

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		1. CONTRACT ID CODE	PAGE OF PAGES 1   3
2. AMENDMENT/MODIFICATION NO. 069	3. EFFECTIVE DATE See Block 16C	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
6. ISSUED BY Office of River Protection U.S. Department of Energy Office of River Protection P.O. Box 450 Richland WA 99352	CODE 00603	7. ADMINISTERED BY (If other than Item 6) Office of River Protection U.S. Department of Energy Office of River Protection P.O. Box 450 MS: H6-60 Richland WA 99352	CODE 00603
8. NAME AND ADDRESS OF CONTRACTOR (No. street, county, State and ZIP Code) WASHINGTON RIVER PROTECTION SOLUTIONS LLC Attn: DUANE SCHMOKER PO BOX 73 720 PARK BLVD BOISE ID 837290001		(X) 9A. AMENDMENT OF SOLICITATION NO.	9B. DATED (SEE ITEM 11)
CODE 806500521 FACILITY CODE		X 10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC27-08RV14800	10B. DATED (SEE ITEM 13) 05/29/2008

**11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS**

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers  is extended.  is not extended.  
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning \_\_\_\_\_ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)  
See Schedule

**13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.**

CHECK ONE X	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A. FAR 52.243-2 Changes-Cost ReImbursement (Aug 1987)
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
	D. OTHER (Specify type of modification and authority)


E. IMPORTANT: Contractor  is not,  is required to sign this document and return \_\_\_\_\_ copies to the issuing office.

**14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)**

A. The purpose of this modification is to issue an undefinitized change order for completion of interim corrective actions in response to the DOE Office of Health, Safety, and Security (HSS) Independent Oversight Inspection of the Hanford Site Chronic Beryllium Disease Prevention Program (CBDPP). This modification also covers initiation of work on actions assigned to WRPS in the draft Corrective Action Plan developed in response to the HSS Inspection Report. The contractor is hereby provided an immediate Notice to Proceed (NTP) with a Not to Exceed (NTE) budget authority of \$400,000.00. Details of this change are included in the SF30 Block 14 Continuation beginning on Page 2 of this modification.

Period of Performance: 06/20/2008 to 09/30/2013

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Susan E. Bechtol
15B. CONTRACTOR/OFFEROR  (Signature of person authorized to sign)	15C. DATE SIGNED
16B. UNITED STATES OF AMERICA <b>ORIGINAL SIGNED BY</b>  (Signature of Contracting Officer)	16C. DATE SIGNED 09/02/2010

**SF 30 BLOCK 14 CONTINUATION:**

B. The Contractor is directed to perform the interim corrective actions related to the Hanford Site CBDPP identified below:

1. Implement facility-specific posting recommendations contained in HSS beryllium (Be) assessment report, including posting/controlling buildings which are awaiting characterization sampling (provide documentation/verification of completion of posting activities within 14 days of the issuance date of this modification).
2. All supervisors, planners, and persons in charge (PICs) who are involved with work activities involving a Beryllium Work Permit shall complete the existing Be worker training course (to be completed within 60 days of the issuance date of this modification).
3. Issue a directive to all planning, industrial hygiene, and supervisory personnel stating that previously published lists of beryllium-contaminated or potentially contaminated buildings 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 designee (to be completed within 7 days of the issuance date of this modification).
4. For characterization purposes, collect wipe samples from building/structure surfaces with no visibly accumulated dust in the locations where a bulk sample is collected. The bulk and wipe sample results shall be evaluated against the criteria in Item 5 below (initiate within 7 days of the issuance date of this modification).
5. Investigate building/structure beryllium survey results which meet or exceed 0.1 ug/100 cm<sup>2</sup> for a wipe sample or 1 ppm for a bulk sample per NIOSH 7300 series methodology to identify the extent of potential beryllium contamination. The Independent Beryllium Oversight Team (IBOT) shall be notified within 1 working day of any results meeting or exceeding these levels. The area in which the potential beryllium contamination was detected shall be re-sampled within 3 working days, or an alternate time frame coordinated with the IBOT if required due to complexity of sampling, using the MARSSIM process as described in the attached sampling protocol. The area may be considered beryllium free if the geometric mean of the sample results is less than 1 ppm or 0.1 ug/100 cm<sup>2</sup>, and no sample results meet or exceed 2 ppm or 0.2 ug/100 cm<sup>2</sup>. Items 4 and 5 do not apply to outdoor waste sites, which shall continue to comply with the current requirements of the site-wide CBDPP (initiate within 7 days of the issuance date of this modification).
6. Initiate work to address the corrective actions assigned to WRPS in the draft Corrective Action Plan developed in response to the DOE Office of Health, Safety and Security Beryllium Inspection Report.

- C. The Contractor is directed to provide a proposal for equitable adjustment within 60 days of the date of receipt of this modification. The definitization schedule for this change order is as follows:

Action	Date*
Contractor Submits Technical, Cost, and Fee Proposal	60 days
Commence negotiations	120 days
Mutual agreement on definitization of change	130 days
Contractor submits certificate of current cost or pricing data	130 days
Execute definitization contract modification	140 days

\*Date is specified as the number of calendar days after contractor receipt of this modification.

- D. Correspondence related to this contract modification is identified below:

1. A. B. Dunning, WRPS, to S.E. Bechtol, ORP, Contract No. DE-AC27-08RV14800 – Washington River Protection Solutions LLC Response to U.S. Department Of Energy, Office of Health Safety and Security Assessment of Hanford Site Chronic Beryllium Disease Prevention Program, WRPS-1001313 R1, dated July 8, 2010
2. S. J. Olinger, ORP, to C. G. Spencer, WRPS, “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-196/1001313, dated June 09, 2010.

- E. As stated in A. above, this modification establishes a Not-to-Exceed budget authority of \$400,000.00 prior to the definitization of this Change Order in accordance with Contract Clause I.103. WRPS is authorized to perform the work identified in this modification up to this authorized NTE amount. Do not exceed the NTE budget authority provided herein without prior approval from the Contracting Officer via a modification to increase this amount. Notify the Contracting Officer in writing with your rationale if the NTE amount is insufficient to proceed with the identified work. This modification does not add additional funds to the contract. Accordingly, work under the contract, such as that described herein, must be performed within the amount of funds which have been incrementally allotted to the contract in accordance with Clause I.82, “FAR 52.232-22 Limitation of Funds (Apr 1984).”

There are no other changes to the terms and conditions of the contract.

List of Attachments:

- 1.Sampling Protocols for Buildings
- 2.Corrective Actions for Hanford Site Chronic Beryllium Disease Prevention Program

## **Sampling Protocols for Buildings**

When conducting standard characterization sampling of buildings, contractors will investigate beryllium survey results which meet or exceed the following trigger levels:

- 0.1  $\mu\text{g}/100\text{ cm}^2$  for wipe samples
- 1 ppm for bulk samples

If none of the samples exceed the trigger levels, no further action is required and the building can be declared to be beryllium clean.

Building control levels for characterization sampling:

- A geometric mean value which meets or exceeds 0.1  $\mu\text{g}/100\text{cm}^2$ , or a single result which meets or exceeds 0.2  $\mu\text{g}/100\text{cm}^2$  for wipe samples.
- A geometric mean value which meets or exceeds 1 ppm, or a single result which meets or exceeds 2 ppm for bulk samples.

The Independent Beryllium Oversight Team (IBOT) shall be notified within one working day of any results exceeding these levels (i.e. trigger or control levels). Additional investigative sampling of the area in which the trigger levels were met or exceeded (i.e. potential contamination suspected) shall be conducted within 3 working days (or as agreed upon with the IBOT) using the protocols described below. Documentation of communications with the IBOT and the initiating events shall be maintained.

Survey units identified as requiring additional investigative sampling don't require any additional posting so long as the sampling is completed in the time period agreed upon with the IBOT. Results of the initial sampling will be communicated to occupants of the building, and other individuals known to have regularly accessed the building, as soon as possible.

After appropriate characterization sampling, the area may be considered beryllium free if the geometric mean of the sample results is less than 1 ppm for bulk samples or 0.1  $\mu\text{g}/100\text{ cm}^2$  for wipe samples, and no sample results exceed 2 ppm for bulk samples or 0.2  $\mu\text{g}/100\text{ cm}^2$  for wipe samples.

This process applies only to buildings, and not to Land Areas such as waste trenches, groundwater sites, and soil remediation sites.

### **Standard Characterization of Buildings**

During the initial characterization, each building will be divided into homogeneous sampling units. Each survey unit will be a maximum of 1,000 sq. meters. In each survey unit, samples shall be collected from any areas deemed more likely to be contaminated, plus at least 10 random wipe and/or bulk samples. If no areas in a survey unit are deemed more likely to be contaminated, at least 10 random samples shall be collected



If all samples are below the appropriate trigger level, the building may be declared to be beryllium clean.

If a survey unit has one or more samples above the trigger level, additional sampling will be conducted in that survey unit. If the sample was collected on the floor, wall, or other dust collecting surface, an additional 10 samples will be collected from the area around each of the samples that are above the trigger level.

If the sample was taken on a piece of equipment such as a crane, switchgear, bus bar, or metal machining tool, at least five wipe and/or bulk samples will be collected on that particular piece of equipment plus five samples from the area around the equipment. If it isn't feasible to collect five additional samples from the piece of equipment due to the equipment's size, the reason for having collected a reduced number of samples shall be documented on the Industrial Hygiene Sampling Survey Form

The results of the additional samples will be compared to the control levels. If the control levels are not exceeded, the building may be declared to be beryllium clean.

#### **Integrated Characterization of Buildings**

If the contractor prefers, they may conduct integrated characterization sampling to minimize re-entry due to exceeding trigger limits. For integrated characterization sampling, each building will be divided into smaller homogeneous sampling units. Each survey unit will be a maximum of 100 sq. meters. In each survey unit, samples shall be collected from any areas deemed more likely to be contaminated, plus at least 10 random wipe and/or bulk samples. If no areas in a survey unit are deemed more likely to be contaminated, at least 10 random samples shall be collected.

For characterizing equipment, such as a crane, switchgear, bus bar, or metal machining tool, at least five samples will be collected on the piece of equipment plus five samples from the area around the equipment. If it isn't feasible to collect five samples from the piece of equipment due to the equipment's size, the reason for having collected a reduced number of samples shall be documented on the Industrial Hygiene Sampling Survey Form.

After completing the Integrated characterization sampling, the results will be compared to the control levels. If the control levels are not exceeded, the building may be declared to be beryllium clean.

#### **Validation Sampling of Buildings Considered Beryllium Clean**

The validation sampling program for facilities determined to be Beryllium clean will be developed as part of the corrective actions resulting from HSS inspection. If all collected sample results are below the trigger levels, the building may continue to be considered beryllium clean.

If one or more samples exceed a trigger level, additional sampling will be conducted. If the sample was collected on the floor, wall, or other dust collecting surface, an additional ten samples will be collected from the area around each of the samples that are above the trigger level.

If the sample was taken on a piece of equipment such as a crane, switchgear, bus bar, or metal machining tool, at least five samples will be collected on the piece of equipment. If it isn't feasible to collect five additional samples from the piece of equipment due to the equipment's size, the reason for having collected a reduced number of samples shall be documented in the Industrial Hygiene Sampling Survey Form.

After collecting any additional sampling, the results will be compared to the control levels. If the control levels are not exceeded, the building may be declared to be beryllium clean.

### **Collection of Bulk Samples**

The HSS Assessment recommended that whenever bulk samples are collected that a wipe sample also be collected. Bulk samples are normally collected using the micro-vacuum technique involving a sampling pump and a 37 mm MCEF cassette. For surfaces where the bulk material adheres to the surface, a scoop or scrape method can instead be used. Regardless of the method used, a wipe sample shall be collected from the area underneath where the bulk sample was collected. The bulk sample result shall be compared to the appropriate bulk sample limits and the wipe sample shall be compared to the appropriate wipe sample limits. The bulk and wipe sample shall be considered to be one sample with regard to determine whether a sufficient number of samples have been collected.

If the bulk sample was collected from an area greater than 100 cm<sup>2</sup>, the wipe sample will be collected from a representative 100 cm<sup>2</sup> area.

In some instances, it isn't feasible to collect a wipe sample from the area underneath where the bulk sample was collected. Examples include bulk samples collected from crevices, samples collected on angle iron, or samples collected from extremely rough surfaces. If a wipe sample can't be collected, the reason for not collecting the sample shall be documented in the Industrial Hygiene Sampling Survey Form

### **Calculation of Geometric Mean**

For the geometric mean to have statistical strength, at least six samples of each type must be collected. In the case where characterization sampling has been conducted, one or more samples exceed the trigger level and fewer than six samples of a particular type have been collected due to limitations, the IBOT shall be contacted to discuss the limitations and to determine the appropriate path forward.

**Developing a Technical Basis For Exceeding the Control Levels**

Certain materials may contain naturally occurring beryllium at levels that may exceed the control levels. In such cases, the contractor has to present evidence that a naturally occurring beryllium source has caused samples to exceed the control levels identified above, they shall document their technical basis and submit it to the IBOT for review. If the IBOT concurs with the contractor's basis, a building can be considered beryllium clean even if control levels are exceeded.

<b>Sampling type</b>	<b>Minimum number of samples</b>	<b>Maximum size of survey unit</b>
Standard characterization of buildings	Samples from areas of concern plus at least 10 random samples per survey unit	1,000 sq. meters
Integrated characterization of buildings	Samples from areas of concern plus at least 10 random samples per survey unit	100 sq. meters
Validation sampling of buildings considered beryllium clean	Per validation plan	No limit on size

**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	<b>Finding #1: RI 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 CBDPPP. (CHPRC, MSA, WCH, WRPS, DOE)</b>	Single site-wide process documented by contractors in the CBDPPP.	CHPRC	M. Hughey	8/1/2010	11/30/2010
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 CBDPPP.	MSA	R. Gilmore	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 CBDPPP.	WCH	D. Bignell	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 CBDPPP.	WRPS	L. Gurney	8/1/2010	11/30/2010
5	F-1.1.4	Requirements to document information provided by contacted individuals (employee interviews)	Incorporated into the response for F-1.1	CHPRC	M. Hughey	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	MSA	R. Gilmore	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	WCH	D. Bignell	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	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
9	F-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
			Incorporated into the response for F-1.1	CHPRC	M. Hughey	8/1/2010	11/30/2010
10	F-1.1.9	Defined responsibility assignments and qualifications for individuals completing and approving assessment forms	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-1.1.10	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-1.1.11	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-1.1.12	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

\* 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
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
		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.	MSA	R. Gilmore	10/1/2010	1/31/2011
		Address the recommendations for additional sampling at Building 105B (B Reactor).	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
16	F-1.2.2	Address the recommendations for additional sampling at Building 105B (B Reactor).	This action is specific to WCH. MSA will need to be involved at building handover.	WRPS	L. Gurney	10/1/2010	1/31/2011
		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.)	Appropriate sampling plan will be developed and sampling completed for 105B.	MSA	L. Sweeney	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.)	Documented review of the process/procedures utilized for the receipt and verification of potential Be-contaminated/containing components at the 2101M warehouse. Implementation of recommended actions, if any, shall be included. Perform facility characterization.	WCH	D. Bignell	10/1/2010	1/31/2011
		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.	Addressed by the interim action direction and/or F-1.1	MSA	W. Geer	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.	Addressed by the interim action direction and/or F-1.1	CHPRC	M. Hughey	10/1/2010	1/31/2011
		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.	Addressed by the interim action direction and/or F-1.1	MSA	R. Gilmore	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.	Addressed by the interim action direction and/or F-1.1	WCH	D. Bignell	10/1/2010	1/31/2011
		Completed assessment forms per the process in F-1.1	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	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	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	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	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
			Completed assessment forms per the process in F-1.1	CHPRC	M. Hughey	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	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	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
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	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
			Documentation that BAG/HAMTC have been offered opportunities to participate in facility walk-downs.	WRPS	L. Gurney	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.)	Documented initial update of the WRPS Beryllium website.	WRPS	L. Gurney	6/7/2010	9/30/2010
			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
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	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.  Issue interim action letters containing criteria agreed to by RL/ORP, the BAG, and HAMTC.	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.	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  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	9/15/2010  11/30/2010  11/30/2010  11/30/2010  11/30/2010  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
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 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	CHPRC MSA WCH WRPS  RL/ORP	M. Hughey R. Gilmore D. Bignell L. Gurney  P. Garcia/ W. Taylor	9/15/2010 9/15/2010 9/15/2010 9/15/2010  7/1/2010	11/30/2010 11/30/2010 11/30/2010 11/30/2010  9/15/2010
31	F-1.4.3	Identify and implement appropriate interim control measures.	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  Incorporated into the response for F-1.4	CHPRC MSA WCH WRPS  RL/ORP	M. Hughey R. Gilmore D. Bignell L. Gurney  P. Garcia/ W. Taylor	9/15/2010 9/15/2010 9/15/2010 9/15/2010  7/1/2010	11/30/2010 11/30/2010 11/30/2010 11/30/2010  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. Documentation that the revised process and results of reviews have been communicated to workers, BAG, HAMTC, and DOE. Documentation that the revised process and results of reviews have been communicated to workers, BAG, HAMTC, and DOE. Documentation that the revised process and results of reviews have been communicated to workers, BAG, HAMTC, and DOE.	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
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 Incorporated into the response for F-1.1 and F-1.2 Incorporated into the response for F-1.1 and F-1.2 Incorporated into the response for F-1.1 and F-1.2	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
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	CHPRC	M. Hughey	8/1/2010	11/30/2010
			Addressed by F-1.1	MSA	R. Gilmore	8/1/2010	11/30/2010
			Addressed by F-1.1	WCH	D. Bignell	8/1/2010	11/30/2010
			Addressed by F-1.1	WRPS	L. Gurney	8/1/2010	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 <sup>2</sup> or bulk samples with beryllium concentrations that exceed the 95 % lower confidence level concentration in the background distribution.	Addressed by F-1.1	CHPRC	M. Hughey	8/1/2010	11/30/2010
			Addressed by F-1.1	MSA	R. Gilmore	8/1/2010	11/30/2010
			Addressed by F-1.1	WCH	D. Bignell	8/1/2010	11/30/2010
			Addressed by F-1.1	WRPS	L. Gurney	8/1/2010	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	CHPRC	M. Hughey	8/1/2010	11/30/2010
			Addressed by F-1.1	MSA	R. Gilmore	8/1/2010	11/30/2010
			Addressed by F-1.1	WCH	D. Bignell	8/1/2010	11/30/2010
			Addressed by F-1.1	WRPS	L. Gurney	8/1/2010	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	CHPRC	M. Hughey	8/1/2010	11/30/2010
			Addressed by F-1.1	MSA	R. Gilmore	8/1/2010	11/30/2010
			Addressed by F-1.1	WCH	D. Bignell	8/1/2010	11/30/2010
			Addressed by F-1.1	WRPS	L. Gurney	8/1/2010	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	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
39	F-1.6	Implement the revised characterization process and applicable controls.	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
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.	CHPRC	M. Hughey	10/1/2010	12/30/2010
			Documented delivery of the training required by F-1.1.3.	MSA	R. Gilmore	10/1/2010	12/30/2010
			Documented delivery of the training required by F-1.1.3.	WCH	D. Bignell	10/1/2010	12/30/2010
			Documented delivery of the training required by F-1.1.3.	WRPS	L. Gurney	10/1/2010	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
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
	F-1.6.3	Inform workers and other interested parties of the revised characterization process and how it will be implemented.	Addressed by F-1.2	MSA	R. Gilmore	10/1/2010	1/31/2011
	F-1.6.4	Implement the revised characterization process.	Addressed by F-1.2	WCH	D. Bignell	10/1/2010	1/31/2011
	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	WRPS	L. Gurney	10/1/2010	1/31/2011
	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-1.2	CHPRC	M. Hughey	10/1/2010	1/31/2011
	F-1.6.7	After the revised processes are in place, perform one or more focused audits/appraisals to determine the effectiveness of implementation.	Addressed by F-1.2	MSA	R. Gilmore	10/1/2010	1/31/2011
			Assessment of effectiveness of implementation of the revised process.	WCH	D. Bignell	10/1/2010	1/31/2011
			Assessment of effectiveness of implementation of the revised process.	WRPS	L. Gurney	10/1/2010	1/31/2011
			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. 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. 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.	Develop a Beryllium Oversight Plan, which addresses oversight by RL/ORP and contractors, to verify adequate completion/implementation of the CAP. Revised Hanford Site CBDPP, with concurrence of the CBDPP Committee and RL/ORP approval	RL	A. Hawkins M McCormick/D. Brockman	8/1/2010 6/3/2010	10/1/2010 8/1/2011
52	F-1.12		RL/ORP Annual Workforce Analysis and Staffing Plan	RL	R. Corey	6/3/2010	9/30/2011

\* 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
53	F-2	<b>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</b>					
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	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.	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.	RL/ORP	M. McCormick/ D. Brockman	6/1/2010	12/30/2010
			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
			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
			Addressed by F-2.2.1 and F-2.2.2	WRPS	L. Gurney/ L. Keith	6/1/2010	12/30/2010
58	F-2.2.3	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).					
59	F-2.3	Develop additional training for managers to address:	Incorporated into the response for F-2.2.2	MSA	P. Aldridge	6/1/2010	9/15/2010
60	F-2.3.1	Limits on the ability to detect beryllium contamination,	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	AMH	B. Fawcett	8/1/2010	9/30/2010
			Incorporated into the response for F-2.5	MSA	P. Aldridge	4/15/2010	9/30/2010
			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
			Develop site-wide criteria for the training of IHTs and IHTs.	CHPRC	M. Hughey	8/1/2010	9/15/2010
			Develop site-wide criteria for the training of IHTs and IHTs.	MSA	R. Gilmore	8/1/2010	9/15/2010
			Develop site-wide criteria for the training of IHTs and IHTs.	WCH	D. Bignell	8/1/2010	9/15/2010
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.	WRPS	L. Gurney	8/1/2010	9/15/2010
			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
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.	Incorporate this information into the Beryllium Worker training.	MSA	R. Gilmore	8/1/2010	10/1/2010
77	F-2.6.4	Train beryllium associated workers as required by 10 CFR 850.37	Incorporate the new revised Beryllium module into HGET (module subject to revision per F-2.1).	MSA	R. Gilmore	6/30/2010	Complete
78	<b>F-3</b>	<b>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</b>					
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.	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
			Incorporated into the response for F-3.1	AMH	B. Fawcett	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
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	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
			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
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.)	(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
			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
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	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
			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
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	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
			Documented plan for self assessment audits of the AMH MSP.	AMH	B. Fawcett	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.)	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 This item is addressed by this CAP This item is addressed by this CAP This item is addressed by this CAP This item is addressed by this CAP	AMH CHPRC MSA WCH WRPS	J. Zaccaria M. Hughey R. Gilmore D. Bignell L. Gurney	7/1/2010 7/1/2010 7/1/2010 7/1/2010 7/1/2010	9/30/2010 9/30/2010 9/30/2010 9/30/2010 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. Provide input to root cause analysis. Provide input to root cause analysis. Provide input to root cause analysis.	CHPRC MSA WCH WRPS	M. Hughey R. Gilmore D. Bignell L. Gurney	8/1/2010 8/1/2010 8/1/2010 8/1/2010	10/1/2010 10/1/2010 10/1/2010 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. Develop and implement a process for transmitting the information required by 10 CFR 850.39 and the CBDPP to the beryllium registry. Develop and implement a process for transmitting the information required by 10 CFR 850.39 and the CBDPP to the beryllium registry.	AMH CHPRC MSA WCH WRPS	B. Fawcett M. Hughey R. Gilmore D. Bignell L. Gurney	8/1/2010 8/1/2010 8/1/2010 8/1/2010 8/1/2010	10/1/2010 10/1/2010 10/1/2010 10/1/2010 10/1/2010
90	F-3.2.3	Monitor and hold contractors accountable for sending complete and correct data to AMH to be entered into the beryllium registry and medical records, as appropriate.	Incorporate oversight of beryllium registry input into the DOE oversight planning process.	RL/ORP	R. Corey/ W. Taylor	9/1/2010	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
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. Documented participation in beryllium registry training. Documented participation in beryllium registry training. Documented participation in beryllium registry training. Documented participation in beryllium registry training.	AMH CHPRC MSA WCH WRPS	B. Fawcett M. Hughey R. Gilmore D. Bignell L. Gurney	10/1/2010 10/1/2010 10/1/2010 10/1/2010 10/1/2010	12/1/2010 12/1/2010 12/1/2010 12/1/2010 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
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.	This item shall be incorporated into the response for F-3.3.2. Support development of database and process per F-3.3.2 below. Support development of database and process per F-3.3.2 below. Support development of database and process per F-3.3.2 below. Support development of database and process per F-3.3.2 below.	AMH CHPRC MSA WCH WRPS	B. Fawcett M. Hughey R. Gilmore D. Bignell L. Gurney	11/1/2010 11/1/2010 11/1/2010 11/1/2010 11/1/2010	4/1/2011 4/1/2011 4/1/2011 4/1/2011 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

\* 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
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 CBDPP. (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 revitalizing 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	<b>F-4</b>	<b>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</b>					
			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.					

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.	AMH  CHPRC  MSA	B. Fawcett  M. Hughey  R. Gilmore	7/1/2010  8/1/2010  8/1/2010	12/1/2010  12/1/2010  12/1/2010
107	F-4.3	Strengthen implementation of beryllium work controls.		WCH  WRPS	D. Bignell  L. Gurney	8/1/2010  8/1/2010	12/1/2010  12/1/2010
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  <b>WRPS</b>	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

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.	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.	CHPRC	M. Hughey	8/1/2010	11/1/2010
			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.	MSA	M. Hermanson	8/1/2010	11/1/2010
			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.	<b>WCH</b>	D. Bignell	8/1/2010	11/1/2010
			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.	WRPS	L. Gurney	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
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.  Develop a site-wide process for identifying when a job-specific BWP is appropriate and provide the process for review to DOE/BAG/HAMTC.  Develop a site-wide process for identifying when a job-specific BWP is appropriate and provide the process for review to DOE/BAG/HAMTC.  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  MSA <b>WCH</b>  WRPS	M. Hughey  M. Hermanson  D. Bignell  L. Gurney	8/1/2010  8/1/2010  8/1/2010  8/1/2010	11/1/2010  11/1/2010  11/1/2010  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).	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.  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.  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.  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  MSA  WCH  WRPS	M. Hughey  R. Gilmore  D. Bignell  L. Gurney	9/1/2010  9/1/2010  9/1/2010  9/1/2010	12/30/2010  12/30/2010  12/30/2010  12/30/2010

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## 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. To be addressed as part of an interim action. To be addressed as part of an interim action. To be addressed as part of an interim action.	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
113	F-4.4.1		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.	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. Develop a site-wide process with clear roles and responsibilities for coordinating activities for employees performing work in facilities controlled by other contractors.	<b>MSA</b> WCH	R. Gilmore D. Bignell	8/1/2010 8/1/2010	11/1/2010 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.	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	Addressed by F-1.1.6	CHPRC	M. Hughey	8/1/2010	11/30/2010
		Addressed by F-1.1.6	Addressed by F-1.1.6	MSA	R. Gilmore	8/1/2010	11/30/2010
		Addressed by F-1.1.6	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

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.	<p>Already required by the CBDPP. Each contractor to provide an assessment schedule for work controls and protection of workers to their Field Office.</p> <p>Already required by the CBDPP. Each contractor to provide an assessment schedule for work controls and protection of workers to their Field Office.</p> <p>Already required by the CBDPP. Each contractor to provide an assessment schedule for work controls and protection of workers to their Field Office.</p> <p>Already required by the CBDPP. Each contractor to provide an assessment schedule for work controls and protection of workers to their Field Office.</p>	CHPRC AMH MSA WCH	M. Hughey B. Fawcett R. Gilmore D. Bignell	8/1/2010 8/1/2010 8/1/2010 8/1/2010	9/30/2010 9/30/2010 9/30/2010 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.	<p>To be addressed as part of an interim action.</p> <p>To be addressed as part of an interim action.</p> <p>To be addressed as part of an interim action.</p> <p>To be addressed as part of an interim action.</p> <p>To be addressed as part of an interim action.</p> <p>Issue interim action letters.</p>	AMH CHPRC MSA WCH WRPS RL/ORP	B. Fawcett M. Hughey R. Gilmore D. Bignell L. Gurney P. Garcia/ W. Taylor	9/15/2010 9/15/2010 9/15/2010 9/15/2010 9/15/2010 7/1/2010	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
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 CBDPPP.  Document review and revision (if necessary) of work control process which addresses the hazard assessment requirements of section 6.8 of the site-wide CBDPPP.  Document review and revision (if necessary) of work control process which addresses the hazard assessment requirements of section 6.8 of the site-wide CBDPPP.  Document review and revision (if necessary) of work control process which addresses the hazard assessment requirements of section 6.8 of the site-wide CBDPPP.	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 CBDPPP.  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 CBDPPP.  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 CBDPPP.	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
			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 CBDPPP.	WRPS	L. Gurney	9/1/2010	11/30/2010
			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 CBDPPP.	CHPRC	M. Hughey	10/1/2010	12/1/2010
			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 CBDPPP.	MSA	R. Gilmore	10/1/2010	12/1/2010
			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 CBDPPP.	WCH	D. Bignell	10/1/2010	12/1/2010
			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 CBDPPP.	WRPS	L. Gurney	10/1/2010	12/1/2010

## Corrective Actions for Hanford Site Chronic Beryllium Disease Prevention Program

MSP Line ID	ID	Action Items:	Deliverable	Owner*	Resource	Start Date:	Completion Date
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.	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.  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.  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.  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.	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
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.	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.  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.  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.	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



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  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
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  Incorporated into the response for F-4.7	AMH CHPRC MSA WCH WRPS AMH CHPRC	B. Fawcett M. Hughey R. Gilmore D. Bignell L. Gurney B. Fawcett M. Hughey	9/1/2010 9/1/2010 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 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  Incorporated into the response for F-4.7	MSA WCH WRPS	R. Gilmore D. Bignell L. Gurney	9/1/2010 9/1/2010 9/1/2010	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  MSA	J. Hwang/ L. Gurney  L. Lockrem	7/1/2010  7/1/2010	10/1/2010  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

**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	WRPS	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 CBDPPP.	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 CBDPPP.	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 CBDPPP.	WCH	D. Bignell	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 CBDPPP, and provide training and modifications to work control procedures, as appropriate.	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 CBDPPP.	WRPS	C. Salinas/ L. Gurney	9/1/2010	11/30/2010
			Incorporate expectations for work control planners with respect to the implementation of the CBDPPP into the training for PICs, Planners, and FWSs (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 CBDPPP into the training for PICs, Planners, and FWSs (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 CBDPPP into the training for PICs, Planners, and FWSs (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 CBDPPP into the training for PICs, Planners, and FWSs (F-2.2).	WRPS	L. Gurney/ L. Keith	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
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.	CHPRC	M. Hughey	7/30/2010	9/30/2010
			Provide current labels in accordance with the CBDPP to workers, and brief workers on their use.	WCH	D. Bignell	7/30/2010	9/30/2010
			Provide current labels in accordance with the CBDPP to workers, and brief workers on their use.	WRPS	L. Gurney	7/30/2010	9/30/2010
			Addressed in F-4.1	CHPRC	M. Hughey	9/15/2010	11/30/2010
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	MSA	R. Gilmore	9/15/2010	11/30/2010
			Addressed in F-4.1	WCH	D. Bignell	9/15/2010	11/30/2010
			Addressed in F-4.1	WRPS	L. Gurney	9/15/2010	11/30/2010
			Addressed in F-4.1	CHPRC	M. Hughey	9/15/2010	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	MSA	R. Gilmore	9/15/2010	11/30/2010
			Addressed in F-4.1	WCH	D. Bignell	9/15/2010	11/30/2010
			Addressed in F-4.1	WRPS	L. Gurney	9/15/2010	11/30/2010
			Develop site-wide criteria. Procedures for implementation of the site-wide criteria will be contractor specific.	CHPRC	M. Hughey	10/1/2010	12/1/2010
			Develop site-wide criteria. Procedures for implementation of the site-wide criteria will be contractor specific.	MSA	R. Gilmore	10/1/2010	12/1/2010
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.	WCH	D. Bignell	10/1/2010	12/1/2010
			Develop site-wide criteria. Procedures for implementation of the site-wide criteria will be contractor specific.	WRPS	L. Gurney	10/1/2010	12/1/2010
			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
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	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

## 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							
148	OFI-1	<b>(1) RL should promptly direct AMH to develop a comprehensive improvement plan that addresses the deficiencies and opportunities for improvement identified in Appendix C of</b>					
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

## 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  RL/ORP	B. Fawcett  C. French/ E. Olds	Pending HSS Resolution  Pending HSS Resolution	9/1/2011  9/30/2011
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  RL/ORP	K. Conley  C. French/ E. Olds	9/1/2010  9/1/2010	11/1/2010  12/1/2010
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 a 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

**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



## 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	<b>(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</b>	<b>Identify and prioritize identified deficiencies (including those identified in this report and others identified by other</b>				
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/ 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	<i>(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</i>					
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	WRPS	L. Gurney	9/1/2010	12/30/2010
			Issue letter addressing three-phase approach	ORP	W. Taylor	Complete	Complete
			Each contractor will have a detailed resource loaded and prioritized schedule and a process for statusing and tracking items in their resource loaded schedule to ensure timely completion.	AMH	B. Fawcett	9/1/2010	11/30/2010
			Each contractor will have a detailed resource loaded and prioritized schedule and a process for statusing and tracking items in their resource loaded schedule to ensure timely completion.	CHPRC	M. Hughey	9/1/2010	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 statusing and tracking items in their resource loaded schedule to ensure timely completion.	MSA	R. Gilmore	9/1/2010	11/30/2010
			Each contractor will have a detailed resource loaded and prioritized schedule and a process for statusing and tracking items in their resource loaded schedule to ensure timely completion.	WCH	D. Bignell	9/1/2010	11/30/2010
			Each contractor will have a detailed resource loaded and prioritized schedule and a process for statusing and tracking items in their resource loaded schedule to ensure timely completion.	WRPS	L. Gurney	9/1/2010	11/30/2010
179	OFI-3.3	Develop and implement a comprehensive beryllium program implementation plan.	This item is addressed by OFI-3.2	AMH	J. Zaccaria	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
			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	AMH	J. Zaccaria	9/1/2010	11/30/2010
			This item is addressed by OFI-3.2	CHPRC	M. Hughey	9/1/2010	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	MSA	R. Gilmore	9/1/2010	11/30/2010
			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

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 liming and characterization activities.	This item is addressed by an interim action. This item is addressed by an interim action. Establish a procedure for maintenance and publication of the required beryllium facilities lists. Use of these lists is addressed in the interim action.	AMH CHPRC MSA	B. Fawcett M. Hughey R. Gilmore	9/15/2010 9/15/2010 9/15/2010	11/30/2010 11/30/2010 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. This item is addressed by an interim action. Issue interim action letters. This OFI will be addressed by the action for F-4.8 This OFI will be addressed by the action for F-4.8 This OFI will be addressed by the action for F-4.8	WCH WRPS RL/ORP MSA WRPS	D. Bignell L. Gurney P. Garcia/ W. Taylor L. Lockrem J. Hwang/ L. Gurney	9/15/2010 9/15/2010 7/1/2010 7/1/2010 7/1/2010	11/30/2010 11/30/2010 9/15/2010 10/1/2010 10/1/2010
183	OFI-3.4	Develop and implement a comprehensive management plan for implementing the Hanford site-wide CBDPP.	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	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	11/30/2010 11/30/2010 11/30/2010 11/30/2010 11/30/2010
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	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 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	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	11/30/2010 11/30/2010 11/30/2010 11/30/2010 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
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
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.	Issue 30-day action letters. 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	RL/ORP AMH CHPRC MSA WCH WRPS	D. Brockman/ S. Olinger G. Baxter J. Lehew F. Armijo N. Brosee C. Spencer	Complete 9/1/2010 9/1/2010 9/1/2010 9/1/2010 9/1/2010	Complete 12/30/2010 12/30/2010 12/30/2010 12/30/2010 12/30/2010
188	OFI-4	<b>(4) RL and ORP should consider ensuring that site contractors strengthen their processes for baseline beryllium inventories and hazards assessments (RL, ORP).</b>	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	(5) RL, ORP, and contractor organizations should determine methods to strengthen assessment and issues management processes for beryllium processes and activities.					
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. Carrier	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. Carrier	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 To be incorporated into OFI-5.1 To be incorporated into OFI-5.1 To be incorporated into OFI-5.1 To be incorporated into OFI-5.1 To be incorporated into OFI-5.1	AMH CHPRC MSA WCH WRPS	K. Conley S. Kelley R. Gilmore D. Bignell J. McDonald/ L. Gurney A. Hawkins/ P. Carier	9/1/2010 9/1/2010 9/1/2010 9/1/2010 9/1/2010 9/1/2010	12/30/2010 12/30/2010 12/30/2010 12/30/2010 12/30/2010 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.	Approved modification of the Hanford Site CBDPP to include a requirement for an annual review of identified beryllium-related issues and their resolution. Approved modification of the Hanford Site CBDPP to include a requirement for an annual review of identified beryllium-related issues and their resolution. Approved modification of the Hanford Site CBDPP to include a requirement for an annual review of identified beryllium-related issues and their resolution. Approved modification of the Hanford Site CBDPP to include a requirement for an annual review of identified beryllium-related issues and their resolution. Approved modification of the Hanford Site CBDPP to include a requirement for an annual review of identified beryllium-related issues and their resolution.	AMH CHPRC MSA WCH WRPS	B. Fawcett S. Seydel R. Gilmore D. Bignell L. Gurney	9/1/2010 9/1/2010 9/1/2010 9/1/2010 9/1/2010	11/1/2010 11/1/2010 11/1/2010 11/1/2010 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.	<p>Already required by the CBDPP. Each contractor to provide an assessment schedule for work controls and protection of workers to their Field Office.</p> <p>Already required by the CBDPP. Each contractor to provide an assessment schedule for work controls and protection of workers to their Field Office.</p> <p>Already required by the CBDPP. Each contractor to provide an assessment schedule for work controls and protection of workers to their Field Office.</p> <p>Already required by the CBDPP. Each contractor to provide an assessment schedule for work controls and protection of workers to their Field Office.</p> <p>Already required by the CBDPP. Each contractor to provide an assessment schedule for work controls and protection of workers to their Field Office.</p> <p>Already required by the CBDPP. Each contractor to provide an assessment schedule for work controls and protection of workers to their Field Office.</p> <p>Incorporate beryllium oversight activities into the DOE oversight planning process.</p>	AMH CHPRC MSA WCH WRPS RL/ORP	B. Fawcett M. Hughey R. Gilmore D. Bignell L. Gurney R. Corey/ W. Taylor	8/1/2010 8/1/2010 8/1/2010 8/1/2010 8/1/2010 8/1/2010	9/30/2010 9/30/2010 9/30/2010 9/30/2010 9/30/2010 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. Develop a site-wide communication process for performance assessment results, including a lessons learned function 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  CHPRC  <b>MSA</b>	S. Rock  M. Hughey  R. Gilmore	9/1/2010  9/1/2010  9/1/2010	12/1/2010  12/1/2010  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

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**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

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

**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.  Documented review of the issues management process to verify that input from stakeholders and concerned individuals is appropriately entered into the process.  Documented review of the issues management process to verify that input from stakeholders and concerned individuals is appropriately entered into the process.  Documented review of the issues management process to verify that input from stakeholders and concerned individuals is appropriately entered into the process.	AMH  CHPRC  MSA	K. Conley  S. Kelley  R. Gilmore	1/1/2011  1/1/2011  1/1/2011	3/1/2011  3/1/2011  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.  Documented review of the issues management process to verify that input from stakeholders and concerned individuals is appropriately entered into the process.  Documented review of the issues management process to verify that input from stakeholders and concerned individuals is appropriately entered into the process.	WCH  WRPS  RL/ORP	D. Bignell  J. McDonald/ L. Gurney  A. Hawkins/ P. Carrier	1/1/2011  1/1/2011  1/1/2011	3/1/2011  3/1/2011  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 CBDPPP. (Moved from OFI 1)	Already required by section 6.31 of the CBDPPP. Each contractor to provide an assessment schedule to their Field Office.  Already required by section 6.31 of the CBDPPP. Each contractor to provide an assessment schedule to their Field Office.  Already required by section 6.31 of the CBDPPP. Each contractor to provide an assessment schedule to their Field Office.  Already required by section 6.31 of the CBDPPP. Each contractor to provide an assessment schedule to their Field Office.	AMH  CHPRC  MSA  WCH  WRPS	B. Fawcett  M. Hughey  R. Gilmore  D. Bignell  L. Gurney	1/1/2011  1/1/2011  1/1/2011  1/1/2011  1/1/2011	3/1/2011  3/1/2011  3/1/2011  3/1/2011  3/1/2011

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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. Documented review and update, if necessary, of procedures for self-assessment and management of issues to assure adequacy. Documented review and update, if necessary, of procedures for self-assessment and management of issues to assure adequacy. Documented review and update, if necessary, of procedures for self-assessment and management of issues to assure adequacy.	AMH CHPRC MSA WCH	B. Fawcett S. Kelley R. Gilmore D. Bignell	8/1/2010 8/1/2010 8/1/2010 8/1/2010	12/30/2010 12/30/2010 12/30/2010 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 Addressed by OFI-5.2 Addressed by OFI-5.2 Addressed by OFI-5.2 Addressed by OFI-5.2 Addressed by OFI-5.2	AMH CHPRC MSA WCH WRPS RL/ORP	B. Fawcett M. Hughey R. Gilmore D. Bignell L. Gurney A. Hawkins/ P. Carier	9/1/2010 9/1/2010 9/1/2010 9/1/2010 9/1/2010 8/1/2010	12/30/2010 12/30/2010 12/30/2010 12/30/2010 12/30/2010 12/30/2010
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 Addressed by OFI-5.2 Addressed by OFI-5.2 Addressed by OFI-5.2 Addressed by OFI-5.2 Addressed by OFI-5.2	AMH CHPRC MSA WCH WRPS RL/ORP	B. Fawcett M. Hughey R. Gilmore D. Bignell L. Gurney A. Hawkins/ P. Carier	8/1/2010 8/1/2010 8/1/2010 8/1/2010 8/1/2010 8/1/2010	9/30/2010 9/30/2010 9/30/2010 9/30/2010 9/30/2010 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.  Comprehensive Corrective Action Plan and the associated Root Cause Analyses by each contractor.  Comprehensive Corrective Action Plan and the associated Root Cause Analyses by each contractor.  Comprehensive Corrective Action Plan and the associated Root Cause Analyses by each contractor.  Comprehensive Corrective Action Plan and the associated Root Cause Analyses by each contractor.  Comprehensive Corrective Action Plan and the associated Root Cause Analyses by each contractor.	AMH  CHPRC  MSA  WCH  WRPS  RL/ORP	B. Fawcett  M. Hughey  R. Gilmore  D. Bignell  L. Gurney  M. McCormick/ D. Brockman	6/8/2010  6/8/2010  6/8/2010  6/8/2010  6/8/2010  6/8/2010	9/30/2010  9/30/2010  9/30/2010  9/30/2010  9/30/2010  9/30/2010
205	OFI-6	<b>(6) RL, ORP, and contractor organizations should identify appropriate</b>	<b>timely actions to ensure that accurate information about beryllium is available.</b> (AMH, CHPRC, MSA, WCH,				
206	OFI-6.1	Prioritize the review and updating of all procedures, guidance, and website information related to the CBDPPP.	Develop a prioritized schedule for review and revision of all procedures, guidance, and website information related to the CBDPPP.  Develop a prioritized schedule for review and revision of all procedures, guidance, and website information related to the CBDPPP.  Develop a prioritized schedule for review and revision of all procedures, guidance, and website information related to the CBDPPP.  Develop a prioritized schedule for review and revision of all procedures, guidance, and website information related to the CBDPPP.	AMH  CHPRC  MSA  WCH  WRPS	B. Fawcett/ 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	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
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. Documented review of company website(s) 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. Documented review of company website(s) to identify, correct, or remove outdated or erroneous material related to the CBDPP.	AMH CHPRC MSA	B. Fawcett M. Hughey R. Gilmore	6/7/2010 6/7/2010 6/7/2010	9/30/2010 9/30/2010 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. Documented review and update of procedures and guidance documents to assure conformance to the CBDPP. Documented review and update of procedures and guidance documents to assure conformance to the CBDPP.	AMH CHPRC MSA	J. Zaccaria M. Hughey R. Gilmore	9/1/2010 9/1/2010 9/1/2010	1/31/2011 1/31/2011 1/31/2011
209	OFI-6.1.3	Prioritize the updating of CBDPP description documents to conform to DOE-0342	Documented review and update of procedures and guidance documents to assure conformance to the CBDPP. Addressed by OFI-6.1 Addressed by OFI-6.1 Addressed by OFI-6.1 Addressed by OFI-6.1	WCH WRPS AMH CHPRC MSA WCH WRPS	D. Bignell L. Gurney J. Zaccaria M. Hughey R. Gilmore	9/1/2010 9/1/2010 9/1/2010 9/1/2010 9/1/2010	1/31/2011 1/31/2011 12/30/2010 12/30/2010 12/30/2010 12/30/2010
210	OFI-6.1.4	Develop technical instructions for conducting IH sampling and personal monitoring.	Addressed by OFI-6.1 Addressed by F-2.6.1 Addressed by F-2.6.1 Addressed by F-2.6.1 Addressed by F-2.6.1	CHPRC MSA WCH WRPS	M. Hughey W. Geer D. Bignell L. Gurney	8/1/2010 8/1/2010 8/1/2010 8/1/2010	9/15/2010 9/15/2010 9/15/2010 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
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	C. French/ E. Olds	9/15/2010	9/30/2010
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	R. Gilmore	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	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 7/1/2010	9/15/2010 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		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.	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.	CHPRC	M. Hughey	8/1/2010	10/1/2010
	OFI-6.2.3		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.	<b>MSA</b>	R. Gilmore	8/1/2010	10/1/2010
			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.	WCH	D. Bignell	8/1/2010	10/1/2010
218		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)	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.	WRPS	L. Gurney	8/1/2010	10/1/2010
			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.	CHPRC	M. Hughey	1/1/2011	4/1/2011
	OFI-6.2.4		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.	<b>MSA</b>	R. Gilmore	1/1/2011	4/1/2011
			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.	WCH	D. Bignell	1/1/2011	4/1/2011
			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.	WRPS	L. Gurney	1/1/2011	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	<b>(7) To ensure the long-term effectiveness of the CBDPP, RL and ORP should consider further formalizing expectations and governance of the CBDPP</b>					
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
			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
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.	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
			Addressed by OFI-7.2	AMH	S. Rock	Complete	Complete
			Addressed by OFI-7.2	CHPRC	M. Hughey	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	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
			Addressed by OFI-7.2	AMH	S. Rock	Complete	Complete
			Addressed by OFI-7.2	CHPRC	M. Hughey	Complete	Complete
223	OFI-7.2.2	Continue to follow new technological developments in beryllium instrumentation, such as LIBS.	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	OFI-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	<b>OFI-8</b>	<b>(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</b>					
226	OFI-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	OFI-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	OFI-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	OFI-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. Carrier	8/1/2010	10/1/2010
230	<b>OFI-9</b>	<b>(9) RL should strengthen support mechanisms and communications with beryllium-affected workers. (AMH, CHPRC, MSA, WCH, WRPS, DOE)</b>					
			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
231	OFI-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.	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



## 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 CBDPPP.	<p>1) Documented method of tracking to ensure that counseling occurs in a timely manner, in accordance with section 6.27.2 of the CBDPPP. 2) Documentation of training for appropriate HR and AMH personnel on the counseling packet developed in OFI-9.1.</p> <p>1) Documented method of tracking to ensure that counseling occurs in a timely manner, in accordance with section 6.27.2 of the CBDPPP. 2) Documentation of training for appropriate HR and AMH personnel on the counseling packet developed in OFI-9.1.</p> <p>1) Documented method of tracking to ensure that counseling occurs in a timely manner, in accordance with section 6.27.2 of the CBDPPP. 2) Documentation of training for appropriate HR and AMH personnel on the counseling packet developed in OFI-9.1.</p> <p>1) Documented method of tracking to ensure that counseling occurs in a timely manner, in accordance with section 6.27.2 of the CBDPPP. 2) Documentation of training for appropriate HR and AMH personnel on the counseling packet developed in OFI-9.1.</p>	AMH	B. Fawcett	<p>1) 8/1/2010</p> <p>2) 1/1/2011</p>	<p>1) 10/1/2010</p> <p>2) 3/1/2011</p>
233	OFI-9.3	Hire a site-wide Beryllium Health Advocate to (MSA):	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 its 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



## 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	S. Seydel, Chair, CBDPP Committee	6/1/2010	1/1/2011

**Corrective Actions for Hanford Site Chronic Beryllium Disease Prevention Program**

MSP Line ID	ID	Action Items:	Deliverable	Owner*	Resource	Start Date:	Completion Date
244	OFI-10	<b>(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</b>					
245	OFI-10.1	Establish line management responsibility for implementation of all program elements	This item will be incorporated into the response for F-2.2.2	AMH	G. Baxter	6/1/2010	12/30/2010
			This item will be incorporated into the response for F-2.2.2	CHPRC	J. Lehw	6/1/2010	12/30/2010
			This item will be incorporated into the response for F-2.2.2	MSA	F. Armijo	6/1/2010	12/30/2010
			This item will be incorporated into the response for F-2.2.2	WCH	N. Brosee	6/1/2010	12/30/2010
			This item will be incorporated into the response for F-2.2.2	WRPS	C. Spencer	6/1/2010	12/30/2010
			This item will be incorporated into the response for F-2.2.2	RL/ORP	M. McCormick/ D. Brockman	6/1/2010	12/30/2010
			This item will be incorporated into the response for F-2.2.2	AMH	K. Conley	6/1/2010	12/30/2010
			This item will be incorporated into the response for F-2.2.2	CHPRC	M. Hughey	6/1/2010	12/30/2010
			This item will be incorporated into the response for F-2.2.2	MSA	P. Aldridge	6/1/2010	12/30/2010
			This item will be incorporated into the response for F-2.2.2	WCH	D. Bignell	6/1/2010	12/30/2010
246	OFI-10.2	Reinforce expectations that worker concerns are to be carefully considered and evaluated.	This item will be incorporated into the response for F-2.2.2	WRPS	L. Gurney/ L. Keith	6/1/2010	12/30/2010
			This item will be incorporated into the response for F-2.2.2	RL/ORP	M. McCormick/ D. Brockman	6/1/2010	12/30/2010
247	OFI-10.3	To facilitate better communications and to build trust among workers, managers should be instructed on:					
248	OFI-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-2.2.2	AMH	K. Conley	6/1/2010	12/30/2010
			This item will be incorporated into the response for F-2.2.2	CHPRC	M. Hughey	6/1/2010	12/30/2010
			This item will be incorporated into the response for F-2.2.2	MSA	P. Aldridge	6/1/2010	12/30/2010
			This item will be incorporated into the response for F-2.2.2	WCH	D. Bignell	6/1/2010	12/30/2010
			This item will be incorporated into the response for F-2.2.2	WRPS	L. Gurney/ L. Keith	6/1/2010	12/30/2010
			This item will be incorporated into the response for F-2.2.2	RL/ORP	M. McCormick/ D. Brockman	6/1/2010	12/30/2010

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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-2.2.2 This item will be incorporated into the response for F-2.2.2 This item will be incorporated into the response for F-2.2.2 This item will be incorporated into the response for F-2.2.2 This item will be incorporated into the response for F-2.2.2 This item will be incorporated into the response for F-2.2.2	AMH CHPRC MSA WCH WRPS RL/ORP	K. Conley M. Hughey P. Aldridge D. Bignell L. Gurney/ L. Keith M. McCormick/ D. Brockman	6/1/2010 6/1/2010 6/1/2010 6/1/2010 6/1/2010 6/1/2010	12/30/2010 12/30/2010 12/30/2010 12/30/2010 12/30/2010 12/30/2010
250	<b>OFI-11</b>	<b>(11) DOE line management should ensure that adequate assessments of the CBDPP are performed (RL, ORP).</b>					
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

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