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| PERMITTEES: | PERMIT NUMBER: | LF-0001-08 |
| OWNER: | DATE OF ISSUANCE: | DRAFT |
| Hawaii County | EXPIRATION DATE: | 5Y-1d from date |
| OPERATOR: | COUNTY: | Hawaii |
| Waste Management of Hawaii | LAT/LONG: | 19°53'30" N; 155°52'10" W |
| 92-460 Farrington Highway | PROJECT: | West Hawaii Sanitary Landfill |
| Kapolei, Hawaii 96707 | Page: | 1 of 45 |

DRAFT SOLID WASTE MANAGEMENT PERMIT

This solid waste management permit renewal is issued under the provisions of Hawaii Revised Statutes (HRS), Chapter 342H, "Solid Waste Pollution" and Hawaii Administrative Rules (HAR) Title 11, Chapter 58.1, "Solid Waste Management Control," and is subject to HRS Chapter 342I, *Special Wastes Recycling*, and HAR Chapter 11-104.1, *Management and Disposal of Infectious Wastes*, and the following conditions. The above-named permittees are hereby authorized to construct and to operate the facility shown on the application, additional submittals, and other documents on file with the Department of Health, as follows:

To Construct and Operate: The West Hawaii Sanitary Landfill. The total landfill acreage shall be limited to 149 acres of a 300-acre site. Not included in the landfill acreage are areas for appurtenant uses such as stormwater management systems, offices, equipment storage and repairs, and parking.

Other county operations, as depicted in the Site Improvements for the West Hawaii Resource Recovery Infrastructure General Site Plan received May 30, 2012, are not included in this landfill permit. These operations include, but are not limited to, a salvage facility (8.0 acres), future HI-Tech facility (6.0 acres), disaster debris storage yard (12.0 acres), equipment staging area (2.0 acres), impound facility (1.0 acre), biodiesel plant (1.0 acre), greenwaste/compost facility (10.0 acres).

The landfill shall be constructed and operated with approved bottom liners with a leachate collection and control system, perimeter gas monitoring program, groundwater monitoring program, surface water management system, and other approved appurtenant operational and monitoring programs.

The average disposal rate is 300 tons of MSW per day.

IN ACCORDANCE WITH: A permit renewal application received April 22, 2008, additional information dated February 28, 2012, March 12, 2012, March 30, 2012, April 23, 2012, May 30, 2012, July 2, 2012, September 18, 2014, May 6, 2015, and approved subsequent submissions. All other plans submitted as required by this permit and approved by the department are also part of the permit documents. Should there be any discrepancies in the aforementioned documents, HAR 11-58.1 and the conditions of this permit shall take precedence.

LOCATED AT: 71-1111 Queen Kaahumanu Highway, Waikoloa, Hawaii 96738
TMK No. 7-1-03:17 (previously portion of 7-1-03:001)

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SUBJECT TO: HRS 342H; HAR 11-58.1; and Part I - Standard Conditions and Part II - Special Conditions, Sections A through K of this permit.

Acceptance of this permit constitutes an acknowledgement and agreement that the holder will comply with all rules, regulations, and orders of the Department and the conditions precedent to the granting of this permit.

This permit supercedes the Solid Waste Management Permit Number LF-0072-93 issued September 28, 1993 in its entirety.

DRAFT – NO SIGNATURE

DIRECTOR OF HEALTH
State of Hawaii

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The Solid Waste Management Facility is subject to HRS Chapter 342H, *Solid Waste Pollution*, HRS Chapter 342I, *Special Wastes Recycling*, and HAR Chapter 11-58.1, *Solid Waste Management Control*, HAR Chapter 11-104.1, *Management and Disposal of Infectious Wastes*, and the following conditions:

PART I - STANDARD CONDITIONS

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee(s) and enforceable, pursuant to the authority of HRS §342H. The department will review this permit periodically and may initiate enforcement action for any violation of the "Permit Conditions" by the permittee(s), its agents, employees, servants, representatives, contractors, or subcontractors. If any term or condition of this permit becomes invalid as a result of a challenge to a portion of this permit, the other terms and conditions of this permit shall not be affected and shall remain valid.
2. This permit:
 - a. shall not in any manner affect the title of the premises upon which the facility is or will be located;
 - b. does not release the permittee(s) from any liability for any loss due to personal injury or property damage caused by, resulting from, or arising out of the design, installation, construction, operation, maintenance, closure, or post-closure of the facility;
 - c. does not release the permittee(s) from compliance with other applicable statutes and regulations of the State of Hawaii or with applicable federal or local laws, regulations, or ordinances;
 - d. in no way implies or suggests that the State of Hawaii, or its officers, agents, or employees assumes any liability, directly or indirectly, for any losses due to personal injury or property damage caused by, resulting from, or arising out of the design, construction, operation or maintenance of the facility; and
 - e. shall not constitute nor be construed to be an approval of the design, construction, operation, maintenance, closure and post-closure of the facility beyond the regulatory requirements mandated by HRS §342H and HAR §11-58.1.
3. Issuance of this permit does not preclude the responsibility of the permittee(s) to obtain any and all necessary approvals and permits from the appropriate federal, state, and local agencies, including zoning clearances, prior to the start of operations.

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4. Unless the submitted documents and other information secured by the department from the permittee(s) contain confidential information, such as secret processes or methods of manufacture, they shall be made available for inspection by the public (HRS §342H-14). The permittee(s) shall be responsible for identifying, in writing, the specific information asserted to be confidential. The department shall review the assertion made by the permittee(s) and determine if confidentiality is indeed warranted.
5. This permit is valid only for the specific processes and operations applied for and indicated in the submitted application and additional submissions approved by the department. Any unauthorized deviation that affects the facility's design, operations or procedures, or which could threaten human health and the environment, from the submitted application, approved drawings, operations manual, and additional submissions or conditions of this permit may constitute grounds for revocation of this permit, and/or enforcement action by the department. Should there be any discrepancies between the submitted documents and the permit conditions, the permit conditions shall take precedence. A copy of the submitted application and additional submissions shall be maintained at the facility.
6. This permit is non-transferable whether by operation of law or otherwise, either from one location to another, from one solid waste disposal operation to another, or from one person to another without the written approval of the director [HAR §11-58.1-04(e)(2)].
7. This permit shall be kept at or near the construction and operation site for which the permit is issued and shall be available upon request [HAR §11-58.1-04(f)]. A request for a duplicate permit shall be made in writing to the director within ten (10) days after the destruction, loss, or defacement of this permit. A fee of \$50 shall be charged and submitted with the request [HAR §11-58.1-04(h)(3)].
8. The permittee(s) shall at all times properly operate and maintain the facility and systems of treatment, process, and control (and related appurtenances), as applicable to the facility, that are installed or used by the permittee(s) to achieve compliance with the conditions of this permit, as required by department rules. The facility shall be designed, constructed, and equipped in accordance with best practicable technology so as to operate without causing a violation of applicable rules and regulations.
9. Incident Notification Requirements. The permittee(s) shall notify the department, in writing or facsimile, whenever there are incidents such as fire, explosion, or release of regulated material/waste, which could threaten human health or the environment (i.e., air, soil, or surface and subsurface waters). Initial notification may be by phone

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or fax and reported within eight (8) hours, whenever possible, and no more than twenty-four (24) hours. The notification report shall be completed and submitted by an Environmental Compliance Officer or other responsible official within seven (7) calendar days (three (3) calendar days for waste disposal facilities, such as landfills and incinerators) and shall include:

- 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. date, time, and type of incident (i.e., fire, explosion, release, etc.);
- d. name and quantity of material(s) involved;
- e. the extent of injuries, if any;
- f. an assessment of actual or potential hazards to human health or the environment, where this is applicable;
- g. estimated quantity and disposition of recovered and unrecovered material that resulted from the incident;
- h. evaluation of the circumstances that led to the incident;
- i. steps being taken to reduce, eliminate, and prevent recurrence, including an implementation schedule; and
- j. other information or monitoring as required by the department

Notification requirements for releases only apply to releases of a quantity equal or exceeding the reportable quantity (RQ) listed in HAR §11-451.

10. Noncompliance Notification Requirements. If, for any reason, the permittee(s) does not comply with, or will be unable to comply with, any condition or limitation specified in the permit, the permittee(s) shall notify the department verbally within twenty-four (24) hours followed by a written report within seven (7) calendar days (three (3) calendar days for waste disposal facilities, such as landfills and incinerators) of the verbal notification. The written report shall be completed and submitted by an Environmental Compliance Officer or other responsible official and contain the following information:

- a. description and cause of noncompliance;
- b. period of noncompliance, including exact dates and times; and, if not corrected, the anticipated duration that the noncompliance is expected to continue; and
- c. steps that will be taken to correct the area of noncompliance;
- d. steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance, including an implementation schedule; and
- e. other information or monitoring as required by the department.

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The permittee(s) may be subject to enforcement action by the department, penalties, or revocation of this permit.

The use of an electronic facsimile device (FAX) for notifications is acceptable. Any data transmission or detailed explanations transmitted shall be accompanied by regular mail submittals. Failure to notify in accordance with this requirement may initiate enforcement action.

11. Monitoring and Recordkeeping Requirements. The permittee(s) shall comply with the following monitoring and recordkeeping requirements:
 - a. Upon request, the permittee(s) shall furnish all records (e.g., transaction reports, disposal receipts, sampling, and testing results) and plans required by the department. The retention period for all records shall be a minimum of five (5) years unless otherwise specified in Standard Conditions, Item 11.b; however, there shall be an indefinite retention period for all records associated with any unresolved enforcement action as determined by the department.
 - b. The permittee(s) 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 recordings of monitoring instrumentation), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The retention period shall be a minimum of five (5) years, or longer, as may be specified in the Special Conditions, from the date of the sample, measurement, report, or application unless otherwise specified by department rule. The retention period shall be for the life of the facility, through closure and post-closure periods, for waste disposal facilities (such as landfills and incinerators).
 - c. Records of monitoring information, if applicable, shall include:
 - the date, exact location, and time of sampling or measurements;
 - the person responsible for performing the sampling or measurements;
 - the date(s) analyses were performed;
 - the person responsible for performing the analyses;
 - analytical techniques or methods used; and
 - results of such analyses.
12. The permittee(s) shall submit complete and detailed plans and reports on existing solid waste management systems and of any proposed addition to, modification of, or alteration of any such systems that affects the facility's operations or procedures, or which could threaten human health and the environment and contain the information requested by the department in the form prescribed by the department. Any submission for permit modification shall be submitted in accordance with

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Standard Conditions, Item 13. The plans and reports shall be prepared by a competent person, and at the expense of the permittee(s).

13. Should the permittee(s) decide to modify the permit or continue operation of the solid waste facility beyond the expiration date of the permit, the permittee(s) shall submit a complete permit modification or renewal application at least one hundred eighty (180) days (one year for municipal solid waste landfills) prior to the modification or the date of permit expiration. Any submission for permit modification does not affect these permit conditions until such modification becomes final in accordance with HAR §11-58.1-04, or as approved by the department.
14. The director may, in accordance with HRS §342H-6, enter and inspect the facility for the purpose of
 - a. investigating an actual or suspected source of solid waste or other pollution;
 - b. ascertaining compliance or noncompliance with any rule, regulation, permit condition, or standard promulgated by the department; and
 - c. conducting tests in connection therewith (including collecting soil, water, air, ash, and any other material or samples).

The permittee, by accepting this permit, specifically agrees to allow authorized department personnel, upon presentation of credentials or other documents as may be required by law, access to the premises. The permittees may conduct testing (including collecting soil, water, air, ash, and any other material or samples) simultaneously.

15. The department may require the permittee(s) to conduct sampling and testing to determine the degree of pollution, if any, from the solid waste facility (including soil, water, air, ash, and any other materials or samples). If contamination is identified, the permittees shall remediate as necessary to protect human health and the environment.
16. When requested by the department, the permittees shall within a reasonable time, as specified by the department, furnish any information required by law, which is needed to determine compliance with the permit. If the permittees become aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the department, such facts or information shall be submitted or corrected promptly. Upon the written request of the permittee, the deadline for submission of information may be extended, if the department determines that reasonable justification exists for the extension.
17. If the department determines that the permittee(s) has violated or is violating any

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provision of HRS §342H, HAR §11-58.1, or these permit conditions, the department may pursue enforcement action in accordance with HRS §342H-7, *Enforcement*; §342H-9, *Penalties*; §342H-10, *Administrative Penalties*; §342H-11, *Injunctive and other relief*, or any other pertinent rules.

18. The department may, on its own motion, modify, suspend, or revoke a permit if, after affording the applicant a hearing in accordance with HRS 91, the department determines that any permit condition, rule, or provision of HRS §342H has been violated or that such is in the public interest [HAR §11-58.1-04(d)].
19. If the governor or the director determines that an imminent peril to the public health and safety is, or will be, caused by the disposal of solid waste or any combination of discharges of other waste that requires immediate action, the governor or the director, without a public hearing, may order the permittee(s) to immediately reduce or stop the disposal, discharge, or process, and may take any and all other actions as may be necessary (HRS §342H-8).

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PART II - SPECIAL CONDITIONS

Section A. General Facility Conditions

1. The permittees shall construct and operate the facility in accordance with HRS 342H, HAR §11-58.1, the application received April 22, 2008, additional information dated February 28, 2012, March 12, 2012, March 30, 2012, April 23, 2012, May 30, 2012, July 2, 2012, September 18, 2014, May 6, 2015, approved subsequent submissions, and the conditions of this permit. Should there be any discrepancies among the aforementioned documents and the conditions of this permit, then solid waste laws, rules, and these permit conditions shall take precedence.
2. The maximum height of the landfill shall not exceed 262 feet above mean sea level (msl), at its highest point of the landfill. The final grades of the landfill shall be in accordance with the final grading plan, drawing C-4, prepared by Harding Lawson Associates, dated August 1993.
3. No construction of additional disposal cells or modification of the lateral or vertical limits of disposal cells, shall occur without written approval by the Department. Any modification requests shall be submitted in accordance with Standard Conditions, Item 13, at least one (1) year prior to commencement of the proposed construction or modification. The construction and design plans shall be prepared and certified by a professional engineer, with at least five (5) years experience in designing landfills, and registered in the State of Hawaii.
4. A permanent sign shall be posted at the facility entrance identifying the facility, the hours and days of operation, and the name and address of the operator, a telephone number and other pertinent information.
5. The permittees may operate the facility during the normal operating hours of 7:00 a.m. to 5:00 p.m., for acceptance and disposal of waste at the landfill. In the event that the facility proposes any waste acceptance and disposal outside normal operating hours, the permittees shall notify the department, in writing, of this event. The notification shall be provided at least twenty-four (24) hours in advance of the event. If the event is unanticipated, the permittees shall provide verbal notice of the event within four (4) hours and written notification within eight (8) hours of commencement of the event. A facsimile submission of the notification is acceptable. The written notification shall specify the dates and times affected, the nature and reason for the extended operations, identification of any considerations associated with the extended operations, and controls/procedures that will be implemented to mitigate any adverse impacts of the extended operations.

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6. An all-weather access road shall be maintained into and out of the facility site, through the entrance facility and to and from the working area of the landfill.
7. The permittees are responsible for providing measures to control public access in accordance with HAR 11-58.1-15(f). The permittees shall provide and maintain controlled access to the facility in the form of fences and gates along the site perimeter where natural barriers do not provide a means of controlling access. When natural barriers no longer control access effectively, 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.
8. Scavenging at the facility by the general public is prohibited.
9. The facility shall have a Site Manager and Environmental Compliance Officer, who shall be knowledgeable of state solid waste laws, regulations, these permit conditions and the permit application components including the Site Operations Manual. The Environmental Compliance Officer may be a corporate employee based outside of the State, but shall be available at all times. The permittees shall submit written updates in the event that there are any changes in the responsibilities or identification of the facility Site Manager or Environmental Compliance Officer.
10. Within 24 months after issuance of this permit, landfill operations shall be supervised during operational hours by an individual, who has successfully completed a Manager of Landfill Operations (MOLO) training course conducted by the Solid Waste Association of North America or Department-approved equivalent. MOLO training certifications or equivalent shall be current. Records of such training shall be placed in the operating record.
11. The permittees shall comply with the financial assurance requirements in HAR 11-58.1-18 for closure of the MSW landfill, post-closure care, and corrective action, if required.
 - a. The permittees shall include a copy of the detailed written estimates in the Annual Operating Report, required in Special Conditions, Section J of this permit.
 - b. The permittees shall include documentation of financial assurance in the Annual Operating Record, required by Special Conditions, Section J of this permit.
12. Emergency Action Plan. The permittees shall implement the Emergency Action Plan, as provided in the Site Operations Manual, and approved subsequent submissions.

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- a. The permittees shall provide verbal and written notification of incidents to the department, in accordance with Standard Conditions, Item 9 of this permit. Incidents shall also include suspected subsurface fires, and be reported based on any of the notification criteria listed in the Emergency Action Plan and the conditions of this permit.
- b. The permittees shall implement Emergency Action Plans for the following situations:
 - i. Fires (including surface, nearby, incoming waste loads, vehicle/equipment, subsurface, suspected subsurface fires, etc.),
 - ii. Severe storm (2-year, 24-hour storm [3 inches] or greater, or continued rainy conditions over duration of 14 days),
 - iii. Hurricanes,
 - iv. Significant earthquakes, as defined in the Operations Plan and earthquakes equal or greater than magnitude 6.7 located 17 kilometers from the site, or any earthquakes closer than 17 kilometers from the site,
 - v. Hazardous material spills at or above the Reportable Quantity,
 - vi. Other emergency procedures, and trigger levels, as provided in the Emergency Action Plan.
- c. The permittees shall assess, monitor, and maintain the landfill after emergencies that may affect the integrity of the landfill, including, but not limited to, the liner system, leachate management system, surface water management system, and any other affected portions of the landfill.
 - i. The permittees shall prepare and maintain a written evaluation of their assessment. The evaluation shall also include a description of any findings, corrective actions, and additional actions that were or will be taken. The evaluation shall also include a determination on whether waste acceptance may continue in compliance with solid waste laws, rules, and the conditions of this permit.
 - ii. For situations in Special Conditions, Items A.12.b.i-v, the evaluation shall be prepared by a professional engineer registered in the State of Hawaii and the District Manager, and shall be submitted to the department. If the evaluation determines that waste disposal may continue without interruption, the evaluation shall include a statement, by the professional engineer and District Manager, certifying that the landfill and its associated environmental controls are functional, equivalent or better than required, and that operation of the landfill will not cause a violation of environmental regulations.

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- iii. If the evaluation indicates that the landfill, or its associated environmental controls, may have been adversely affected by the event, the permittees shall propose and implement additional evaluation methods and corrective actions. The proposal shall also include an implementation and reporting schedule, and shall be submitted to the Department.
 - iv. If the facility temporarily ceases the acceptance or disposal of waste, the facility may resume acceptance and disposal of waste upon submission of an evaluation and statement to the Department. The submission shall be certified by the professional engineer and District Manager, certifying that the landfill and its associated environmental controls are functional, equivalent or better than required, and that operation of the landfill will not cause a violation of environmental regulations.
 - v. The department may require additional assessment, monitoring, and corrective actions, as necessary to address the event.
- d. In the event of sustained winds equivalent or greater than a tropical storm, at the active workface, the permittees shall stop disposal operations and proceed with placement of daily cover. The permittees shall also cease acceptance and disposal of waste in other high wind conditions, as determined by the foreman and Site Manager or Environmental Compliance Officer. The permittees shall maintain a log of such events, including the date, time of shutdown, and associated wind speed.

Section B. Construction and Maintenance of MSW Landfill Cells

1. The permittees shall maintain the integrity of the liner system and leachate collection and control system as designed and constructed, or implement equivalent or better alternative environmental controls, as approved by the department. The following liner design information is extracted from Figure No. 1 of the *Master Plan Report, West Hawaii Landfill*, prepared by Geosyntec Consultants, Inc., dated March 12, 2012.
 - a. **MSW landfill cells 1, 2, 3.** The bottom and side slope liner consists of the following layers, from bottom to top:
 - i. 12-inch cushion layer.
 - i. Geosynthetic Clay Liner, Bentofix NS.
 - ii. 60-mil smooth HDPE geomembrane.
 - iii. 16-ounce per square yard non-woven cushion geotextile.
 - iv. 12-inch drainage layer.
 - v. 16-ounce per square yard non-woven separator geotextile.
 - vi. 12-inch protective soil layer.

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- b. **MSW landfill cells 4, 5, 6 & 7.** The bottom and side slope liner consists of the following layers, from bottom to top:
- i. 6-inch cushion layer.
 - ii. Geosynthetic Clay Liner, Bentofix NS or NSE.
 - iii. 60-mil smooth HDPE geomembrane.
 - iv. 16-ounce per square yard non-woven cushion geotextile.
 - v. 12-inch drainage layer.
 - vi. 16-ounce per square yard non-woven separator geotextile.
 - vii. 12-inch protective soil layer.

Notes:

1. Cushion layer thickness unknown for Cells 4 and 5A.
2. Protective soil cover thickness unknown for Cell 5A.
3. Cells 5 & 7: 12-inch LCRS drainage layer and separator geotextile installed 10 feet up side slope during cell construction. WMH extended these layers during operations as filling progressed.

- c. **MSW landfill cells 8A & 9A (Partial).** The bottom and side slope liner consists of the following layers, from bottom to top:
- i. 6-inch cushion layer.
 - ii. Geosynthetic Clay Liner, Bentofix NWL-35.
 - iii. 60-mil single-sided textured HDPE geomembrane (textured side down).
 - iv. 16-ounce per square yard non-woven cushion geotextile.
 - v. 12-inch drainage layer.
 - vi. 16-ounce per square yard non-woven separator geotextile.
 - vii. 24-inch protective soil layer.

Notes: 12-inch LCRS drainage layer and separator geotextile installed 10-feet up side slope during cell construction. WMH extended these layers during operations as filling progressed.

- d. **MSW landfill cells 9A (Remainder), 10A & 11A.** The bottom liner consists of the following layers, from bottom to top:
- i. 6-inch cushion layer.
 - ii. Geosynthetic Clay Liner, Bentofix NWL-35.
 - iii. 60-mil single-sided textured HDPE geomembrane (textured side down).
 - iv. 16-ounce per square yard non-woven cushion geotextile.
 - v. 12-inch drainage layer.
 - vi. 16-ounce per square yard non-woven separator geotextile.
 - vii. 24-inch operations layer.

PERMITTEES:
OWNER:
Hawaii County
OPERATOR:
Waste Management of Hawaii
92-460 Farrington Highway
Kapolei, Hawaii 96707

PERMIT NUMBER: LF-0001-08
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- e. **MSW landfill Cell 8B (Partial).** The bottom and side slope liner consists of the following layers, from bottom to top:
 - i. 6-inch cushion layer.
 - ii. Geosynthetic Clay Liner, Bentofix NWL-35.
 - iii. 60-mil double-sided textured HDPE geomembrane.
 - iv. 16-ounce per square yard non-woven cushion geotextile.
 - v. 12-inch drainage layer.
 - vi. 16-ounce per square yard non-woven separator geotextile.
 - vii. 18-inch operations layer.

 - f. **Remainder of Cell 8B.** The design of the base liner system is based on the *Construction Drawings, Cell 8B, West Hawaii Landfill*, by Geosyntec Consultants, Inc., May 2011, revised October 2011, for bottom and side slope, and consists of the following layers, from bottom to top:
 - i. 6-inch cushion layer.
 - ii. Geosynthetic Clay Liner, Bentofix NWL-35.
 - iii. 60-mil single-sided textured HDPE geomembrane (textured side down).
 - iv. 16-ounce per square yard non-woven cushion geotextile.
 - v. 12-inch drainage layer.
 - vi. 16-ounce per square yard non-woven separator geotextile.
 - vii. 24-inch operations layer.
2. Construction of future cells 8B (Remainder) through 11B (Remainder) and Cells 12 through 23:
- a. Future cells shall be designed and constructed in general accordance with the design criteria delineated in *the Master Plan Report, West Hawaii Landfill*, prepared by Geosyntec Consultants, and dated March 12, 2012 (*Master Plan Report*), the Point of Compliance Assessment dated July 27, 1994, and in accordance with submitted construction drawings. The cells remaining to be constructed are Cells 8B (Remainder) through 11B (Remainder), and Cells 12 through 23. For each future incremental phase, permittees shall prepare construction drawings and provide interim slope stability analyses with corresponding fill sequencing drawings as required in the *Master Plan Report*. The base grades for the future cells shall be in accordance with Sheet No. 2 of the drawings in the *Master Plan Report*. The permittees shall submit cell-specific construction drawings, interim fill grade limits, fill sequencing plans, and interim fill slope stability analyses at least 60 days prior to construction.
 - b. The first layer of solid waste on the bottom and side slopes shall consist of an initial select lift, as described in the Operations Plan. The permittee(s) shall document select waste screening and placement. At a minimum, documentation shall include verification by the Site Manager or

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Environmental Compliance Officer and photo documentation. The permittee(s) shall maintain a copy of select waste documentation at the facility and submit a copy of the documentation to the Department upon completion of the select waste layer.

3. The permittee(s) shall submit any significant proposed changes affecting the design or structural integrity of the installed liner system or leachate collection system, in writing, at least one hundred eighty (180) days prior to commencement of the proposed change. Regular maintenance procedures, such as replacing broken valves with a similar valve, do not require Department approval. Any proposed changes shall be comparable or improved in its capability to protect human health and the environment. At a minimum, the written proposal shall include:
 - a. Identification of affected cells;
 - b. Reason for the proposed change;
 - c. Engineering design;
 - d. Point of Compliance Evaluation;
 - e. Implementation schedule; and
 - f. Other pertinent information.

The Department may also require additional information to evaluate the request. If the proposed changes require a modification to this permit, a modification application shall be submitted in accordance with Standard Conditions, Item 13.

4. In accordance with the *Master Plan Report*, dated March 12, 2012, regarding the construction of future cells, cell-specific interface friction testing shall be performed for the base and cover liners. As such, the liner interface strengths for the new MSW cells shall be verified prior to all base liner and closure cover construction, with direct shear tests conducted under peer-reviewed methods and under the general guidance of ASTM D5321 and D6243. Shear strengths shall meet or exceed the strength parameters used in the stability analyses and shall be approved by a licensed engineer prior to start of construction. These test results shall be documented in the construction quality assurance (CQA) reports for cell construction.
5. Installation of any geosynthetic liner shall be performed by an experienced 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 experienced 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(s) shall notify the Department, in writing, five (5) days prior to any liner installation work.

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6. The permittee(s) is responsible for obtaining the services of a registered land surveyor who shall provide a minimum second order of accuracy on: triangulation, traverse, leveling and baseline measurements of the base grade as shown on the approved drawings, sump leachate lines, leachate sumps, liner elevations, and other features used to determine compliance with the approved drawings.
7. The permittee(s) shall retain a professional engineer registered in the state of Hawaii for the supervision of the CQA requirements of this project, and upon the completion of all construction phases or elements, the engineer shall submit a CQA report to the DEPARTMENT as to the complete conformity of construction to the plans and specifications as approved. The CQA report is described in Special Conditions, Section B, Item 8.
8. The permittee(s) shall prepare and submit a CQA report to the Department.
 - a. The CQA report shall be submitted to the Department placement of the initial select waste lift.
 - b. A professional engineer, with at least five (5) years experience in designing landfills, and registered in the State of Hawaii shall review the inspections and test records for each sector as certified by the liner manufacturer or manufacturer's representative and the QA/QC engineer. The professional engineer shall also verify that the bottom liner and leachate collection system have been installed in accordance with the plans as approved by the Department.
 - c. The CQA report shall also include the following, as applicable:
 - i. Requirements of Special Conditions, Section B, Item 4;
 - ii. A map of each sector showing panel layouts as installed;
 - iii. A letter of certification signed by the QA/QC engineer stating that all weld test results and vacuum or pressure testing of all welded seams were visually observed;
 - iv. Liner inspection reports;
 - v. QA/QC testing procedures;
 - vi. Laboratory's analyses;
 - vii. As-built and survey drawings documenting the cell construction, including the bottom and top of sump elevations, location and elevation of base grades, liner system, and leachate collection system;
 - viii. Written certification, by the liner contractor and installer, certifying the acceptability of the soil cushion layer prior to liner placement;
 - ix. Provide documentation to show that panels were properly joined within the cell, as well as with liner systems in adjacent cells;

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- x. Provide documentation and as-built drawings to show supporting berms constructed beneath areas where new liner systems are connected with previously installed liner systems;
 - xi. Provide documentation and as-built drawings of anchor trenches and berms (temporary and permanent) located around each cell;
 - xii. Provide documentation and description of any temporary stormwater control measures implemented;
 - xiii. Identify any deviations from the construction plan, reason for the deviation, and effects on the stability and integrity of the design. Any deviations shall be reviewed and approved by the design engineer, who shall verify that the deviation is comparable or improved in its capability to protect human health and the environment; and
 - xiv. Written certification by a professional engineer that the liner system, leachate collection system, and any other associated items were installed in accordance with the approved documents.
9. No solid waste shall be disposed of into any new cell or sector until an experienced professional engineer certifies completion of construction in accordance with approved drawings and the CQA report is submitted in accordance with Special Conditions, Section B, Item 8.
10. The permittee(s) shall afford the opportunity for an inspection of each new cell or sector by the Department, with the presence of the CQA engineer and on-site facility operator.
11. The permittee(s) shall install and maintain grade survey control markers to delineate the boundaries and elevations of the MSW landfill areas, in sufficient number to demonstrate compliance with permitted grades.
12. If unevaluated geological conditions are identified during future cell construction activities, the permittee(s) shall cease construction, notify the department in writing within seven (7) days of discovery, evaluate potential structural and/or operational impediments, and design and implement solutions as necessary, upon Department approval.
- a. At a minimum, the report shall include a description of the field conditions, new seismic analysis, determination of whether the affected cell(s) is considered a stable area, and any proposed engineering measures. The report shall be prepared and certified by a professional engineer.
 - b. The permittee(s) shall not resume construction of the cell unless the professional engineer certifies that the area is stable, or that engineering

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measures have been incorporated into the landfill's design to ensure that the integrity of the structural components of the landfill will not be disrupted.

- c. Any design changes shall be implemented and maintained. The implementation of engineering measures shall be documented and incorporated into the associated CQA report.
- d. If the professional engineer determines that any area of the landfill is unstable, and that engineering measures cannot meet the requirements of Special Conditions, Section B, Item 12.a, the permittee shall submit a modification request to change the landfill footprint and associated design.
- e. The Department may also require additional information. If the proposed changes require a modification to this permit, a modification application shall be submitted in accordance with Standard Conditions, Item 13.

Section C. Acceptance Criteria

- 1. The permittees are authorized to accept for disposal, solid wastes, as defined in HAR 11-58.1-03, except unacceptable waste listed in Special Conditions, Section C, Item 2.i.
- 2. The permittees shall implement the Waste Acceptance/Hazardous Waste Exclusion Program, as provided in the Site Operations Manual, approved subsequent submissions, and the following conditions.
 - a. The permittees shall screen waste, prevent unacceptable waste from entering the facility, and remove unacceptable waste if it enters the facility.
 - b. The permittees shall post a sign on the property that lists unacceptable wastes.
 - c. The permittees shall conduct random visual surveillance of mixed commercial loads (not inclusive of loads known to only contain single source-separated materials, such as sludge), at least once per day, to spot check for unacceptable wastes. The permittees shall document findings on the Load Check Data Sheet.
 - d. The permittees shall maintain and utilize video surveillance equipment in the scalehouse to visually screen the contents of each load.
 - e. The bulldozer/compactor operators at the active workface shall visually screen the contents of each load and remove unacceptable waste.
 - f. If unacceptable waste is observed, the permittees shall reject the load. If the waste has been unloaded, the permittees shall separate the unacceptable

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- waste, move it away from the active workplace, and manage it in accordance with Special Conditions, Section C, Item 3.
- g. Equipment operators and spotters shall receive training on visual surveillance and unacceptable waste handling procedures set forth in the Site Operations Manual. Training shall be attended at least once per year, or more frequently as needed to ensure compliance with the facility procedures.
 - h. The permittees shall maintain records of random inspections on the Load Check Data Sheets and of personnel training.
 - i. Unacceptable waste is defined as:
 - i. Regulated hazardous waste, as defined in state hazardous waste laws and regulations;
 - ii. Polychlorinated biphenyl (PCB) waste, as prohibited in 40 CFR Part 761;
 - iii. Untreated infectious waste, excluding infectious waste generated within the household, in accordance with HAR 11-58.1-63;
 - iv. Bulk or noncontainerized liquid waste, except as provided in HAR 11-58.1-15(i);
 - v. Containers holding liquid waste, except as provided in HAR 11-58.1-15(i)(2);
 - vi. Commercial loads containing >25% greenwaste and household loads containing > 50% greenwaste, in accordance with HAR 11-58.1-65(b);
 - vii. Scrap automobiles, white goods, and whole motor vehicle tires, in accordance with HAR 11-58.1-65(c);
 - viii. Lead acid batteries, in accordance with HRS 342I;
 - ix. Compressed gas tanks; and
 - x. Other unacceptable wastes listed in the Site Operations Manual, and the Waste Acceptance/Hazardous Waste Exclusion Program.
 - j. The permittee shall implement a program at the facility for detecting and preventing the disposal of PCB waste as defined in and in accordance with 40 CFR Part 761 into the landfill.
3. If unacceptable waste is identified at the facility, the permittees shall separate the waste, manage, transport, and recycle/dispose of it in accordance with the Site Operations Manual and applicable laws and rules. Unacceptable waste identified at the facility shall not be disposed of at the facility.
- a. Unacceptable waste shall also be transported from the facility prior to posing a nuisance, health, or safety concern.
 - b. Unacceptable waste shall be transported to a permitted solid waste management facility allowed to accept the waste, or out-of-state recycling/disposal facility.

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- c. The permittees shall maintain a daily log of unacceptable waste turned away from the facility or separated from disposal, including date, hauler, waste type, estimated quantity, and destination.
 - d. The permittees shall notify the Department, in writing, within 24 hours or the next working day of the identification of hazardous or PCB waste. The notification shall include the date and time of incident, origin of the waste, hauler/generator, description and quantity of waste, actions that will be taken to manage the waste at the site, and actions that will be taken to remove the waste from the premises. The permittees shall also provide written notification, including a copy of the associated manifests, within seven (7) days of removal of the waste from the facility.
4. The permittees shall manage and dispose of radioactive waste in accordance with HAR 11-58.1-64.
 5. The permittees shall implement the Special Waste Acceptance Program, as provided in the Site Operations Manual and approved subsequent submissions. Disposal of special waste shall also comply with other applicable plans and procedures, such as the Asbestos Management and Disposal Plan and procedures for Treated Medical Waste, Contaminated Materials, PCB-Contaminated Waste, Dead Animals and Offal, and High Moisture Content & Odorous Waste.
 - a. The permittees shall pre-approve special wastes, prior to acceptance at the facility.
 - b. The permittees shall maintain written documentation and implement special handling procedures associated with each type of special waste. The procedures shall be based on the physical, chemical or pertinent characteristics of the special waste.
 - c. Special waste means any solid waste which, because of its source or physical, chemical, or biological characteristics, require special consideration for its proper processing or disposal, or both, includes, but is not limited to:
 - i. Asbestos;
 - ii. Semi-solid wastes including:
 - (1) water separation, car and equipment wash wastes;
 - (2) sewage sludges;
 - (3) underground storage tank and other sludges;
 - iii. Off-specification and outdated products;
 - iv. Baghouse dusts;
 - v. Inorganic filter cakes;
 - vi. Treated infectious waste;
 - vii. Dead animals and offal;
 - viii. Contaminated Materials including:

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- (1) Contaminated soils and debris, including: resins and chemical debris; petroleum and other contaminated soils; and petroleum fuels (i.e., used oil, diesel, jet fuel, gasoline) and debris
 - (2) Sandblast grits;
 - (3) Waste that are toxic in nature, such as insecticides, poisons, or radioactive materials (provided that they are not regulated under another authority such as RCRA Subtitle C, TSCA, NRC that requires disposal other than at a permitted MSW landfill), and
 - (4) other solid waste, which may be accepted for disposal such as contaminated industrial/commercial waste and non-TSCA regulated PCB waste, provided such materials are not regulated hazardous waste; and
- ix. Other special waste listed in the Site Operations Manual.
- d. The permittees shall approve Contaminated Materials (as defined in Special Conditions, Section C, Item 5.c.viii), on a case-by-case basis, prior to acceptance at the facility.
- i. The permittees shall implement the Procedures for the Acceptance of Contaminated Material. These procedures shall be implemented for all contaminated materials defined in Special Conditions, Section C, Item 4.c.viii.
 - ii. A notice of Contaminated Material Approval shall be submitted to the Department prior to acceptance at the facility. The notice shall include approval from both the owner and operator of the facility. The use of facsimile submissions is acceptable. The notice shall include: acceptance date(s), quantity and description of waste, origin of waste, waste profile sheet/approval manifest; proposed management of contaminated material (use as daily cover or disposal) and any special management and handling procedures.
- e. All documentation shall be maintained at the facility.

Section D. Provisions Related to the Operation of the Landfill

1. The permittees shall implement the Site Operations Manual dated April 2008, and approved subsequent revisions. The Department may periodically require revisions to the Site Operations Manual. The contents of the Site Operations Manual shall address permit requirements and be implemented to ensure compliance. Any significant changes to the Site Operations Manual require approval from the Department. Depending on the scope of the change, a permit modification may also be required. If there are discrepancies between the Site Operations Manual and these permit conditions, the permit conditions take precedence.

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2. **User Population.** The permittees shall maintain a list of the types of users for operator reference and regulatory review. In the event that the user population, or screening and review process to identify legitimate users, changes, the permittees shall submit a written update of such change. The written update shall propose adjustments to the screening and review process, as appropriate to respond to the changes in the user population.
3. **Air Criteria.** The permittees are responsible for obtaining permits and maintaining compliance with any state or federal Clean Air regulations. Open burning of solid waste, except for debris from emergency cleanup operations, is prohibited. Open burning of debris from emergency cleanup operations shall not commence without prior approval from the Department.
4. **Climatic Information.** Climate information shall be collected on a daily basis and shall include information on daily rainfall, solar radiation, evaporation, wind speed and direction, humidity, temperature, and other applicable meteorological data, as applicable, for use in modeling evapotranspiration and leachate generation with the HELP Model at the landfill and evaluating litter/odor control. The permittees shall also monitor and record daily windspeed and direction at the active workforce of the MSW landfill. The permittees shall minimize any weather equipment downtimes. In the event that the equipment is not operational, the permittees shall maintain a record of the affected date(s), reason, and actions taken. Data shall be provided to the department upon request.
5. **Program for Regular Training.** The permittees shall provide training to landfill operators annually, or more frequently, as needed, to ensure that the operators are familiar with the identification of hazardous waste or PCB waste in accordance with HAR 11-58.1-15(a)(3), the Site Operations Manual and these permit conditions. Training presentations shall be conducted by a Site Manager, Environmental Compliance Officer, or other qualified individual. Records of training shall be maintained.
6. **Mud and Dust Prevention Program.** The permittees shall provide measures for minimizing the tracking of mud onto public roads, and the generation of dust on site.
 - a. The mud prevention measures shall include the installation and maintenance of wet weather pads and access routes constructed of material (such as cold plane material or asphalt/concrete rubble) that will minimize the exposure of excessive muddy conditions. A wet weather deck shall be present to allow for safe disposal of MSW during wet weather or muddy conditions. If mud is tracked offsite, the permittees shall clean up the tracked mud off the property and implement additional mud prevention measures. Possible measures that

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may be implemented include: rumble strips, drive-through tire wash, and/or wash pad.

- b. The permittees shall inform drivers/operators of non-household vehicles that their loads shall be covered prior to entering the facility.
- c. The dust prevention measures shall include, but are not limited to, applying water spray to roads and to the active workface throughout the day, as needed to control dust. The permittees shall also prevent dust from inactive areas.
- d. If measures do not adequately minimize the tracking of mud on to public roads or generation of dust onsite, the permittees shall implement additional mud prevention and dust control measures.

7. **Disease Vector Control.** The permittees shall prevent or control on-site populations of disease vectors, including rodents, insects, and birds.

- a. At a minimum, the permittees shall implement the Vector Control Plan, as provided in the Site Operations manual, and these permit conditions.
- b. At a minimum, a monthly Vector Control Report shall be completed and placed in the operating record to document the following:
 - i. Results of inspections of the landfill documenting the presence or absence of flies and other insects, rodents and birds.
 - ii. Summary of vector abatement activities.
- c. If vector control measures are not adequate, the permittees shall implement additional vector control measures, document these activities, and revise the Operations Manual as necessary.

8. **Litter Control.** The permittees shall confine litter to the working face area and prevent litter from leaving the facility. The permittees shall implement the Litter Control Plan, as provided in the Site Operations Manual and these conditions. During the course of the working day of operation, all windblown material shall be collected and be properly disposed. At a minimum, the collection measures shall include:

- a. The use of litter screens/fences downwind of the active workface (primary fencing).
- b. The use of additional litter screens/fences in secondary control positions, as needed during gusty conditions.
- c. The presence of a truck clean-out area near the active workface, with litter screens/fences and disposal receptacles for truck clean-out. If the truck clean-out area is within 100 feet of a downwind primary fencing area, additional screens/fences shall only be required if the primary and secondary fencing areas are inadequate.

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- d. Cleaning of litter screens/fences (primary, secondary, and truck clean-out area screens/fences) throughout the day. At the end of the operating day, all litter shall be removed from all litter screen/fences.
 - e. Additional litter cleanup of all impacted areas in the event of a major windstorm or other incident in which litter escapes the normal litter containment systems.
 - f. Documentation of the number of personnel picking up litter, number of bags collected, and maximum wind speed for each day.
 - g. If litter control measures are not adequate, the permittees shall implement additional litter control measures.
9. The permittees shall implement the Asbestos Management and Disposal Plan, as provided in the Site Operations Manual. Compliance with the plan does not preclude compliance with other applicable statutes, regulations, and rules. The permittees shall document the quantity, type, and location of asbestos disposed of in the MSW landfill. Disposal locations shall be recorded with GPS coordinates. The permittees shall maintain records on the amount and location of asbestos disposal.
 10. Loads of treated medical waste shall be placed in a trench/pit excavated within waste that was placed on the same day. Loads of treated medical waste shall be immediately covered with MSW and compacted.
 11. Loads of dead animals and offal shall be placed in trench/pit areas, excavated within waste that was placed on the same day. Loads of dead animals and offal shall be immediately covered with a minimum of two (2) feet of MSW or soil and compacted. The thickness of MSW shall be increased or additional soil shall be used, as needed to minimize odors. Odor neutralizers and soil cover shall be used, as needed to minimize odors.
 12. The permittees shall implement the Odor Control Program, as provided in the Site Operations Manual, and these permit conditions.
 - a. The acceptance of odorous loads shall be scheduled to prevent trucks containing odorous loads from waiting outside the facility, minimize the time the trucks containing odorous loads are waiting in the queue, ensure that a sufficient amount of MSW has been placed to allow creation of a trench/pit area for odorous load disposal, and ensure that sufficient loads of MSW will be placed over the odorous load prior to placement of daily cover.
 - b. Odorous loads shall be placed in trench/pit areas, excavated within waste that was placed on the same day, large enough to contain approximately twice the volume of the anticipated load. In lieu of the pit, the permittees may also use prior loads of MSW to sufficiently cover over the odorous loads.

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- c. The odorous load shall be immediately covered with a minimum of two (2) feet of MSW or soil and compacted. The thickness of MSW shall be increased or additional soil shall be used, as needed to minimize the odor.
 - d. Odor neutralizers and soil cover shall be used, as needed to minimize odors.
 - e. If odor control measures are not adequate, the permittees shall implement additional odor control measures and the Department may require that additional measures be implemented.
13. The following controls shall apply to the operations with contaminated materials (as defined in Special Conditions, Section C, Item 4.c.viii):
- a. The permittees shall ensure that contaminated materials are removed from the truck during disposal and excess amounts of contaminated materials are not transported from the site.
 - b. The permittees shall only allow the disposal of contaminated materials when the wind speed is below 30 mph at the active workface.
 - c. The permittees shall implement dust control measures, such as water sprays and barriers, containerization, or restricting disposal to only non-windy conditions to adequately control dust and the scattering of contaminants during placement of contaminated material. The selection of dust/containment control measures shall be determined based on operations, the type of waste, and the type and concentration of contaminants. The permittees shall also determine whether air monitoring is necessary for the specific disposal. The department may require additional dust control measures, such as containerization of contaminated soil or dust monitoring during placement. Additional control measures and procedures for dust control and monitoring, if applicable, shall be specified in the Contaminated Materials Notification.
 - d. The permittees shall document the special disposal procedures implemented for the contaminated material. Special disposal procedures may include the use of isolation of the material by the use of synthetic or soil barriers or containers.
14. The permittees may submit written requests to conduct activities, other than disposal, on the landfill. The written request shall be submitted at least thirty (30) days prior to the proposed activity. The request shall include a description of the proposal, reason, estimated schedule, location, evaluation of potential environmental or structural impacts, and proposed best management practices. The department may request additional information, as needed to evaluate the proposal, and may require additional requirements and controls. The proposed activities may not commence without written approval from the department.

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15. **Operations.** The average operating rate of the landfill is 300 tons per day. The peak daily disposal rate shall not exceed 720 tons per day.
16. The permittees shall provide adequate equipment and personnel to operate the landfill facility, including provisions for back-up personnel and equipment. The site shall operate with a minimum of one bulldozer, one compactor, one water truck and one traffic controller. The traffic controller and bulldozer operator may be the same person.
17. Operators shall routinely clean the tracks/wheels at the working face using shovel/dry methodology. However, if water is needed, cleaning shall be at the workface and the amount of water used shall be limited to an amount that would otherwise be used for dust control and not cause infiltration into the waste layer.
18. Contaminated soil with contaminant concentrations below current DOH Environmental Action Levels for direct exposure concerns in commercial/industrial land use scenario may be used as daily cover, provided that the daily cover shall not be exposed for more than 24 hours.
19. Contaminated soil with contaminant concentrations greater than current DOH EALs for unrestricted land use scenario shall not be used as intermediate or final cover.
20. The permittees shall place daily cover on the active workface at the end of each workday, or at more frequent intervals if necessary, to control disease vectors, fires, odors, blowing litter, and scavenging.
21. The daily cover material shall be comprised of a minimum of six inches of earthen material or an alternative daily cover, and shall leave no exposed waste. Of primary preference, earthen material shall be soil. If soil is not available, the earthen material may consist of aggregate and shall have an aggregate size less than 3 inches and well graded, provided that the aggregate meets the requirements of Special Conditions, Section D, Item 20. The permittees shall maintain a daily log, including the date, volume, and type of material used as daily cover.
22. The permittees may submit a written proposal to request the use of an alternative daily cover (ADC), comprised of alternative materials of an alternative thickness (other than at least six inches of earthen material).
 - a. The request shall include ADC specifications, associated operational procedures, an assessment of whether the alternative material and thickness can control disease vectors, fires, odors, blowing litter, and scavenging

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- without presenting a threat to human health and the environment, and any other pertinent information.
- b. The use of ADC is limited to daily cover use.
 - c. The permittees shall obtain Department approval, in writing, prior to the commencement of the demonstration project.
 - d. The use of ADC shall be evaluated in demonstration projects. The demonstration project shall be performed in 6-month increments to determine whether the ADC and its thickness can control disease vectors, fires, odors, nuisance, litter and scavenging without presenting a threat to human health and the environment.
 - e. The demonstration period shall include oversight by the Department. The permittees shall report the performance of the ADC at the end of the demonstration period, including an evaluation of whether the ADC is appropriate for use at the facility, and successful operational procedures.
 - f. The permittees shall obtain Department approval, in writing, prior to commencement of continued use of ADC beyond the demonstration period. The Department may impose conditions on the use of ADC. Those conditions shall become part of this permit.
 - g. The demonstration period or the approved use of an ADC may be rescinded or cancelled by either the Department or Operator at anytime without cause.
23. The permittees are allowed to use tarps as ADC in accordance with the approval dated March 12, 2002, as specified below. The operator may propose to modify or cancel these allowances at any time. The Department may modify or rescind these approvals at any time.
- a. The use is limited as a tarp ADC on the workface with a 24-hour time limit. Within 24-hours of ADC placement, the ADC shall be removed and replaced with additional disposed waste or daily soil cover.
 - b. The tarp ADC shall be inspected and repaired/replaced if damage makes it unable to perform its intended functions.
 - c. Tarp as ADC shall not be applied if meteorological or operational conditions are unfavorable to meeting its intended functions. Unfavorable meteorological conditions include high wind or rains that make placement or effectiveness of the tarp limited. Operational conditions include the type of waste being received.
 - d. Intermediate cover of 12 inches shall be applied over areas that will be inactive for 30 days or more. Intermediate cover shall also be applied over areas that will sustain vehicle traffic.
 - e. In the event of fire conditions at the active workface, the use of ADC shall cease.

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24. The permittees shall implement a Daily Cover Monitoring Verification Program as follows:
 - a. The permittees shall take digital photos of the active workface at the middle and end of each workday (including weekends, as applicable), from the same perspective, to document the placement and thickness of daily cover. Digital photo records shall be maintained at the facility and submitted to the Department via email by noon on the following business day, with cell location information provided in photographs and in emails.
 - b. The permittees shall record the following quantitative items on a daily basis:
 - i. Volume of waste disposed,
 - ii. Cell geometry,
 - iii. Volume and type of daily cover used.

25. The permittees shall cover all inactive areas with intermediate cover. Inactive waste areas are areas that do not receive waste within a 30-day period.

26. The permittees shall cover any area receiving vehicular traffic with intermediate cover, regardless of the time period since last receiving waste.

27. Intermediate cover shall be a minimum of 12 inches of earthen material (may include six inches of soil daily cover). Particle size shall be adequate to minimize infiltration and direct stormwater to collection systems. Stormwater that comes into contact with waste shall not be directed to stormwater collection systems and shall be treated as leachate.

28. Intermediate cover shall be inspected on a regular basis, at least once per month, and shall be addressed as issues are identified, such as repairs for erosion and cracking. The permittees shall maintain a log of inspections, findings, and corrective actions, if needed.

Section E. Surface Water Management

1. The permittees shall design, construct, and maintain a surface water run-on and run-off control system in accordance with HAR 11-58.1-15(g), throughout the life of the landfill and through post-closure.

2. For each cell development, construction drawings shall include temporary controls to minimize run-on flows into the new cell from adjacent cells and also to contain any leachate or liquid that accumulates in the cell.

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3. Stormwater that comes in contact with solid waste shall be managed and disposed of as leachate.
4. The conditions of this permit do not preclude compliance with any other applicable federal, state, or local requirements including water quality and surface water discharge regulations.
5. The landfill Surface Water Management Plan shall be updated annually and filed with the Department by September 1 of each year. An initial Surface Water Management Plan shall be submitted within ninety (90) days of receipt of this permit. It shall contain the following information:
 - a. Report of an annual inspection of surface water management features and facilities, together with a description of required maintenance and changes, which shall be completed by September 1 of each year;
 - b. Updated drawings showing current topography of the landfill, surface water drainage paths and conveyances, and drainage system modifications planned for the next year in response to waste filling;
 - c. All areas with intermediate cover shall be graded to direct stormwater away from the workface and towards the stormwater collection system;
 - d. Engineering calculations documenting the capability of the surface water management system to comply with the run-on and run-off requirements listed under Special Conditions, Section E, Item 1. Top deck areas shall have minimum slopes of 2% to 5% to promote drainage. Side-slopes shall not exceed 4 horizontal to 1 vertical.
 - e. Any updates to the Surface Water Management Plan or the April 2008 Spill Prevention, Control, and Countermeasures (SPCC) Plan.

Section F. Explosive Gases Control

1. The permittees shall implement the Perimeter Gas Monitoring Plan dated December 2008, and approved subsequent submissions. The program shall also be conducted in accordance with HAR 11-58.1-15(d).
2. Based on the General Site Plan received May 31, 2012, the permittees shall update the Perimeter Gas Monitoring Plan within ninety (90) days of receipt of this permit, or as approved by the department. The updated site plan shall either:
 - a. Modify the Perimeter Gas Monitoring Plan to include explosive gas monitoring in facility structures depicted in the county operations shown on the May 31, 2012 site plan; or

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7. The permittees shall monitor the concentration of gases, including oxygen, methane, and carbon dioxide. The permittees shall monitor and record, at a minimum, the concentration of gases in facility structures, including temporary structures, and at the property/facility boundary on a quarterly basis.
 - a. The concentration of methane gas generated by the facility shall not exceed 25% of the lower explosive limit (LEL) for methane in facility structures (excluding gas control or recovery system components).
 - b. The concentration of methane gas shall not exceed the LEL for methane at the property/facility boundary.
8. If an exceedance of the limits in Special Conditions, Section F, Item 7 is identified, the permittees may conduct a verification monitoring event, provided that the verification monitoring is conducted within one (1) hour of the initially detected exceedance. If exceedances or other anomalous condition is identified, the department may increase the frequency of monitoring events.
9. If verification monitoring performed within one (1) hour of the initial exceedance shows concentrations below the limits in Special Conditions, Section F, Item 7, the permittees shall place results in the operating record and send written notification of the exceedance and verification monitoring results to the department within seven (7) days.
10. If combustible gas concentrations exceed the limits in Special Conditions, Section F, Item 7, and verification monitoring is not performed within one (1) hour of the initial exceedance or verification monitoring confirms the initial exceedance, the permittees shall perform the following.
 - a. Immediately take all necessary steps to ensure protection of human health,
 - b. Immediately notify the Department of the exceedance,
 - c. Within seven (7) days of detection, place in the operating record and submit to the Department, the methane gas levels detected and a description of the steps taken to protect human health,
 - d. Within sixty (60) days of detection, prepare and implement a remediation plan for the combustible gas releases, place a copy of the plan in the operating record, provide a copy of the plan to the department, and notify the department that the plan has been implemented.
 - e. Within thirty (30) days after the remediation plan has been completed, submit a report to the department documenting the actions taken, additional monitoring results, and plans to prevent future recurrences.
 - f. The department may modify the reporting and implementation schedule, as necessary to protect human health and the environment.

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11. The permittees shall submit a report with results within 60 days of each monitoring event. The results shall include the date and time, gas concentrations by volume, barometric pressure, site conditions, name of personnel conducting the monitoring, description of equipment and calibration results, description of monitoring procedure, and identification of any procedures or observations outside of normal conditions.

Section G. Leachate Management/Groundwater and Leachate Monitoring

1. The permittees shall maintain an elevation control point at the top of casing or other monument in the immediate vicinity of the groundwater monitoring well and leachate sump. The elevation control point shall be surveyed on an annual basis and clearly marked. The permittees shall also maintain a monument, showing benchmark elevation, located in a position off the landfill.
2. The permittees shall maintain usable access to all groundwater monitoring wells and leachate sumps shown in the Groundwater and Leachate Monitoring Plan dated October 2007, and approved subsequent submissions.
3. The permittees shall maintain the integrity of the monitoring wells and sumps, and protect them from damage, destruction, or vandalism. If repairs or replacement is necessary to ensure proper management and monitoring, then the permittees shall design and construct the necessary repairs and/or replacements.
 - a. Should any of these wells/manholes become damaged, destroyed, or vandalized, the permittees shall notify the Department immediately. The notification shall include pertinent information as to the cause of the destruction, description of measures to replace and/or repairs of the monitoring station/manhole, and actions taken to prevent the recurrence of such problems in the future.
 - b. If a new well/manhole will be constructed or repaired, submit a construction plan to the department prior to commencement of construction. At a minimum, the plan shall include the proposed well location, rationale for the location, well design, and installation procedures. The permittees shall implement the repair/construction upon department approval.
 - c. A Well/Sump Completion Report shall be sent to the Department within thirty (30) days of any new groundwater well/leachate sump construction. At a minimum, the report shall include geologic logs, surveyed location and elevation of the well, and as-built drawings.

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4. The permittees shall implement the Leachate Management Plan as provided in the Site Operations Manual dated April 2008 and approved subsequent submissions.
5. The permittees shall manage any storm water that comes in contact with solid waste as leachate.
6. The permittees shall manage leachate to prevent any entry into the stormwater collection system and any contact with the public.
7. The permittees shall inspect, operate, and maintain the leachate management system as designed at all times. The leachate management system includes the leachate transmission piping, manholes, sumps, pumps, onsite leachate storage tanks, and connector piping between the sumps and storage tanks. The permittees shall inspect the condition and integrity of the leachate management system at least once every six months, or more frequently as needed to address potential concerns.
 - a. The permittees shall document the results of inspections and implement corrective actions to address any findings that may compromise the integrity of the system and result in a release, or result in potential noncompliance with other conditions of this permit. The permittees shall also document and address any rusting on the tanks that may compromise the integrity of the system.
 - b. If the pump system or any other portion of the leachate management system is inoperable, the permittees shall take immediate steps to rectify the problems and implement contingency measures to comply with remaining conditions of this permit.
8. The permittees shall remove leachate from the landfill via each of the leachate sumps, in a manner that maintains a maximum depth of 30 centimeters (12 inches) of leachate above any part of the liner in the cell, outside the sump area. The leachate sump compliance elevations are as follows, per the Leachate Management Plan dated April 2008:
 - a. Sump R-1 (Cell 1): 138 feet above msl.
 - b. Sump R-2 (Cell 3): 151 feet above msl.
 - c. Sump R-3 (Cell 8A): 132 feet above msl.
9. After construction of new sumps, compliance levels shall be determined and maintained in accordance with HAR 11-58.1 and these permit conditions.
10. Leachate Storage, Transport, and Removal

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- a. The permittees shall use an automated pumping system to pump leachate into on-site storage tank(s) to comply with the leachate sump compliance depths in Special Conditions, Section G, Item 8.
- b. Leachate shall be removed as frequently as needed to comply with leachate sump compliance depth requirements in Special Conditions, Section G, Item 8.
- c. The automated systems shall include an alarm system to alert the permittees to anomalous conditions in the sumps or storage tanks.
- d. The leachate storage tanks and connector piping shall be situated within the limits of the landfill in areas with a Subtitle D liner system constructed in accordance with HAR 11-58.1.
- e. The permittees may only use leachate for dust control within the active workface, or transport leachate from the temporary storage tanks to an authorized wastewater treatment and disposal facility, or as otherwise approved by the department.
- f. The permittees shall contract with one or more qualified and properly licensed third-party contractors to remove and transport leachate from the temporary storage tanks, to supplement any leachate transport capability of the permittee. The permittees shall maintain a current copy of all leachate pumping agreements with third-party contractors, and shall maintain the contracts in full force at all times. The permittees shall provide this information to the Department upon request.

11. Leachate Monitoring and Recordkeeping

- a. The permittees shall use automated monitoring ~~and recordkeeping~~ systems to monitor leachate levels in all sumps and storage tanks. The automated systems shall include an alarm system to alert the permittees to anomalous conditions in the sumps or storage tanks.
- b. The permittees shall maintain a daily log of the leachate levels in each sump and storage tank at the beginning of each workday. The log shall include the date, level of leachate in each sump, volume of leachate in each tank, and associated pump rates.
- c. The permittees shall take manual measurements of leachate levels in existing sumps at least once a month for the first six months of receipt of this permit, and every six months thereafter, unless otherwise approved by the Department. The permittees shall take manual measurements of leachate levels in new sumps at least once a month for the first six months, and every six months thereafter. In lieu of manual measurements, the permittees may propose an alternate method to verify the leachate levels in the sumps, and may implement such alternate method with approval from the department. If manual, or other approved measurements are inconsistent with automated

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- readings or other problems are identified with the system that questions the accuracy of the automated readings, manual or other approved measurements shall be taken and recorded daily until accuracy is again verified for at least five (5) consecutive days. The DOH may increase the frequency of manual or other approved measurements. Records shall include the date, leachate level, and name of person conducting the inspection.
- d. In the event that any portion of the automated monitoring or recordkeeping systems is under repair or inoperable, the permittees shall take and record manual measurements every other day to monitor the leachate levels in the associated sumps. In lieu of manual measurements, the permittees may propose an alternate method to verify the leachate levels in the sumps, and may implement such alternate method with approval from the department. If an exceedance of leachate compliance levels is detected, the permittees shall take and record manual measurements daily. The permittees shall also record the leachate levels before and after pumping when the system is in manual mode. Within seven (7) days of triggering the requirement for manual measurements, the permittees shall submit written notification to the DOH describing the situation, corrective actions, and schedule. The DOH may increase the frequency of manual measurements. After the repair/maintenance is completed, the permittees shall record daily measurements for a minimum of three (3) days, and weekly for three (3) weeks to verify that all automated readings are consistent with manual measurements. The permittees shall submit written notification, including documentation, of the 3-week verification test, prior to reducing the frequency of manual measurements.

Groundwater and Leachate Monitoring

12. Groundwater and leachate monitoring shall be conducted in accordance with HAR 11-58.1-16, the most recent State of Hawaii Landfill Groundwater Monitoring Guidance document, the Groundwater and Leachate Monitoring Plan dated October 2007, approved subsequent submissions, and applicable conditions of this permit. The Department may periodically require revisions to the plan. Should there be any discrepancies in the aforementioned documents, the more stringent requirements shall take precedence.
13. All sample collection, handling, management, and analysis shall be conducted in accordance with EPA SW-846, *Test Methods for Evaluating Solid Waste*.
14. Each sample shall be properly collected, identified, contained, and preserved. The name and signature of the person who collected the sample shall be included in the

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records. A chain of custody shall be maintained from the time of sample collection through the final analysis and disposition.

15. Sample analysis shall be conducted by an independent third party with appropriate credentials and performed at the expense of the permittee.
16. Groundwater samples shall be collected and analyzed on at least a semiannual basis for existing wells, quarterly basis for new wells, or as required or otherwise approved by the department.
 - a. Groundwater samples shall be analyzed for constituents listed in 40 CFR 258, Appendix I, major cations and anions (Mg, Na, Ca, K, Cl, CO₃, SO₄, HCO₃), major leachate indicators (TDS, TOC, bicarbonate alkalinity, total alkalinity, nitrogen-ammonia, Cl, and Fe), COD, nitrate-N, bromide, manganese, zinc, chromium, sulfide, and field measurements (electrical conductance, pH, temperature, turbidity, and groundwater surface elevation), or as required or otherwise approved by the department.
 - b. Groundwater samples from newly installed wells shall also be analyzed for the following constituents in at least its first eight quarterly monitoring events: constituents listed in 40 CFR 258, Appendix II, and other constituents identified in 17.a. above, or as required or otherwise approved by the department.
17. Leachate samples shall be collected and analyzed on at least an annual basis, or as required by the department.
 - a. On an annual basis, leachate shall be analyzed for the constituents listed in Special Conditions, Section G, Item 17.a, or as otherwise approved by the department.
 - b. Every two years, leachate shall be analyzed for the constituents listed in Special Conditions, Section G, Item 17.a. and Appendix II constituents, or as otherwise approved by the department.
 - c. Leachate samples from newly installed sumps shall be analyzed for the constituents listed in Special Conditions, Section G, Item 17.a and Appendix II constituents semiannually for the first two (2) years, or as otherwise approved by the department. After the first two (2) years, leachate monitoring constituents and frequency shall be in accordance with Special Conditions, Section G, Item 18.a. and 18.b.
18. Testing Frequency and Parameters

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- a. Following a minimum of two (2) years of quarterly groundwater monitoring at new groundwater monitoring wells, the permittees may petition the Department for a reduction in testing to semiannual monitoring.
 - b. The permittee may petition for a reduced list of groundwater monitoring parameters based upon evaluation of leachate, parameter detectability, mobility, and persistence as outlined in the most recent State of Hawaii Landfill Groundwater Monitoring Guidance Document.
 - c. The permittees shall submit the request in writing. The permittees must receive written approval from the department prior to implementation of any reduction in sampling frequency or parameters. If other information indicates that more frequent monitoring or increased parameters is justified, the department may require more frequent testing or additional testing parameters.
19. The permittees shall prepare and submit a Groundwater/Leachate Monitoring Report within ninety (90) days of sampling, or other applicable reporting period. At a minimum, the monitoring reports shall include:
- a. Date, time, location and groundwater/leachate levels elevations measured, and associated groundwater flow direction and gradient. Groundwater elevation measurements should be taken with the smallest time interval between wells as possible.
 - b. Identification of wells/sumps sampled during the event,
 - c. Sample collection dates and methodology,
 - d. Identification of third party entity that performed the sample analysis,
 - e. Analytical data, including copies of laboratory reports,
 - f. Statistical evaluation of all analytical data (except field measurements and VOCs),
 - g. Time-series plots for each detection monitoring parameter (except field measurements) and Piper/Stiff diagrams,
 - h. Comparison of analytical data to drinking water standards and Environmental Action Levels. This comparison is provided for qualitative purposes only. Regulatory action shall be based on the requirements of HAR 11-58.1-16,
 - i. Identification of any deviations from the plan, reason for the deviation, and affect on the sampling results,
 - j. Statement of whether any detections of VOCs or statistically significant increases were identified.
 - k. Plan of action, based on results.
20. In the event of a detection of VOCs above the practical quantitation limit or a statistically significant exceedance of other analytes, the permittees shall comply

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with the requirements of HAR 11-58.1-16 and the Landfill Groundwater Monitoring Guidance document.

Section H. Closure and Post-Closure Requirements

1. The permittees shall perform closure and post-closure activities in accordance with the *Closure/Post-Closure Plan*, dated August 2008 (except final cover design), the final cover design dated August 1993, HAR 11-58.1-17, these permit conditions, and any subsequent approved submissions. The permittee may propose changes to the final cover design, in accordance with HAR 11-58.1-17. Should there be discrepancies between these documents, the HAR and these permit conditions take precedence.
2. The permittees shall perform interim closure activities on Cells 1-8, as described in the May 30, 2012 submission, and any other areas where waste elevations have reached final grades. According to the May 30, 2012 submission, interim cover shall consist of 18 inches of crushed rock materials on the inactive landfill cells. This interim cover shall also meet the performance requirements for intermediate cover, including the ability to minimize infiltration and direct stormwater to collection systems. Material with concentrations above DOH EALs for unrestricted use shall not be used as interim cover. Elevations of the intermediate cover shall not exceed permitted final grades.
3. The permittees shall submit closure construction plans and specifications with the notice of intent to close as specified in Special Conditions, Section H, Item 4. The construction plans and specifications shall be prepared and certified by a professional engineer, with at least five (5) years experience in designing landfills, and registered in the State of Hawaii.
4. The permittees shall provide written notice of intent of each landfill closure event at least ninety (90) days prior to initiating closure activities. The notice of intent shall include a schedule and shall also be placed in the operating record.
5. The permittees shall begin closure activities for each landfill area after receiving department approval on the closure construction plans and specifications and:
 - a. Within thirty days after the date on which the unit receives the known final receipt of wastes; or
 - b. Within one year after the most recent receipt of wastes, if remaining capacity exists and there is reasonable likelihood of additional waste acceptance; or
 - c. Otherwise approved by the Department.

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6. Soil with contaminant concentrations above DOH EALs for unrestricted use shall not be used in the final or intermediate cover system.

7. The permittees shall complete closure activities of each area within one hundred eighty (180) days following the beginning of closure in Special Conditions, Section H, Item 4 or 5. The permittees shall retain a professional engineer registered in the State of Hawaii for the supervision of the closure construction quality assurance requirements, and upon the completion, the engineer shall submit a summary report to the Department as to the complete conformity to the plans and specifications as approved. The summary report shall be submitted within sixty (60) days after closure activities are completed. The summary report shall also include a description of closure activities, as-built drawings, surveys of the final cover system, a documented control program of the final cover system construction, quality assurance/quality control testing procedures, laboratory analyses, and engineer's certification that the closure was completed in accordance with the approved closure plan and HAR 11-58.1-17.

8. Within ninety (90) days of completion of closure construction, the permittees shall submit a copy of the notation on the deed to the landfill property in accordance with HAR 11-58.1-17.

9. At a minimum, the Closure and Post-Closure Plan and the Financial Assurance report shall be revised every five (5) years, or whenever facility plans are updated or changed. This is not withstanding the requirement to make adjustments for inflation on an annual basis.

10. The permittees shall inspect and maintain the final cover system, including portions of the final cover system in the case of a phased closure, and other environmental controls associated with the facility on a quarterly basis, or more frequently if necessary, or as required by the department. If post closure plans are inadequate to maintain the integrity of the final cover system and associated environmental controls, additional measures may be required. The Department may periodically require revisions to the plan.
 - a. The inspections of the final cover system shall include, but are not limited to, an assessment of security control; erosion and erosion damage; cover deformation resulting from settlement, subsidence, or deformation; and run-on/run-off control structures.
 - b. The inspections of other environmental controls shall include, but is not limited to, an assessment of the surface water management system, perimeter gas monitoring system, leachate collection and control system, and presence of odors, vectors, and litter.

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OPERATOR:
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- c. The permittees shall document findings and implement corrective actions or other procedures, as necessary to maintain the integrity and functionality of the final cover system and environmental controls. The permittees shall submit written notification of any areas requiring attention and any associated corrective actions or procedures performed, within thirty (30) days of the inspection.
11. The permittees shall operate the surface water management system, explosive gas management system, leachate collection and control system, and monitoring programs in accordance with this permit. The Department may periodically require revisions to the plans.
12. During closure and post-closure periods, the permittees shall continue to assess the landfill after emergency events such as earthquakes and fires, in accordance with Special Conditions, Section A, Item 12.
13. If portions of the landfill are closed while the remainder of the facility is still operating, the permittees shall continue operating and monitoring the closed sections in accordance with this permit.
14. If the landfill reaches full design capacity, the permittees shall cease acceptance of waste and begin closure of remaining active part of the landfill.

Section I. Solidification Pit

1. The permittees may operate one (1) solidification pit at the West Hawaii Sanitary Landfill. The solidification pit may receive liquid waste for solidification. Liquid waste means any solid waste material that is determined to contain "free liquids": as defined by Method 9095 (Paint Filter Liquids Test), as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods." No hazardous waste or TSCA waste shall be received for solidification.
2. The solidification pit shall be constructed of half-inch steel plates along the bottom and three sides of the pit. The pit shall measure approximately 10 feet high, 15 feet wide, and 4 feet deep.
3. The solidification pit shall be located within the permitted landfill disposal area, within lined cells filled with municipal solid waste and not currently accepting waste. The solidification pit shall not be placed on final cover.

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4. The permittees may accept a maximum capacity of 20 tons of liquid waste per day or 250 tons of liquid waste per month. Operational capacity may be increased on a case-by-case basis with Department approval.
5. The permittees shall process (solidify) all liquid waste within the solidification pit. All liquid waste shall be processed and disposed in the active working face on the same day it is received at the facility. If the waste is odorous, the waste shall be solidified and buried immediately after it is received.
6. The permittees shall manage the solidification pit and process liquid waste in accordance with the Operating Plan – Solidification Pit for Liquid-Containing Wastes, dated April 2007.
 - a. The permittees shall process liquid waste by incorporating absorbent materials. No free liquid shall be observed during removal of the processed waste from the pit or disposal in the active working face. The permittees shall conduct the Paint Filter Liquids Test at least on an annual basis and maintain records of testing results.
 - b. The permittees shall control fugitive dust in and around the solidification pit area.
 - c. The permittees shall implement the odor monitoring procedure outlined in the operations plan and control odors generated from the solidification pit.
 - d. The permittees shall clean the pit and line it with fresh absorbent after each liquid waste load is solidified and disposed of at the active working face. The permittees shall take appropriate actions to control/eradicate vectors, if vectors are identified at the working face or solidification pit.
 - e. In the event that run-on/run-off is observed, the permittees shall berm affected areas to control stormwater flow in accordance with the facility-wide surface water management plan.
7. The Department may require additional conditions or testing at any time.
8. The permittees shall maintain records of liquid waste accepted for solidification. Records shall include the date, source, quantity, description, and other pertinent information. A summary of this information shall be included in the Annual Operating Report.
9. The permittees shall submit written documentation at least thirty (30) days prior to relocating the solidification pit to a new operating location. The written

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documentation shall include the new solidification pit location, schedule for implementation, and certification that the operations shall be in accordance with the previous approved submissions and these conditions.

10. The permittees shall submit written documentation within thirty (30) days after removal of the solidification pit from the former operating location. The written documentation shall include an assessment of impacts to the solidification pit area, actions taken to address any impacts observed, and photo documentation.

Section J. Recordkeeping and Reporting Requirements

1. The permittees shall maintain records in accordance with HAR 11-58.1-15(j), Standard Conditions, Item 11, and the conditions of this permit. Records shall include the following list and any other recordkeeping requirements set forth in this permit:
 - a. Financial assurance requirements (Special Conditions, Section A, Item 11)
 - b. Evaluation of landfill after emergency events (Special Conditions, Section A, Item 12)
 - c. Ceasing operations due to wind (Special Conditions, Section A, Item A.12.d)
 - d. Select waste screening (Special Conditions, Section B, Item 2.b)
 - e. Load Check Data Sheets (Special Conditions, Section C, Item 2)
 - f. Training records (Special Conditions, Section A, Item 10; Section C, Item 2; and Section D, Item 5)
 - g. Daily log of unacceptable waste (Special Conditions, Section C, Item 3)
 - h. Special Waste Acceptance Program (Special Conditions, Section C, Item 5)
 - i. User population (Special Conditions, Section D, Item 2)
 - j. Climatic information (Special Conditions, Section D, Item 4)
 - k. Disease Vector Control Report (Special Conditions, Section D, Item 7)
 - l. Litter control (Special Conditions, Section D, Item 8)
 - m. Asbestos disposal locations (Special Conditions, Section D, Item 9)
 - n. Special disposal procedures for contaminated material (Special Conditions, Section D, Item 13)
 - o. Daily cover log (Special Conditions, Section D, Item 21)
 - p. Daily cover monitoring verification program (Special Conditions, Section D, Item 24)
 - q. Monthly monitoring of intermediate cover (Special Conditions, Section D, Item 28)
 - r. Explosive gas monitoring (Special Conditions, Section F, Item 7)
 - s. Explosive gas verification (Special Conditions, Section F, Items 9 and 10)
 - t. Inspection of leachate management system (Special Conditions, Section G, Item 7)

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- u. Leachate pumping agreements (Special Conditions, Section G, Item 10)
 - v. Leachate collection system logs (automatic and manual) (Special Conditions, Section G, Item 11)
 - w. Revisions to Closure and Post-Closure Plan and Financial Assurance Report (Special Conditions, Section H, Item 9)
 - x. Inspections of final cover system (Special Conditions, Section H, Item 10)
 - y. Evaluation of closed landfill after emergency events (Special Conditions, Section H, Item 12)
 - z. Solidification pit records (Special Conditions, Section I, Item 8)
2. The permittees shall comply with the reporting requirements of Standard Condition No. 11, the following list, and any other reporting requirements set forth in this permit:
- a. Operations outside normal operating hours (Special Conditions, Section A, Item 5)
 - b. Personnel updates (Special Conditions, Section A, Item 9)
 - c. Financial assurance requirements (Special Conditions, Section A, Item 11)
 - d. Incident reporting (Special Conditions, Section A, Item 12)
 - e. Evaluation of landfill integrity after emergency events (Special Conditions, Section A, Items 12.c.ii-iv)
 - f. Select waste screening (Special Conditions, Section B, Item 2.b)
 - g. Liner installation notification (Special Conditions, Section B, Item 5)
 - h. Unevaluated geological conditions (Special Conditions, Section B, Item 12)
 - i. Identification of hazardous or PCB waste (Special Conditions, Section C, Item 3.d)
 - j. Contaminated materials acceptance (Special Conditions, Section C, Item 5.d)
 - k. Changes to user population (Special Conditions, Section D, Item 2)
 - l. Daily cover monitoring verification program (Special Conditions, Section D, Item 24)
 - m. Gas monitoring probe repair (Special Conditions, Section F, Item 4)
 - n. Explosive gas well construction (Special Conditions, Section F, Items 3 and 4)
 - o. Explosive gas exceedances (Special Conditions, Section F, Items 9 and 10)
 - p. Monitoring well/manhole repair (Special Conditions, Section G, Item 3)
 - q. Notification of intent to close landfill units (Special Conditions, Section H, Item 4)
 - r. Final cover system areas requiring attention (Special Conditions, Section H, Item 10)
3. The permittees shall submit the following documents, and any other document requirements specified in this permit, in hardcopy and electronic format.

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- a. Cell-specific construction drawings and plans (Special Conditions, Section B, Item 2.a)
 - b. Construction Quality Assurance report (Special Conditions, Section B, Item 8)
 - c. Unevaluated geological conditions report (Special Conditions, Section B, Item 12)
 - d. Surface water management plan (Special Conditions, Section E, Item 5)
 - e. Updated perimeter gas monitoring plan (Special Conditions, Section F, Item 2)
 - f. Gas monitoring probe construction/repair/abandonment (Special Conditions, Section F, Items 3 and 4)
 - g. Explosive gas exceedance plans/reports (Special Conditions, Section F, Item 10)
 - h. Explosive gas monitoring reports (Special Conditions, Section F, Item 11)
 - i. Monitoring well/sump construction and repair (Special Conditions, Section G, Item 3)
 - j. Groundwater/Leachate Monitoring Report (Special Conditions, Section G, Item 19)
 - k. Closure plans and specifications (Special Conditions, Section H, Item 3)
 - l. Summary report of closure construction (Special Conditions, Section H, Item 7)
 - m. Copy of notation to deed following closure (Special Conditions, Section H, Item 8)
 - n. Solidification pit relocation (Special Conditions, Section I, Item 9)
 - o. Solidification pit removal (Special Conditions, Section I, Item 10)
4. The permittees shall submit an Annual Operating Report (AOR), for reporting period July 1 – June 30. The AOR shall be submitted by July 31 of each year to

Solid and Hazardous Waste Branch
Environmental Management Division
Hawaii Department of Health
P.O. Box 3378
Honolulu, Hawaii 96801-3378

5. The Annual Operating Report shall be submitted in hardcopy and electronic format, and shall include the following information:
- a. Types of solid waste received (MSW, greenwaste, industrial/commercial, tires, wood, metals, asbestos, and other special wastes).
 - b. Quantities of solid wastes received by type with totals using an appropriate unit of measure.

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- c. Types and quantities of liquid waste accepted for solidification, and location (cell) of the solidification pit.
- d. Quantities of leachate (gallons) generated and how it was handled or disposed. Water balance estimates of leachate generation by the use of the most recent EPA HELP model using climatic information collected in accordance with Special Conditions, Section D, Item 4.
- e. Quantities of filled airspace for the present year, past filled airspace and remaining airspace in both cubic yards and years shall be provided. The information shall be provided in both numerical and graphical presentations. Calculated waste density for the present year.
- f. On or before July 31 of each year, the permittees shall submit an annual topographic survey of the site as prepared by a land surveyor registered in the state of Hawaii, aerial surveys, or an approved alternate method. The survey shall compare topographic elevations to final grades as approved in this permit. The permittees shall also submit annual surveys of leachate sumps, as required by Special Conditions, Section G, Item 4.
- g. A Sequencing Plan, including a drawing, identifying the cell areas to be filled in the coming year including identification of the wet weather areas. The cell areas and wet weather area capacity shall be provided using an appropriate unit of measure.
- h. Final fill areas, intermediate fill areas, and future unused fill areas shall be identified for the projected year.
- i. Daily cell construction plan, including cell geometry, estimated daily/weekly cover volumes, and soil:waste ratios.
- j. A soil-balance report of the past year and coming projected year reported separately. The soil daily cover and intermediate cover including erosion replacement soil also shall be reported separately. The source and type of soil shall be recorded separately for daily cover and intermediate cover. The soil-balance report for the past year shall be based on records of actual use in a daily, weekly and monthly basis. Any exceedance of permit grades or incomplete/non-application of daily cover shall be identified. Current soil use records shall be maintained at the facility for review.
- k. Date of final receipt of waste at each cell or area of the landfill. A schedule of anticipated closure and post-closure activities to be performed within the next five years.
- l. A summary of closure and post-closure activities performed during the reporting period.
- m. A copy of the detailed written estimates on closure and post-closure care cost and documentation of financial assurance.

