



State of Utah

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Department of  
Environmental Quality

L. Scott Baird  
*Interim Executive Director*

DIVISION OF WASTE MANAGEMENT  
AND RADIATION CONTROL  
Ty L. Howard  
*Director*

January 8, 2020

Brian Bremner  
P.O. Box 77  
Panguitch, Utah 84759

RE: Finding of Completeness and Draft Permit Renewal  
Garfield County Ticaboo Class II Landfill SW-232

Dear Mr. Bremner:

The Division of Waste Management and Radiation Control has completed its review of the permit renewal request for the Garfield County Ticaboo Class II Landfill. The permit renewal has been determined complete.

The required public comment period will begin on January 10, 2020 and will end on February 10, 2020. Notice of the public comment period will be published in the Garfield County Insider on January 9, 2020. Following the public comment period and resolution of any comments, final action will be taken on the draft permit.

Enclosed is a copy of the draft permit and associated attachments for your review.

If you have any questions, please call me at (801) 536-0211.

Sincerely,

T. Allan Moore, Solid Waste Program Manager  
Division of Waste Management and Radiation Control

TAM/RDP/kl

Enclosures: Draft Permit (DSHW-2019-009262)  
Attachment #1 (DSHW-2019-011702)  
Attachment #2 (DSHW-2019-011704)  
Attachment #3 (DSHW-2019-011706)

DSHW-2019-009324

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Attachment #4 (DSHW-2019-011708)

Attachment #5 (DSHW-2019-011710)

- c: Dr. David Blodgett, Health Officer, Southwest Utah Public Health Department  
Gary House, Deputy Director, Southwest Utah Public Health Department  
Jeremy Roberts, Environmental Health Director, Southwest Utah Public Health Department  
Paul Wright, P.E., DEQ District Engineer

DIVISION OF WASTE MANAGEMENT  
AND RADIATION CONTROL  
SOLID WASTE LANDFILL PERMIT

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**GARFIELD COUNTY TICABOO  
CLASS II LANDFILL**

Pursuant to the provision of the Utah Solid and Hazardous Waste Act, Title 19, Chapter 6, Part 1, Utah Code Annotated (Utah Code Ann.) (the Act) and the Utah Solid Waste Permitting and Management Rules, R315-301 through 320 of the Utah Administrative Code adopted thereunder, a Permit is issued to:

Garfield County  
as owner and operator,

The Permittee is subject to the requirements of R315-301 through 320 of the Utah Administrative Code and the requirements set forth herein.

All references to R315-301 through 320 of the Utah Administrative Code are to regulations that are in effect on the date that this permit becomes effective.

This Permit shall become effective \_\_\_\_\_, 2020.

This Permit shall expire at midnight \_\_\_\_\_, 2030.

Closure Cost Revision Date \_\_\_\_\_, 2020.

Signed this \_\_\_\_\_ day of \_\_\_\_\_, 2020.

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Ty L. Howard, Director  
Division of Waste Management and Radiation Control

## FACILITY OWNER/OPERATOR INFORMATION

LANDFILL NAME: Garfield County, Ticaboo, Class II Landfill

OWNER NAME: Garfield County

OWNER ADDRESS: Garfield County Courthouse  
55 South Main St., P.O. Box 77, Panguitch, Utah  
84759

OWNER PHONE NO.: Brian Bremner 801-676-1119  
[engineer@color-country.net](mailto:engineer@color-country.net)

TYPE OF PERMIT: Class II Landfill

PERMIT NUMBER: 9203R3

LOCATION: The landfill is legally described as the northwest 1/4 of the southeast 1/4 of Section 6, Township 37 South, Range 11 East. The facility's main gate is located at 110° 43' 42" longitude and 37° 37' 02" latitude.

PERMIT HISTORY: Permit renewal effective (INSERT EFFECTIVE DATE)

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The term, "Permit," as used in this document is defined in R315-301-2(55) of the Utah Administrative Code. Director as used throughout this permit refers to the Director of the Division of Waste Management and Radiation Control.

The Permit renewal application for Garfield County Ticaboo was deemed complete on the date shown on the signature page of this Permit. All representations made in the attachments of this permit are enforceable under R315-301-5(2) of the Utah Administrative Code. Where differences in wording exist between this Permit and the attachments, the wording of this Permit supersedes that of the attachments.

This Permit consists of the signature page, Facility Owner/Operator Information section, sections I through V, and all attachments to this Permit.

The facility as described in this Permit consists of a Class II, disposal cells, green waste pile and recyclable storage area.

Compliance with this Permit does not constitute a defense to actions brought under any other local, state, or federal laws. This Permit does not exempt the Permittee from obtaining any other local, state or federal permits or approvals required for the facility operation.

The issuance of this Permit does not convey any property rights, other than the rights inherent in this Permit, in either real or personal property, or any exclusive privileges other than those inherent in this Permit. Nor does this Permit authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations, including zoning ordinances.

The provisions of this Permit are severable. If any provision of this Permit is held invalid for any reason, the remaining provisions shall remain in full force and effect. If the application of any provision of this Permit to any circumstance is held invalid, its application to other circumstances shall not be affected.

By this Permit, the Permittee is subject to the following conditions.

## PERMIT REQUIREMENTS

### I. GENERAL COMPLIANCE RESPONSIBILITIES

#### I.A. General Operation

I.A.1. The Permittee shall operate the landfill in accordance with all applicable requirements of R315-301 through 320 of the Utah Administrative Code, for a Class II landfill, that are in effect as of the date of this Permit unless otherwise noted in this Permit. Any permit noncompliance or noncompliance with any applicable portions of Utah Code Ann. § 19-6-101 through 126 and applicable portions of R315-301 through 320 of the Utah Administrative Code constitutes a violation of the Permit or applicable statute or rule and is grounds for appropriate enforcement action, permit revocation, modification, or denial of a permit renewal application.

#### I.B. Acceptable Waste

I.B.1. This Permit is for the disposal of non-hazardous solid waste that may include:

I.B.1.a Municipal solid waste as defined by R315-301-2(47) of the Utah Administrative Code;

I.B.1.b Commercial waste as defined by R315-302-2(14) of the Utah Administrative Code;

I.B.1.c Industrial waste as defined by R315-302-2(35) of the Utah Administrative Code;

I.B.1.d Construction/demolition waste as defined by 19-6-102(4), Utah Code Annotated;

I.B.1.e Special waste as allowed by R315-315 of the Utah Administrative Code and authorized in section III-I of this Permit and limited by this section;

I.B.1.f Conditionally exempt small quantity generator hazardous waste as specified in R315-303-4(7)(a)(i)(B) of the Utah Administrative Code; and

I.B.1.g The Permittee is authorized to receive for disposal regulated asbestos-containing material in compliance with R315-315-2 of the Utah Administrative Code.

I.B.2. The Permittee is limited to an average of 20 tons per day of municipal waste or a service area population of 8900. The daily average shall be determined by dividing the total tons, for facilities with scales, of municipal waste received in a calendar year by 365. For facilities that do not have scales the population served shall be used. If the 20 tons per day average is exceeded or the maximum population served is exceeded, the Permittee shall notify the Director and apply for a new permit for a Class I landfill.

#### I.C. Prohibited Waste

I.C.1. Hazardous waste as defined by R315-261-3 of the Utah Administrative Code except as allowed in permit condition I-B6 (Acceptable Waste) above;

- I.C.2. Containers larger than household size (five gallons) holding any liquid; non-containerized material containing free liquids; or any waste containing free liquids in containers larger than five gallons; or
- I.C.3. PCB's as defined by R315-301-2 of the Utah Administrative Code, except as allowed in Section I-B (Acceptable Waste) of this Permit. (do not use this for facilities that have TSCA approval for PCBs unless the facility has PCB and non-PCB cells) If the facility has a TSCA permit put any restrictions on the PCB waste also any wastes that may be excluded from the PCB cell
- I.D. Any prohibited waste received and accepted for treatment, storage, or disposal at the facility shall constitute a violation of this Permit, of Utah Code Ann. § 19-6-101 through 126 and R315-301 through 320 of the Utah Administrative Code.
- I.E. Inspections and Inspection Access
- I.E.1. The Permittee shall allow the Director or an authorized representative, or representatives from the Southwest Utah Health Department, to enter at reasonable times and:
- I.E.1.a Inspect the landfill or other premises, practices or operations regulated or required under the terms and conditions of this Permit or R315-301 through 320 of the Utah Administrative Code;
- I.E.1.b Have access to and copy any records required to be kept under the terms and conditions of this Permit or R315-301 through 320 of the Utah Administrative Code;
- I.E.1.c Inspect any loads of waste, treatment facilities or processes, pollution management facilities or processes, or control facilities or processes required under this Permit or regulated under R315-301 through 320 of the Utah Administrative Code; and
- I.E.1.d Create a record of any inspection by photographic, video, electronic, or any other reasonable means.
- I.F. Noncompliance
- I.F.1. If monitoring, inspection, or testing indicates that any permit condition or any applicable rule under R315-301 through 320 of the Utah Administrative Code may be or is being violated, the Permittee shall promptly make corrections to the operation or other activities to bring the facility into compliance with all permit conditions or rules.
- I.F.2. In the event of noncompliance with any permit condition or violation of an applicable rule, the Permittee shall promptly take any action reasonably necessary to correct the noncompliance or violation and mitigate any risk to the human health or the environment. Actions may include eliminating the activity causing the noncompliance or violation and containment of any waste or contamination using barriers or access restrictions, placing of warning signs, or permanently closing areas of the facility.

- I.F.3. The Permittee shall:
  - I.F.3.a Document the noncompliance or violation in the daily operating record, on the day the event occurred or the day it was discovered;
  - I.F.3.b Notify the Director by telephone within 24 hours, or the next business day following documentation of the event; and
  - I.F.3.c Give written notice of the noncompliance or violation and measures taken to protect human health and the environment within seven days after Director notification.
- I.F.4. Within thirty days after the documentation of the event, the Permittee shall submit to the Director a written report describing the nature and extent of the noncompliance or violation and the remedial measures taken or to be taken to protect human health and the environment and to eliminate the noncompliance or violation. Upon receipt and review of the assessment report, the Director may order the Permittee to perform appropriate remedial measures including development of a site remediation plan for approval by the Director.
- I.F.5. In an enforcement action, the Permittee may not claim as a defense that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with R315-301 through 320 of the Utah Administrative Code and this Permit.

I.G. Termination

- I.G.1. This Permit is subject to termination if the Permittee fails to comply with any condition of the Permit. The Director will notify the Permittee in writing prior to any proposed termination action and such action shall be subject to all applicable hearing procedures established under R305-7 of the Utah Administrative Code and the Utah Administrative Procedures Act.

I.H. Attachment Incorporation

- I.H.1. Attachments to the Permit Application are incorporated by reference into this Permit and are enforceable conditions of this Permit, as are documents incorporated by reference into the attachments. Language in this Permit supersedes any conflicting language in the attachments or documents incorporated into the attachments.

**II. DESIGN AND CONSTRUCTION**

II.A.1. Design and Construction

- II.A.1.a The Permittee shall construct any landfill cell, sub-cell, run-on diversion system, runoff containment system, waste treatment facility, leachate handling system, or final cover in accordance with the design submitted in Attachment #1 and in accordance with the R315-301 thru 320 of the Utah Administrative Code.

- II.A.2. If ground water is encountered during excavation of the landfill, the Director shall be notified immediately, and an alternative construction design developed and submitted for approval.
- II.A.3. The Permittee shall notify the Director upon completion of construction of any landfill cell, sub-cell, engineered control system, or any feature where Director approval is required. No landfill cell or engineered control system may be used until as-built documents are submitted and construction is approved by the Director and this permit has been modified to reflect the changes.
- II.A.4. The Permittee shall notify the Director of any proposed incremental closure, placement of any part of the final cover, or placement of the full final cover. Design approval shall be received from the Director and this permit modified prior to construction. The design shall be accompanied by a Construction Quality Control and Construction Quality Assurance (CQC/CQA) Plan, for each construction season where incremental or final closure is performed.
- II.A.5. A qualified party, independent of the owner and the construction contractor shall perform the quality assurance function on cover components and other testing as required by the approved CQC/CQA Plan. The results shall be submitted as part of the as-built drawings to the Director
- II.A.6. All engineering drawings submitted to the Director shall be stamped and approved by a professional engineer with a current registration in Utah.
- II.B. Run-On Control
- II.B.1. The Permittee shall construct drainage channels and diversions and shall maintain them at all times to effectively prevent runoff from the surrounding area from entering the landfill. Any limited surface waters will be diverted by creating ditches, roads and berms to protect landfill cells from run-on water for storms considerably greater than the 25-year event. No surface drainage channels currently exists adjacent to the cell. The size and progression of the units will result in cells being brought to final elevation and closed in the minimum amount of time possible, reducing the amount of water entering the waste. Contouring operations will reduce ponding and promote drainage away from active areas.
- II.B.2. Alternative Design
- This facility has demonstrated through geologic, hydrogeologic, climatic, waste stream, and other factors that the landfill will not contaminate ground water and is approved for the alternative design as outlined in the Attachment #2. Any contamination of ground water resulting from operation of the landfill may result in the revocation of this alternative design approval.

### **III. LANDFILL OPERATION**

#### **III.A. Operations Plan**

III.A.1. The Permittee shall keep the Operations Plan included in Attachment #3 on site at the landfill or at the location designated in section III-H of this Permit. The Permittee shall operate the landfill in accordance with the operations plan. The Permittee may modify the Operations Plan following the procedures of R315-311-2(1)(a)(xiii) of the Utah Administrative Code as approved by the Director. The Permittee shall note any modification to the Operations Plan in the daily operating record.

#### **III.B. Security**

III.B.1. The Permittee shall operate the Landfill so that unauthorized entry to the facility is restricted. The Permittee shall:

III.B.2. Lock all facility gates and other access routes during the time the landfill is closed.

III.B.3. Have at least one person employed by the Permittee at the landfill during all hours that the landfill is open.

III.B.4. Construct all fencing and any other access controls as shown in the Permit Application to prevent access by persons or livestock by other routes.

#### **III.C. Training**

III.C.1. The Permittee shall provide training for on-site personnel in landfill operation, including waste load inspection, hazardous waste identification, and personal safety and protection.

#### **III.D. Burning of Waste**

III.D.1. Except as provided in this paragraph, intentional burning of solid waste is prohibited and is a violation of R315-303-4(2)(b) of the Utah Administrative Code. The Permittee is allowed to burn material by complying with the requirements of R307-202-5 of the Utah Administrative Code. The Permittee shall perform such burning in a segregated area within the landfill site. The Permittee shall extinguish all accidental fires as soon as reasonably possible. The Permittee's non-compliance with R307-202-5 of the Utah Administrative Code, as determined by the Director of the Division of Waste Management and Radiation Control, also constitutes non-compliance with this Permit.

III.D.2. The Permittee shall extinguish all accidental fires as soon as reasonably possible.

#### **III.E. Daily Cover**

III.E.1. The Permittee shall completely cover the solid waste received at the landfill at the end of each working day with a minimum of six inches of earthen material. At the end of each day of operation, Permittee shall properly grade the surface of the daily cover and shall record and certify in the daily operating record the amount of cover the permittee has on the waste.

- III.E.2. The Permittee may use an alternative daily cover material when the material and the application of the alternative daily cover meets the requirements of R315-303-4(4)(b) through (e) of the Utah Administrative Code.
- III.E.3. The Permittee shall apply standard daily cover (min. 6 inches of soil) at least once per week.
- III.E.4. The Permittee shall apply standard daily cover any time the daily cover will be exposed for greater than 24 hours.
- III.E.5. The Permittee shall apply standard daily cover when weather conditions (e.g., wind, rain, etc.) prevent proper use of alternate daily cover.
- III.E.6. The Permittee shall record alternative daily cover use dates in the facility daily operating log.
- III.E.7. The Director may rescind or amend the alternative daily cover approval if the requirements to prevent blowing debris, to minimize access to the waste by vectors, to minimize the threat of fires at the open face, to minimize odors, or to shed precipitation are not met, or if necessary to prevent nuisance conditions or adverse impacts to human health or the environment.
- III.F. Ground Water Monitoring
- III.F.1. This facility is not required to monitor ground water (R315-303-3(3)(e)(iv) of the Utah Administrative Code).
- III.G. Gas Monitoring
- III.G.1. The Permittee shall monitor explosive gases at the landfill in accordance with the Gas Monitoring Plan contained in the Permit Application and shall otherwise meet the requirements of R315-303-3(5) of the Utah Administrative Code. If necessary, the Permittee may modify the Gas Monitoring Plan as outlined in R315-311-2 of the Utah Administrative Code. The Permittee shall note any modification to the Gas Monitoring Plan in the daily operating record.
- III.G.2. If the concentrations of explosive gases at any of the facility structures, at the property boundary, or beyond the property boundary ever exceed the standards set in R315-303-2(2)(a) of the Utah Administrative Code, the Permittee shall:
- III.G.3. Immediately take all necessary steps to ensure protection of human health and notify the Director;
- III.G.4. Within seven days of detection, place in the daily operating record the explosive gas levels detected and a description of the immediate steps taken to protect human health;
- III.G.5. Implement a remediation plan that meets the requirements of R315-303-3(5)(b) of the Utah Administrative Code; and
- III.G.6. Submit the plan to, and receive approval from, the Director prior to implementation.
- III.H. Waste Inspections

- III.H.1. The Permittee shall visually inspect incoming waste loads to verify that no wastes other than those allowed by this permit are disposed in the landfill. The Permittee shall conduct a complete waste inspection at a minimum frequency of 1 % of incoming loads, but no less than one complete inspection per day. The Permittee shall select the loads to be inspected on a random basis.
- III.H.2. The Permittee shall inspect all loads suspected or known to have one or more containers capable of holding more than five gallons of liquid to ensure that each container is empty.
- III.H.3. The Permittee shall inspect all loads that the Permittee suspect may contain a waste not allowed for disposal at the landfill.
- III.H.4. The Permittee shall conduct complete random inspections as follows:
- III.H.4.a The Permittee shall conduct the random waste inspection at the working face or an area designated by the Permittee.
- III.H.4.b The Permittee shall direct that loads subjected to complete inspection be unloaded at the designated area;
- III.H.4.c Loads shall be spread by equipment or by hand tools;
- III.H.4.d Personnel trained in hazardous waste recognition and recognition of other unacceptable waste shall conduct a visual inspection of the waste; and
- III.H.4.e The personnel conducting the inspection shall record the results of the inspection on a waste inspection form as found in Attachment #4. The Permittee shall place the form in the daily operating record at the end of the operating day.
- III.H.4.f The Permittee or the waste transporter shall properly dispose of any waste found that is not acceptable at the facility at an approved disposal site for the waste type and handle the waste according to the rules covering the waste type.
- III.I. Disposal of Special Wastes
- III.I.1. If a load of incinerator ash is accepted for disposal, the Permittee shall transport it to the place of disposal in such a manner as to prevent leakage or the release of fugitive dust. The Permittee shall completely cover the ash with a minimum of six inches of material, or the Permittee shall use other methods or material, if necessary, to control fugitive dust. The Permittee may use ash for daily cover when its use does not create a human health or environmental hazard.
- III.I.2. The Permittee may dispose of animal carcasses in the landfill working face and shall cover them with other solid waste or earth by the end of the operating day in which the carcasses are received. Alternatively, the Permittee may dispose of animal carcasses in a special trench or pit prepared for the acceptance of dead animals. If a special trench is used, the Permittee shall cover animals placed in the trench with six inches of earth by the end of each operating day.
- III.J. Self Inspections

III.J.1. The Permittee shall inspect the facility to prevent malfunctions and deterioration, operator errors, and discharges that may cause or lead to the release of wastes or contaminated materials to the environment or create a threat to human health or the environment. The Permittee shall complete these general inspections no less than quarterly and shall cover the following areas: Waste placement, compaction, cover; cell liner; leachate systems; fences and access controls; roads; run-on/run-off controls; ground water monitoring wells; final and intermediate cover; litter controls; and records. The Permittee shall place a record of the inspections in the daily operating record on the day of the inspection. The Permittee shall correct the problems identified in the inspections in a timely manner and document the corrective actions in the daily operating record.

III.K. Recordkeeping

III.K.1. The Permittee shall maintain and keep on file at the scale house on site, a daily operating record and other general records of landfill operation as required by R315-302-2(3) of the Utah Administrative Code. The landfill operator, or other designated personnel, shall date and sign the daily operating record at the end of each operating day. Each record to be kept shall contain the signature of the appropriate operator or personnel and the date signed. The Daily operating record shall consist of the following two types of documents:

III.K.1.a Records related to the daily landfill operation or periodic events including:

III.K.1.a.(i) The number of loads of waste and the weights or estimates of weights or volume of waste received each day of operation and recorded at the end of each operating day;

III.K.1.a.(ii) Major deviations from the approved plan of operation, recorded at the end of the operating day the deviation occurred;

III.K.1.a.(iii) Results of monitoring required by this Permit, recorded in the daily operating record on the day of the event or the day the information is received;

III.K.1.a.(iv) Records of all inspections conducted by the Permittee, results of the inspections, and corrective actions taken, recorded in the record on the day of the event.

III.K.1.b Records of a general nature including:

- III.K.1.b.(i) A copy of this Permit, including the Permit Application;
- III.K.1.b.(ii) Results of inspections conducted by representatives of the Director, and of representatives of the local Health Department, when forwarded to the Permittee;
- III.K.1.b.(iii) Closure and Post-closure care plans; and
- III.K.1.b.(iv) Records of employee training.

### III.L. Reporting

- III.L.1. The Permittee shall prepare and submit to the Director an Annual Report as required by R315-302-2(4) of the Utah Administrative Code. The Annual Report shall include: the period covered by the report, the annual quantity of waste received, an annual update of the financial assurance mechanism, and all training programs completed.

### III.M. Roads

- III.M.1. The Permittee shall improve and maintain all access roads within the landfill boundary that are used for transporting waste to the landfill for disposal shall be improved and maintained as necessary to assure safe and reliable all-weather access to the disposal area.

### III.N. Litter Control

- III.N.1. Litter resulting from operations of the landfill shall be minimized. The Permittee shall implement the following procedures when high wind conditions are present:
  - III.N.1.a Reduce the size of the tipping face;
  - III.N.1.b Reduce the number of vehicles allowed to discharge at the tipping face at one time;
  - III.N.1.c Orient vehicles to reduce wind effects on unloading and waste compaction;
  - III.N.1.d Reconfigure tipping face to reduce wind effect;
  - III.N.1.e Use portable and permanent wind fencing as needed; and
  - III.N.1.f Should high winds present a situation that the windblown litter cannot be controlled, the Permittee shall cease operations of the landfill until the winds diminish.

## IV. **CLOSURE REQUIREMENTS**

### IV.A. Closure

- IV.A.1. The Permittee shall install final cover of the landfill as shown in Attachment #5. The final cover shall meet, at a minimum, the standard design for closure as specified in the R315-303-3(4) of the Utah Administrative Code plus sufficient cover soil or equivalent material to protect the low permeability layer from the effects of frost, desiccation, and root penetration. The Permittee shall submit to the Director a quality assurance plan for construction of the final landfill cover, and approval of the plan shall be received from the Director prior to construction of any part of the final cover at the landfill. A qualified person not affiliated with the Permittee or the construction contractor shall perform permeability testing on the recompacted clay placed as part of the final cover.
- IV.B. Title Recording
- IV.B.1. The Permittee shall meet the requirements of R315-302-2(6) of the Utah Administrative Code by recording a notice with the Garfield County Recorder as part of the record of title that the property has been used as a landfill. The notice shall include waste disposal locations and types of waste disposed. The Permittee shall provide the Director the notice as recorded.
- IV.C. Post-Closure Care
- IV.C.1. The Permittee shall perform post-closure care at the closed landfill in accordance with the Post-Closure Care Plan contained in Attachment #5. Post-closure care shall continue until all waste disposal sites at the landfill have stabilized and the finding of R315-302-3(7)(c) of the Utah Administrative Code is made.
- IV.D. Financial Assurance
- IV.D.1. The Permittee shall adequately fund and maintain the approved financial assurance mechanism to provide for the cost of closure at any stage or phase or anytime during the life of the landfill or the permit life, whichever is shorter. The Permittee shall keep the approved financial assurance mechanism in effect and active until closure and post-closure care activities are completed and the Director has released the facility from all post-closure care requirements.
- IV.E. Financial Assurance Annual Update
- IV.E.1. The Permittee shall submit an annual revision of closure and post-closure costs for inflation and financial assurance funding as required by R315-309-2(2) of the Utah Administrative Code, to the Director as part of the annual report. The Permittee shall submit the information as required in R315-309-8 of the Utah Administrative Code and shall meet the qualifications for the "Local Government Financial Test" or "Local Government Guarantee" each year
- IV.F. Closure Cost and Post-Closure Cost Revision

- IV.F.1. The Permittee shall submit a complete revision of the closure and post-closure cost estimates by the Closure Cost Revision Date listed on the signature page of this Permit and any time the facility is expanded, any time a new cell is constructed, or any time a cell is expanded.

## V. ADMINISTRATIVE REQUIREMENTS

### V.A. Permit Modification

- V.A.1. Modifications to this Permit may be made upon application by the Permittee or by the Director. The Permittee shall be given written notice of any permit modification initiated by the Director. Modification of this Permit is subject to the requirements of R315-311-2 of the Utah Administrative Code.

### V.B. Permit Transfer

- V.B.1. This Permit may be transferred to a new permittee or new permittees by complying with the permit transfer provisions specified in R315-310-11 of the Utah Administrative Code.

### V.C. Expansion

- V.C.1. This Permit is for a Class II Landfill. The permitted landfill shall operate according to the design and Operation Plan described and explained in Attachment #3. Any expansion of the current footprint designated in the description contained in Attachment #3, but within the property boundaries designated in Attachment #3, shall require submittal of plans and specifications to the Director. The plans and specifications shall be approved by the Director prior to construction.
- V.C.2. Any expansion of the landfill facility beyond the property boundaries designated in the description contained in the Permit Application shall require submittal of a new permit application in accordance with the requirements of R315-310 of the Utah Administrative Code.
- V.C.3. Any addition to the acceptable wastes described in Section I-B shall require submittal of all necessary information to the Director and the approval of the Director. use the following for all landfill unless a PCB bulk product approval has been given Acceptance for PCB bulk product waste under R315-315-7(3)(b) of the Utah Administrative Code can only be done after submittal of the required information to the Director and modification of Section I-C of this Permit.

### V.D. Expiration

- V.D.1. If the Permittee desires to continue operating this landfill after the expiration date of this Permit, the Permittee shall submit an application for permit renewal at least six months prior to the expiration date, as shown on the signature (cover) page of this Permit. If the Permittee timely submits a permit renewal application and the permit renewal is not complete by the expiration date, this Permit shall continue in force until renewal is completed or denied.

Permit Attachments

Attachment #1- Design and Construction

Attachment #2- Alternate Design

Attachment #3- Operations Plan

Attachment #4- Inspection Forms

Attachment #5- Closure and Post-Closure Care

DRAFT

# Attachment #1- Design and Construction

## **PRELIMINARY ENGINEERING REPORT**

### **SITING CRITERIA**

The Ticaboo Sanitary Landfill complies with siting criteria currently mandated by Subtitle D and recognized by the State of Utah Waste Management and Radiation Control Committee. Specifically, no airport is located within 10,000 feet of the proposed landfill. The site is free from unstable areas and is not located within a 100-year floodplain or in any wetland. In addition to federal mandated criteria, the site is compatible with existing land uses, long-term landfill operation and is in a remote area free from dwellings and other incompatible structures such as churches, schools, hospitals, etc. Cultural resources within the landfill have not been encountered. If discovered, cultural resources will be mitigated in accordance with SHPO requirements.

### **SOLID WASTE MANAGEMENT COMPLIANCE**

The Garfield County Solid Waste Management Plan required by Senate Bill 255 contemplates continued use of the Ticaboo Landfill. Re-permitting the facility at this time is in complete accordance with the Plan.

### **FACILITY LIFE**

The anticipated facility life for the Ticaboo Landfill cannot be accurately estimated. Estimates conducted by The Division of Waste Management and Radiation Control during the landfill's initial stages predicted a life well in excess of 50 years. To date less than 10% of available air space is being used for landfill operations. Based on the overall size of the property, relatively low waste volumes, and current efficiencies, facility life is estimated far in excess of the 10 year permit.

### **LINER DESIGN**

Currently Ticaboo Landfill is a natural attenuation Class II facility. No liner is required for the Ticaboo Landfill

### **BORROW SOURCES**

The Ticaboo Landfill will utilize on-site sources for all operational needs. Current estimates indicate approximately 375,000 cubic yards of material is available on site. If for any reason borrow material becomes unsuitable, alternate borrow sources will be obtained. Current cell operations use excavated, on-site material and provide ongoing borrow activities.

## **LEACHATE COLLECTION, TREATMENT AND DISPOSAL**

The Ticaboo Sanitary Landfill is a natural attenuation facility located in an arid region with favorable soil conditions. Regional water balance calculations indicate a diminimus volume of leachate could be generated at the landfill. As a Class II facility with groundwater more than 100 feet deep, the landfill does not utilize leachate collection, treatment and disposal mentods.

## **LANDFILL GAS CONTROL AND MONITORING**

Due to the arid nature of the climate at the Ticaboo Sanitary Landfill and the low volume of waste accepted at the facility, landfill gas concentrations are not anticipated to reach significant levels. The relatively large area of the proposed facility is designed to accommodate dissipation of any landfill gases prior to reaching the property boundary.

Monitoring for landfill gases will be conducted as part of the quarterly inspections performed by landfill managers. Concentration will be measured in any future structure. Results will be recorded on quarterly inspection forms.

Should unacceptable levels of landfill gases be detected, contingency plans described in other areas of this permit will be implemented. If gas levels exceed 25% of the lower explosive limit in structures or the 100% of the lower explosive limit at property boundaries, immediate action will be taken to protect human health, and the Director will be contacted within 24 hours. Additional state regulations, including operating record notations within seven days and implementation of a remediation plan within sixty days, will be completed.

## **CELL DESIGN AND OPERATION**

The Ticaboo Sanitary Landfill is designed to minimize active areas and to reach final elevation as soon as practical in order to minimize infiltration and leachate generation. The cells are designed to accommodate from two to seven years of waste and to expand in an orderly fashion from south to north.

Cells will be approximately 30 - 40 feet in depth, and bottom widths have been excavated to 200 feet or more wide. Length of the cells will vary with volumes of waste, season of the year, and soil stockpile needs. The cell will continue in a northerly direction as needed. Interior side slopes are initially excavated at 4:1 and may be steepened to 2:1 to accept additional waste and augment covering operations. Exterior fill slopes may be as steep as 3:1 and may extend above natural ground by 60 feet or more.

Near the close of each working day, waste will be spread, compacted and covered with 6 inches of native soil or an alternate daily cover that has been approved by the Director.

When daily waste volumes are too small to permit efficient use of landfill space, solid waste will be stockpiled at the working face and covered with an alternate daily cover. The alternate daily cover will consist of a plastic blanket meeting Director requirements. If used, the blanket will be removed at least weekly, and waste will be covered with a minimum of 6 inches of earthen material. Historic use of the blanket has demonstrated it controls vectors, odors, blowing litter, and scavenging. The weekly application of 6 inches of earthen material creates a fire barrier to control fires.

The 60-foot cell height described earlier is a nominal dimension and does not consider final slopes to promote drainage or additional covering requirements. Cells are anticipated to consist of solid waste compacted in lifts ranging from 6 feet to 12 feet and covered with 6 inches to 12 inches of daily or intermediate cover material.

### **EQUIPMENT AVAILABILITY**

Equipment operating at the Ticaboo Sanitary Landfill includes a landfill compactor and other heavy equipment. In addition, backhoes, loaders, scrapers and other construction equipment owned by Garfield County may be used from time to time at the landfill.

## Attachment#2- Alternate Design

## **GEOHYDROLOGICAL ASSESSMENT**

### **GEOLOGY**

The geologic profile at the Ticaboo Sanitary Landfill is generally characterized as 10 to 50 feet of poorly graded sand or silty sand above approximately 450 feet of Entrada sandstone, with occasional interbedded shale and siltstone layers. These formations are underlain by 200 to 300 feet of Carmel limestone and then a Navajo sandstone formation to an undetermined depth. Numerous drill logs in the area indicate that the groundwater depth is approximately 350 feet below the surface.

### **HYDROLOGY**

Generally the hydrologic setting can be classified as arid. Normal annual precipitation at the Ticaboo Sanitary Landfill is approximately 6" with a majority of the precipitation in the form of summer thundershowers. Normal potential evapotranspiration is estimated in excess of 70 inches. Climatic conditions described in Technical Publication No. 84 of Utah's Department of Natural Resources indicates the following:

“Summer precipitation usually is in the form of thunderstorms, which are localized, intense, and short lived. There is little time for precipitation from such storms to infiltrate into the groundwater system, and most of the precipitation becomes runoff.”

The report further credits the Bureau of Reclamation with determining little if any groundwater recharge occurs at elevations less than 8,000 feet. The landfill is located at approximately 4,000 feet MSL.

### **ON-SITE SOIL PROPERTIES**

The United States Department of Agriculture, Soil Conservation Services (S.C.S.) has described the surface soils as follows:

“Typically, the surface is light reddish-brown, loamy, fine sand about 3 inches thick. The upper 37 inches of the underlying material is light reddish-brown, loamy, fine sand, and the lower part to a depth of 60 inches or more is pink, loamy, fine sand that has common gypsum crystals.”

In their soil survey of the Henry Mountains Area, the S.C.S. further states average annual precipitation is about 5 to 8 inches, runoff is slow, and the hazard of water erosion is slight.

## **GROUNDWATER**

The site is located in an area covered with 10 to 50 feet of wind-deposited sand deposited on poorly graded sand. The sand overlies the Entrada sandstone, a generally massive, well-sorted fine grained sandstone with minor, interbedded siltstone and shale. The Entrada sandstone is about 450 feet thick in this area. Drill logs in the area indicate that ground water is located about 350 feet below the surface. Ground water movement in massive sandstone such as the Entrada is controlled by joints and other fractures within the sandstone, and the patterns of such fractures would not be visible at the site because of the sand cover. It is possible that ground water in this area is out of equilibrium because of the filling of nearby Lake Powell, and may not reach a new equilibrium for several hundred years. Because of these complications and the arid climate of the area (which does not promote leachate formation), ground water monitoring will not be required for this permit.

Groundwater quality beneath the landfill site is unknown. The arid climate, local surface material and underlying bedrock eliminate any reasonable probability of contaminating groundwater from the surface. Exploratory wells to determine groundwater quality are an obvious conduit for any contamination and are considered inappropriate for this site.

## **WELLS AND WATER RIGHTS**

No wells or water rights exist within 2,000 ft. of the proposed landfill. At the time of original permitting, the closest adjacent wells were located approximately 1½ miles from the proposed site and have static water depths of 357 feet below the surface. Exhibit #4 of the original permit application was a table containing location and depths of wells in the area.

## **SURFACE WATERS**

The proposed site is free from watercourses, washes, and run-on type surface waters. No live streams or intermittent water courses traverse the proposed site. No floodplain mapping has been performed on the area due to the lack of any water courses.

The proposed site is free from natural or manmade surface drainage channels. The terrain is generally described as gently, rolling, and sloping dune material. Due to the high permeability of the surface soils and the low amounts of annual precipitation, no water courses or surface drainage channels have been formed.

## **WATER BALANCE / MONITORING**

A conservative water balance for the site was performed utilizing the Army Corp of Engineers HELP Model to assume a leachate production. Estimates were developed utilizing temperature and precipitation data obtained from the Bullfrog area, and soil properties determined from onsite drilling and investigations. Water balance calculations indicated that a diminimus quantity of leachate could be developed onsite. Furthermore, any leachate development during the 10 year permit life should not develop within 10 feet of the bottom of the solid waste.

Groundwater monitoring has not been implemented at the Ticaboo landfill and is not anticipated during the life of the permit. Extreme depth to groundwater, limited precipitation and extensive evapotranspiration render groundwater monitoring impractical.

### **IMPACTS TO WATER RESOURCES**

As a small, arid facility, the Ticaboo Landfill is exempt from groundwater monitoring requirements. The landfill receives less than 20 tons of waste per day, receives less than 25 inches of precipitation per year and is located more than 300 feet above existing groundwater aquifers. These characteristics indicate groundwater monitoring requirements for the facility are not necessary.

In addition, there is no potential for migration of hazardous constituents from the facility to the groundwater during the active life of the facility and during the post-closure period. This conclusion is supported by three separate analysis: (1) onsite geologic and hydrologic conditions, (2) water balance and leachate production modeling, and (3) operational practices which minimize the amount of water that can come in contact with the waste. Each analysis makes its own strong argument for suspending groundwater monitoring requirements.

Geologic and hydrologic conditions demonstrate a diminimus potential for hazardous constituents reaching groundwater resources. Nearby drilling operations indicate an absence of groundwater for a depth of more than 300 feet. The site is characterized by alluvial material of moderate permeability and limited precipitation. Hydrologic reports indicate little if any groundwater recharge occurs at the landfill elevation.

In addition to favorable soil conditions and depths to groundwater which minimize the potential for liquid migration, local climatic conditions eliminate the production of significant amounts of leachate. Average annual precipitation is only 6.1 inches per year, and potential evapotranspiration exceeds precipitation by about 10 times. The lack of significant moisture passing beyond the vegetative zone is evidenced by the sparsely grown surface plants which are limited by minimum amounts of moisture.

Water balance and leachate production modeling also demonstrate a diminimus potential for hazardous constituents reaching groundwater resources. HELP model analysis submitted as part of the original groundwater discharge permit indicates numerous years of worst case conditions would be required for leachate to be produced in sufficient quantities to result in the migration of any liquid to the groundwater. Worst case scenarios were evaluated, so actual conditions will

result in an even greater level of confidence and a lower production of leachate than identified by the model.

Operational practices will also reduce the amount of water that could possibly come in contact with the waste. Any limited surface waters will be diverted by creating ditches, roads and berms to protect landfill cells from run-on water for storms considerably greater than the 25-year event. No surface drainage channels currently exist adjacent to the cell. The size and progression of the units will result in cells being brought to final elevation and closed in the minimum amount of time possible, reducing the amount of water entering the waste. Contouring operations will reduce ponding and promote drainage away from active areas. All of these measures result in the reduction of an extremely limited source of moisture.

Considering on-site geologic and hydrologic conditions, water balance and leachate production modeling, and operational practices which reduce the amount of water contacting the waste, groundwater monitoring and/or vadose zone monitoring are not justified. In fact installation of monitoring wells may provide a more viable conduit for groundwater contamination. The Director is requested to continue the exemption of the Ticaboo Sanitary Landfill from groundwater monitoring requirements in accordance with Subsection R315-303-3.(3)(e) of the Solid Waste Rules.

## Attachment #3- Operations Plan

## **PLAN OF OPERATION**

### **INTRODUCTION**

This document constitutes the plan of operation for the Ticaboo Sanitary Landfill and is intended to comply with the Utah Division of Waste Management and Radiation Control Administrative Rules. Technical questions and comments may be directed to:

Brian B. Bremner, P.E.  
P.O. Box 77  
Panguitch, Utah 84759  
(801) 676-1119

### **INTENDED SCHEDULE OF CONSTRUCTION**

The Ticaboo Sanitary Landfill is capable of meeting solid waste disposal needs for Garfield County for as many as 50 years. The Ticaboo Sanitary Landfill has been operational for approximately 14 years. This application is required for renewal of the permit. Adequate capacity exists, and the existing excavation will be expanded in an ongoing manner as portions of the cell attain final elevation. The intended schedule of construction listing major activities for the life of this permit is found below. The schedule may be updated as part of the regular permit review process.

January 2019	Obtain renewed permit from Waste Management and Radiation Control.
Ongoing	Close portions of the landfill reaching final elevation and expand cell to provide additional disposal space.

### **HANDLING PROCEDURES**

During the active life of the landfill material designated for disposal will be brought to the working face where it will be dumped, spread, and compacted. No later than the end of each day's operation, waste will be covered with a minimum of 6 inches of earthen material, or with an alternate daily cover that has been approved by the Director. Covering operations shall minimize the possibility of infiltration and maintain blowing trash at acceptable levels. If blowing trash exceeds acceptable levels, handling procedures will be modified and/or covering will be performed more frequently. Procedures for the handling of specific wastes including but not limited to dead animals, large appliances, car bodies and asbestos are delineated below. Scavenging will not be permitted at the site.

The landfill currently accepts only non-friable asbestos waste for disposal. Although not currently planned, friable asbestos wastes may be accepted if the conditions of UAC R 315-315-2 are satisfied as follows: a) the asbestos waste is adequately wetted and properly containerized by double bagging and sealing in 6 mil or thicker plastic bags to prevent fiber release and b) asbestos waste containers are generated, and tagged with a warning label that conforms to the requirements of 40 CFR Part 61.149(2).

If properly transported and packaged, asbestos waste which meets the above criteria is received at the landfill, the operator will:

- Verify the quantities of waste received, sign off on the waste shipment record, and send a copy of the waste shipment record to the generator within 30 days;
- Require vehicles that have transported asbestos waste to be marked with warning signs as specified in 40 CFR Part 61.149(d)(1)(iii);
- Inspect the load to verify that the asbestos waste is properly contained in leak-proof containers and properly labeled;
- Place asbestos containers at the bottom of the active face with sufficient care to avoid breaking the containers;
- Cover the waste within 18 hours with a minimum of six inches of material that does not contain asbestos;
- Provide barriers to limit public access to the asbestos disposal area until the waste has been covered with six inches of material which does not contain asbestos; and
- Place warning signs at the entrance and around the perimeter of the asbestos disposal area which comply with 40 CFR 61.154(b).

If the attendant believes the condition of an incoming asbestos load is such that significant amounts of fiber may be released during disposal, the attendant will notify the local and regional health departments and the Director. If the wastes are not properly containerized, and the landfill operator inadvertently accepts the load, the operator shall thoroughly soak the asbestos material with a water spray prior to unloading, rinse out the haul truck, dispose of the waste near the base of the active face, and immediately cover the waste prior to compaction with six inches of non-asbestos material in a manner sufficient to prevent fiber release.

Ash will be transported in such a manner to prevent leakage or the release of fugitive dust. The landfill operator will unload the transport vehicles at the bottom of the working face and keep the ash wetted, if necessary, to prevent fugitive emissions prior to covering; and within 24 hours, the operator will completely cover the ash with a minimum of 6 inches of other non-ash landfill waste or a minimum of 6 inches of material containing no waste or use other methods or materials, if

necessary, to control fugitive dust.

Bulky waste such as automobile bodies, furniture, and appliances will be crushed and then pushed onto the working face near the bottom of the cell or into a separate disposal area.

The landfill will minimize liquids by prohibiting containerized liquids or waste containing free liquids in containers larger than five gallons, non-containerized liquids, and /or sludges containing free liquids. No waste treatment plant sludge, digested waste water treatment plant sludge, or septage containing free liquids will be disposed in portions of the landfill containing other solid waste. Water treatment plant sludge, digested waste water treatment plant sludge, or septage containing no free liquids will be placed at or near the bottom of the landfill working face and covered with other solid waste or other suitable cover material.

Dead animals received at the facility will be deposited onto the working face at or near the bottom of the cell with other solid waste, or into a separate disposal trench provided they are covered daily with a minimum of 6 inches of earth to prevent odors and the propagation and harborage of rodents and insects.

Areas of the landfill that have not received waste for a period of more than 120 days will be covered with an intermediate cover that consists of a minimum of 12 inches of earthen material.

## **INSPECTIONS AND MONITORING**

Inspection and monitoring at the Ticaboo Sanitary Landfill will be conducted in two components: (1) routine and (2) compliance. Routine inspections will be conducted on incoming material on a random basis to prohibit receipt of unacceptable wastes. In addition, random checks will be made during deposition, spreading, and covering operations to insure protection of the environment and absence of nuisances. Waste screening inspection will be made by trained personnel; operational inspection will be made by supervisory landfill personnel.

Compliance inspections will be conducted quarterly to assess the integrity of cover, the condition of side slopes and vegetative cover, and the impacts of erosion. In addition, a detailed annual inspection will be conducted to verify compliance with all permit conditions and state and federal regulations. All inspection records will be kept at the landfill or the closest reasonable location for the current calendar year. Within 30 days of the end of the calendar year, annual records will be transferred to the County Courthouse and will be stored for a minimum of three years.

## **FIRE/EXPLOSION CONTINGENCY PLAN**

In the event of fire or explosion which prevents the use of the active area of the Ticaboo Sanitary Landfill, an alternate area of the landfill will be designated for temporary disposal. If use of the alternate area extends beyond one week, a plan of operation acceptable to the Director will be developed.

## **CORRECTIVE ACTION FOR CONTAMINATED GROUNDWATER**

This section describes corrective actions to be taken by owners and operators to regain compliance with protection levels for the Ticaboo Sanitary Landfill in the event acceptable concentration limits are exceeded in any down gradient well as a result of landfill operations. No monitoring wells currently exist on site.

When the concentration of parameters in any down gradient well exceeds acceptable limits, as a result of landfill operations and as substantiated by confirmatory analysis, owners and operators of the Ticaboo Sanitary Landfill will implement a corrective action program as outlined in R315-308.

## **CONTINGENCY PLAN FOR OTHER RELEASES**

This section describes corrective actions to be taken by the Ticaboo Sanitary Landfill to regain compliance with the protection levels of the permit in the event releases are discovered and acceptable concentration limits are exceeded.

When the concentration of parameters exceed acceptable limits as substantiated by confirmatory analyses, owners and operators of the Ticaboo Sanitary Landfill will implement a corrective action program approved by the Director.

## **DUST CONTROL / AIR QUALITY**

Fugitive dust is not anticipated to reach unacceptable levels at the Ticaboo Sanitary Landfill due to the granular nature of the predominant soils. If fugitive dust exceeds acceptable levels, actions will be implemented to reduce dust. These actions may include watering access roads, developing wind breaks, altering management scenarios, or other appropriate measures.

## **LITTER CONTROL**

Litter is controlled through use of best management practices. Active areas and working faces are limited; waste is covered shortly after deposition; and blowing trash is confined as much as practical. In addition, litter control fencing has been established along the perimeter of the active area. However, high winds occasionally occur at the landfill. Any litter escaping the perimeter of the landfill will be periodically picked up by hand.

## **EQUIPMENT MAINTENANCE**

Active collection systems for leachate and/or explosive gases are not proposed for the Ticaboo Sanitary Landfill. Therefore, no maintenance will be required for these items. Maintenance of equipment used in day-to-day operations will be performed by landfill employees, County employees or contracted mechanics in accordance with manufacturers' recommendations and industry practices.

### **EXCLUSION OF HAZARDOUS WASTE**

As a small rural landfill, the Ticaboo facility is in a favorable position regarding exclusion of hazardous waste. During periods when the landfill is open for disposal, waste will be observed as it is removed from the collection vehicle. The waste will be further examined for hazardous materials as it is being spread by the operator and compacted. If hazardous materials are found, the collection vehicle driver will be notified and the unacceptable substance will be removed from the landfill.

During periods when the landfill is open for public disposal as least one percent of the vehicles and other suspicious loads will be directed to dispose of their material near the working face. The waste generator will be detained while the load is inspected. For large loads, the waste will be spread and landfill operators will walk through the waste. If prohibited hazardous waste or prohibited waste containing PCB's are encountered, they will not be accepted. The Director, the hauler and the generator will be notified within 24 hours. Considering population served, waste volumes generated, and complexity of the solid waste stream, these measures are considered to be adequate.

A section documenting the results of the formal inspections outlined above has been included as part of the daily record forms (see Exhibit 4b). Including hazardous/ PCB waste on the record forms will allow landfill managers to incorporate inspections in their daily routine and will permit regular reviews and inspections to be added efficiently while examining waste volumes.

### **DISEASE VECTOR CONTROL**

The primary method for disease vector control at the Ticaboo Sanitary Landfill will be providing appropriate cover at the close of each day's operation. The cover will consist of a 6-inch minimum layer of earthen material or an alternate daily cover approved by the Director.

Rodents and other vermin will not be permitted to burrow in the active area of the landfill; and trapping or extinction methods will be implemented to protect the integrity of the disease vector control program.

### **ALTERNATIVE DISPOSAL**

Alternative waste handling procedures for periods when the landfill is not in operation will be similar to procedures for fires and explosions. Waste will be deposited in the alternate disposal site and covered with 6" of earthen material or an alternate daily cover. Procedures will continue in this manner until operations at the landfill can return to normal.

In the event of equipment breakdown that cannot be repaired in a reasonable time, equipment will be borrowed from contributing entities or leased from local distributors. It is the intent of owners and operators to have dedicated equipment at the landfill and, over a period of time, acquire appropriate backup equipment.

### **TRAINING AND SAFETY PLAN**

Currently one employee involved with the Ticaboo Sanitary Landfill has completed the Manager of Landfill Operations Training Course and the Waste Screening Training Course provided by the Solid Waste Association of North America (SWANA). Limited training and educational experience exists for operators of rural landfills; however, employees will be encouraged to attend appropriate seminars and training as time and budgets permit. All landfill employees have been provided with timely and sufficient training to operate the landfill within regulatory requirements. New landfill employees will also be provided similar training. Training opportunities include access to SWANA training materials, on-site training from certified managers, random training from landfill owners, and training from state regulatory staff during on-site inspections.

Safety procedures will conform to OSHA guidelines; and personnel will be encouraged to participate in additional landfill management, waste screening, safety, and first aid workshops.

### **RECYCLING**

No viable recycling markets currently exist for solid waste disposed at the Ticaboo Sanitary Landfill. Some private recycling efforts exist in the general area for aluminum cans. However, no formal recycling program is anticipated for this facility.

## Attachment #4- Inspection Forms





**TICABOO SANITARY LANDFILL**  
Hazardous/PCB Record Form

Date \_\_\_\_\_ Time \_\_\_\_\_ Vehicle No. \_\_\_\_\_

Random Selection: Yes \_\_\_/No\_\_\_ Suspicious Load: Yes \_\_\_/No\_\_\_ Other: \_\_\_\_\_

Vehicle Owner: \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Phone \_\_\_\_\_

Waste Origin: \_\_\_\_\_

Waste Types: \_\_\_\_\_

Describe any hazardous or PCB wastes encountered: \_\_\_\_\_

Action Taken: \_\_\_\_\_

Comments: \_\_\_\_\_

\_\_\_\_\_  
If hazardous waste or PCB waste is encountered, contact the Division of Waste Management and Radiation Control at (801) 538-6170.

Name \_\_\_\_\_ Signature \_\_\_\_\_ Date \_\_\_\_\_

**TICABOO SANITARY LANDFILL**  
Quarterly Inspection Log

This document is the official form required for compliance with R315-301-7(5)(a) for the Ticaboo Sanitary Landfill.

Date \_\_\_\_\_ Time \_\_\_\_\_ Weather \_\_\_\_\_

Inspection Team: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Observations: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Date and Nature of Repairs/Corrective Action: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Other: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Signature \_\_\_\_\_

Name of Inspector \_\_\_\_\_

This form shall be kept on site (or at another convenient location if no permanent office facilities exist) for a minimum of 3 years.

## Attachment#5- Closure and Post-Closure Care

## **CLOSURE / POST CLOSURE PLAN**

### **CLOSURE SEASON AND YEAR**

Closure operations at the Ticaboo Sanitary Landfill will be performed on an ongoing basis. Adequate capacity exists at the landfill to continue operation for many years. A final closing date cannot be determined at this time. Ongoing closure operations will generally be performed on a year-round basis as weather permits. No area larger than 6 acres that has achieved final elevation will remain open longer than 6 months. Within 120 days of final receipt of waste in a landfill unit, Garfield County will notify the Director of their intent implement the closure plan. Landfill operators will implement closure operations within 90 days of approval by the Director. If weather or size limitations make closure operations impractical, closed units will be covered with a total of 18 inches of earthen materials and final closure will be implemented as soon as practical. Closure activities will be completed within 180 days of their actual starting date. Additionally, within 90 days of completion of closure operations, owners / operators of the Ticaboo Landfill will submit to the Director as built drawings and certifications signed by a professional engineer indicating the unit has been closed according to the approved closure plan and modifications authorized by the Director.

### **SITE CAPACITY**

Site capacity for the entire Ticaboo Sanitary Landfill cannot be accurately estimated. Information submitted to the Department as part of a NMOC Emission Inventory estimates landfill capacity at 1,032,533 tons.

### **FINAL COVER**

Unlined cells will be covered with 18 inches of earthen material having a permeability of  $1 \times 10^{-5}$  cm/sec. or other cover system approved by the Director and 6 inches of topsoil. Landfill operators have encountered difficulty constructing low permeability earthen covers while meeting stringent quality assurance guidelines. For this reason, an engineered earthen cover, a geosynthetic clay liner or a HDPE liner may be used when permeability characteristics are equal or better than earthen materials. The selected option will be submitted to the Director for approval as part of the notification process.

### **FINAL INSPECTION**

The Ticaboo Landfill is anticipated to operate well beyond the life of this permit. At least 60 days prior to final closure, the Division of Waste Management and Radiation Control will be contacted, and a final inspection will be scheduled. The Director will be informed of incremental closure of individual cells through routine state inspections, annual reports, and

renewal applications. In addition, a QA/QC plan will be submitted for approval prior to final closure operations. Within 90 days of unit and/or facility closure, as built plans signed by a professional engineer shall be forwarded to the Director.

Landfill owners and operators shall allow the Director of the Division of Waste Management and Radiation Control or an authorized representative, including representatives from the local District Health Department, upon representation of credentials, to enter during operating hours and/or inspect at reasonable times any facilities, equipment, practices, or operations regulated or required under this permit.

### **SITE MONITORING**

No permanent monitoring devices are proposed for the Ticaboo Sanitary Landfill. Landfill gas in closed sections will be monitored as described for active cells in the Preliminary Engineering Report section of this document.

No groundwater monitoring wells, lysimeters, vadose zone equipment or other monitors are planned for this facility. Surface waters in closed portions of the landfill will be evaluated as part of the annual inspection. Monitoring will be limited to identifying situations which promote infiltration.

### **LAND TRANSFERS AND USES**

Plats and a statement of fact concerning the location of any disposal site shall be recorded as part of the record of title with the County Recorder not later than 60 days after certification of final closure. Upon recording, proof of the record of filing will be submitted to the Director.

### **POST CLOSURE MAINTENANCE**

Post-closure care of inactive sections of the landfill will consist of maintaining the integrity of the final and vegetative covers. Any areas subject to erosion will be corrected, and appropriate measures will be implemented to identify and eliminate the source. No active or technical devices are proposed for use at the Ticaboo Sanitary Landfill. Best management practices will be implemented to minimize infiltration and assure the integrity of the run-on/run-off system. Evaluation of the system will be made during the quarterly inspections, and corrective measures, if any, will be implemented. Run-on and run-off from events smaller than the 25-year storm

will be controlled.

No leachate collection devices are proposed for the facility. Closed portions of the landfill will be inspected as part of the quarterly reviews performed by the landfill operator. Closed areas will also be inspected as part of the in-depth annual inspection. Any deficiencies will be repaired as soon as practical. For those failures which jeopardize the environmental integrity of the facility or permit the uncontrolled infiltration of significant amounts of moisture, corrective measures will be initiated immediately.

No alternate land use for closed sections has been developed to date. Closed cells will remain under the jurisdiction of the landfill manager. If alternate land use plans are developed they will be addressed during the permit renewal process, or a separate permit modification may be processed.

### **RESPONSIBLE PARTIES**

The applicant, property owner, and responsible party for the post closure care period is:

Garfield County  
Garfield County Courthouse  
55 South Main  
P. O. Box 77  
Panguitch, UT 84759  
Phone: (435) 676-8826  
Fax: (435) 676-8239

It should be noted Garfield County is continually upgrading solid waste management services. Future agreements, potential special service district creation, the extended life of the landfill, and alternate ownership/operation scenarios may require modification of this section of the permit. In addition, the County may contract site operations with private entities. Garfield County will notify the Executive Secretary of any changes in responsible party status at least 30 days prior to their effective date. Other changes to the information listed above will be provided in annual reports and permit renewal documents.