

Attachment 3 – Closure and Post-Closure

II.d Closure Requirement for all Facilities

II.d.1 Facility Closure Plan (R315-310-3(1)(h))

Closure activities shall be implemented as final grading is completed. Tooele County shall notify the Director of the intent to implement the closure plan 60 days prior to the projected date for the final receipt of waste. Implementation of the closure plan, in whole or in part, shall commence no later than 30 days after final receipt of waste or after the final elevation is attained in part of or all of the landfill cell or unit as identified in the approved facility closure plan (unless otherwise specified in the approved closure plan). Closure activities shall be completed within 180 days following their starting time. Extensions of the closure period may be granted by the Director if

justification for the extension is documented by the Owner or Operator. Final covers shall be constructed as prescribed in Section II.d.3

Following completion of closure operations for a solid waste management unit or facility, Tooele County shall, within 90 days, submit the following items to the Director: closure plan sheets signed by a professional engineer registered in the State of Utah, and a certification by Tooele County, as well as a professional engineer registered in the state of Utah, that the site or unit has been closed in accordance with the approved closure plan. The certificate will require a final inspection performed by the engineer to determine if the landfill met all the closure requirements as outlined in the permit and closure plans. Inspection will include cell cover design requirements, run-on and run-off controls, and maintenance of proper final grading on the cell to promote effective drainage away from disposed materials, and site access restriction with fencing.

II.d.2 Facility Closure schedule **R315-310-4(2)(d)(i)**

Based on full utilization volume with projected densities and waste streams, see Section II.c.3.

II.d.3 Design of final cover **R315-310-4(2)(c)(iii)**

The final cover designed for the Class IV cell is mandated by Utah Administrative Code 315-305 to provide a minimum soil thickness of 2 ft. for final cover, the top 6 in. of which must be conducive to local vegetative growth. Revegetating the covers will consist of using an appropriate seed mix and the cover will therefore be prepared to provide a clean, firm, and consistent seedbed. The seeds will be drilled $\frac{1}{2}$ to $\frac{1}{4}$ inch deep or broadcasted in areas where drilling was found to be impractical. The proposed final cover would therefore be constructed of 18 in. of compacted native site soils or more as needed, will be placed to meet the permeability standard of 1×10^{-5} cm/sec or less, or equivalent, overlain by 6 in. of site soils suitable for maintaining a vegetative cover. The final cover would be graded as shown in Figure I-2 effective drainage, prevent ponding, and discourage erosion.

II.d.4 Capacity of site in volume and tonnage **R315-310-4(2)(d)(ii)**

Full disposal capacity of the site is estimated at 13,460 CY, or 4,845 tons. Please refer to Appendix I: Figure I-2 for full development plan w/ respective volumes and tonnages.

II.d.5 Final inspection by regulatory agencies **R315-310-4(2)(d)(iii)**

Following the installation of final cover to above specifications, a final inspection will be conducted by a designated representative of the Utah Department of Environmental Quality: Division of Waste Management and Radiation Control. Upon satisfying required inspection standards, the Landfill shall obtain written confirmation from the Director confirming successful closure of the area.

II.e. Post-Closure Requirements for All Facilities

II.e.1 Post-Closure Care Plan **R315-310-3(1)(h)**

Following final closure of the facility, Tooele County shall provide post-closure activities for a further period of 30 years, or as long as the Director determines is necessary for the facility or unit to become stabilized and to protect human health and the environment, for the purpose of ensuring the continued effectiveness of final cover and drainage systems.

The post-closure plan may be amended if conditions and circumstances justify such amendment. If it is determined that amendment of a facility or unit post-closure plan is required, the Director may direct that facility post-closure procedures, in part or whole, to cease until the amendment has been reviewed and approved.

When post-closure activities are complete, as determined by the Director, the owner or operator shall submit a certification to the Director, signed by a representative of Tooele County and a professional engineer registered in the state of Utah stating why post-closure activities are no longer necessary. If the Director finds that post-closure monitoring has established that the facility or unit is stabilized (i.e., little or no settlement, gas production, or leachate generation) the Director may authorize the Tooele County to discontinue any portion, or the entirety, of post-closure maintenance and monitoring activities.

II.e.2 Changes to record of title, land use, and zoning restrictions **315-310-4(2)(e)(v)**

Not later than 60 days following certification of closure Tooele County shall:

- i. Submit plats and a statement of fact concerning the location of any disposal site to the county recorder to be recorded as part of the record of title; and
- ii. Submit proof of record of title filing to the Director.

Records and plans specifying solid waste amounts, location, and periods of operation may be required by the local zoning authority with jurisdiction over land use and be made available for public inspection.

II.e.3 Maintenance activities to maintain cover and run-on/run-off control systems **R315-310-4(2)(e)(v)**

Post-closure maintenance activities will consist of quarterly inspections of the cover and run-on/runoff control systems. Any required maintenance will be logged in the inspection log with an expected completion date for corrective measures to be completed. When the needed repairs are completed, the affected area or areas will be re-inspected, and a date corrective measure completed along with the inspector's signature being included on the inspection log.

Maintenance activities are to proceed in a timely manner in order to maintain functionality of the cover and run-on/runoff control systems. Post-closure care and monitoring will be completed, as determined by the Director, when either the 30-year post-closure period is complete, or the unit

has stabilized. The Director may determine that the post-closure period is complete in less than 30 years. Upon completion of post-closure care. A post-closure period certification will be submitted to the Director signed by the Owner or Operator. The Tooele County Department of Solid Waste utilizes a Public Treasurers Investment Fund as a financial assurance mechanism. Funds for Closure and Post-Closure operations will be reimbursed from the financial assurance PTIF account to pay for all activities performed that year.

II.e.4 Facility contact information during the post-closure care period
R315-310-4(2)(e)(vi)

Ibapah Solid Waste Facility

Wayne Anderton
 47 South Main
 Tooele, UT 84074
 Telephone: (435) 843-4785
 Email: wayne.anderton@tooeleco.org

II.f Financial Assurance for All Facilities

II.f.1 Identification of closure costs including cost calculations
R315-310-4(2)(d)(iv)

Tooele County currently is responsible for closure and post-closure costs for the Ibapah Solid Waste Facility. Tooele County may close a subarea of the disposal site of the site as it meets final grades. The estimated current costs are itemized in Appendix H. Tooele County has been putting monies in a PTIF closure and post-closure Account. The current balance of the fund is \$385,995.45 which covers the costs of closure and post-closure activities. In addition, Tooele County Department of Solid Waste demonstrates financial assurance set forth in subsection R315-309-3(7) entitled Local Government Financial Test.

Task	Quantity	Units	Unit Cost	Task Cost
Closure				
Fill and Grade	0.5	AC	\$ 4,551.58	\$ 2,275.79
Move & Place Soil Cover (18")	1210	CY	\$ 4.29	\$ 5,194.58
Move & Place Topsoil (6")	400	CY	\$ 4.29	\$ 1,716.00
Final Grading	0.5	AC	\$ 1,717.58	\$ 858.79
Revegetation	0.5	AC	\$ 1,374.06	\$ 687.03
Survey & Engineer Certification	1	LS	\$ 5,367.43	\$ 5,367.43
Subtotal				\$ 16,099.62
Post - Closure				
Post-Closure Monitoring	30	Job	\$ 1,717.58	\$ 51,527.42
Subtotal				\$ 51,527.42
Total				\$ 67,627.04

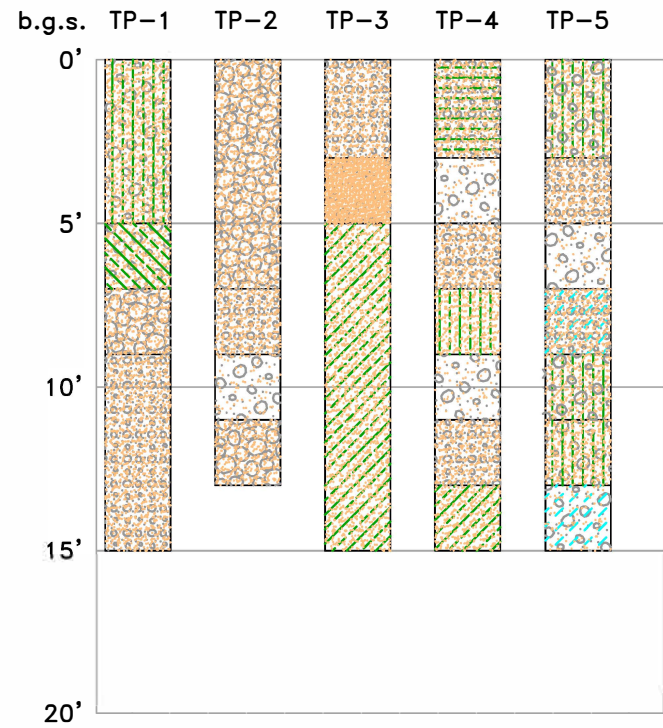
II.f.2 Identification of post-closure care costs including cost calculations
R315-310-4(2)(e)(iv)

Per estimation in Appendix H. It will cost approximately \$1,718 per year for 30 years to cover post-Closure costs.











II.f.3 Identification of financial assurance mechanism
R315-309-1(1) and R315-310-3(1)(j)

The Tooele County Department of Solid Waste utilizes a Public Treasurers Investment Fund (PTIF) as a financial assurance mechanism. Funds for Closure and Post-Closure operations will be reimbursed from the financial assurance PTIF account to pay for all activities performed that year. Please refer to Appendix J for additional information on this account. In addition to the aforementioned PTIF account, the Tooele County Department of Solid Waste demonstrates financial assurance set forth in subsection R315-309-3(7).

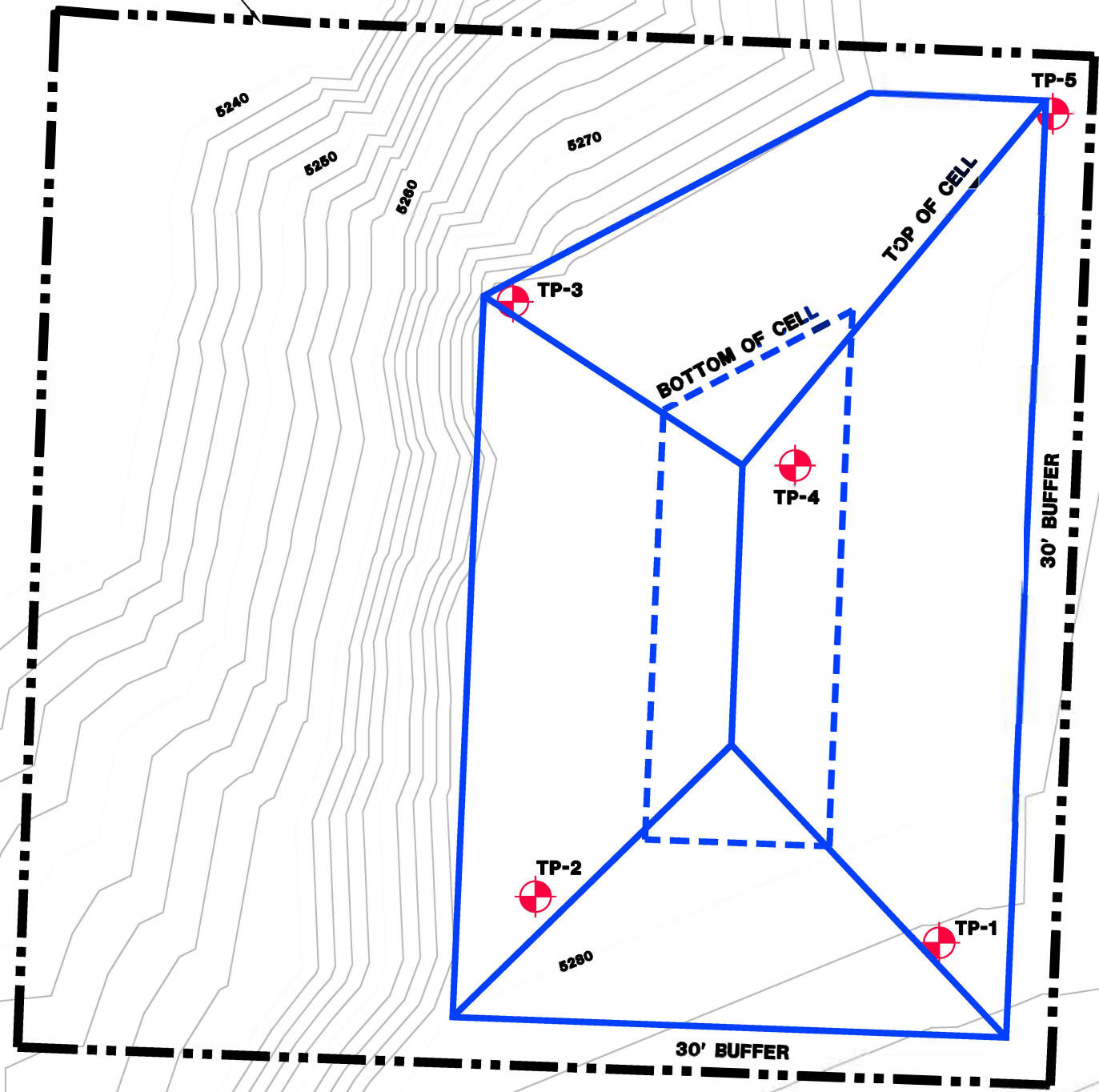
9/04/06 TOOELE COUNTY FIGURES\FIG 4.4 IBAPAH LANDFILL.dwg



LEGEND

- | | |
|---|---|
|  SANDY LEAN CLAY (CL) |  POORLY GRADED GRAVEL WITH SAND (GP) |
|  CLAYEY SAND WITH GRAVEL (SC) |  WELL GRADED GRAVEL WITH SAND (GW) |
|  POORLY GRADED SAND WITH GRAVEL (SP) |  WELL GRADED SAND WITH GRAVEL (SW) |
|  POORLY GRADED SAND WITH SILT AND GRAVEL (SP-SM) |  WELL GRADED GRAVEL WITH CLAY AND SAND (GW-GC) |
|  CLAYEY GRAVEL WITH SAND (GC) |  WELL GRADED GRAVEL WITH SILT AND SAND (GW-GM) |

NW 1/4, NW 1/4, NW 1/4
OF SECTION 15
T9S, R19W, SLB&M



REVISIONS	
NO.	DATE

TOOELE COUNTY, UTAH
IBAPAH SOLID WASTE FACILITY



ADVANCED ENVIRONMENTAL ENGINEERING
1219 WEST STONECREEK LANE, LAYTON UTAH 84041
PHONE: 801-918-5107 FAX: 801-544-2429

0 1/2 1
DRAWING IS NOT TO SCALE IF BAR DOES NOT MEASURE 1"

DESIGN: _____
DRAWN: _____
CHECKED: CAH
SCALE: HORIZ AS NOTED
VERT NONE
DATE: 9/06

FIGURE:
I-1