

**MODULE VIII – POST-CLOSURE CARE AND
LAND USE CONTROLS FOR SWMUs**

VIII.A. POST-CLOSURE CARE REQUIREMENTS

- VIII.A.1. The Permittee shall manage each Solid Waste Management Unit (SWMU) that cannot be closed in a manner that meets the requirements of Condition VII.B.1 through post-closure land use controls as specified in the Site Management Plan (SMP) for each SWMU, as required in Condition VII.J. Land use controls may include, but are not limited to:
- VIII.A.1.a. Engineering controls to ensure that corrective measures remain in effect over the post-closure period at SWMUs that have been closed with waste in-place.
 - VIII.A.1.b. Institutional controls to manage the current and future use of land and groundwater for on-Depot, BRAC Property, and off-Depot properties.
- VIII.A.2. The combined land use control requirements of all SWMUs identified in Condition VIII.B. are specified in the Post-Closure Monitoring, Inspection, and Maintenance Plan for SWMUs (the Post-Closure Plan) in Appendix VIII-A of this Permit.
- VIII.A.2.a. The Permittee shall implement the Post-Closure Plan for the duration of the post-closure care period.
 - VIII.A.2.b. The Permittee shall amend the Post-Closure Plan in accordance with Utah Admin. Code R315-264-118, through a Permit modification per Condition I.D., whenever necessary or when required by the Director of the Division of Waste Management and Radiation Control (Director).
- VIII.A.3. SWMUs that have been closed with controls are summarized in Table 1 of Appendix VIII-A. The Permittee shall enforce the controls per Condition VIII.B or Condition VIII.C.
- VIII.A.4. The Permittee shall conduct all monitoring, inspection, and maintenance requirements during the post-closure care period in compliance with the procedures and frequencies specified in the Post-Closure Plan presented in Appendix VIII-A, per the requirements of Utah Admin. Code R315-264-110 and R315-264-117.
- VIII.A.4.a. The Permittee shall retain all records of inspections and remedial actions in the Operating Record, as indicated in Condition I.O.2., throughout the post-closure care period.

VIII.A.4.b. Any deterioration or malfunction discovered by an inspection shall be remedied by the Permittee according to Condition II.F.1.a, in compliance with Utah Admin. Code R315-264-15(c).

VIII.B. POST-CLOSURE CARE PLANS

VIII.B.1. Industrial Waste Lagoon (SWMU 2) Post-Closure Care

The Permittee shall maintain and monitor the Industrial Waste Lagoon (IWL) (SWMU 2) after completion of closure and corrective action activities, in compliance with Utah Admin. Code R315-264-228, R315-264-110 through 120, and this Permit. The Permittee shall:

VIII.B.1.a. Maintain the integrity and effectiveness of the final cover in compliance with Utah Admin. Code R315-264-228(b)(1) and Appendix VIII-A of the Permit, including making repairs to the cap as necessary to correct the effects of settling, subsidence, erosion, or other events.

VIII.B.1.b. Maintain and monitor the groundwater monitoring system in compliance with Utah Admin. Code R315-264-228(b)(3), Utah Admin. Code R315-264-90 through 99 and Module X of this Permit.

VIII.B.1.c. Prevent run-on and run-off from eroding or otherwise damaging the final cover in compliance with Utah Admin. Code R315-264-228(b)(4).

VIII.B.1.d. Prohibit post-closure use of the property that will disturb the integrity of the final cover, containment systems, or monitoring system.

VIII.B.1.e. Protect and maintain surveyed benchmarks used.

VIII.B.2. Sanitary Landfill/Pesticide Disposal Area (SWMU 12/15) Post-Closure Care

The Permittee shall maintain and monitor the Sanitary Landfill/Pesticide Disposal Area (SWMU 12/15) after completion of closure and corrective action activities, in compliance with Utah Admin. Code R315-264-220 and R315-264-110, the Site Management Plan for SWMU 12/15, and this Permit. The Permittee shall maintain the integrity and effectiveness of the final cover in compliance with Utah Admin. Code R315-264-228(b)(1) and Appendix VIII-A of the Permit, including making repairs to the cap as necessary to correct the effects of settling, subsidence, erosion, or other events.

VIII.B.2.a. Maintain and monitor the groundwater monitoring system in compliance with Utah Admin. Code R315-264-228(b)(3), Utah Admin. Code R315-264-90 and Module IX of this Permit.

VIII.B.2.b. Prevent run-on and run-off from eroding or otherwise damaging the final cover in compliance with Utah Admin. Code R315-264-228(b)(4).

VIII.B.2.c. Prohibit post-closure use of the property that will disturb the integrity of the final cover, containment systems, or monitoring system.

VIII.B.2.d. Protect and maintain surveyed benchmarks used.

VIII.B.3. III.B.3. Bomb Washout Facility – Building 539 (SWMU 42) Post-Closure Care

The Permittee shall maintain and monitor the Bomb Washout Facility – Building 539 (SWMU 42), after completion of closure and corrective action activities, in compliance with Utah Admin. Code R315-264-220, R315-264-228, and R315-264-110 through 120, the Site Management Plan for SWMU 42, and this Permit. The Permittee shall:

VIII.B.3.a. Maintain the integrity and effectiveness of the constructed soil cover in compliance with Utah Admin. Code R315-264-228(b)(1) and Appendix VIII-A of the permit, including making repairs to the cover as necessary to correct the effects of erosion, weak vegetation, or other events.

VIII.B.3.b. Prevent run-on and run-off from eroding or otherwise damaging the constructed soil cover in compliance with Utah Admin. Code R315-264-228(b)(4).

VIII.B.3.c. Prohibit post-closure use of the property that will disturb the integrity of the constructed soil cover.

VIII.C. INSTITUTIONAL CONTROLS

The SWMUs listed in Table 1 of Appendix VIII-A have either been closed or have ongoing corrective measure operations that require institutional controls to manage risks to human health and the environment per the requirements of Utah Admin. Code R315-264-117. These institutional controls include restrictions on residential use of land, excavation restrictions, restrictions on groundwater use and development, and land use restrictions to protect groundwater remediation and monitoring systems.

VIII.C.1. There are different mechanisms for applying and enforcing the institutional controls outlined in Condition VIII.C. for on-Depot, the BRAC Property, and off-Depot properties.

VIII.C.2. Institutional controls specific to on-Depot property include residential use restrictions, excavation restrictions, land use restrictions to protect groundwater remediation and monitoring systems, and groundwater use and development restrictions.

VIII.C.2.a. The Permittee shall apply residential use restrictions and land use restrictions to protect groundwater remediation and monitoring systems through the Land

Use Implementation Plan (LUCIP) for TEAD-N. Residential land use restrictions include, but are not limited to, housing, day-care facilities, and schools. The Permittee may use on-Depot lands for industrial/commercial purposes which include, but are not limited to, administrative/office space, manufacturing, and warehousing.

- VIII.C.2.b. The Permittee shall apply excavation restrictions through the dig permit system at TEAD-N, through which the Program Management Office and the Environmental Office review all requests for projects.
- VIII.C.2.c. There are currently no specific provisions within the TEAD-N Master Plan that address groundwater management on the installation. However, the TEAD-N dig permit system, as mentioned in Condition VIII.C.2.b, serves as a de facto mechanism to prevent future groundwater development and use within the facility. The SWMU 58 Groundwater Management Area (GWMA) Plan also serves as a management tool for on-Depot groundwater management, per Condition VIII.C.5.
- VIII.C.2.d. The Permittee shall maintain all institutional controls specified in Table 1 of Appendix VIII-A for all on-Depot SWMUs.
- VIII.C.3. Institutional controls specific to the BRAC Property parcels are defined in the Covenants, Conditions, and Restrictions (CC&Rs), executed by the U.S. Department of Army on December 18, 1998, that attached to the BRAC property at the time of conveyance in 1999, and that have been incorporated into this Permit in Attachment 24. These institutional controls include long-term restrictions as defined in Article VI of the CC&Rs, and temporary restrictions, as defined in Article VII of the CC&Rs.
- VIII.C.3.a. Long-term restrictions imposed upon the BRAC Property by Article VI of the CC&Rs include residential use restrictions, groundwater treatment and monitoring system restrictions, and groundwater withdrawal restrictions.
- VIII.C.3.a.i. Residential use restrictions are outlined in Section 6.1 of the CC&Rs. Residential use shall not be allowed on certain portions of the BRAC Property on a long-term basis where hazardous constituents associated with select SWMUs remain on the property at concentrations that exceed acceptable risk levels for residential receptors, per Condition VII.J.1.
- VIII.C.3.a.ii. Groundwater treatment and monitoring system restriction requirements are outlined in Section 6.2 of the CC&Rs and are applied to the entire BRAC Property. Property owners shall not tamper with, disrupt, inflict damage, obstruct, or impede any groundwater treatment or monitoring system, or well or wellhead vault on the BRAC Property. Property owners shall not discharge water onto the ground in quantities that would negatively impact groundwater quality or remediation of groundwater.

- VIII.C.3.a.iii. Groundwater withdrawal restrictions are outlined in Section 6.3 of the CC&Rs and are applied to the entire BRAC Property. Property owners shall not access or extract groundwater, nor inject any materials into wells located on the BRAC Property.
- VIII.C.3.b. Temporary restrictions imposed upon the BRAC Property by Article VII of the CC&Rs include SWMU restrictions and building coordination requirements that pertain to remediation of specific SWMUs within the Property.
- VIII.C.3.b.i. SWMU restrictions are outlined in Section 7.1 of the CC&Rs and are applied to SWMUs with ongoing corrective actions. Property owners shall not disrupt, inflict damage, obstruct, or impede any environmental remediation systems, fencing, or activities with the SWMUs. Further, the property owners shall not conduct any subsurface excavation, digging, drilling, or other disturbance of the surface or subsurface within the SWMUs, except with written approval by the Director.
- VIII.C.3.b.ii. Building coordination requirements are outlined in Section 7.3 of the CC&Rs and are applied to the area of the BRAC Property that lies within the footprint of the SWMU 58 groundwater plume.
- VIII.C.3.c. The Director, on behalf of Utah Department of Environmental Quality (UDEQ), may authorize the modification or termination of long-term and temporary use restrictions established in the CC&Rs if (i) the Permittee or the owner of the BRAC Property demonstrates to the Director that corrective action at the specific SWMU is complete without controls in accordance with Module VII, (ii) the Permittee or the owner of the BRAC Property address the requirements specified in Article VIII of the CC&Rs, and (iii) also authorized by the U.S. Army and USEPA.
- VIII.C.3.d. The Permittee shall notify the Director within 30 days of any request to modify or terminate use restrictions established on the BRAC Property.
- VIII.C.4. Groundwater use and development are restricted within the off-Depot portions of the SWMU 58 Groundwater Management Area (GWMA) per Condition VIII.C.5, where no new well permits are to be granted for the installation of potable wells.
- VIII.C.5. The SWMU 58 GWMA Plan (2010 and as updated) summarizes the restrictions on groundwater use and development within on-Depot, BRAC Property, and off-Depot areas. The SWMU 58 GWMA is defined as the area encompassing the SWMU 58 groundwater plume plus a buffer zone beyond the toe of the plume that separates potential receptors from the known edge of the plume. A map of the SWMU 58 GWMA is presented as Appendix IX-A to this Permit.

VIII.D. OFF-DEPOT ACCESS AGREEMENTS

VIII.D.1. In accordance with Condition X.A.2., the Permittee shall maintain the ability to collect groundwater samples from specific monitoring locations on off-Depot properties. The Permittee shall obtain the necessary agreements to any required off-Depot monitoring location to ensure access to each monitoring well and to protect the integrity of each monitoring well located off-Depot.

VIII.E. INSPECTIONS

VIII.E.1. The Permittee shall conduct inspections at all SWMUs identified in Condition VIII.B. in accordance with the Site Management Plan specific to each SWMU.

VIII.E.2. To complete the inspections specified in Condition VIII.E.1., the Permittee shall complete the Inspection Checklists included in Attachments 25 through 28 to this Permit.

VIII.E.2.a. Attachment 25 contains the Inspection checklist for the IWL and On-Depot Ditches (SWMU 2).

VIII.E.2.b. Attachment 26 contains the Inspection checklist for the Sanitary Landfill / Pesticide Disposal Area (SWMU 12/15).

VIII.F. COST ESTIMATES FOR POST-CLOSURE CARE

VIII.F.1. As indicated by Utah Admin. Code R315-264-140, States and Federal government are exempt from the requirements for post-closure care cost estimates.

VIII.G. FINANCIAL ASSURANCE FOR POST-CLOSURE CARE

VIII.G.1. As indicated by Utah Admin. Code R315-264-140, States and Federal government are exempt from the requirements for post-closure care financial assurance.