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Hanford Site Beryllium Posting and Labeling Requirements Procedure

Prepared for the U.S. Department of Energy
Assistant Secretary for Environmental Management



U.S. DEPARTMENT OF
ENERGY

CHANGE SUMMARY

Document sections were rearranged to align with Site Wide Standards format and to enhance logical flow/organization of the document. Changes to grammar and format were also made to enhance document consistency.

Section Changed	Change Details
Page vii	Signature page updated.
1.0 Purpose and Scope	Deleted 3 rd bullet “ <i>Labeling of areas with fixed beryllium contamination</i> ” and added “ <i>Fixed</i> ” to the first bullet Moved sentence from previous Section 2, <i>Applicability</i> , to the beginning of second paragraph. 3 rd paragraph, added the language “ <i>Postings are driven by evaluations, assessments and sampling and are</i> ” and “ <i>Postings are intended</i> ” Added two more paragraphs and a note that give more information on when posting is required.
3.0 Training	Previously Section 7.0 Replaced list of requirements with a table including the same information, with a few changes to the descriptions of the training purpose and the training required.
4.1 Inspection	Deleted the 2 nd sentence in the first bullet about inspecting outdoor postings and reworded information and added as a new 2 nd bullet
4.2 Posting	Deleted “ <i>Clearly and conspicuously posted</i> ” from the first set of bullets and moved to first bullet in second bullet set Reworded the statement before the first set of bullets Added a new final bullet on outdoor areas
4.2.1 Outdoor Area	Previously Section 4.5 This section was deleted.
4.3.1 Beryllium Controlled Facilities	Previously Section 6.1.1 Deleted reference to the appropriate assessment form from bullets one and two
4.3.2 Beryllium Facilities Under Demolition	Previously Section 6.1.2 Deleted reference to the section on Outdoor Areas, which was deleted in this revision Last sentence revised Old Language “ <i>...the area is no longer considered a part of the Hanford Site.</i> ”

	New Language "...DOE has released the area from the requirements of DOE-0342."
4.4. Posting Requirements for Beryllium Areas	Previously Section 6.3
4.4.1 Establishment of Beryllium Area Boundaries	Previously Section 6.2. Added a new final bullet " <i>Identify areas of fixed contamination.</i> " 2 nd paragraph, added the language " <i>temporary</i> " and " <i>and posting</i> "
4.4.2 Beryllium Regulated Areas	Previously Section 6.3.1 2 nd paragraph, changed " <i>form</i> " to " <i>log</i> " in two places Deleted last sentence of last paragraph, which concerned down-posting a BRA to a BSA
4.4.3 Beryllium Controlled Areas	Previously Section 6.3.2 Language revised in 1 st paragraph, added " <i>Beryllium</i> " and deleted " <i>Form</i> " Revised last paragraph to better clarify when a BCA may be down posted to a BSA
4.4.3.1 Elevated BCA	Previously Section 6.3.3 1 st paragraph, added " <i>Trigger (RAA)</i> " and " <i>BCA</i> " and deleted " <i>Action</i> " Deleted 2 nd paragraph, " <i>Any time sampling of a posted BSA (below an elevated BCA) determines beryllium contamination, up-post the BSA to a BCA.</i> "
4.4.4 Beryllium Suspect Areas	Previously Section 6.3.4. Revised to provide wording consistent with DOE-0342 and specify BSA requirements for Conex boxes Minor rewording of first bullet Added 2 nd paragraph and two bullets Deleted previous 3 rd paragraph and added a new sentence to the next paragraph in order to say the same thing more succinctly. Added language to last sentence of 3 rd paragraph " <i>...until full characterization has been completed.</i> "
4.4.5 Beryllium Material Areas	Previously Section 6.3.5 Minor word change 3 rd paragraph, 1 st bullet,
4.4.6 Underground Beryllium Areas	Previously Section 6.3.6 Reworded last sentence of first paragraph to direct users to contact IH prior to digging. Revised wording of parenthetical statement in second paragraph Added language to end of the last sentence in the second paragraph, " <i>DOE has released the area from the requirements of this procedure.</i> "

	Added a new last paragraph, “Where fencing is at least 6 feet in height, UBAs may be posted (only) at entrances and at sections where inadvertent access may occur. This does not apply to temporary fencing (i.e. portable fencing).”
4.4.7 Physical Barriers	Previously Section 6.3.7 Deleted second paragraph: “This section only applies to newly erected containments for the purpose of controlling the spread of beryllium contamination during specific beryllium work activities.”
4.4.8 Restricted Access Area	Previously Section 6.5 Revised first sentence to say “at or above the Trigger Level”
4.4.9 Establishment of Temporary Beryllium Areas	Previously Section 6.4 Paragraph 1, minor wording change to improve sentence clarity In the second sentence, “...per the requirements...” was revised to “...in accordance with the requirements...”
4.5.1 Labeling	Previously Section 4.4 Added a new fifth bullet <ul style="list-style-type: none"> • “Affixed to the outside of items/equipment with internal or potential internal beryllium contamination in a manner to warn employees prior to opening the item/equipment”
4.5.2 Potential Internal Beryllium Contaminated Equipment/Systems	Previously Section 6.6.1 Clarified language re: controls for intrusive activity on PIBC equipment/systems 1 st paragraph, deleted “Establish”, added “Additional controls such as establishing”, “are required”, and “if applicable”
4.5.2.1 Samples	Previously Section 6.9, was moved to be a subsection of PIBC Equipment and reworded to specify labeling for samples being sent to labs on the Hanford Site
4.5.3 Internal Beryllium Contaminated Equipment and Systems	Previously Section 6.6.2 1 st paragraph; clarified language re: controls for intrusive activity on PIBC equipment/systems
4.5.4 Areas with Fixed Beryllium Contamination	Previously Section 6.8 Minor wording change. Replaced “centralized” in the first sentence with “localized” Deleted 2 nd bullet to eliminate potential confusion/awkward wording.
4.6.1 Bagged Waste	Previously Section 6.7.1 Deleted 3 rd bullet about when waste from a beryllium controlled area needs to be labeled
4.6.2 Containerized Waste	Previously Section 6.7.2 1 st bullet, replaced “round” with “cylindrical”, and added “apart”

4.7 Electrical Distribution Equipment	<p>Previously Section 6.10</p> <p>Clarified language to be consistent with DOE-0359, <i>Hanford Site Electrical Safety Program</i>, and minor word addition</p> <p>1st paragraph, Note:, replaced “<i>qualified electrician</i>” with the term “<i>Qualified Electrical Worker</i>”</p> <p>2nd paragraph, added “<i>at or</i>”</p> <p>Added a new final paragraph</p>
Appendix A Definitions and Acronyms	<p>Previously Section 5.0-5.2</p> <p>The list of terms was deleted, since they can be found in the Program</p> <p>Deleted HEPA from the acronym list because it is not used in the document</p>
Attachment 1	<p>Addition of three paragraphs after existing first paragraph, and deleted portions of sign descriptions</p>

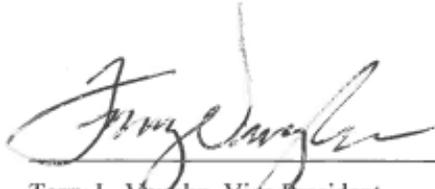
This Change Summary contains only the changes made to this revision. Previous Change Summary detailing all historical changes for this document is available by contacting Integrated & Site Wide Safety Systems (I&SWSS)

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Hanford Site Beryllium Posting and Labeling Requirements Procedure

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1.0 PURPOSE AND SCOPE

This *Hanford Site Beryllium Postings and Labeling Requirements Procedure*, herein known as the Procedure, documents the requirements for:

- The establishment, use, and posting of the beryllium status of facilities and locations of known or suspected fixed/surface/airborne beryllium contamination
- The labeling of contaminated or potential internally contaminated equipment, items and/or systems

This Procedure applies to all facilities, as defined in this Procedure, and activities on the Hanford Site. Conformance with this Procedure ensures proper demarcation of areas with beryllium contamination or potential beryllium contamination and protection against inadvertent exposure of personnel to beryllium hazards.

Postings are driven by evaluations, assessments, and sampling and are used to alert personnel to areas with the presence of beryllium, or potential beryllium contamination. Postings are intended to aid in minimizing exposures while preventing the spread of contamination.

The requirements outlined in this Procedure are minimum requirements. Postings and labeling may be completed more conservatively as long as the approach meets the requirements of this Procedure. The sign design shall match the appropriate example in Attachment 1.

This Procedure does not apply to dormant Waste Information Data System (WIDS) Sites as defined in DOE-0342.

Facilities that are non-occupied and non-active, where no entries are currently being made and inadvertent entry is not possible, do not require immediate posting; however, the facility shall be posted appropriately as part of the first entry.

NOTE: *There is no need for beryllium posting when the facility is no longer considered a part of the Hanford Site.*

In the event posting and labeling cannot be performed due to personal safety reasons, alternative means shall be used to adequately warn employees of the beryllium or potential beryllium hazard (e.g., posting at alternate entrances and/or through the work control process).

2.0 ROLES AND RESPONSIBILITIES

2.1 Project Industrial Hygienist

- Notifies the Facility Manager/Site Owner of the need for posting changes
- Determines the appropriate posting/labeling of areas where beryllium hazards have been identified

2.2 Facility Manager/Site Owner

- Ensures the correct signs are posted and clearly identify the current beryllium hazards per Section 4.0, *Procedure*

- Communicates the posting changes to the appropriate workforce
- Ensures that posting inspections are completed and documented as required

3.0 TRAINING REQUIREMENTS

The level of an employee’s knowledge of the requirements of this Procedure may vary.

The following lists the training courses needed, by Worker Group, to work under the requirements of this Procedure:

Worker Group	Training Required	Training Purpose
Associated Workers	Beryllium Associated Worker, Course #004108	General Awareness
Beryllium Workers, Persons In Charge, Planners, Supervisors and Managers	Beryllium Worker, Course #004140	Detailed training on intent of signs/labels and entry requirements
Industrial Hygienists (IHs)/Industrial Hygiene Technicians (IHTs)	Beryllium Posting, Assessment, Characterization and Verification Training, Course #004114	Detailed training on requirements for posting in relation to Assessment and Characterization, intent of signs/labels and entry requirements

4.0 PROCEDURE

4.1 Inspection

- Inspect postings on an annual basis.
- Inspect exterior postings whenever conditions arise where the postings may become compromised (such as high winds, snow, etc.).
- Consider As Low As Reasonably Achievable (ALARA) concerns and other personal safety issues (e.g., confined spaces) for posting inspections. If the inspection/surveillance cannot be performed, properly document the reason for not inspecting the posting.
- Document and maintain inspections/surveillance with the facilities’ beryllium related records.

4.2 Posting

NOTE: *These are general requirements for all postings. See Section 4.4 for specific requirements.*

The requirements for signage are:

- Immediately reported and replaced if noticed to be missing, difficult to read due to fading, or otherwise degraded.
- Include project beryllium contact information in the Additional Information block. Any other pertinent information may also be included. The Additional Information block may be modified without replacing the sign as long as it is legible.
- Entry requirements are identified.

The requirements for posting signs are:

- Clearly and conspicuously posted
- Hung in a manner that supports continual visibility
- Clearly visible at each access/entry point
- On/attached to doors, walls, ropes/chains and/or posts as necessary to control access
- Posted in a manner to minimize inadvertent removal of sign by environmental conditions
- Posted or re-positioned in a manner so that they remain visible if changes in configuration should occur, such as opening/closing doors
- Outdoor areas shall be posted on each side or avenue of approach to an area and no greater than 100 feet apart, using durable signs made for outdoor use, except as defined by Section 4.4.6, *Underground Beryllium Areas*

4.3 Posting Requirements for Beryllium Facilities

4.3.1 Beryllium Controlled Facilities

Post a facility as a beryllium controlled facility (BCF) when one or more of the following exist:

- Beryllium contamination is known in one or more areas of a facility
 - The facility has been identified as having an area, or item of concern, and full characterization has not been completed
- The facility contains non-transient equipment/items that have been posted or labeled for beryllium controls

EXCEPTIONS:

- *A facility with electrical distribution equipment (EDE) does not require posting as a BCF, if the EDE does not contain known beryllium contamination and the facility does not contain any other Areas/Items of Concern.*
- *When an entire facility is a beryllium area, BCF signs are not required on the outer entrances. Each entrance will be posted with the*

appropriate beryllium suspect area (BSA)/beryllium controlled area (BCA)/beryllium regulated area (BRA) sign.

If a facility has both beryllium areas and beryllium cleared areas, exterior doors that provide direct access to a BSA/BCA/BRA shall be posted with both a BCF sign and the appropriate BSA/BCA/BRA sign.

The determination of this basis may be made by either sampling data, or by known or possible historical usage. A BCF may contain any number of BCAs, BRAs, and/or BSAs.

When full characterization has been completed per the appropriate Hanford Site Assessment & Characterization/Verification Procedure, de-post a BCF if the results indicate a beryllium cleared status per Section 4.8, *De-Posting Beryllium Facilities/Areas*.

4.3.2 **Beryllium Facilities Under Demolition**

NOTE: *Some facilities may be demolished under environmental requirements that differ from the requirements of DOE-0342, Hanford Site Chronic Beryllium Disease Prevention Program (CBDPP). This section is intended to maintain the protection of Hanford Site employees during and after demolition activities, regardless of the governing environmental requirements for demolition.*

Follow these requirements for posting of areas where a BCF is in the process of being demolished or has been demolished:

- Post established boundary as a demolished beryllium facility site
- Once the facility has been demolished, establish a BCA/BRA around the debris

Do not remove the BCA/BRA posting until:

- Facility debris has been removed and characterization sampling, per the appropriate Hanford Site Characterization procedure, of the area supports a beryllium cleared status or
- The demolition site has been covered with a minimum of 1 foot of clean fill and the area posted as an underground beryllium area (UBA)

Do not remove the demolished beryllium facility site posting until the demolition site is appropriately posted and an additional caution boundary is no longer necessary.

Any postings originating from a demolished beryllium facility may be de-posted when characterization sampling, per the appropriate Hanford Site Characterization procedure, of the area supports a beryllium cleared status or environmental regulations become the sole governing requirements and DOE has released the area from the requirements of DOE-0342.

4.4 Posting Requirements for Beryllium Areas

4.4.1 Establishment of Beryllium Area Boundaries

Once an area requires posting for beryllium controls, the demarcated area shall meet the following criteria (except as identified for elevated surfaces):

- The area is adequate to prevent the spread of contamination
- Have access easily controlled and identifiable (step-off pads)
- Use proper barriers to prevent the spread of contamination
- Have signage posted per requirements described in the appropriate section of 4.2, *Posting*
- Have clearly visible postings for elevated surfaces to prevent inadvertent entry into the area
- Identify areas of fixed contamination

The temporary use of a beryllium worker in lieu of a physical boundary and posting is acceptable when addressed as part of the Beryllium Hazard Assessment and the limitations included in the Beryllium Work Permit (BWP).

4.4.2 Beryllium Regulated Areas

Where airborne beryllium concentrations have been measured to be at or above the action level per DOE-0342, *Hanford Site Chronic Beryllium Disease Prevention Program*, or where the work activities can reasonably be expected to meet or exceed the action level for airborne beryllium, the area shall be posted as a BRA. Personnel access into a BRA shall be documented on the *Beryllium Regulated Area Access Log* (A-6006-150) for each entry made and must include the following information:

- The entry date
- BWP number
- Employee Name and Hanford ID number
- A description of the work activity being performed; and
- Actual time in and time out

When the work activity is completed and no additional entries will be made, incorporate a copy of the *Beryllium Regulated Area Access Log* into the appropriate work document along with the Hazard Assessment/BWP and associated beryllium paperwork. Scan a non-record copy of the completed log and maintain the log in a searchable electronic repository.

A BRA may be down-posted to a BCA when:

- Breathing zone and area beryllium airborne sample results indicate that the airborne beryllium levels are below the action level; and

- Future activities are not expected to generate airborne beryllium levels at or above the action level.

4.4.3 Beryllium Controlled Areas

Establish a BCA for any areas in which contamination is at or above the control level. Also establish a BCA when identified on the appropriate Hanford Site Beryllium Facility Assessment as an Area/Item of Concern that has evidence of surface beryllium contamination. Determine the basis of this knowledge by either sampling data or by utilizing known historical usage.

When airborne beryllium levels during work activities within a BCA are reasonably expected to meet or exceed the action level, up-post the BCA to a BRA.

A BCA may be down-posted to a BSA when sampled accessible surfaces indicate contamination below the trigger level but full characterization has not been completed.

4.4.3.1 Elevated Beryllium Controlled Areas

Post an elevated area (above 8 feet) where the beryllium contamination level is at, or exceeds, the control level as a BCA. Post the area underneath the elevated contaminated surface as a BSA, unless sampling of the underneath area is at or exceeds the trigger (RAA) or control level (BCA). When work is being conducted in the elevated area BCA, up-post the area underneath to the same level of controls as the elevated area.

An elevated area may be down-posted from BCA to a BSA when:

- The contamination has been captured by fixative, or paint, and sampling confirms no removable contamination.

Once either of the following conditions has occurred, the elevated area may be de-posted:

- The elevated surface has been decontaminated and sampling supports a beryllium cleared status; or
- A physical barrier capable of preventing the spread of contamination is erected around the contaminated area and the barrier is properly posted.

The BSA established underneath the contaminated elevated area may be de-posted when:

- One of the three conditions described above has been met; and
- Sampling of the BSA confirms no spread of contamination from the elevated area.

4.4.4 Beryllium Suspect Areas

For buildings and structures, establish a BSA when:

- An area that has been identified per the applicable Hanford Site Beryllium Facility Assessment as an Area/Item of Concern even though historical data does not indicate beryllium use and/or contamination; and
- Full characterization has not been completed per the appropriate Hanford Site Characterization procedure.

For Conex boxes, establish a BSA when:

- A Conex box has not been sampled within the specified time for sampling as listed on the Hanford Site Beryllium Facility Assessment for Conex Boxes; or
- The walk down team determines that it is appropriate to conservatively post the Conex box as a BSA, based on the walk down results.

Any employee may enter a BSA during non-intrusive work activities. Prior to performing intrusive activities in un-sampled areas, up-post the area to a BCA or BRA. When work is completed and sampling results indicate a beryllium cleared status, re-establish the area as a BSA until full characterization has been completed.

When full characterization per the appropriate Hanford Site Characterization procedure has been completed within a BSA, see Section 4.8, *De-Posting Beryllium Facilities/Areas*, to de-post the area if the results indicate a beryllium cleared status.

If sampling has been conducted during an intrusive activity of an inaccessible area and the results indicate a beryllium cleared status, the area will not require up-posting for future work conducted in the beryllium cleared area.

4.4.5 Beryllium Material Areas

A beryllium material area (BMA) may be established for the sole purpose of storing items or equipment removed from a BCA/BRA and awaiting sampling results. Demarcate BMAs that are only of sufficient size needed for temporary storage of items or equipment awaiting sample results.

A BMA is not to be established for the storage of beryllium contaminated items or to be used as a permanent storage area for beryllium containing tools/equipment.

De-post a BMA when all sample results of items/equipment are received from the lab and support a beryllium cleared status. If sample results do not support a beryllium cleared status, perform the following:

- Return items to the BCA/BRA or dispose in an appropriate waste disposal container; and
- Complete sampling of the area prior to de-posting.

4.4.6 **Underground Beryllium Areas**

Post an underground area where a suspect or known beryllium contamination source exists as an underground beryllium area (UBA). Examples of such sources include underground piping systems, tanks, or where known beryllium has been washed into the ground. Contact IH prior to digging more than 6 inches to determine if additional controls are required.

De-post UBAs (or appropriately reduce the area previously posted) when the source (or a portion of the source) of contamination or suspected contamination has been removed or decontaminated and sampling of the surrounding area indicates a beryllium cleared status, or DOE has released the area from the requirements of this procedure.

Where fencing is at least 6 feet in height, UBAs may be posted (only) at entrances and at sections where inadvertent access may occur. This does not apply to temporary fencing (i.e., portable fencing).

4.4.7 **Physical Barriers**

Some beryllium activities may require several different types of physical barriers specifically designed to control the spread of beryllium contamination (e.g., glove bags, greenhouses, containments) in the performance of beryllium activities. Post physical barriers erected for this purpose in accordance with Section 4.2, *Posting*, with the appropriate signage.

4.4.8 **Restricted Access Area**

When performing investigative sampling due to results at or above the trigger level, restrict access to the area and follow the actions outlined in the appropriate Hanford Site Assessment and Characterization procedure within 60 days, or as approved by the appropriate Department of Energy (DOE) Field Office.

Post the area as "Restricted Access Area." No additional posting of the facility is required.

4.4.9 **Establishment of Temporary Beryllium Areas**

Management may conservatively establish, for a period not to exceed 60 days, a temporary (BRA/BCA/BSA) for control of an area within a facility deemed as beryllium cleared. In this instance, establish the area in accordance with the requirements of Section 4.2, *Posting*. The facility is not required to be posted as a BCF, unless sample results determine beryllium contamination at or above the control or action level. Areas that need posting longer than 60 days require the facility to be posted as a BCF and the Hanford Site Beryllium Facility Assessment to be updated.

Once sample results indicate a beryllium-cleared status, de-post the area.

4.5 Labeling Requirements

4.5.1 Labeling

The requirements for labels are:

- Positioned so they can be easily read
- Located near valves; branches; on entry/exit ports; wall, floor, or ceiling penetrations where affected piping, ventilation duct, etc., transverse to different locations as required
- Directly on the location of fixed contamination and/or affected equipment, items, systems as required
- Stuck on or tied on in a manner to remain affixed
- Affixed to the outside of items/equipment with internal or potential internal beryllium contamination in a manner to warn employees prior to opening the item/equipment

4.5.2 Potential Internal Beryllium Contaminated Equipment/Systems

Label items/equipment/systems identified with potential, but unconfirmed, internal contamination as “Potential Internal Beryllium Contamination” per Section 4.5.1, *Labeling*. Additional controls such as establishing a BCA or BRA are required prior to performing an intrusive activity on the equipment/system. De-post the BCA or BRA, if applicable, once sample results indicate no spread of contamination has occurred.

4.5.2.1 Samples

For samples being sent to laboratories on the Hanford Site, label samples collected from a BCA or BRA with a “Potential Internal Beryllium Contamination” label on the outer container. Labels are required for samples collected for either chemical or radiological analysis. Samples labeled with a “Potential Internal Beryllium Contamination” label do not require storage inside a BMA and the handling and analysis of samples is not considered to be an intrusive activity.

4.5.3 Internal Beryllium Contaminated Equipment and Systems

When items, equipment, and/or systems have confirmed beryllium contamination, label the items, equipment, and/or system with an “Internal Beryllium Contamination” label. Additional controls, such as establishing a BCA or BRA, are required prior to performing an intrusive activity on the equipment/system. De-post the BCA or BRA, if applicable, once sample results indicate no spread of contamination has occurred.

4.5.4 Areas With Fixed Beryllium Contamination

When localized, known beryllium contamination has been captured by fixative or paint:

- Label/post the area/equipment/item/system “Fixed Beryllium Contamination” per Section 4.5.1, *Labeling* and/or 4.2, *Posting*

When beryllium contamination may exist behind a painted surface as identified on the appropriate Hanford Site Beryllium Facility Assessment:

- The posting of the area shall indicate that it contains fixed beryllium contamination

If intrusive work will be performed on the location of the fixed beryllium contamination, up-post the area as a BCA/BRA as required.

4.6 Contaminated Waste

Label waste generated from areas controlled for beryllium contamination with a “DANGER: Contaminated with Beryllium” label, as shown in Attachment 1: *Posting Signs and Labels*. The requirements for labeling waste are:

4.6.1 Bagged Waste

- Label bagged waste on the outside of the bag, clearly visible to employees and in a manner that the label will remain affixed by either stick-on labels or tie-on tags.
- Directly place waste removed from an area controlled for beryllium contamination into a properly labeled, sealed container or Environmental Restoration Disposal Facility (ERDF) can.

NOTE: *Bagged waste, removed from an area controlled for beryllium contamination, and directly disposed into an ERDF can, does not require labeling.*

4.6.2 Containerized Waste

- Label drums/cylindrical casks with two labels oriented 180 degrees apart on the body of the drum and one label on the lid.
- Label ERDF containers so that the labeling is clearly visible to employees and appears on each side (front, back and both sides). For ERDF containers with metal lids, affix a label to the lid, in addition to the above requirements.
- Label boxes and square/rectangular casks on all four sides and the lid, so that labels appear clearly visible to the employees.
- Wrap equipment/debris considered beryllium contaminated waste in a manner that prevents the spread of contamination and labeled in accordance with the requirements for bagged waste.

4.7 Electrical Distribution Equipment

NOTE: *Tamper seals placed on EDE shall be in a location approved by a Qualified Electrical Worker.*

Label EDE that is known to have beryllium contamination at or above the control level with an “Internal Beryllium Contamination” tamper seal. Replace the tamper seal each time the equipment is closed at the completion of the specific work activity.

Label EDE that is known to have beryllium contamination at or above the trigger level but below the control level with a “Restricted Access Area” tamper seal. Replace the tamper seal each time the equipment is closed at the completion of the specific work activity.

EXCEPTION: *A facility with EDE does not require posting as a BCF, if the EDE does not contain known beryllium contamination and the facility does not contain any other Areas/Items of Concern.*

Post areas containing EDE based on the results of the appropriate Hanford Site Assessment/Characterization procedure.

4.8 De-Posting Beryllium Facilities/Areas

NOTE: *This section applies for those postings that require characterization sampling prior to the de-posting. See Sections 4.3 and 4.4 for specific requirements.*

When full characterization per the appropriate Hanford Site characterization procedure has been completed within a beryllium facility/area, de-post the facility/area if the results indicate a beryllium cleared status and the following criteria are met:

- The appropriate Hanford Site Characterization report is complete, approved, and supports a change in status of the area.
- Communication of sampling results to the facility occupants has taken place.
- Concurrence of Facility Manager or building administrator is obtained.

When a BSA is established below an elevated BCA, de-post the area if the requirements of Section 4.4.3.1, *Elevated Beryllium Controlled Area*, have been met.

5.0 DOCUMENT CONTROL AND REVIEW

The Hanford Site Chronic Beryllium Disease Prevention Program (CBDPP) Committee will provide long-term stewardship and operation of this Procedure.

6.0 RECORDS

The following records are generated during the performance of this Procedure:

Record Description	Submittal Responsibility	Retention Responsibility
Beryllium Regulated Area Access Log (A-6006-150)	Project Management	As part of Work Package documentation.

7.0 SOURCES

7.1 References

10 CFR 850, "Chronic Beryllium Disease Prevention Program," Title 10, *Code of Federal Regulations*, Part 850, as amended.

10 CFR 851, "Worker Safety and Health Program," Title 10, *Code of Federal Regulations*, Part 851, as amended.

29 CFR 1910, "Occupational Safety and Health Standards," Title 10, *Code of Federal Regulations*, Part 1910, as amended.

DOE-0342, *Hanford Site Chronic Beryllium Disease Prevention Program (CBDPP)*, U.S. Department of Energy.

APPENDIX A: DEFINITIONS AND ACRONYMS

DEFINITIONS

The terms used in this procedure are defined in DOE-0342, *Hanford Site Chronic Beryllium Disease Prevention Program (CBDPP)*.

ACRONYM LIST

ALARA	As Low as Reasonably Achievable
BCA	Beryllium Controlled Area
BCF	Beryllium Controlled Facility
BMA	Beryllium Material Area
BRA	Beryllium Regulated Area
BSA	Beryllium Suspect Area
BWP	Beryllium Work Permit
CBDPP	Hanford Site Chronic Beryllium Disease Prevention Program
DOE	Department of Energy
EDE	Electrical Distribution Equipment
ERDF	Environmental Restoration Disposal Facility
IH	Industrial Hygienist
MSC	Mission Support Contractor
RAA	Restricted Access Area
UBA	Underground Beryllium Area
WIDS	Waste Information Data System

ATTACHMENT 1: POSTING SIGNS AND LABELS

The master templates of all beryllium posting signs and labels shall be maintained by the MSC Sign Shop. Contractors may produce their own posting signs and labels provided they match the master template controlled by the MSC Sign Shop and remain compliant with the requirement of this procedure. The sign shop may place contact information and the posting and labeling reorder number in the lower corners of the posting/label.

Reorder numbers identified in this attachment correlate to a standard size of signs/labels. Sizes may be adjusted to meet application, however, will require a specific reorder number for each size. Specific reorder numbers can be obtained from the MSC Sign Shop.

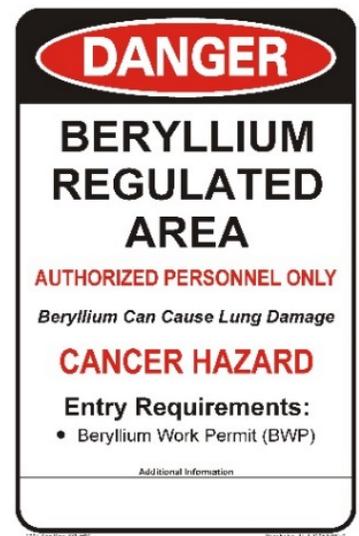
It is preferred that formatting of signs and labels conform to those examples in this Attachment. Formatting of signs and labels may, under special circumstances, be adjusted to meet the desired application when situations exist where the preferred format cannot be used to adequately inform the work force of a beryllium or potential beryllium hazard.

If signs and/or labels are adjusted from the examples in this Attachment, all information from the original format shall be included on the adjusted sign/label (one example is shown below).

Beryllium Regulated Area (BRA)

The signage is white text in red oval on black background for the header, and black and red text on white background as specifically designated in this illustration:

MSC Sign shop reorder number: [2E1111205.6 rev 2]



Contaminated with Beryllium

This label is white text in a red oval on black background for the header, with black and red text on white background, as specifically designated in this illustration:

MSC Sign shop reorder number: [2E305129.1DC]



Internal Beryllium Contamination

This label may be in standard label form, or used as a tamper seal on electrical distribution equipment.

The label features black text in an orange background, as specifically designated in this illustration:

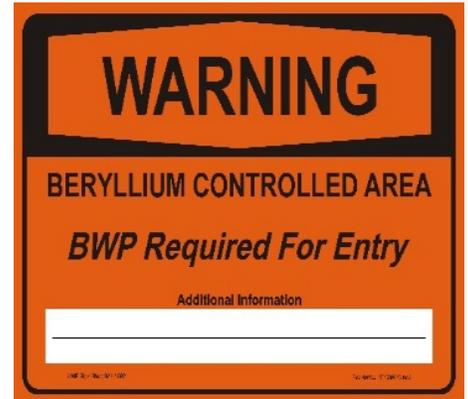
MSC Sign shop reorder number: [2E1111205.8 rev 2]



Beryllium Controlled Area (BCA)

Signage is black text on an orange background, as specifically designated in this illustration:

MSC Sign shop reorder number: [2E1009210 rev 2]



Beryllium Controlled Facility (BCF)

Signage is black text on a yellow background, with yellow text on black background for the header, as specifically designated in this illustration:

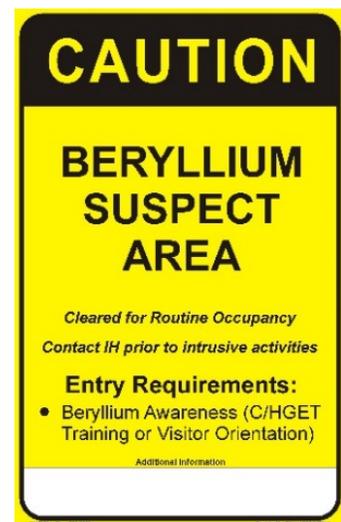
MSC Sign shop reorder number: [2E1111205.1 rev 2]



Beryllium Suspect Area (BSA)

Signage is black text on a yellow background, with yellow text on black background for the header, as specifically designated in this illustration:

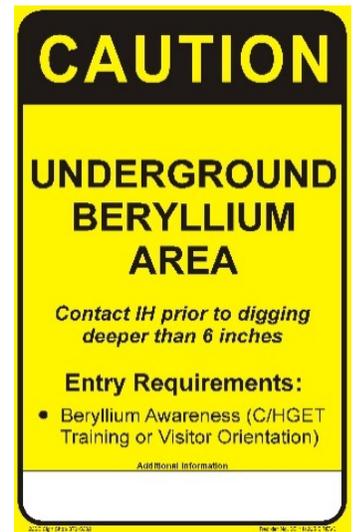
MSC Sign shop reorder number: [2E1111205.3 rev 2]



Underground Beryllium Area

This signage is black text on a yellow background, with yellow text on black background for the header, as specifically designated in this illustration:

MSC Sign shop reorder number: [2E1111205.5 rev 2]



Potential Internal Beryllium Contamination

This label is black text on a yellow background, with yellow text on black background for the header, as specifically designated in this illustration:

MSC Sign shop reorder number: [2E1009230.1 rev 2]



Fixed Beryllium Contamination

This label/signage is black text on a yellow background, with yellow text on black background for the header, specifically designated in this illustration:

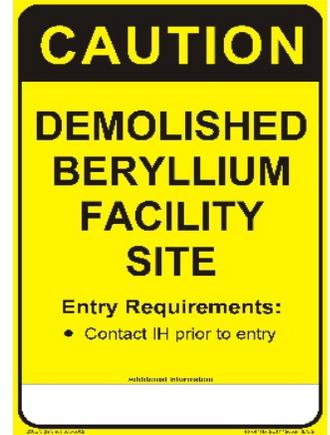
MSC Sign shop reorder number: [2E1111205.4 rev 2]



Demolished Beryllium Facility Site

Signage is black text on a yellow background, with yellow text on black background for the header, as specifically designated in this illustration:

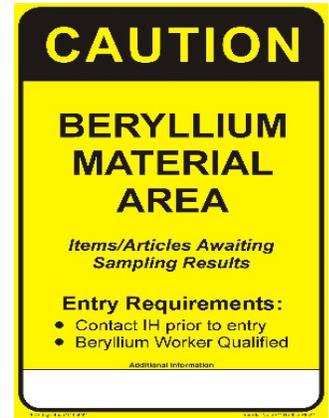
MSC Sign shop reorder number: [2E1111205.9 rev 2]



Beryllium Material Area

Signage is black text on a yellow background, with yellow text on black background for the header, as specifically designated in this illustration:

MSC Sign shop reorder number: [2E1111205.2 rev 2]



Restricted Access Area

Signage is black text on a yellow background, with yellow text on black background for the header, as specifically designated in this illustration:

MSC Sign shop reorder number: [2E1111205.7 rev 2]

