5.7.3	Schedule a series of CBDPP assessments in the next year that comprehensively evaluate(s) the adequacy of processes and performance in implementing the requirements of the CBDPP.	Addressed by OFI-5.2	MSA	R. Gilmore	8/1/2010	9/30/2010
			Addressed by OFI-5.2	WCH	D. Bignell	8/1/2010	9/30/2010
			Addressed by OFI-5.2	WRPS	L. Gurney	8/1/2010	9/30/2010
			Addressed by OFI-5.2	RL/ORP	A. Hawkins/ P. Carier	8/1/2010	9/30/2010
			Addressed by OFI-5.2	AMH	B. Fawcett	8/1/2010	9/30/2010
			Addressed by OFI-5.2	CHPRC	M. Hughey	8/1/2010	9/30/2010
			Addressed by OFI-5.2	MSA	R. Gilmore	8/1/2010	9/30/2010
			Addressed by OFI-5.2	WCH	D. Bignell	8/1/2010	9/30/2010
			Addressed by OFI-5.2	WRPS	L. Gurney	8/1/2010	9/30/2010
			Addressed by OFI-5.2	RL/ORP	A. Hawkins/ P. Carier	8/1/2010	9/30/2010

Corrective Actions for Hanford Site Chronic Beryllium Disease Prevention Program

MSP Line ID	ID	Action Items:	Deliverable	Owner*	Resource	Start Date:	Completion Date
204	OFI-5.7.4	Formally evaluate deficiencies and weaknesses identified as a result of the HSS inspection, including causes and extent of condition, with corrective actions and recurrence controls identified and implemented.	Comprehensive Corrective Action Plan and the associated Root Cause Analyses by each contractor.	AMH	B. Fawcett	6/8/2010	9/30/2010
			Comprehensive Corrective Action Plan and the associated Root Cause Analyses by each contractor.	CHPRC	M. Hughey	6/8/2010	9/30/2010
			Comprehensive Corrective Action Plan and the associated Root Cause Analyses by each contractor.	MSA	R. Gilmore	6/8/2010	9/30/2010
			Comprehensive Corrective Action Plan and the associated Root Cause Analyses by each contractor.	WCH	D. Bignell	6/8/2010	9/30/2010
			Comprehensive Corrective Action Plan and the associated Root Cause Analyses by each contractor.	WRPS	L. Gurney	6/8/2010	9/30/2010
			Comprehensive Corrective Action Plan and the associated Root Cause Analyses.	RL/ORP	M. McCormick/ D. Brockman	6/8/2010	9/30/2010
205	OFI-6	(6) RL, ORP, and contractor organizations should identify appropriate timely actions to ensure that accurate information about beryllium is available. (AMH, CHPRC, MSA, WCH)					
			Develop a prioritized schedule for review and revision of all procedures, guidance, and website information related to the CBDPP.	AMH	B. Fawcett/ J. Zaccaria	9/1/2010	12/30/2010
			Develop a prioritized schedule for review and revision of all procedures, guidance, and website information related to the CBDPP.	CHPRC	M. Hughey	9/1/2010	12/30/2010
			Develop a prioritized schedule for review and revision of all procedures, guidance, and website information related to the CBDPP.	MSA	R. Gilmore	9/1/2010	12/30/2010
			Develop a prioritized schedule for review and revision of all procedures, guidance, and website information related to the CBDPP.	WCH	D. Bignell	9/1/2010	12/30/2010
			Develop a prioritized schedule for review and revision of all procedures, guidance, and website information related to the CBDPP.	WRPS	L. Gurney	9/1/2010	12/30/2010
206	OFI-6.1	Prioritize the review and updating of all procedures, guidance, and website information related to the CBDPP.					

* Lead organization for site-wide products is shown in bold.

Corrective Actions for Hanford Site Chronic Beryllium Disease Prevention Program

MSP Line ID	ID	Action Items:	Deliverable	Owner*	Resource	Start Date:	Completion Date
207	OFI-6.1.1	Conduct a formal review of all Hanford websites to identify, correct or remove outdated or erroneous material related to the CBDPP.	Documented review of company website(s) to identify, correct, or remove outdated or erroneous material related to the CBDPP.	AMH	B. Fawcett	6/7/2010	9/30/2010
			Documented review of company website(s) to identify, correct, or remove outdated or erroneous material related to the CBDPP.	CHPRC	M. Hughey	6/7/2010	9/30/2010
			Documented review of company website(s) to identify, correct, or remove outdated or erroneous material related to the CBDPP.	MSA	R. Gilmore	6/7/2010	9/30/2010
			Documented review of company website(s) to identify, correct, or remove outdated or erroneous material related to the CBDPP.	WCH	D. Bignell	6/7/2010	9/30/2010
			Documented review of company website(s) to identify, correct, or remove outdated or erroneous material related to the CBDPP.	WRPS	L. Gurney	6/7/2010	9/30/2010
208	OFI-6.1.2	Conduct a formal review of all procedures and guidance documents to ensure that beryllium related information conforms to current CBDPP requirements and information.	Documented review and update of procedures and guidance documents to assure conformance to the CBDPP.	AMH	J. Zaccaria	9/1/2010	1/31/2011
			Documented review and update of procedures and guidance documents to assure conformance to the CBDPP.	CHPRC	M. Hughey	9/1/2010	1/31/2011
			Documented review and update of procedures and guidance documents to assure conformance to the CBDPP.	MSA	R. Gilmore	9/1/2010	1/31/2011
			Documented review and update of procedures and guidance documents to assure conformance to the CBDPP.	WCH	D. Bignell	9/1/2010	1/31/2011
			Documented review and update of procedures and guidance documents to assure conformance to the CBDPP.	WRPS	L. Gurney	9/1/2010	1/31/2011
209	OFI-6.1.3	Prioritize the updating of CBDPP description documents to conform to DOE-0342	Addressed by OFI-6.1	AMH	J. Zaccaria	9/1/2010	12/30/2010
			Addressed by OFI-6.1	CHPRC	M. Hughey	9/1/2010	12/30/2010
			Addressed by OFI-6.1	MSA	R. Gilmore	9/1/2010	12/30/2010
			Addressed by OFI-6.1	WCH	D. Bignell	9/1/2010	12/30/2010
			Addressed by OFI-6.1	WRPS	L. Gurney	9/1/2010	12/30/2010
210	OFI-6.1.4	Develop technical instructions for conducting IH sampling and personal monitoring.	Addressed by F-2.6.1	CHPRC	M. Hughey	8/1/2010	9/15/2010
			Addressed by F-2.6.1	MSA	W. Geer	8/1/2010	9/15/2010
			Addressed by F-2.6.1	WCH	D. Bignell	8/1/2010	9/15/2010
			Addressed by F-2.6.1	WRPS	L. Gurney	8/1/2010	9/15/2010

* Lead organization for site-wide products is shown in bold.

Corrective Actions for Hanford Site Chronic Beryllium Disease Prevention Program

MSP Line ID	ID	Action Items:	Deliverable	Owner*	Resource	Start Date:	Completion Date
211	OFI-6.1.5	Advertise the beryllium employee advocate resource to introduce the advocate and associated roles and responsibilities to better communicate this function to workers.	MSA will draft communications for RL to introduce the new integrated Beryllium Oversight Team, which includes the beryllium health advocate.	MSA	P. Kruger	8/1/2010	9/15/2010
212	OFI-6.1.6	Update EJTAs of 222-S and WSCF employees who handle beryllium samples to include beryllium as a work hazard, and evaluate existing controls for adequacy.	Pending determination in F-4.8.1	MSA	R. Gilmore	9/1/2010	12/1/2010
213	OFI-6.1.7	Update WSCF and 222-S IH Baseline Hazard Assessments to identify beryllium as a potential hazard	Pending determination in F-4.8.1	WRPS	L. Gurney	9/1/2010	12/1/2010
214	OFI-6.2	Ensure that existing lists of beryllium facilities on the Hanford websites are not misused;	Updated WSCF IH baseline hazard assessment. Updated 222-S IH baseline hazard assessment.	MSA WRPS	R. Gilmore L. Gurney	8/1/2010 8/1/2010	9/30/2010 9/30/2010
215	OFI-6.2.1	Formally communicate to all persons involved in work planning that previous lists are not to be relied upon for work planning;	Implementation of interim direction provided by RL/ORP. Implementation of interim direction provided by RL/ORP. Implementation of interim direction provided by RL/ORP. Implementation of interim direction provided by RL/ORP.	CHPRC MSA WCH WRPS	M. Hughey R. Gilmore D. Bignell L. Gurney	9/15/2010 9/15/2010 9/15/2010 9/15/2010	11/30/2010 11/30/2010 11/30/2010 11/30/2010
216	OFI-6.2.2	Establish formal interim guidance and requirements for work planners and safety and health staff to identify current facility and outside area status;	Issue interim action letters. Addressed by OFI-6.2.1 Addressed by OFI-6.2.1 Addressed by OFI-6.2.1 Addressed by OFI-6.2.1 Addressed by OFI-6.2.1	RL/ORP CHPRC MSA WCH WRPS RL/ORP	P. Garcia/ W. Taylor M. Hughey R. Gilmore D. Bignell L. Gurney P. Garcia/ W. Taylor	7/1/2010 9/15/2010 9/15/2010 9/15/2010 9/15/2010 9/15/2010 7/1/2010	9/15/2010 11/30/2010 11/30/2010 11/30/2010 11/30/2010 11/30/2010 9/15/2010

Corrective Actions for Hanford Site Chronic Beryllium Disease Prevention Program

MSP Line ID	ID	Action Items:	Deliverable	Owner*	Resource	Start Date:	Completion Date
217	OFI-6.2.3	Establish a formal process and expectations for prime contractors to support MSA to ensure timely and accurate compilation and maintenance of the lists of beryllium facilities required by the CBDPP.	<p>Establish a process in accordance with section 6.6 of the site CBDPP to ensure that lists of beryllium facilities are kept updated in a timely manner.</p> <p>Establish a process in accordance with section 6.6 of the site CBDPP to ensure that lists of beryllium facilities are kept updated in a timely manner.</p> <p>Establish a process in accordance with section 6.6 of the site CBDPP to ensure that lists of beryllium facilities are kept updated in a timely manner.</p> <p>Establish a process in accordance with section 6.6 of the site CBDPP to ensure that lists of beryllium facilities are kept updated in a timely manner.</p>	CHPRC MSA WCH	M. Hughey R. Gilmore D. Bignell	8/1/2010 8/1/2010 8/1/2010	10/1/2010 10/1/2010 10/1/2010
218	OFI-6.2.4	Establish and implement a structured records management system that consolidates or links all re-baseline assessment and characterization-related records (including historical information, to the extent practical)	<p>Establish and implement a site-wide process that consolidates re-baseline assessment and characterization-related records (including historical information, to the extent practical), and make the information available to workers.</p> <p>Establish and implement a site-wide process that consolidates re-baseline assessment and characterization-related records (including historical information, to the extent practical), and make the information available to workers.</p> <p>Establish and implement a site-wide process that consolidates re-baseline assessment and characterization-related records (including historical information, to the extent practical), and make the information available to workers.</p> <p>Establish and implement a site-wide process that consolidates re-baseline assessment and characterization-related records (including historical information, to the extent practical), and make the information available to workers.</p>	CHPRC MSA WCH	M. Hughey R. Gilmore D. Bignell	1/1/2011 1/1/2011 1/1/2011	4/1/2011 4/1/2011 4/1/2011

* Lead organization for site-wide products is shown in bold.

Corrective Actions for Hanford Site Chronic Beryllium Disease Prevention Program

MSP Line ID	ID	Action Items:	Deliverable	Owner*	Resource	Start Date:	Completion Date
219	OFI-7	(7) To ensure the long-term effectiveness of the CBDPP, RL and ORP should consider further formalizing expectations and governance of the CBDPP (i.e., maintenance and					
220	OFI-7.1	With input from BAG and HAMTC, evaluate the roles and responsibilities of the CBDPP Committee to ensure effective long term implementation of the Hanford Site CBDPP.	Documented roles and responsibilities of the CBDPP Committee.	RL/ORP	R. Corey/ W. Taylor	9/1/2010	12/31/2010
221	OFI-7.2	RL and ORP should ensure that contractors continue to support and participate in the Beryllium Health and Safety Committee.	Continued participation in the BHSC to the extent appropriate to assure that the Hanford site is adequately represented.	AMH	S. Rock	Complete	Complete
			Continued participation in the BHSC to the extent appropriate to assure that the Hanford site is adequately represented.	CHPRC	M. Hughey	Complete	Complete
			Continued participation in the BHSC to the extent appropriate to assure that the Hanford site is adequately represented.	MSA	R. Gilmore	Complete	Complete
			Continued participation in the BHSC to the extent appropriate to assure that the Hanford site is adequately represented.	WCH	D. Bignell	Complete	Complete
			Continued participation in the BHSC to the extent appropriate to assure that the Hanford site is adequately represented.	WRPS	L. Gurney	Complete	Complete
222	OFI-7.2.1	Participate in Beryllium Health and Safety Committee Subcommittees involved in the development and improvement of beryllium sampling and detection technologies (e.g., subcommittees on research needs, sampling and analysis, and technical practices).	Addressed by OFI-7.2	AMH	S. Rock	Complete	Complete
			Addressed by OFI-7.2	CHPRC	M. Hughey	Complete	Complete
			Addressed by OFI-7.2	MSA	R. Gilmore	Complete	Complete
			Addressed by OFI-7.2	WCH	D. Bignell	Complete	Complete
			Addressed by OFI-7.2	WRPS	L. Gurney	Complete	Complete
223	OFI-7.2.2	Continue to follow new technological developments in beryllium instrumentation, such as LIBS.	Addressed by OFI-7.2	AMH	S. Rock	Complete	Complete
			Addressed by OFI-7.2	CHPRC	M. Hughey	Complete	Complete
			Addressed by OFI-7.2	MSA	R. Gilmore	Complete	Complete
			Addressed by OFI-7.2	WCH	D. Bignell	Complete	Complete
			Addressed by OFI-7.2	WRPS	L. Gurney	Complete	Complete

* Lead organization for site-wide products is shown in bold.

Corrective Actions for Hanford Site Chronic Beryllium Disease Prevention Program

MSP Line ID	ID	Action Items:	Deliverable	Owner*	Resource	Start Date:	Completion Date
224	OFl-7.2.3	Consider the use of an automatic chemical fluorescent system (as currently in use at the Savannah River Site and Oak Ridge National Laboratory) in a laboratory application for analysis of surface and air samples.	Documentation regarding WSCF's testing and evaluation of this technology.	MSA	L. Lockrem	8/1/2010	5/1/2011
225	OFl-8	(8) RL and ORP should identify actions to improve communications with stakeholder organizations and use their feedback and experience as a resource to improve the Hanford					
226	OFl-8.1	Re-evaluate recent HAB recommendations regarding the beryllium program and provide meaningful responses to the HAB in writing and with opportunities for discussion.	Issue revised correspondence to HAB.	RL/ORP	D. Shoop/ J. Dowell	9/1/2010	11/30/2010
227	OFl-8.2	Identify opportunities to utilize BAG members to help with the program.	(1) BAG will assist in developing the CAP. (2) BAG will assist in implementation of the CAP. (3) RL/ORP will request input from the BAG relative to formal DOE oversight of the CAP and CBDPP. (4) RL/ORP will make arrangements for the BAG chairperson to dedicate 100% of his/her time on the CAP at least until all corrective actions are complete and an effectiveness review conducted.	RL/ORP	D. Shoop/ J. Dowell	Current	(1) 9/15/2010; (2) 7/1/2011; (3) 11/1/2010; (4) 9/30/2011
228	OFl-8.3	Providing regular briefings to stakeholders.	Provide schedule of upcoming stakeholder meetings and appropriate ongoing forums.	RL/ORP	C. French/ E. Olds	8/1/2010	10/1/2010
229	OFl-8.4	Develop performance measures to monitor progress on the CAP.	Incorporate performance measures into RL/ORP CAP oversight plan.	RL/ORP	A. Hawkins/ P. Carier	8/1/2010	10/1/2010
230	OFl-9	(9) RL should strengthen support mechanisms and communications with beryllium-affected workers. (AMH, CHPRC, MSA, WCH, WRPS, DOE)					
231	OFl-9.1	Improve counseling of beryllium-affected workers.	Counseling packet developed in accordance with section 6.27.2 of the CBDPP with input from the BAG and HAMTC.	AMH	B. Fawcett	9/1/2010	12/30/2010
			Counseling packet developed in accordance with section 6.27.2 of the CBDPP with input from the BAG and HAMTC.	CHPRC	M. Hughey	9/1/2010	12/30/2010
			Counseling packet developed in accordance with section 6.27.2 of the CBDPP with input from the BAG and HAMTC.	MSA	R. Gilmore	9/1/2010	12/30/2010
			Counseling packet developed in accordance with section 6.27.2 of the CBDPP with input from the BAG and HAMTC.	WCH	D. Bignell	9/1/2010	12/30/2010
			Counseling packet developed in accordance with section 6.27.2 of the CBDPP with input from the BAG and HAMTC.	WRPS	L. Gurney	9/1/2010	12/30/2010

* Lead organization for site-wide products is shown in bold.

Corrective Actions for Hanford Site Chronic Beryllium Disease Prevention Program

MSP Line ID	ID	Action Items:	Deliverable	Owner*	Resource	Start Date:	Completion Date
232	OFI-9.2	Establish a tracking system to ensure timely counseling. Train HR and AMH counselors on section 6.27.2 of the site-wide CBDPP.	1) Documented method of tracking to ensure that counseling occurs in a timely manner, in accordance with section 6.27.2 of the CBDPP. 2) Documentation of training for appropriate HR and AMH personnel on the counseling packet developed in OFI-9.1.	AMH	B. Fawcett	1) 8/1/2010 2) 1/1/2011	1) 10/1/2010 2) 3/1/2011
			1) Documented method of tracking to ensure that counseling occurs in a timely manner, in accordance with section 6.27.2 of the CBDPP. 2) Documentation of training for appropriate HR and AMH personnel on the counseling packet developed in OFI-9.1.	CHPRC	M. Hughey	1) 8/1/2010 2) 1/1/2011	1) 10/1/2010 2) 3/1/2011
			1) Documented method of tracking to ensure that counseling occurs in a timely manner, in accordance with section 6.27.2 of the CBDPP. 2) Documentation of training for appropriate HR and AMH personnel on the counseling packet developed in OFI-9.1.	MSA	R. Gilmore	1) 8/1/2010 2) 1/1/2011	1) 10/1/2010 2) 3/1/2011
			1) Documented method of tracking to ensure that counseling occurs in a timely manner, in accordance with section 6.27.2 of the CBDPP. 2) Documentation of training for appropriate HR and AMH personnel on the counseling packet developed in OFI-9.1.	WCH	D. Bignell	1) 8/1/2010 2) 1/1/2011	1) 10/1/2010 2) 3/1/2011
233	OFI-9.3	Hire a site-wide Beryllium Health Advocate to (MSA):	1) Documented method of tracking to ensure that counseling occurs in a timely manner, in accordance with section 6.27.2 of the CBDPP. 2) Documentation of training for appropriate HR and AMH personnel on the counseling packet developed in OFI-9.1.	WRPS	L. Gurney	1) 8/1/2010 2) 1/1/2011	1) 10/1/2010 2) 3/1/2011
			Hiring of a Beryllium Health Advocate by MSA. Document job duties for the new site-wide Beryllium Health Advocate that include the actions identified in OFI-9.4 and it's lower tier items.	MSA	P. Kruger	8/1/2010	10/1/2010
234	OFI-9.4	Provide assistance to beryllium affected workers (i.e. workers who have been diagnosed as Be sensitized, having Chronic Beryllium Disease, or any other medical condition related to beryllium) in dealing with:	Addressed by OFI-9.3	MSA	P. Kruger	8/1/2010	10/1/2010
235	OFI-9.4.1	Workers Compensation claims;	Addressed by OFI-9.3	MSA	P. Kruger	8/1/2010	10/1/2010

* Lead organization for site-wide products is shown in bold.

Corrective Actions for Hanford Site Chronic Beryllium Disease Prevention Program

MSP Line ID	ID	Action Items:	Deliverable	Owner*	Resource	Start Date:	Completion Date
236	OFI-9.4.2	Energy Employees Occupational Illness Compensation Program Act (EEOICPA) claims, and;	Addressed by OFI-9.3	MSA	P. Kruger	8/1/2010	10/1/2010
237	OFI-9.4.3	Contractor HR policies and procedures that are applicable to the needs of beryllium affected workers, particularly travel policies and procedures for medical related trips.	Addressed by OFI-9.3	MSA	P. Kruger	8/1/2010	10/1/2010
238	OFI-9.4.4	Interface with individual contractor Beryllium Health Advocates.	Addressed by OFI-9.3	MSA	P. Kruger	8/1/2010	10/1/2010
239	OFI-9.5	Provide assistance/information to the Hanford workforce about beryllium related medical services provided by AdvanceMed Hanford and other medical facilities such as National Jewish Hospital in Denver, CO.	Update and continue to make available the Beryllium Information Booklet. Develop a poster for the voluntary beryllium program to be displayed on-site. Provide a link to AMH Be site for inclusion on the Hanford Be site. Include a link to the Hanford Be site on the AMH Be site.	AMH	B. Fawcett	6/15/2010	12/30/2010
240	OFI-9.6	Act as a liaison between contractor organizations, the workforce, specifically the Beryllium Awareness Group, and DOE to enhance communications and help resolve issues using existing processes and procedures, up to and including the DOE Employee Concerns Program.	Establish an Independent Beryllium Oversight Team. Document job duties for the new IBOT that include these functions.	MSA	P. Kruger	8/1/2010	10/1/2010
241	OFI-9.7	Identify high interest beryllium topics and assist in developing communications on those topics.	Hiring of a Beryllium Health Advocate. Documented job duties for the new site-wide Beryllium Health Advocate that include identifying high interest beryllium topics and assisting in developing communications on those topics.	MSA	P. Kruger	8/1/2010	10/1/2010
242	OFI-9.8	Assist the site contractors in encouraging workforce participation in site-wide efforts related to beryllium, e.g. epidemiology studies, medical surveillance, historical beryllium activities on site	Hiring of a Beryllium Health Advocate (BHA) by MSA. Documented job duties for the new site-wide BHA that include the actions identified in OFI-9.3.	MSA	P. Kruger	8/1/2010	10/1/2010
243	OFI-9.9	Increase worker awareness of the contents of the Hanford Site Chronic Beryllium Disease Prevention Program and other sources of beryllium information.	Development of a communications plan by the CBDPP Committee	CBDPP Committee ^e	S. Seydel, Chair, CBDPP Committee	6/1/2010	1/1/2011

* Lead organization for site-wide products is shown in bold.

Corrective Actions for Hanford Site Chronic Beryllium Disease Prevention Program

MSP Line ID	ID	Action Items:	Deliverable	Owner*	Resource	Start Date:	Completion Date
244	OFl-10	(10) RL, ORP, and contractor organizations should identify actions to raise site managers' and supervisors' awareness of the risks to workers associated with legacy beryllium					
245	OFl-10.1	Establish line management responsibility for implementation of all program elements	This item will be incorporated into the response for F-2.2.2AMH	G. Baxter	6/1/2010	12/30/2010	
			This item will be incorporated into the response for F-2.2.2CHPRC	J. Lehew	6/1/2010	12/30/2010	
			This item will be incorporated into the response for F-2.2.2MSA	F. Armijo	6/1/2010	12/30/2010	
			This item will be incorporated into the response for F-2.2.2WCH	N. Brosee	6/1/2010	12/30/2010	
			This item will be incorporated into the response for F-2.2.2WRPS	C. Spencer	6/1/2010	12/30/2010	
			This item will be incorporated into the response for F-2.2.2RL/ORP	M. McCormick/ D. Brockman	6/1/2010	12/30/2010	
			This item will be incorporated into the response for F-2.2.2AMH	K. Conley	6/1/2010	12/30/2010	
			This item will be incorporated into the response for F-2.2.2CHPRC	M. Hughey	6/1/2010	12/30/2010	
246	OFl-10.2	Reinforce expectations that worker concerns are to be carefully considered and evaluated.	This item will be incorporated into the response for F-2.2.2MSA	P. Aldridge	6/1/2010	12/30/2010	
			This item will be incorporated into the response for F-2.2.2WCH	D. Bignell	6/1/2010	12/30/2010	
			This item will be incorporated into the response for F-2.2.2WRPS	L. Gurney/ L. Keith	6/1/2010	12/30/2010	
			This item will be incorporated into the response for F-2.2.2RL/ORP	M. McCormick/ D. Brockman	6/1/2010	12/30/2010	
247	OFl-10.3	To facilitate better communications and to build trust among workers, managers should be instructed on:					
248	OFl-10.3.1	Medical surveillance programs, support for data analysis efforts, developing work histories of affected workers and identification of potential sources of exposures.	This item will be incorporated into the response for F-2.2.2AMH	K. Conley	6/1/2010	12/30/2010	
			This item will be incorporated into the response for F-2.2.2CHPRC	M. Hughey	6/1/2010	12/30/2010	
			This item will be incorporated into the response for F-2.2.2MSA	P. Aldridge	6/1/2010	12/30/2010	
			This item will be incorporated into the response for F-2.2.2WCH	D. Bignell	6/1/2010	12/30/2010	
			This item will be incorporated into the response for F-2.2.2WRPS	L. Gurney/ L. Keith	6/1/2010	12/30/2010	
			This item will be incorporated into the response for F-2.2.2RL/ORP	M. McCormick/ D. Brockman	6/1/2010	12/30/2010	

* Lead organization for site-wide products is shown in bold.

Corrective Actions for Hanford Site Chronic Beryllium Disease Prevention Program

MSP Line ID	ID	Action Items:	Deliverable	Owner*	Resource	Start Date:	Completion Date
249	OFI-10.3.2	Perceptions of influence, intimidation, retaliation, and low priority for worker safety and address them by various mechanisms, including surveys and increased use of designated worker advocates.	This item will be incorporated into the response for F-2.2.2AMH		K. Conley	6/1/2010	12/30/2010
			This item will be incorporated into the response for F-2.2.2CHPRC		M. Hughey	6/1/2010	12/30/2010
			This item will be incorporated into the response for F-2.2.2MSA		P. Aldridge	6/1/2010	12/30/2010
			This item will be incorporated into the response for F-2.2.2WCH		D. Bignell	6/1/2010	12/30/2010
			This item will be incorporated into the response for F-2.2.2WRPS		L. Gurney/ L. Keith	6/1/2010	12/30/2010
		This item will be incorporated into the response for F-2.2.2RL/ORP		M. McCormick/ D. Brockman	6/1/2010	12/30/2010	
250	OFI-11	(11) DOE line management should ensure that adequate assessments of the CBDPP are performed (RL, ORP).					
251	OFI-11.1	Review the implementation of the Hanford CBDPP to verify that key milestones and deliverables have been completed and are effectively implemented.	Incorporate beryllium oversight activities into the DOE oversight planning process.	RL/ORP	R. Corey/ W. Taylor	8/1/2010	11/1/2010
252	OFI-11.2	Arrange for independent organizations to perform targeted reviews of program effectiveness at appropriate points in CBDPP implementation.	Incorporate beryllium oversight activities into the DOE oversight planning process.	RL/ORP	R. Corey/ W. Taylor	8/1/2010	12/30/2010
253	OFI-11.3	Perform oversight of their respective laboratory operations (the 222-S laboratories operated by WRPS with analytical and testing services provided by ATL under ORP, and WSCF managed by MSA under RL).	Incorporate beryllium oversight activities into the DOE oversight planning process.	RL/ORP	R. Corey/ W. Taylor	8/1/2010	11/1/2010
254	OFI-11.4	Schedule routine, continuing, and specific oversight of the implementation of the CBDPP and incorporate beryllium-related assessments and operational awareness activities into oversight plans and schedules.	Incorporate beryllium oversight activities into the DOE oversight planning process.	RL/ORP	R. Corey/ W. Taylor	8/1/2010	11/1/2010
255	OFI-11.5	In coordination with EM, RL/ORP will request that HSS conduct an effectiveness review of the implementation of corrective actions.	Documentation of request for effectiveness review.	RL/ORP	R. Corey/ W. Taylor	6/1/2011	9/30/2011