

**GUAM ENVIRONMENTAL PROTECTION AGENCY  
MUNICIPAL SOLID WASTE LANDFILL FACILITY  
PERMIT NO. 09-015 MSWLF**

DRAFT

Revision 03-Aug-09

**FACILITY AND PHYSICAL LOCATION:**

LAYON MUNICIPAL SOLID WASTE LANDFILL  
LOT NO. B-3 REM-2  
DANDAN ROAD  
MALOJLOJ, GUAM  
LATITUDE:  
LONGITUDE:

**NAME AND MAILING ADDRESS OF LANDOWNER:**

GOVERNMENT OF GUAM  
DEPARTMENT OF PUBLIC WORKS  
SOLID WASTE MANAGEMENT DIVISION  
542 NORTH MARINE CORPS DRIVE  
TAMUNING, GUAM 96913

**NAME AND MAILING ADDRESS OF APPLICANT:**

GERSHMAN, BRICKNER & BRATTON, INC.  
COURT APPOINTED RECEIVER OF  
GOVERNMENT OF GUAM  
DEPARTMENT OF PUBLIC WORKS  
SOLID WASTE MANAGEMENT DIVISION  
542 NORTH MARINE CORPS DRIVE  
TAMUNING, GUAM 96913

**NAME AND MAILING ADDRESS OF OPERATOR:**

GERSHMAN, BRICKNER & BRATTON, INC.  
COURT APPOINTED RECEIVER OF  
GOVERNMENT OF GUAM  
DEPARTMENT OF PUBLIC WORKS  
SOLID WASTE MANAGEMENT DIVISION  
542 NORTH MARINE CORPS DRIVE  
TAMUNING, GUAM 96913

**CONTACT NOS.:**

Facility Phone No.: N/A  
Operator Phone No.: 671-646-3215  
Owner Phone No.: 671-646-3215

\_\_\_\_\_  
LORILEE T. CRISOSTOMO  
ADMINISTRATOR

\_\_\_\_\_  
DATE

\_\_\_\_\_  
EXPIRATION DATE

# GUAM ENVIRONMENTAL PROTECTION AGENCY MUNICIPAL SOLID WASTE LANDFILL FACILITY PERMIT NO. 09-015 MSWLF

**SPECIFICATIONS:**

PERMITTED ACTIVITIES:

Construction, operation, closure, and post-closure care of Layon Municipal Sanitary Landfill Phase I (Cells 1 and 2)

**KEY DESIGN PARAMETERS:**

**Permitted Area (in acres):**

(Table 1 – Appendix F, Book 2)

Total Landfill Footprint Area

11.07 acres (Cell 1)

11.33 acres (Cell 2)

127.4 acres (Cell 1 – Cell 11)

**Design Capacity (Net Refuse Airspace):**

(Table 2 – Appendix F, Book 2)

Total Landfill Footprint Capacity

360,109 yards<sup>3</sup> (Cell 1)

1,047,064 yards<sup>3</sup> (Cell 2)

15,808,794 yard<sup>3</sup> (Cell 1 – Cell 11)

**Cells Final Grade:**

Maximum Elevation (Ft.MSL):

460 Feet above MSL

**Cells Base Grade:**

Maximum Depth: (Ft. MSL):

305 Feet MSL

**Floor Liner System:**

(Section 4.4, Book 2, Drawing L2.8)

(from top to bottom:)

12-mil scrim-reinforced polyethylene rain cover

3 ft. protective soil layer

Geocomposite primary LCRS drainage layer

80-mil HPDE geomembrane

Geocomposite secondary LCRS drainage layer

60-mil HDPE geomembrane

24 inches low permeability soil (max. 1.0 X10<sup>-6</sup> cm/sec)

12 inches compacted native soil

Geocomposite subdrain layer

Prepared subgrade above subdrain system

**Subdrain System:**

290 Feet MSL

## EXECUTIVE SUMMARY

In the United States Territory of Guam, a civilian community of approximately 150,000 is currently disposing its solid waste at the municipal solid waste dump commonly referred to as the Ordot Dump located in the Municipality of Ordot-Chalan Pago. It is not known precisely when the Ordot Dump started being used as a waste deposit area but it has been routinely used as a waste deposit area since the late 1940s. As with all such dumps, the Ordot Dump does not meet current design requirements of the United States Environmental Protection Agency (USEPA). Because the Ordot Dump is obsolete and does not meet current environmental standards, the Government of Guam, Department of Public Works (DPW), is under a Consent Decree from USEPA to correct a number of operational deficiencies at the Ordot Dump and to eventually close the facility.

The Ordot Dump has a long history of operational and environmental problems, in 1986 USEPA issued an administrative order under the Clean Water Act (CWA), 33 U.S.C. §§ 1251-1387, to DPW, Guam. The order directed DPW to cease discharges of leachate from the Ordot Dump by May 1, 1987, but DPW failed to comply with this order.

A study by a consulting firm in 1994 indicates that the civilian population of Guam generates an average of 82,306 tons of solid waste per year. When the draft environmental impact statement study was initiated in 1995, the Ordot Dump was nearing capacity. It has since exceeded its anticipated capacity. In addition, Typhoon Paka wrought major destruction on the island in December 1997 and created a huge volume of MSW, much of which was disposed of at Ordot, further taxing the overburdened facility that increased the urgency for a new landfill site to be identified.

After years of inaction and noncompliance with the administrative orders, the United States initiated a suit on August 7, 2002, when it filed a Complaint asserting claims under CWA with the intention to force the closure of the Ordot Dump and initiate the opening of a new Municipal Solid Waste Landfill (MSWLF) that complied with all federal and local environmental laws and regulations. This suit asked the court to issue an order requiring the Government of Guam's DPW to take any measure needed to eliminate the un-permitted discharges. The Complaint sought both injunctive relief and civil penalties well above \$50 million.

In December 2003, the Consent Decree was submitted to the District Court of Guam. Following the publication in the Federal Register and period for public comment, Judge John S. Unpingco approved and entered the Consent Decree (Docket Number 55) on February 11, 2004. This Consent Decree established schedules for the closure of the Ordot Dump, the site selection for the new MSWLF, the construction of a new MSWLF, and commencement of operations of the new MSWLF. The Consent Decree required the Government of Guam's DPW to meet these schedules but DPW failed to meet the requirements of the Consent Decree.

The Government of Guam prepared and then published, in March 2004, its Preliminary Landfill Site Suitability Report explaining its justification of and methodology used in the selection of the three (3) candidate sites for the new Guam MSWLF. A screening project team comprising of DPW and Guam EPA, with mapping assistance from the Water and Environmental Research Institute (WERI), screened the sites. The Consent Decree mandated the selection of a minimum of three (3) sites within 30 days of the signing (February 11, 2004), reducing the time for public participation in the process. Of these three (3) sites, Guatali and Malaa were eliminated from further consideration because it does not meet the Resource Conservation and Recovery Act (RCRA) Subtitle D requirement for landfill siting. On January 31, 2005, Government of Guam selected Dandan, specifically Layon, based on the Preliminary Site Selection Report as Guam's MSWLF. USEPA accepted the selection of Dandan as the preferred site in a letter dated February 14, 2005.

Layon is located in the higher scarcely vegetated areas on the west side of the Dandan parcel, southwest of the former National Aeronautical and Space Administration (NASA) tracking station. The Dandan parcel (Lot B-3-REM) in which the Layon footprint is located is approximately 2,800 acres of undeveloped, privately-owned land. The existing land use on the 127-acre Layon footprint is a mixture of agricultural and recreational. The Layon footprint contains five (5) vegetation communities – savannah, grassland, ravine forest, disturbed vegetation/badlands, and wetlands. No threatened or endangered species were observed during the surveys although wetlands at the site may provide habitat for the endangered Mariana common moorhen. No formal archaeological sites were identified during the survey.

Design and landfill operating features for the Layon landfill will be in compliance with RCRA and the Rules and Regulations for Guam's Solid Waste Disposal, 10 Guam Code Annotated, Chapter 23, Title 22, Division 4. The landfill will also require compliance with other applicable local and federal laws and regulations.

**GUAM ENVIRONMENTAL PROTECTION AGENCY  
MUNICIPAL SOLID WASTE LANDFILL FACILITY  
PERMIT NO. 09-015 MSWLF**

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# PART I – PERMIT DOCUMENTS

## I.A. APPROVED DESIGNS, PLANS, AND REPORTS

The Permittee shall operate the facility, and construct or install associated appurtenances thereto, in accordance with the provisions of *Guam's Solid Waste Management and Litter Control Act, 10 Guam Code Annotated, Chapter 51, Guam Solid Waste Disposal Rules and Regulations, 22 Guam Administrative Rules, Chapter 23*, the conditions of this permit, and the following permit application documents which are incorporated herein by reference:

(List of all final and Guam EPA approved documentations and applications applicable to this permit)

**FSSR/EIS** Final Site Selection Report, Environmental Impact Statement for the Setting of a Municipal Solid Waste Landfill Facility, Guam, dated March 14, 2005.

**SEIS** Final Supplemental Environmental Impact Statement for the Setting of a Municipal Solid Waste Landfill Facility, Guam, dated July 15, 2008.

### **FINAL HYDROGEOLOGIC REPORT**

Final Integrated Hydrogeologic Assessment, Volume I, dated November 26, 2008.

### **CERTIFICATION OF ZONING COMPLIANCE**

Dated January 16, 2009, Guam Land Use Commission.

### **Final and Approved Application Documents:**

**Books 1A** Technical Specifications, dated December 12, 2008, amended May 22, 2009, amended July 10 and 23, 2009, amended August 5, 2009.

**Books 1B** Technical Specifications, dated December 12, 2008, amended May 22, 2009, amended July 10 and 23, 2009, amended August 5, 2009.

**Books 2** Design Narratives and Attachments, dated December 12, 2008, amended May 22, 2009, amended July 10 and 23, 2009, amended August 5, 2009.

**Book 3** Supplemental Geotechnical Laboratory Test Results and Site Specific Groundwater Monitoring Plan, dated December 12, 2008, amended May 22, 2009, amended July 23, 2009.

**Book 4** Operations Plan and Closure and Post-Closure Plan, dated December 23,

2008, amended May 22, 2009, amended July 10 and 23, 2009, amended August 5, 2009.

**Book 5** Guam Solid Waste Municipal Landfill Permit, dated December 23, 2008, amended May 22, 2009, amended July 23, 2009, amended August 5, 2009.

## **PART II - GENERAL PERMIT CONDITIONS**

### **II.A. GENERAL CONDITIONS:**

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are “Permit Conditions” and as such are binding upon the Permittee and enforceable in accordance with the provisions of 10 Guam Code Annotated (GCA), Chapter 51, Solid Waste Management and Litter Control (SWMLC) Act, , Guam Solid Waste Disposal Rules and Regulations (GSWDRR), and 22 Guam Administrative Rules, Chapter 23. The Agency will review the permit periodically and may initiate enforcement action for any violation of the “Permit Conditions” by the Permittee, its agents, employees, servants, or representatives.
2. The permit shall be kept at or near the operation site for which the permit is issued and shall be available upon request [GSWDRR, §23312].

#### **II.A.I. Effect of Permit**

- a. The Permittee is allowed to dispose solid waste within the permitted area in accordance with the conditions of this permit. Any disposal of solid waste not authorized in this permit is prohibited. Subject to the 10 GCA, SWMLC, §51104(a), compliance with this permit generally constitutes compliance, for the purposes of enforcement, with the GSWDRR.
- b. Issuance of this Permit does not convey any property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of federal or local law, regulations or ordinances.
- c. Compliance with the terms of this permit does not constitute a defense to any order issued or any action brought under 10 GCA, Chapter 51, SWMLC and Section 7003 of Resource Conservation and Recovery Act (RCRA); or any other law providing for protection of public health or the environment.
- d. Issuance of this permit does not provide approval of other applicable permit requirements of the federal or local government including but not limited to Guam Air Pollution Control Standards and Regulations (GAPCSR), and

## Guam Soil Erosion and Sediment Control Regulations.

- e. The Permittee and all contractors of the Permittee shall be bound by this Permit and all applicable laws and regulations.
- f. The Permittee is responsible for ensuring that all contractors, subcontractors, and other persons carrying out any work related to this facility/activity shall be fully informed of all permit conditions and all applicable provisions and requirements of GSWDRR prior to commencing any solid waste management activities. The Permittee shall submit a plan to Guam EPA identifying all contractors and delineating specific responsibilities for compliance with this permit and the GSWDRR. However any such delineation of responsibility shall not be construed as preventing Guam EPA from taking any necessary enforcement actions or seeking other remedies as provided for by statute.

Prior to the initial commencement of solid waste management activities by a contractor, the contractor shall provide Guam EPA with written notice that they:

- i) understand the conditions specified in this permit;
- ii) understand all other applicable provisions and requirements of the GSWDRR;
- iii) acknowledge that they may be subject to enforcement actions for non-compliance with these requirements and regulations.

### **II.A.2. Permit Modification, Suspension, Revocation and Termination**

This Permit may be modified, suspended, revoked, reissued, or terminated for cause, as specified in the SWMLC §51104(f) and GSWDRR §23104. The filing of a request for a permit action, or the notification of planned changes or anticipated noncompliance by the Permittee does not stay the applicability or enforceability of any permit requirement or condition.

The permit is valid only for the specific processes and operations applied for and indicated in the submitted application and additional submittals on file with the Agency. Any unauthorized deviation from the submitted application, approved drawings, operations manuals, additional submittals, or conditions of this permit may constitute grounds for revocation of this permit and enforcement action by this Agency.

### **II.A.3. Permit Renewal**

Review of any application for a Permit renewal shall consider improvements in the state of control and measurement technology, as well as changes in applicable law or regulations. Permit shall be renewed as specified in GSWDRR §23104(k), sixty (60) days prior to the expiration, as shown on the signature (cover) page of this permit.

#### II.A.4. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected.

This permit does not relieve the Permittee from liability for harm or injury to human health or welfare, animal, plant or aquatic life or property and penalties therefore caused by the construction or operation of this permitted source, nor does it allow the Permittee to cause pollution in contravention of Guam Statutes and Agency rules, unless specifically authorized by an order from the Administrator.

#### II.A.5. Definitions

For purposes of this Permit, terms used herein shall have the same meaning as those in 10 GCA, Chapter 51 (SWMLC), GSWDRR, GHWMR, and the Consent Decree, unless this Permit specifically provides otherwise; where terms are not defined in the regulations or the Permit, the meaning associated with such terms shall be defined by a standard dictionary reference or the generally accepted scientific or industrial meaning of the term. The following words used herein which are not defined in the SWMLC, GSWDRR, GHWMR, and the Consent Decree, are defined below:

- a. *Consent Decree* means the decree in the *United States of America v. Government of Guam, Civil Case No. 02-00022*, issued on February 11, 2004.
- b. *Issued date* means the date the Administrator signs this permit
- c. *Permittee* means the Department of Public Works (DPW), or its designee, including the contractor(s) who operate(s) the Layon Landfill on behalf of the Department of Public Works.

#### II.A.6. Duty to Comply

The Permittee shall comply with all conditions of this Permit, except to the extent and for the duration the Administrator has issued prior authorization for such noncompliance. Any Permit noncompliance, other than noncompliance which has received prior authorization from the Administrator, constitutes a violation of the SWMLC and the GSWDRR and is grounds for enforcement action; for Permit termination, revocation, suspension, or modification; or for denial of a Permit renewal application.

If, for any reasons, the Permittee does not comply with or will be unable to comply with any condition or limitation specified in the permit, the Permittee shall notify the Agency verbally within eight (8) hours followed by a written **Non-compliance report** within three (3) days of the verbal notification. The report shall contain the following information:

- a. A description of and the cause of non-compliance;
- b. The period of non-compliance, including exact dates and time, or, if, not corrected, the anticipated time of non-compliance is expected to continue; and
- c. Steps being taken to reduce, eliminate, prevent recurrence of the non-compliance.

### **II.A.7. Permit Expiration**

Pursuant to GSWDRR §23104(g), this Permit shall be effective for a period of **five (5) years** following the date of issuance. If a timely renewal application is made and the permit renewal is not complete by the expiration date, this permit will continue to be enforced until renewal is completed or denied.

### **II.A.9. Need to Halt or Reduce Activity Not a Defense**

It shall not be a defense for the Permittee, in an enforcement action that it would have been necessary, to halt or reduce the Permitted activity in order to maintain compliance with the conditions of this Permit.

### **II.A.10. Duty to Mitigate**

In the event of noncompliance with this Permit, the Permittee shall take all reasonable steps to minimize releases to the environment and shall carry out such measures, as are reasonable, to prevent significant adverse impacts on human health or the environment, and to come into compliance as rapidly as possible.

### **II.A.11. Proper Operation and Maintenance**

The Permittee shall at all times properly operate and maintain all facility, equipment, contracts, and systems of treatment and control (and related appurtenances) that are installed or used by the Permittee or its contractors to achieve compliance with the conditions of this permit, as required by the Agency's rules and regulation.

### **II.A.12. Duty to Provide Information**

- a. The Permittee shall furnish to the Administrator, within a reasonable time, any information required by law which is needed to determine compliance with the permit.

- i. to determine whether cause exists for modifying, revoking and reissuing, or terminating this Permit, or
  - ii. to determine compliance with this Permit or any applicable environmental requirements.
- b. The Permittee shall also furnish to the Administrator, upon request, copies of records required to be kept by this permit.
- c. Whenever the Permittee becomes aware that it failed to submit any relevant facts in the permit application or in any report, notification or submission, or that it submitted incorrect information in a permit application or in any report, notification or submission to the Administrator, the Permittee shall promptly submit such facts or information.

### **II.A.13. Inspection and Entry**

Pursuant to the SWMLC §51106, the Permittee, by accepting this permit, specifically agrees to allow the Administrator or his/her designee, upon the presentation of credentials or other documents as may be required by law, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purpose of:

- a. Having access to and receiving copies to any records that must be kept under the condition of the permit or regulations;
- b. Inspecting the facility, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit or; and
- c. Sampling or monitoring any substances or parameters at any location reasonably necessary to assure compliance with this permit or Agency rules.

Reasonable time may depend on the nature of the concern(s) being investigated.

## **II.A.14. Monitoring and Records**

The Permittee shall comply with the following monitoring and record requirements:

- i. The Permittee shall retain at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation), copies of reports required by this permit, and records of all data used to complete the application for this permit. The time period for the retention shall be at least five (5) years from the date of the sample, measurement, certification, record, report or application unless otherwise specified by the Agency's rules and regulations.
- ii. Upon request, the Permittee shall furnish all records and plans required under Agency rules [GSWDRR § 23312]. The retention period for all records will be extended automatically, unless otherwise stipulated by the Agency, during the course of any unresolved enforcement action.
- iii. Records of all monitoring information shall include:
  - a. the dates, exact place, and times of sampling or measurements;
  - b. the person responsible for performing the sampling or measurement;
  - c. the date(s) the analyses were performed;
  - d. the person responsible for performing the analyses;
  - e. analytical techniques or methods used; and
  - f. results of such analyses.

## **II.A.15. Reporting Planned Changes**

The Permittee shall give notice to the Administrator, as soon as possible, of any planned physical alterations or additions to the Permitted facility.

## **II.A.16. Transfer of Permits**

- a. This permit is not transferable, whether by operation of law or otherwise, either from one location to another, from one solid waste disposal facility to another or from one person to another, without the written approval of the Administrator [GSWDRR § 23104(l)].

The Administrator may require suspension, termination, modification, revocation, or reissuance of the Permit as required by GSWDRR §23104(h), (i), and (j).

- b. Before transferring ownership of or contracting for the operation of the facility or implementation of closure activities or post closure care, the Permittee shall notify the new owner or operator in writing of the requirements of the SWMLC, GSWDRR and this permit.
- c. Copies of the notification shall be provided to the Administrator concurrent with notification to the owner or operator.

The Permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Administrator.

### **II.A.17. Twenty-Four Hour Reporting**

The Permittee is required to notify the Agency, in writing or facsimile whenever there are incidents such as fire, explosion, or release of regulated substance/waste, which could threaten human health or the environment (i.e. air, soil, surface and subsurface waters). Initial notification may be by phone or facsimile and reported within eight (8) hours, whenever possible, and no more than twenty-four hours. The **Incident Report** shall be submitted within three (3) days and shall include the following information:

- a. Name, address, and telephone number of the owner and operator;
- b. Name, address, and telephone number of the facility at which the incident occurred;
- c. Name and quantity of material/waste (i.e. polychlorinated biphenyls, hazardous wastes, petroleum contaminated soils, etc.) involved;
- d. The extent of injury, if any;
- e. Date, time, and type of incident (i.e. fire, explosion, release of regulated substance/waste etc.);
- f. An assessment of actual or potential hazards to human health or the environment, where applicable; and
- g. Estimated quantity and disposition of recovered and unrecovered material that resulted from the incident.

### **II.B. SIGNATORY REQUIREMENT**

- 1. All applications, reports, or information submitted to or requested by the Administrator shall be signed and certified by the Receiver during the period the facility remains under the control of the Receivership; and after the Receivership, the public official designated pursuant to GSWDRR §23104(b)(3).
- 2. Except as otherwise specifically stated, all reports, notifications, or other submissions required by this permit or requested by the Administrator shall be either sent by certified mail to:

Administrator  
Guam Environmental Protection Agency  
Post Office Box 22439 GMF  
Barrigada, Guam 96921

Or delivered to:

Administrator  
Guam Environmental Protection Agency  
Building 17-3304, Mariner Ave.  
Tiyan, Barrigada, Guam 96921

3. All reports, notices and other submissions to Guam EPA shall be signed and affirmed by a responsible official of the Permittee using the following certification statement:

I certify under penalty of law that I have examined and am familiar with the information submitted in this document and all attachments and that this document and its attachments were prepared either by me personally or under direction or supervision in a manner designed to ensure that qualified and knowledgeable personnel properly gathered and presented the information contained therein. I further certify, based on my personal knowledge or on my inquiry of those individuals immediately responsible for obtaining the information, that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing and willful submission

## **II.C. REPORTING REQUIREMENTS**

As required in Book 4, Section 9 and 10 of the Operations Plan, reports shall be submitted to Guam EPA annually or as specified:

- a. Total refuse tonnage accepted;
- b. Refuse tonnage accepted from small haulers and private individuals;
- c. Data on waste excluded (volumes, character, load count, and tonnage if possible);
- d. Record of location (waste management unit, cell, etc.) where special wastes are located;
- e. Scale data of recyclable tonnage and types accepted;
- f. Explosive Gases Control (Gas Monitoring) shall be conducted and submitted Quarterly in accordance with § 23306 GSWDRR;
- g. Leachate collection and treatment monitoring results;
- h. Cover material usage;
- i. Detection Monitoring Program (Groundwater Monitoring) shall be conducted and submitted semi-annually in accordance with § 23505

- GSWDRR;
- j. Discussion on pending designs, construction or expansion plans; and
- k. Other items as directed by the Administrator.

The Annual Operating Reports shall include the following Information:

- a. Discussion and summaries of the quarterly report data, including tracking of trends throughout the year, as well as historical trends;
- b. Total annual and cumulative volumes of refuse placed and cover material excavation, based on controlled topographic surveys;
- c. Quantities of semi-solid liquid waste (ton) received and how it is handled or disposed;
- d. Quantities of leachate (gallon) generated and how it was handled or disposed;
- e. Proposed refuse placement for upcoming year and cover soil excavation plans;
- f. Updated estimates for landfill closure and post-closure maintenance costs, and updated financial assurance information;
- g. On or before July 31 of each year, the Permittee shall submit an **annual topographic survey** of the site as prepared by a land surveyor registered in the island of Guam or an approved alternate method. This survey shall clearly show the horizontal and vertical dimensions of the landfill area, and locations and spot elevation of the settlement monument with comparisons with baseline year 2011; and
- h. Other pertinent details required by the Administrator.

## II.D. FINANCIAL ASSURANCE

The Permittee shall comply with the following financial assurance criteria GSWDRR §§ 23701, 23702, 23703, 23704, 23705, and Book 4, Closure and Post-Closure Plan, Section 7. In addition, the Permittee shall maintain the approved financial assurance mechanism (“State Assumption of Responsibility”) as specified in the permit documents at all times throughout the active life of the landfill, and during the required post-closure care period. The amount of funds assured must be sufficient to cover the costs of closure, post-closure care, and corrective action for known releases when needed, and shall be made available in a timely fashion when needed. The estimated landfill closure and post-closure care costs shall be updated annually, and the amount of funds assured shall be adjusted as necessary to account for changes to these costs, as well as any corrective actions that may become required under the GSWDRR. All facility Annual Operating Reports must contain updated cost estimates and updated information on the status of the financial assurance mechanisms.

- a. A “pledge of revenue” that they will set aside appropriate funding for closure and post closure, and

- b. Annual update of closure and post-closure cost estimates.

## **II.E. INCAPACITY OF OWNERS OR OPERATORS, GUARANTORS, OR FINANCIAL INSTITUTIONS**

1. The Permittee shall notify the Administrator by delivery of the commencement of a voluntary or involuntary proceeding in any bankruptcy, including bankruptcy under Title 11, U.S. Code, naming the owner or operator as debtor, within 10 days after commencement of the proceeding. A guarantor of a contractor must make such a notification if he is named as debtor.
2. The Permittee who fulfills the requirements of financial assurance by obtaining a trust fund, surety bond, letter of credit, other local approved mechanism, or insurance policy will be deemed to be without the required financial assurance or liability coverage in the event of bankruptcy of the trustee or issuing institution, or a suspension or revocation of the authority of the trustee or institution to act as trustee or of the institution issuing the surety bond, letter of credit, or insurance policy to issue such instruments. The Permittee must establish other financial assurance or liability coverage within 60 days after such an event.

## **II.F. CONFIDENTIAL INFORMATION**

Unless the submitted documents and other information secured by the Agency from the Permittee contain confidential information, such as secret processes or methods of manufacture, they shall be made available for inspection by the public [5 GCA, Chapter 10, Freedom of Information].

## **II.G. DOCUMENTS TO BE MAINTAINED AT THE FACILITY DURING OPERATIONS**

The Permittee shall maintain at the facility and at the Department of Public Works, Division of Solid Waste, until closure is completed and certified by an independent, registered professional engineer, and the Administrator provides written approval that the Permittee may remove them, the following documents and all amendments, revisions and modifications to these documents:

1. Summary of Layon Landfill's Solid Waste Acceptance Plan, as required by GSWDRR §23312(a)(8) and this Permit.
2. Inspection schedules and plans, as required by GSWDRR §23312(a)(2).
3. Personnel Training Program Plan and personnel training documents and records,

as required by GSWDRR 23312(a)(2).

4. Emergency Contingency Plan, as required by this Permit.
5. Hazardous Waste Exclusion Program, as required by this Permit and GSWDRR §23303.
6. Operating record, as required by GSWDRR §23312(a)(9).
7. Closure Plan as required by GSWDRR §23312(a)(6).
8. Post-Closure Care and Maintenance Plan, as required by GSWDRR §23312(a)(6).
9. Annually-adjusted cost estimate for facility closure and post-closure, as required by GSWDRR §23312(a)(7).
10. Gas Monitoring Plan and Sampling and Analysis Data, as required by GSWDRR §23312(a)(3).
11. Ground-water Monitoring Plan and Sampling and Analysis Data, as required by GSWDRR §23312(a)(5).
12. Surface Water Monitoring Plan and Sampling and Analysis Data, as required by this Permit.
13. Final Filling Plan and Layon Landfill Assessment Report, as required by this Permit.
14. Operations Plan, as required by GSWDRR §23104(b)(1)(C).
15. Vector Control Monitoring Plan and Deterrence Program, as required by GSWDRR §23312(a)(11).

## **PART III – CONSTRUCTION**

### **III.A. DUTY TO FOLLOW PLANS & SPECIFICATIONS**

The Permittee (and its contractor(s)), shall construct the municipal solid waste landfill units and all appurtenances in accordance with the plans and specifications submitted and approved by Guam EPA as part of the permit application and in accordance with GSWDRR § 23401. Any proposed modifications or changes to the Guam EPA approved Plans and Specifications shall be submitted to Guam EPA for review and approval prior to construction of the modification or change. All plans must be updated to incorporate all approved modifications or changes.

Any future municipal solid waste cells at the Layon landfill site shall be constructed with liners and leachate collection systems similar to the approved liner system for Cells 1 and 2, and meeting the requirements of GSWDRR § 23401. Construction of any new disposal cell or area will require submittal of design plans and drawings, a construction quality assurance/quality control plan, and an application for a new permit, all subject to the requirements of GSWDRR § 23104(b).

### **III.B. CONSTRUCTION QUALITY CONTROL AND CONSTRUCTION QUALITY ASSURANCE (CQC/CQA)**

Prior to construction of any landfill cell, sub-cell, engineered control system, waste treatment facility, or final cover, the Permittee shall submit construction design drawings and a Construction Quality Control and Construction Quality Assurance (CQC/CQA) Plan to the Administrator for approval. Buildings do not require approval. The Permittee shall construct any landfill cell, sub-cell, cell liner, engineered control system, waste treatment facility, and the final cover in accordance with the design drawings and CQC/CQA Plans submitted and approved by the Administrator.

Subsequent to construction, the Permittee shall notify the Administrator of completion of construction of any landfill cell, sub-cell, engineered control system, waste treatment facility, or final cover. Landfill cells may not be used for treatment or disposal of waste until all CQC/CQA documents and construction related documents including as-builts are approved by the Administrator and local building official (DPW). The Permittee shall submit as-built drawings for each construction event that are signed and sealed by a professional engineer registered in the Territory of Guam.

The Permittee shall notify the Administrator of any proposed incremental closure, placement of any part of the final cover, or placement of the full final cover. Construction of any portion of the final cover shall be considered as a separate construction event and shall be approved separately from any other construction or

expansion of the landfill. Design approval must be received from the Administrator prior to construction and must be accompanied by a CQC/CQA Plan, for each construction event where incremental or final closure is performed.

A qualified party, independent of the owner shall perform the quality assurance function on liner components, cover components, and other testing as required by the approved CQC/CQA Plan. The results must be submitted as part of the as-built drawings to the Administrator.

All engineering drawings submitted to the Administrator must be stamped and approved by a professional engineer with a current registration in Guam.

### **III.C. CERTIFICATION OF CONSTRUCTION OR MODIFICATION**

The Permittee shall not commence disposal of solid waste within Cell 1 & Cell 2 until the Permittee has submitted to the Administrator, by certified mail or hand delivery, a letter signed by the Permittee and a registered professional engineer licensed in the Territory of Guam stating that the facility has been constructed or modified in compliance with the permit, design, construction quality assurance plan, and any Guam EPA approved design modification; and

- a. The Administrator has inspected the modified or newly constructed facility and finds it is in compliance with the conditions of the permit; or
- b. The Administrator has either waived the inspection or has not within 15 days notified the Permittee of his intent to inspect.

## **PART IV – OPERATIONS**

### **IV.A. OPERATIONS PLAN**

#### **IV.A.1. Operations Plan, General**

The Operations Plan included in the permit application and the solid waste permit issued by the Administrator shall be kept onsite and readily available at the landfill, and shall be kept up to date with all revisions as approved by Guam EPA. The landfill shall be operated in accordance with the Operations Plan as included in the permit application. If necessary, the facility owner may modify the Operations Plan, provided that the modification meets all of the requirements of GSWDRR § 23104(h), is as protective of human health and the environment as that approved in the permit application, and is approved by the Administrator as a minor modification under GSWDRR § 23104(h). Any modification to the Operations Plan shall be noted in the operating record.

Any modification to the Operations Plan must be submitted to the Administrator for approval and is considered a minor permit modification in compliance with GSWDRR § 23104(h) unless the Administrator determines the change should be subject to public comment under SWMDLC § 51104(d)(1) and (2).

#### **IV.A.2. Solid Waste Accepted**

This permit is for the disposal of non-hazardous solid waste that may include municipal solid waste, commercial waste, and special waste as allowed by GSWDRR § 23301(b), Book 4, Operations Plan, Appendix B, and the Administrator.

#### **IV.A.3. Solid Waste Excluded**

The Permittee shall implement GSWDRR § 23302 and Book 4, Operations Plan, Appendix B, for those solid wastes excluded for disposal.

No hazardous waste as defined by GSWDRR § 23102(45), SWMLC § 51102(10) and Guam Hazardous Waste Management Regulation (GHWMR) [40 CFR 260.10 [40 CFR Part 261.3]] or Polychlorinated biphenyls (PCB's) as defined under the Toxic Substances Control Act (TSCA), 40 CFR Part 761 shall be accepted for treatment, storage, or disposal at the landfill. Any prohibited waste received and accepted for disposal at the facility will constitute a violation of this permit [SWMLC § 51111].

No containers larger than one (1) gallon household size holding any liquid, non-containerized material containing free liquids or any waste containing free liquids in

containers larger than one (1) gallons shall be disposed at the landfill [SWMLC § 23311].

The Permittee shall implement a screening program at the entrance of the facility to ensure that only acceptable solid wastes enter the facility. If the facility inadvertently accepts unacceptable wastes or receives unacceptable wastes from transfer stations, the Permittee shall properly manage and dispose of the unacceptable materials (wastes), in accordance with applicable federal and local laws and regulations prior to causing a nuisance, health, or environmental threat.

#### **IV.A.4. Procedures for Excluding the Receipt of Hazardous Waste**

The Permittee shall operate the landfill in accordance with the approved Waste Exclusion Plan contained in Book 4, Operations Plan, Appendix B, GSWDRR § 23302 and § 23303 to ensure that regulated hazardous wastes and PCB wastes are not disposed of at the landfill.

#### **IV.A.5. Special Wastes**

Special wastes may be accepted in accordance with the provisions in Book 4, Operations Plan, Appendix B which provide instructions for the acceptance and disposal of the following special wastes:

- a. **Infectious Wastes.** Infectious waste may not be disposed of at any solid waste facility unless it is incinerated, sterilized, or otherwise rendered non-infectious in accordance with Book 4, Operations Plan, Section 5.5.3 and 22 GAR, Chapter 20. Section 20114(a);
- b. **Dead Animals and Offal.** The Permittee shall immediately place a minimum of two (2) feet of soil over any accepted dead animals, offal, or odorous waste. The cover soil shall be compacted and be of sufficient thickness (2 feet or more) to control the release of odors [Book 4, Operations Plan, Section 5.6];
- c. Sewage sludge meeting the no free liquids requirement as defined by EPA Test Method 9095 (Paint Filter Liquids Test); and
- d. **Asbestos Waste may not be disposed** in the landfill without the prior and written approval of the Administrator, provided such disposal is in accordance with 40 CFR Part 61, National Emission Standards for Hazardous Air Pollutants (NESHAP) regulations, 29 CFR 11910.1001, Department of Transportation (DOT) 49 CFR 100 – 199, GAPCSR, Section 1103.14 and Book 4, Operations Plan, Appendix C.

- e. The burial locations of all special wastes shall be recorded and reported in accordance with the record keeping and reporting requirements specified in the Operations Plan and permit.

#### **IV.A.6. Cover Material Requirements**

The Permittee shall comply with GSWDRR § 23304, 23305, 23306, 23307, and Book 4, Operations Plan to ensure that the solid waste received at the landfill shall be completely covered at the end of each working day with a minimum of six inches of earthen material. Aggregate size shall be less than 2.5 inches and well-graded.

Request for the use of an Alternative Daily Cover (ADC) as cover shall be submitted to Guam EPA. The request shall evaluate the proposed ADC to its specific characteristics and appropriate use at the facility. The Agency requires demonstration periods in six (6) months increment to show that the ADC and its thickness can control disease vectors, fires, odors, nuisance, litter [GSWDRR § 23305, 23306, and 23307], and scavenging without presenting a threat to human health and the environment. The Permittee shall obtain Agency approval prior to the commencement of the demonstration project. The use of ADC is limited to daily cover increment period, the Permittee shall report the performance of the ADC as to its specific characteristics and appropriate use at the facility. The demonstration period or the approval use of an ADC may be rescinded or cancelled by either the Agency or Owner/Operator at any time without cause.

Records shall be maintained on file at the facility and information within verified as to its authenticity by the appropriate personnel. The daily cover monitoring verification shall include digital photos of the workface, quantitative records of daily waste disposed, approximate cell dimensions and daily soil cover used in tons and cubic yards.

#### **IV.A.7. Vectors, Birds, Odors, Noise, Dust, and Litter Control**

The Permittee shall comply with GAPCSR, GSWDRR § 23305 and Book 4, Operations Plan, Section 6, Maintenance and Control for the reduction of vectors, odor, litter, mud and dust.

The Permittee shall provide measures to evaluate, prevent, and/or control on-site populations of disease vectors and minimize nuisance conditions, and document any associated activities. At a minimum, such measures shall be taken on a monthly basis. The measures shall meet the requirements of GSWDRR § 23305.

The Permittee shall provide measures to minimize free litter in the landfill and prevent its occurrence beyond the property line of the facility. During the course of the working day of operation, all windblown material shall be collected and be properly disposed. The measures, at a minimum, shall include:

- a. The use of portable litter screen which shall be deployed within 100 yards of the active workforce;
- b. The use of permanent or semi-permanent litter screen or fences in primary and secondary control positions;
- c. Litter clean-up in the event of major storm or other incident in which litter escapes the normal litter containment systems; and
- d. Provision for a truck clean-out area near the active workforce that shall have litter control fencing and disposal receptacles for truck clean-out.

The Permittee shall provide measures for minimizing the tracking of mud onto public roads, and the generation of dust from vehicular traffic on-site. The measures shall include on-site road maintenance and cleaning, a wet-weathered disposal area, and a truck wheel cleaning area for vehicles prior to leaving the site. Possible truck or truck wheel cleaning measures that may be implemented include: rumble strip, drive-through tire wash, trash clean out pad, and/or wash pad.

Dust control measures such as water sprays and barriers shall be established for the site. Dust monitoring shall be conducted, if needed.

#### **IV.A.8. Explosive Gases Control/Landfill Gas Monitoring**

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 GSWDRR § 23306, GAPCSR, and Book 4, Operations Plan, Section 6.8. If necessary, the Permittee may modify the Gas Monitoring Plan, provided that the modification meets all of the requirements of GSWDRR § 23306 and is as protective of human health and the environment, and approved by the Administrator as a minor modification under GSWDRR § 23104(h). Any modification to the Gas Monitoring Plan shall be noted in the operating record.

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 GSWDRR § 23306 and Book 4, Operations Plan, Section 6.8, the Permittee shall immediately take all necessary steps to ensure protection of human health and notify the Administrator. Within seven (7) days of detection, place in the operating record the explosive gas levels detected and a description of the immediate steps taken to protect human health. Implement a remediation plan that meets the requirements of GSWDRR § 23306 and Book 4, Operations Plan, Section 6.8 and shall submit the plan to the Administrator prior to implementation.

#### **IV.A.9. Air Criteria/Burning of Waste**

The Permittee shall comply with the air criteria requirements specified in GSWDRR §23307, SWMLC § 51110(8), GAPCSR, Section 1103.11, and Book 4, Operations Plan,

Section 6.3.

The Permittee shall manage the landfill to control wind dispersal of dust and particulate matter in accordance with GAPCSR, Section 1103.4, and Book 4, Operations Plan, Section 6.3.

#### **IV.A.10. Access Requirements**

The Permittee is responsible for providing measures to control public access in accordance with SWMLC § 51107, GSWDRR §23308, and Book 4, Operations Plan, Section 5.1 and 6.1. In addition, public access will be controlled to minimize unauthorized vehicular traffic, unauthorized and illegal dumping, and public exposure to hazards associated with waste management.

When natural barriers no longer prove to be an effective means of providing control access, then fences and gates shall be provided to meet the requirements of controlled access. All gates shall be kept locked when an attendant is not on duty.

#### **IV.A.11. Surface Water Run-on and Run-off Control Systems**

The Permittee shall at all times operate and maintain all drainage channels, detention (ponding) basins and other run-on/run-off control structures and systems in accordance with GSWDRR § 23309 and § 23310 and Book 4, Operations Plan, Section 6.10.4, Annual Surface Water Management Plan.

#### **IV.A.12. Impact Buffer Area**

The Permittee shall manage an Impact buffer area, which shall include any adjacent public roads or environmentally sensitive areas, by maintaining appropriate fire break and controlling litter. The buffer area to be managed shall be identified within the Operations Plan drawings and agreed upon by the Agency.

#### **IV.A.13. Liquid Restrictions**

The Permittee shall provide measures to restrict the disposal of bulk or non-containerized liquid in accordance with GSWDRR § 23311 and Book 4, Operations Plan, Section 8.9.

#### **IV.A.14. Safety**

The Permittee shall comply with GSWDRR § 23313 and Book 4, Operations Plan, Section 6.12, Safety Procedures. Facility personnel shall be trained in the proper procedures for maintaining health and safety.

#### **IV.A.15. Facility Operating Hours**

The Permittee is authorized to accept waste and operate during the following timeframes:

Normal hours of operation and waste acceptance are from 7:00 a.m. to 5:00 p.m., Monday through Friday and 7:00 a.m. to 3:00 p.m. on Saturday. Transfer loads may also be accepted as early as 5:00 a.m., Monday through Saturday. The facility will be closed on Sundays, New Year's Day, and Christmas Day.

Alternate waste acceptance hours and alternating operating hours may be required for special occasions, special purpose events, holidays and other special occurrences. For these days, the operator/owner operating hour may be extended by two (2) hours.

When warranted, the owner/operator shall request approval from Guam EPA to allow additional temporary operating hours to address disaster or other emergency situations, or other unforeseen circumstances that could result in the disruption of waste management services in the area. The facility owner/operator shall document the reasons for the delay for each day on which a delay occurs and place the documentation in the operating record.

#### **IV.A.16. Adequate Equipment and Personnel**

The Permittee shall operate and maintain the Municipal Solid Waste (MSW) landfill facility to include provisions for back-up personnel and equipment. At an average operating rate of less than 400 tons per day of MSW, the site shall have a minimum of one (1) dozer, one (1) compactor, one (1) water truck, and one (1) spotter. At an average rate greater than 400 tons per day of MSW, the site shall have additional equipment and personnel as designated by the owner/operator, sufficient to meet on-site operating needs, and is expected to consist of a minimum of two (2) dozers, two (2)

compactors, one (1) water truck, and two (2) spotters, or the equivalent as substituted by the owner/operator and provided in writing to the Agency. These equipment and personnel requirements shall be met unless otherwise approved by the Agency.

#### **IV.A.17. General Inspection Requirements**

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. These general inspections shall be completed quarterly and shall cover the following areas: Waste placement, compaction, cover; cell liner; leachate collection system; fences and access controls; roads; run-on/run-off controls; ground water monitoring wells; final and intermediate cover; litter controls; and records. A record of the inspections shall be placed in the daily operating record on the day of the inspection. Areas needing correction, as noted on the inspection report, shall be corrected in a timely manner. The corrective actions shall be documented in the daily operating record.

#### **IV.A.18. Personnel Training**

The Permittee shall provide training for on-site personnel in landfill operation, including waste load inspection, hazardous waste identification, and personal safety and protection; and in accordance with the training provisions contained in Book 4, Operations Plan approved by Guam EPA.

Within 24 months after issuance of this permit, landfill operations shall be supervised at all times by an individual who has received a Manager of Landfill Operations training course conducted by the Solid Waste Association of North America or equal as determined by the Agency. Records of such training shall be placed in the Operating Plan files.

The facility shall have a Site Manager and/or Environmental Compliance Officer, who shall be knowledgeable of Guam's solid waste laws, regulations, this permit conditions and the permit application component including the Operations Plan.

#### **IV.A.19. Emergency Response and Contingency Plan**

The emergency and contingency plan shall be designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden release of harmful constituents to air, soil, or surface water.

Upon issued date, the Permittee shall implement the provisions of *Operations Plan*, Appendix A, Section 3.11–Emergency Response, as amended by Guam EPA. In

addition, the Permittee shall comply with the following conditions:

- a. Within thirty (30) calendar days of the issued date, the Permittee shall submit to Guam EPA, a revised Emergency Contingency Plan (Appendix A, Permit Attachment II-6) to include the following:
  - i. Describe the arrangements agreed to by local police departments, fire departments, hospitals, contractors, and federal and local emergency response teams to coordinate emergency services.
  - ii. List names, addresses, and phone numbers (office and home) of all persons qualified to act as emergency coordinator, and this list shall be kept up to date. Where more than one person is listed, one must be named as primary emergency coordinator and others shall be listed in the order in which they will assume responsibility as alternates.
  - iii. Include a list of all emergency equipment at the facility (such as fire extinguishing systems, spill control equipment, communications and alarm systems (internal and external), and decontamination equipment), where this equipment is required. This list shall be kept up to date. In addition, the plan shall include the location and a physical description of each item on the list, and a brief outline of its capabilities.
  - iv. Include an evacuation plan for facility personnel which describes signal(s) to be used to begin evacuation, evacuation routes, and alternate evacuation routes (in cases where the primary routes could be blocked by releases of hazardous waste, harmful constituents, or fires).
- b. The Permittee shall implement the approved revised Guam EPA Emergency Contingency Plan.

#### **IV.A.20. Salvaging of Wastes**

Scavenging or salvaging of wastes at the facility by the general public is prohibited.

#### **IV.A.21. Permanent Sign**

The Permittee shall post permanent signs at each entrance and/or exit at the facility identifying the facility, the hours and days of operation, and the name and address of the owner/operator, an emergency telephone number, and other pertinent information (waste accepted or not accepted). [Book 4, Operations Plan, Section 3.9.6]

## **IV.B. LANDFILL GAS MANAGEMENT SYSTEM**

### **IV.B.1. Landfill Gas Collection and Removal System**

The Permittee shall comply with the Title V Air Permit for the facility. Federal New Source Performance Standards (NSPS) regulation requires the design and installation of a gas collection system after the landfill reaches the threshold of 50 megagrams per year (Mg/yr) of None-Methane Organic Compound (NMOC). In accordance with the Title V Air Permit, the Permittee shall:

- 1) monitor landfill gas generation and submit annual NMOC reports;
- 2) submit a design plan within one year of the first report that shows a calculated NMOC rate that equals or exceeds 50 Mg; and
- 3) install, maintain, and operate a collection and control system within 30 months of the first report that shows a calculated NMOC rate that equals or exceed 50 Mg.

In addition to the distribution specified in the Title V Air Permit, a copy of these reports shall also be submitted to Guam EPA's Solid Waste Management Program of the Air and Land Division.

The Permittee shall submit a landfill gas sampling and analysis plan for approval prior to the acceptance of waste. Prior to any construction of the landfill gas collection and removal system, the Permittee shall submit final design documents for review and approval by Guam EPA.

### **IV.B.2. Landfill Gas Treatment and Disposal**

The Permittee shall obtain all permits required for the treatment and or disposal of landfill gas prior to the construction and operation of the landfill gas collection and removal system. Such permits may include air emissions permits for the operation of flares, underground or aboveground storage tank permits for the collection of condensate, and disposal permits for the discharge of collected condensate.

Landfill gas production shall be managed to control the discharge of potentially dangerous gases into the atmosphere. Venting and/or gas collection systems shall be installed to control and monitor the gas production in the landfill. The landfill shall be assessed for the viability of energy recovery from the gas production.

## **IV.C. LEACHATE MANAGEMENT SYSTEM**

### **IV.C.1. Leachate Collection and Removal System (LCRS)**

The Permittee shall construct and operate the Leachate Collection and Removal System in accordance with the Guam EPA approved design plans, construction quality assurance plans, operations plans, closure plan, and post-closure plans. The leachate collection system shall be designed to maintain less than a thirty-centimeter head on any portion of the liner system per GSWDRR 23401.

Installation of any geosynthetic liner shall be performed by an experience installer who has installed a minimum of 500,000 square feet of similar type liners or shall be performed under the supervision of the manufacturer. An experience QA/QC landfill inspector with at least five (5) years of experience in landfill CQA responsible to a professional engineer shall observe liner installation and grade elevations. The Permittee shall notify the Agency in writing, five (5) days prior to any liner installation work.

### **IV.C.2. Leachate Management & Monitoring**

Collected leachate must be managed in accordance with the design plans and reports contained in Book 4, Closure and Post-Closure Plan, Section 2.4, Leachate Management.

The leachate collected from the facility will be managed through a wastewater treatment system operated by the Guam Waterworks Authority (GWA) and no leachate pretreatment will be performed at the facility. The agreement between GWA and the Permittee documenting this arrangement and the terms and conditions of acceptance is appended to the Leachate Management Plan.

Should GWA indicate a change to the appended leachate acceptance that will result in pretreatment or other management practices or changes at this facility, the Permittee shall:

- (1) Notify Guam EPA in writing within 24 hours of being notified by GWA that leachate will not be accepted and will result in pretreatment or other management practices or changes at the facility.
  - (a) This written notification shall list the short-term contingency measures contained within the Leachate Management Plan that the Permittee will implement, pending Guam EPA approval for pretreatment or other management practices or changes at this facility.
  - (b) Within ten (10) working days following notification from GWA, the

Permittee shall submit a revised Leachate Management Plan to Guam EPA.

- (c) Changes or additions to the Leachate Management Plan must be approved by Guam EPA and incorporated, as appropriate, into the permit conditions, as appropriate, prior to any changes in leachate management.

If GWA notifies the Permittee of changes to leachate acceptance that do not result in any pretreatment, or other management practices or changes at this facility, the Permittee shall:

- (2) Notify Guam EPA in writing within five (5) working days following notification from GWA.
  - (a) This written notification shall include the revised arrangement between GWA and the Permittee and the terms and conditions for acceptance.

No solid wastes shall be disposed of into any new cells or sector until an experienced professional engineer registered in the Territory of Guam certifies completion of construction in accordance with approved drawings and the Agency completes inspection of each new sector. The Permittee shall coordinate the inspection of each new sector by the Agency with the presence of the design engineer and on-site facility operator.

#### **IV.D. SUBDRAIN MONITORING**

Monitoring of subdrain discharge is not required unless leachate is detected in the secondary Leachate Collection and Removal System (LCRS). Detection of leachate in the secondary LCRS shall be determined by measurable discharge from the secondary LCRS sump pump.

Upon detection of leachate in the secondary LCRS, the Permittee shall monitor the subdrain discharge monthly for leachate indicator parameters. The Permittee shall submit for Guam EPA's approval, a list of indicator parameters for the subdrain monitoring based on compounds expected to be found in the leachate. If leachate indicator parameters are detected above background levels in the subdrain discharge, the Permittee shall be required to perform batch monitoring of subdrain discharge. Liquid collected from the subdrain system shall be stored onsite and not discharged until such time sampling and analysis results indicate the liquid is free from contamination by leachate. Monitoring of liquid in the aboveground storage shall be completed when the aboveground storage tank is partially full, and results from laboratory shall be obtained on a quick turnaround basis. Subdrain monitoring results shall not exceed Guam Water Quality Standards prior to discharge.

The Permittee shall submit a Subdrain Monitoring Plan and Subdrain Discharge Release Plan prior to the start of operations. The plans shall include, at a minimum, provisions for sampling quality assurance and quality control, a list of analytes designed to indicate the presence of leachate, and proposed limits and evaluation procedures for determining when contamination from leachate is present in the subdrain liquid.

Alternatively, the subdrain liquid may be collected and discharged into the leachate collection system for treatment and disposal.

The Permittee shall provide details on the aboveground storage tank proposed manufacturer/local supplier prior to accepting waste at the landfill.

#### **IV.E. GROUND-WATER MONITORING AND CORRECTIVE ACTION**

Following installation of the groundwater monitoring well network prior to construction, the Permittee shall evaluate the monitoring data and confirm that the background groundwater quality in the hydraulically upgradient or background wells have been obtained for each of the monitoring parameters or constituents required in the groundwater monitoring program (§ 235504(e)). If additional groundwater monitoring wells are required, the Permittee shall submit a plan, receive plan approval from Guam EPA, and complete the installation of the additional monitoring wells prior to acceptance of waste.

The Permittee shall monitor the ground water underlying the landfill in accordance with the Ground Water Monitoring Plan and the Ground Water Monitoring Quality Assurance/Quality Control Plan contained in the permit application.

If necessary, the Permittee may modify the Ground Water Monitoring Plan and the Ground Water Monitoring Quality Assurance/Quality Control Plan, provided that the modification meets all of the requirements [of GSWDRR §§ 23502, 23504, 23505, 23506, and 23507, 23508, and 23509] and is as protective of human health and the environment as that approved in the permit application, and is approved by the Administrator as a minor modification under GSWDRR § 23104(h). Any modification to the Ground Water Monitoring Plan and the Ground Water Monitoring Quality Assurance/Quality Control Plan shall be noted in the operating record.

#### **IV.F. RECORD KEEPING AND REPORTING REQUIREMENTS**

The Permittee shall comply with GSWDRR § 233012 and Book 4, Operations Plan, Section 8 for the record keeping and recording requirements.

**REPORTING:** The Permittee shall follow all reporting requirements specified in the approved Book 4 Landfill Operations Plan, Waste Exclusion Plan, and Groundwater Monitoring Plan. In addition, the Permittee shall **IMMEDIATELY** notify GUAM EPA in any of the following circumstances:

1. Rejection of a waste load because it contains regulated hazardous waste, or PCB waste;
2. Discovery of regulated hazardous waste or PCB waste within the landfill;
3. Occurrence of a fire in the landfill or appurtenant facilities;
4. Spill of a hazardous material; and
5. Failure of the leachate collection, treatment, or disposal system.

Emergency notification procedures shall be posted in a conspicuous location at all landfill facility buildings and entrance.

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# **PART V. CLOSURE DESIGN AND CONSTRUCTION**

## **V.A. GENERAL CLOSURE REQUIREMENTS**

### **V.A.1. Closure Plan Notification**

The Permittee must notify the Administrator that a notice of intent to close the unit has been placed in the operating record and that a closure plan has been prepared and placed in the operating record immediately or by the initial receipt of waste, whichever is later [GSWDRR §23601(d) and (e)] and Book 4, Closure and Post-Closure Plan, Section 5.7.

### **V.A.2. Performance Standard**

The Permittee shall comply with GSWDRR § 23601 and 23602, Closure and Post-Closure Care and Book 4, Closure and Post-Closure Plan,

The Permittee shall retain a professional engineer registered in the Territory of Guam for the supervision of the closure construction, and upon completion, the engineer shall submit a summary report to the Agency as to the completion conformity to the plans and specifications as approved. This summary report shall include a documented control program of the closure cap construction, and the quality assurance/quality control testing procedures, laboratory analyses, and engineer's certification of construction

### **V.A.3. Amendment to Closure Plan**

The Permittee must submit to the Administrator any proposed amendments to the Closure Plan for review and approval.

### **V.A.4. Notification of Closure**

The Permittee shall notify the Administrator in writing at least 60 days prior to the date on which closure activities of any landfill cell, or final closure of the facility is to begin. The notification shall state that a notice of the intent to close the unit has been placed in the operating record, as required by Section 23601(e) and Book 4, Closure and Post-Closure Plan, Section 5.7.

### **V.A.5. Time Allowed For Closure**

The Permittee shall comply with the closure schedule specified in GSWDRR § 23601(f) and Book 4, Closure and Post-Closure Plan, Section 5.7.

The Permittee must complete closure activities of each MSWLF unit in accordance with the Guam EPA approved Closure Plan within one-hundred eighty (180) days following the beginning of closure activities [GSWDRR § 23601(g)].

### **V.A.6. Certification of Closure**

Following the closure of each MSWLF unit, the Permittee must notify the Administrator that a certification, signed by an independent registered professional engineer licensed in the Territory of Guam and approved by the Administrator, verifying that the closure has been completed in accordance with GSWDRR § 23601(e) and Book 4, Closure and Post-Closure Plan.

### **V.A.7. Title Recording**

The Permittee shall submit a survey plat no later than the submission of certification of closure of each MSWLF unit, in accordance with SWMLC § 51113 and GSWDRR § 23601(i) and (j). The Permittee shall meet the requirements by recording with the Department of Land Management as part of the record of title that the property has been used as a landfill. The recording shall include waste locations and waste types disposed.

### **VI.A.8. Closure Cost Revision**

An annual revision of closure costs for inflation and financial assurance funding as required by GSWDRR § 23704(a)(2) shall be submitted to the Administrator as part of the Annual Operating Report. The Permittee shall submit a complete revision of the closure and post-closure cost estimates any time the facility is expanded, a new cell is constructed, or a cell is expanded.

## **PART VI. POST-CLOSURE CARE AND MAINTENANCE**

### **VI.A. GENERAL POST-CLOSURE CARE REQUIREMENTS**

#### **VI.A.1. Post-Closure Care Period**

The Permittee shall begin post-closure care for each MSWLF unit after completion of closure of the unit and continue for 30 years after that date. Post-closure care shall be in accordance with GSWDRR § 23602 and Book 4, Closure and Post-Closure Plan, Section 6.2.

#### **VI.A.2. Post-Closure Care Cost Revision**

An annual revision of post-closure care costs for inflation and financial assurance funding as required by GSWDRR § 23703, shall be submitted to the Administrator as part of the annual report. The Permittee shall submit a complete revision of the closure and post-closure cost estimates any time the facility is expanded, any time a new cell is constructed, or any time a cell is expanded.