

PERMITTEE:
OWNER/OPERATOR: Maui Demolition and Construction, Inc.
P.O. Box 880508
Pukalani, Maui, HI 96788

PERMIT NUMBER: LF-0035-07
DATE OF ISSUE: DRAFT
EXPIRATION DATE: 5Y-1d from DATE
LATITUDE/LONGITUDE: 20°48'55"N, 156°30'25"W
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DRAFT SOLID WASTE MANAGEMENT PERMIT

This solid waste management permit modification and renewal is issued under the provisions of Chapters 342H, "Solid Waste Pollution" Hawaii Revised Statutes (HRS), and Title 11, Chapter 58.1, "Solid Waste Management Control" Hawaii Administrative Rules (HAR). The above-named permittee is hereby authorized to construct and to operate the facility shown on the application received on April 18, 2007, additional submittals received August 9, 2007, April 14, 2010, July 2, 2010, July 26, 2010, September 27, 2010, April 6, 2011, July 2011, January 2012, May 2012, July 12, 2012, April 6, 2015, July 9, 2015 and other approved documents on file with the Department of Health as follows:

To Operate: The Maui Demolition and Construction Landfill Facility. The facility, located at Maalaea on the island of Maui, covers an area of 14.8 acres, consisting of the Construction and Demolition (C&D) solid waste landfill, support area and other appurtenant areas. The C&D waste landfill area consists of two phases: Phase I is approximately 24,000 square feet and is located at the base of the pit area and 12,000 square feet of side slope area which extends seven feet up from the base of the pit. Phase II is approximately 350,000 square feet and covers from seven feet above the base of the pit to the top of the pit at 176 feet above mean sea level.

The liner in Phase I consists of a 60 mil high density polyethylene (HDPE) liner underlain by a geosynthetic clay liner with a permeability of 1×10^{-11} cm/s. The Phase I also included the construction of a leachate collection and monitoring system, provided it is constructed as described in the *Report, Summary of Construction Operations - Ma'alaea Construction and Demolition Landfill* by Masa Fujioka & Associates, dated September 13, 1996.

The leachate collection system is designed to maintain less than a 30 centimeter leachate depth over the liner, and consists of a 24 inch drainage layer and a sump on Phase 1. A monitoring system consisting of a leachate monitoring system and three groundwater wells have been installed to monitor leachate migration through the liner system.

A 36-inch (12-inches of drainage layer + 24-inches of protective soil) thick soil layer designed to protect the liner system was placed over a geotextile lying over the HDPE liner. A minimum of 5-foot select waste layer overlies the composite geosynthetic liner system.

The liner system for Phase II is specified in the May 2012 Operational plan by Latte Consulting and covers the area from 7 feet above the base to the top of the pit. According to Mr. Richard Decoite, the Phase II liner consists of a 40 mil HDPE liner placed over the finished subgrade.

The nominal operating rate for waste disposal is limited to 400 tons per day, with a maximum disposal rate not to exceed 1,200 tons per day.

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The facility may dispose of C&D solid waste as defined by HAR Title 11, Chapter 58.1 Solid Waste Management Control, in the landfill. Contaminated soil may also be accepted at the site for disposal as specified within Special Conditions. Clean metal may be sorted from the incoming waste stream and stored on-site for recycling. Clean concrete may be processed for use on-site.

Asbestos may be disposed at the landfill provided a plan to manage asbestos as a special waste is acceptable to the Department.

The facility shall not accept municipal solid waste, commercial and industrial waste (excluding C&D waste from commercial/industrial generators), regulated hazardous waste, asbestos, and Toxic Substances Control Act (TSCA) regulated polychlorinated biphenyls (PCB) contaminated materials.

IN ACCORDANCE WITH: The permit renewal application and supporting submissions received on April 18, 2007, additional submittals received August 9, 2007, April 14, 2010, July 2, 2010, July 26, 2010, September 27, 2010, April 6, 2011, July 2011, January 2012, May 2012, July 2011, January 2012, May 2012, July 12, 2012, April 6, 2015, July 9, 2015 and other approved documents on file with the Department of Health. Should there be any discrepancies in the aforementioned documents, HAR 11-58.1 and the conditions of this permit shall take precedence.

LOCATED AT: Puu Hele Cinder Pit east of the intersection of Honoapiilani Highway and Kihei Road, Maui, Hawaii.
TMK No. 3-8-005:002 (por. of)

SUBJECT TO: HRS 342H; HAR 11-58.1; and Part I - Standard Conditions and Part II - Special Conditions 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 supersedes the Solid Waste Management Permit Number LF-0034-96 issued March 29, 1996, 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*, 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 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, 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 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 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 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. If there are any discrepancies between these permit conditions and other federal, state, or local laws, regulations, ordinances, or requirements, the permittee shall notify the department in writing.
4. Unless the submitted documents and other information secured by the department from the permittee contain confidential information, such as secret processes or

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methods of manufacture, they shall be made available for inspection by the public (HRS §342H-14). The permittee shall be responsible for identifying, in writing, the specific information asserted to be confidential. The department shall review the assertion made by the permittee 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 suspension, modification, or 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 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 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 (586-4226 during regular hours or such numbers as the department may provide) or fax (586-7509) 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

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within 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 does not comply with, or will be unable to comply with, any condition or limitation specified in the permit, the permittee shall notify the department orally within twenty-four (24) hours followed by a written report within three (3) calendar days 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.

The permittee 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

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regular mail submittals. Failure to notify in accordance with this requirement may initiate enforcement action.

11. Monitoring and Recordkeeping Requirements. The permittee shall comply with the following monitoring and recordkeeping requirements:
 - a. Upon request, the permittee 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 Condition No. 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 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 for the life of the facility, through closure and post-closure periods, from the date of the sample, measurement, report, or application unless otherwise specified by department rule.
 - 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 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 Standard Condition No. 13. The plans and reports shall be prepared by a competent person acceptable to the department, and at the expense of the permittee.
13. Should the permittee decide to modify the permit or continue operation of the solid waste facility beyond the expiration date of the permit, the permittee shall submit a complete permit modification or renewal application at least one hundred eighty (180) days prior to the modification or the date of permit expiration. Any submission for permit modification does not affect these permit conditions until such modification

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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.

15. The department may require the permittee to provide such facilities as are necessary for sampling and testing to determine the degree of pollution from the solid waste facility in accordance with HAR §11-58.1-04(c)(6)(B).
16. When requested by the department, the permittee 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 permittee becomes 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 has violated or is violating any 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 to immediately reduce or

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stop the disposal, discharge, or process, and may take any and all other actions as may be necessary (HRS §342H-8).

20. This permit requires the use of Best Practicable Technology (BPT) for the construction and operation of the facility by the use of design components, monitoring and operational systems in accordance with HAR §11-58.1.

PART II - SPECIAL CONDITIONS

Section A. General Facility Conditions

1. The permittee shall construct and operate the facility in accordance with HRS 342H; HRS 342I; HAR §11-58.1; the application received April 18, 2007, additional submittals received August 9, 2007, April 14, 2010, July 2, 2010, July 26, 2010, September 27, 2010, April 6, 2011, July 2011, January 2012, May 2012, July 12, 2012, April 6, 2015, July 9, 2015, approved subsequent submissions; and the conditions of this permit. Should there be any discrepancies among the aforementioned documents, HRS, HAR and permit conditions shall take precedence.
2. 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.
3. The permittee may operate the facility during the normal operating hours of 7:00 am to 4:00 pm, Monday through Friday, and 7:00 am to 1:30 pm on Saturday, or as otherwise submitted to the department. In the event that the facility proposes any waste acceptance and disposal outside normal operating hours, the permittee 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 permittee 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.
4. An all-weather access road shall be maintained into and out of the facility site, and to the active work areas of the landfill. Access lanes shall be provided and maintained for fire response, vector control, or dust suppression.
5. The permittee is responsible for providing measures to control public access. The permittee 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.
6. Scavenging at the facility by the general public is prohibited.
7. The facility shall have an Environmental Officer, who shall be knowledgeable of state solid waste laws, regulations, these permit conditions, and the permit application components, including the May 2012 Operations Plan, and approved subsequent submissions.

8. Emergency Procedures. The permittee shall implement the Emergency Procedures as described in the May 2012 Operations Plan, the October 2011 Emergency Fire Plan and approved subsequent submissions. In the event of a fire, the permittee shall implement the gas monitoring procedures described in the October 2011 Emergency Fire Plan and approved subsequent submissions.
9. Should unacceptable waste be identified at the landfill, the permittee shall separate the waste, manage, transport, and recycle/dispose of it in accordance with the May 2012 Operations Plan, approved subsequent submissions, and applicable laws and rules. Unacceptable waste identified at the landfill shall not be disposed of at the landfill. Unacceptable waste shall be transported from the landfill prior to posing a nuisance, health, or safety concern.
10. Suitable methods and procedures shall be used at the facility to reduce and control the generation and release of litter, dust, odors, vector, or other nuisances. The facility shall maintain a neat and orderly appearance and shall be screened and buffered to minimize nuisances to neighboring properties in accordance with HAR.
11. The permittee shall minimize the generation of dust onsite. Dust control measures shall include, but are not limited to, applying water sprays. If measures do not adequately minimize the generation of dust, the permittee shall apply additional dust control measures, such as dust screens, shrouds, covers, or other means, or implement operational changes or restrictions as necessary.

Section B - Facility Design and Construction

1. The lateral dimensions of the landfill shall be limited to the area designated for landfill use under the County of Maui, Department of Planning Special Use Permit SUP2 98/0005 and Declaratory Ruling DR 2015/0001. The landfill shall be limited to the height of approximately 176 feet above mean sea level, as approved by the County of Maui, Department of Planning Declaratory Ruling DR 2015/0001 and Exhibit A, Proposed Closure Plan December 2014 submitted by Maui Demolition and Construction Landfill. The permitted C&D landfill disposal area covers approximately 8.9 acres (386,000 square feet) inside the Pu'uhele Cinder Pit, as approved by the County of Maui Department of Planning.
2. No construction of additional disposal cells or modification of the lateral or vertical extent of disposal cells beyond the limits referenced in Special Condition B.1 shall occur without written approval by the Department. Any modification requests shall be submitted in accordance with Standard Condition no. 13 at least one hundred eighty (180) days 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.

3. The permittee shall comply with the financial assurance requirements in HAR 11-58.1-18 for closure of the C&D landfill, post-closure care, and corrective action, if required.
 - a. The permittee shall maintain a copy of the detailed written estimates and documentation of financial assurance for department review; and
 - b. The permittee shall provide proof of financial assurance on an annual basis.

Construction and Maintenance

4. The permittee shall maintain the integrity of the liner system and leachate collection system as designed. Phase I liner construction is as described in the *Report, Summary of Construction Operations - Ma'alaea Construction and Demolition Landfill* by Masa Fujioka & Associates, dated September 13, 1996. In the event that damage to the liner and leachate collection systems has occurred, the permittee shall repair the liner and/or leachate collection system, or implement equivalent or better alternative environmental controls as approved by the Department.
 - a. The landfill bottom-liner system includes a geosynthetic clay liner (GCL), consisting of bentonite clay and 60-mil HDPE placed over the finished subgrade, covering the bottom of the landfill and up to seven feet of the sides. A geotextile was placed between the bottom liner and the drainage layer. Clean and washed imported #3 Fine (3/8" in average size) gravel was placed at the bottom of the landfill over the geotextile layer at a minimum thickness of 12 inches.
 - b. The leachate collection system is designed to maintain less than a thirty-centimeter depth over the liner;
 - c. The sump base measures 18-feet in diameter and is approximately 2-feet high, was constructed with an 80 mil HDPE liner base and 120 mil HDPE liner side walls. The side walls were created by joining two 60 mil HDPE. All the landfill areas slope towards the sump; and
 - d. A 36-inch (12-inches of drainage layer + 24-inches of protective soil) thick soil layer designed to protect the liner system is placed over a geotextile that lies over the HDPE liner. A minimum of 5-foot select waste layer overlies the composite geosynthetic liner system.
 - e. The liner system for Phase II is specified in the May 2012 Operational plan by Latte Consulting and covers the area from 7 feet above the base to the top of the pit. According to Mr. Richard Decoite, the Phase II liner consists of a 40 mil HDPE liner placed over the finished subgrade.
5. Modification of the existing cells shall not occur prior to the Department's approval of the final construction plans and specifications prepared and certified by a professional engineer, registered in the State of Hawaii, with at least five (5) years experience in designing landfills. The permittee shall maintain the integrity of the

liner system and leachate collection and control system as designed, or implement equivalent or better alternative environmental controls, as approved by the department.

6. 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 quality assurance/quality control (QA/QC) landfill inspector with at least five (5) years of experience in landfill construction quality assurance (CQA) responsible to a professional engineer shall observe liner installation and grade elevations. The permittee shall notify the Department, in writing, five (5) days prior to any liner installation work.
7. The permittee is responsible for obtaining the services of a registered land surveyor or an approved alternate method to provide a minimum second order of accuracy on: triangulation, traverse, leveling and baseline measurements of the base grade, including sumps, as shown on the approved drawings. The liner contractor and installer shall certify the base grade in writing. This written certification shall be included in the CQA report described in Special Condition B.9.
8. The permittee shall retain a professional engineer registered in the State of Hawaii for the supervision of the construction of this project, and upon the completion, the engineer shall submit a CQA report to the Department as to the complete conformity of the construction to the plans and specifications as approved. The CQA Report is described in Special Condition B.9.
9. The permittee shall prepare and submit a CQA report(s) to the Department.
 - a. The CQA report shall be submitted to the Department prior to placement of select waste in the cell;
 - b. A professional engineer, with at least five (5) years experience in designing landfills, and registered in the State of Hawaii shall prepare the CQA report; and
 - c. The CQA report shall include written certification by the professional engineer that the liner system, leachate collection system, and any other associated items were installed in accordance with the approved documents.
10. The permittee shall afford the opportunity for an inspection of each repaired section by the Department prior to select waste placement, with the presence of the CQA engineer and the on-site facility coordinator.
11. Upon department request, the permittee shall utilize a GPS system to determine the boundaries and elevations of waste disposal at the site, and to demonstrate compliance with permitted grades and boundaries.

Section C - Facility Operations

Acceptance Criteria

1. The permittee is authorized to accept C&D wastes, as defined in HAR§11-58.1-03 and HAR §11-58.1-19, in accordance with the May 2012 Operations Plan, approved subsequent submissions, and the conditions of this permit.
2. The permittee shall implement the Unacceptable Waste Exclusion Program, as provided in the May 2012 Operations Plan, and approved subsequent submissions. The facility shall not accept municipal solid waste, commercial and industrial waste (excluding C&D waste from commercial/industrial generators), regulated hazardous waste, TSCA-regulated PCB contaminated materials, pesticide containers (unless they meet the requirements of 40 CFR 261.7 and 261.4(b) household waste), and liquids (as defined in HAR 11-58.1-03).
3. The permittee is authorized to accept contaminated soil (petroleum contaminated soil or contaminated soil from construction activity). All contaminated soil material shall have a profile sheet completed by the generator or its representatives, reviewed by the landfill's environmental manager, and approved by the Environmental Division of Alexander and Baldwin (A&B) Properties through a letter of clearance prior to acceptance. Disposal of contaminated soil shall comply with Special Conditions C.16 and C.17.
4. Asbestos may be accepted for disposal upon submittal of an updated plan documenting how asbestos will be managed as a special waste. At a minimum, the plan shall comply with the requirements of 40 CFR Part 61, Subpart M, *National Emission Standard for Asbestos*.

Operation of the Landfill

5. **Climatic Information.** Climate information shall be collected on a daily basis and shall include information on daily rainfall, solar radiation, wind speed and direction, humidity, temperature, and other meteorological data, as applicable, for use in annual modeling of evapotranspiration and leachate generation with the EPA Hydraulic Evaluation of Landfill Performance (HELP) model at the landfill. The permittee shall minimize any weather equipment downtimes. Data shall be provided to the Department upon request.
6. **Program for Regular Training.** The permittee shall take adequate measures to provide training to landfill operators annually, or more frequently, as needed to ensure that the operators are familiar with the Operations Plan and these permit conditions. Training shall be performed in accordance with the May 2012 Operations Plan and approved subsequent submissions.

7. **Mud and Dust Prevention Program.** The permittee shall provide adequate measures for minimizing the tracking of mud onto public roads, and the generation of dust on site.
8. **Odor Control.** The permittee shall take adequate measures to prevent or control odors from the facility. If odor control measures are not adequate, the permittee shall implement additional odor control measures.
9. **Disease Vector Control.** The permittee shall take adequate measures to minimize or control on-site populations of disease vectors, including rodents and flies. The permittee shall conduct, comply with, and maintain records in accordance with the May 2012 Operations Plan and approved subsequent submissions. If vector control measures are not adequate, the permittee shall implement additional vector control measures.
10. **Litter Control.** The permittee shall take adequate measures to confine litter to the working face area and minimize litter from leaving the facility. The permittee shall implement the litter control provisions of the May 2012 Operations Plan and approved subsequent submissions.
11. The permittee shall take measures to minimize **surface and subsurface fires** as described in the October 2011 Emergency fire plan and subsequent approved submissions.
12. The permittee shall make available adequate soil material necessary for interim, intermediate, and final cover for landfill operations. The stockpile soil on the landfill shall not exceed a limit of 30 days capacity and have stormwater controls. Stockpiled soil shall not exceed permit grades.

Waste Disposal

13. The nominal operating rate for waste disposal at the landfill shall not exceed 400 tons per day. The disposal rate shall not exceed 1,200 tons per day, except as may be designated during a State-declared emergency.
14. The permittee shall provide adequate equipment and personnel to operate the landfill facility, including provisions for back-up personnel and equipment. The disposal workface shall have a minimum of one bulldozer of D8 size or equal, one loader, one water truck, and a spotter at the active workface, unless otherwise revised in the operations plan and approved by the Department.
15. The permittee shall inform drivers/operators of non-household vehicles that their loads should be covered prior to entering the facility.

16. Contaminated soil with contaminant concentrations that meet the following criteria, or other criteria approved by the department, may be used for void space fill within the landfill working face and interim cover.
 - a. TPH gasoline below 2,000 ppm;
 - b. TPH, middle distillates and residual fuels below 5,000 ppm;
 - c. TPH levels above 5,000 ppm with written approval from the department;
 - d. TEQ dioxins below 1,800 ng/kg and cumulative risk less than 10^{-4} ;
 - e. Technical chlordane below 65 ppm and passes TCLP, and
 - f. Other contaminant levels below DOH EALs for commercial/industrial use.
17. The following controls shall apply to the disposal of contaminated C&D waste, including, but not limited to, contaminated soil with contaminant concentrations exceeding levels in Special Condition C.16, for disposal.
 - a. All trucks accepted by the facility for disposal of contaminated C&D waste shall be covered;
 - b. The permittee shall ensure that contaminated materials are disposed directly into the active workface, and excess amounts of contaminated materials are not remaining in the truck and transported from the site;
 - c. The permittee shall only allow the disposal of contaminated materials when the wind speed is below 30 mph;
 - d. The permittee shall implement dust control measures, such as water sprays and barriers, to adequately control dust during placement of contaminated material;
 - e. By the end of the working day, the contaminated C&D waste and contaminated soil shall be covered with non-contaminated C&D waste and/or interim cover; and
18. The permittee shall place at least six (6) inches of earthen material as interim cover on the active workface when the active workface area is 1,500 square feet in size or at the end of the week, whichever comes first. Interim cover shall also be placed as needed to control disease vectors, fires, odors, blowing litter, nuisance conditions, and scavenging. All exposed waste, including the active workface, shall be covered with interim cover on any non-workday. Documentation on the date interim cover was placed and the amount of cover used shall be maintained.
19. The permittee shall cover all inactive waste areas with intermediate cover. Inactive waste areas are areas that have not received any waste for 30 days or more.
20. The permittee shall cover any waste area receiving vehicular traffic with a minimum of 12 inches of soil, gravel, asphalt, or concrete, regardless of the time period since last receiving waste.

21. Intermediate cover shall be a minimum of 12 inches of earthen material (may include 6 inches of interim cover), with contaminant levels below DOH EALs for unrestricted use in Appendix 1, Table I-1 of *Screening for Environmental Hazards at Site with Contaminated Soil and Groundwater* (Table I-1). Intermediate cover shall be a material that prevents stormwater contact with covered waste and directs stormwater to collection systems. Intermediate cover shall also control disease vectors, fires, odors, blowing litter, nuisance conditions, and scavenging.
22. Intermediate cover shall be maintained to minimize erosion and cracking.
23. The permittee shall cease acceptance and disposal of waste in high wind conditions in accordance with the Operations Plan, and as determined by the foreman and Site Manager. The permittee shall maintain a log of such events, including the date, time of shutdown, and associated wind speed

Concrete and Metal Recycling

24. The permittee shall operate the concrete and metal recycling facility in accordance with HAR 11-58.1-33, *Solid Waste Salvage Facilities*.
25. The permittee may receive, segregate, store clean concrete, uncontaminated ferrous and non-ferrous scrap metal, and process clean concrete subject to the following conditions:
 - a. Stockpiles/activities shall be placed/conducted atop at least 24 inches of intermediate cover material and shall not impede stormwater flow, unless otherwise approved by the Department. Temporary berms, containment measures, activity areas, and access to stockpiles/activity areas shall also be placed atop at least 24 inches of intermediate cover material, unless otherwise approved by the Department.
 - b. The permittee shall collect pot hole samples to verify the depth of intermediate cover prior to placement of the material storage stockpiles, temporary berms, or other containment measures and prior to commencement of other activities. Documentation of depth, as well as periodic inspections, shall be provided to the Department upon request. Periodic inspections shall be performed on a monthly basis during material storage and weekly when significant activity is ongoing.
 - c. Material storage stockpiles shall be removed a minimum of once a month. If the material storage stockpiles are not removed once a month, the permittee shall provide documentation by a professional engineer certifying that the stockpile will not affect the integrity of the landfill and has/will not cause differential settlement that affects storm water flow towards collection

- systems. The certification shall include calculations used in the determination.
- d. Clean concrete to be segregated and processed on site by crushing shall be unpainted and without any other coating. Processed concrete shall meet the inert fill definition in HRS 342H-1 and may only be used onsite. The rebars removed during crushing shall be stored with segregated metal for recycling.
 - e. Adequate dust control measures shall be instituted during concrete crushing activities.
 - f. Ferrous and non-ferrous metal shall only be segregated and temporarily stored for transport to off-site recycling. No recycling related processing, including but not limited to fluids removal, baling, or cutting shall be conducted.
26. The metal to be recycled shall be transported to a DOH-permitted facility allowed to accept the material or to an out-of-state recycling facility.
 27. The permittee shall maintain monthly records of the amount of concrete, ferrous and non-ferrous material received and processed, and the dates the material storage stockpiles were removed. In addition, copies of receipts of sale, recycling, or disposal of concrete, ferrous and non-ferrous material shall also be maintained on a monthly basis.
 28. An annual report shall be prepared documenting the total tonnage of concrete, ferrous and non-ferrous material received, processed, and recycled. The annual report shall be submitted pursuant to Special Condition E.3.

Surface Water Management

29. **Surface Water Management.** At a minimum, the permittee shall:
 - a. Provide run-on and run-off control system for a peak discharge from a minimum twenty-five year 24-hour storm.
 - b. Prevent soil erosion and exposure of waste. Surface water that comes into contact with waste material shall be managed as leachate. Should waste become exposed or soil cover materials erode, the permittee shall repair the cover immediately.
 - c. Prevent a discharge of pollutants into waters of the United States, or the violation of any requirement of the Clean Water Act or Hawaii Administrative Rules Title 11, Chapter 54, *Water Pollution Control*.
30. **A Surface Water Management Plan** shall be prepared and updated **annually** and filed with the Department by no later than September 1 of each year. The surface water plan shall include the surface water management of all areas in the Maui Demolition and Construction Landfill Facility. The plan 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 surface water away from the workface and towards the surface water 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 Condition C.29.
- e. Any Storm Water Pollution Prevention Plan or Spill Prevention Control and Countermeasure Plan prepared pursuant to federal requirements.

Leachate Management

31. The permittee shall follow the Leachate Management Practices as provided in the May 2012 Operations Plan and approved subsequent submissions.
32. Leachate means water or other liquid that has percolated or passed through or emerged from solid waste and contains dissolved, soluble, suspended, or miscible materials removed from the waste or due to contact with solid waste or gases therefrom. Water that has come into contact with waste shall be treated as leachate unless analytical data can demonstrate otherwise and is approved by the Department.
33. The permittee may only use leachate for dust control at the active working face, shall not promote leachate infiltration, and shall not be applied in a manner that would be considered bulk disposal. Leachate shall be sprayed in a manner that does not expose landfill customers or personnel to leachate.
34. The permittee shall manage leachate to prevent any entry into the stormwater collection system.
35. The permittee shall maintain an elevation control point at the top of casing or other monument in the immediate vicinity of the sump, for the measurement of leachate in the sump. The elevation control point shall be surveyed every two years, unless there is damage to the sump, and clearly marked. The permittee shall also maintain a monument, showing benchmark elevation, at a position off the landfill.
36. The permittee shall remove leachate from the landfill via the leachate sump, 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. As stated in the September 13, 1996 Summary of Construction Operations report from Masa Fujioka

and Associates, the bottom the sump is at 18 feet above mean sea level. The leachate sump compliance depth is three (3) feet as referenced in the May 2012 Operations Plan, and the compliance elevation is 21 feet above mean sea level.

37. The permittee shall maintain the integrity of the sump and protect it from damage, destruction, or vandalism. If repairs or replacement is necessary to ensure proper management and monitoring, then the permittee shall design and construct the necessary repairs and/or replacements in accordance with the Operations Plan and approved subsequent submissions.
38. Leachate Level Management, Storage, Transport, Removal, and Recordkeeping. The permittee shall manage leachate in accordance with the May 2012 Operations Plan, approved subsequent submissions, and the following conditions.
 - a. The permittee shall manually inspect and measure leachate in the leachate sump at least once a month and after any major rain event (more than one inch in 24 hours). The permittee shall inspect and measure leachate in the sump daily or more frequently whenever significant leachate volumes are generated, or the compliance level has been exceeded;
 - b. The permittee shall transport leachate to a truck-mounted tank or stationary holding tank to be stored within lined landfill area or within secondary containment; and
 - c. The permittee shall transport leachate from the storage tank(s) to an authorized wastewater treatment and disposal facility, or as approved by the department, as frequently as needed to comply with leachate sump compliance depth requirements in Special Condition C.36.

Groundwater/Leachate Monitoring

38. Groundwater and leachate monitoring shall be conducted in accordance with HAR 11-58.1-19(e), the most recent State of Hawaii Landfill Groundwater Monitoring Guidance document, the July 2015 Groundwater and Leachate Monitoring Plan prepared by Juturna LLC, 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.
39. All sample collection, handling, management, and analysis shall be conducted in accordance with EPA SW-846, *Test Methods for Evaluating Solid Waste*.
40. 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 records. A chain of custody shall be maintained from the time of sample collection through the final analysis and disposition.

41. Sample analysis shall be conducted by an independent third party with appropriate credentials and performed at the expense of the permittee.
42. Groundwater samples shall be collected and analyzed on a quarterly basis, or as otherwise approved by the Department. Groundwater samples shall be analyzed for constituents listed in HAR 11-58.1-19(e)(2), 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), and field measurements (electrical conductance, pH, temperature, turbidity, and groundwater surface elevation), or as otherwise approved by the Department.
43. Leachate samples shall be collected and analyzed on at least an annual basis, or as required by the Department. During the first sampling event of this permit term, and every two years thereafter, leachate shall be analyzed for the constituents listed in Special Condition C.42 and 40 CFR Part 258, Appendix II constituents, or as otherwise approved by the Department. On an annual basis, leachate shall be analyzed for the same constituents as in Special Condition C.42, or as otherwise approved by the Department.
44. Testing Frequency and Parameters
 - a. Following a minimum of two (2) years of quarterly groundwater monitoring, the permittee 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 permittee shall submit the request in writing. The permittee 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.
45. The permittee shall prepare and submit a Groundwater/Leachate Monitoring Report within forty five (45) 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 VOCs),
 - g. Time-series plots for each detection monitoring parameter (except field measurements) and Piper/Stiff diagrams,
 - h. Comparison of analytical data and Environmental Action Levels. This comparison is provided for qualitative purposes only;
 - 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.
46. In the event of a statistically significant increase or detection of VOCs above the practical quantitation limit, the permittee shall comply with the requirements of HAR 11-58.1-19, and submit a plan to address the findings. The plan shall be prepared with consideration of HAR 11-58.1-16. Any Department comments shall be addressed and incorporated. The permittee shall implement the plan, as approved by the Department.

Section D: Closure and Post-Closure Requirements

1. The permittee shall stop accepting waste upon reaching final waste grades in landfill waste footprint.
2. The permittee shall perform closure and post-closure activities in accordance with the County of Maui, Department of Planning Special Use Permit SUP2 98/0005 and Declaratory Ruling DR 2015/0001, HAR 11-58.1-17, and these permit conditions. Should there be any discrepancies between these documents, the HAR and these permit conditions take precedence.
3. The permittee shall submit closure construction plans and specifications at least one hundred and eighty (180) days prior to scheduled closure construction, including a proposed construction schedule. 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 permittee shall provide written notice of intent to close each landfill unit at least ninety (90) days prior to initiating closure activities. Notification shall also be provided to the landowner, customers and to the County of Maui. The notice of intent shall include a schedule and shall also be placed in the operating record.
5. Soil with contaminant concentrations above DOH EALs for unrestricted use shall not be used in the final cover system. Final cover shall be constructed in accordance with an approved closure and post-closure plan. Modifications to the final cover

plan, including the use of semi-arid alternative final cover, are subject to approval from the Department. Final cover systems that utilize a geosynthetic liner shall be installed in accordance with Special Condition B.6.

6. The permittee shall begin closure activities within thirty (30) days after the date on which the landfill received the known final receipt of waste (reaches permitted grades). The Department may consider an extension if adequate demonstration is provided showing that the landfill has additional permitted capacity and that the permittee has taken and will continue to take all steps necessary to prevent threats to human health and the environment from the unclosed landfill.
7. The permittee shall complete closure activities in accordance with HAR 11-58.1-17. Supervision of closure construction quality assurance requirements shall be performed by a professional engineer registered in the State of Hawaii in accordance with Special Condition B.9.

The CQA 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 include certification that the cover is constructed in accordance with an approved closure and post-closure plan. The summary report shall be submitted within sixty (60) days after closure activities are completed, and 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 of construction.

8. 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.
9. Within ninety (90) days of completion of closure construction, the permittee shall submit a copy of the notation on the deed to the landfill property in accordance with HAR 11-58.1-19(f) and 11-58.1-17.
10. The permittee 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 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; cap deformation resulting from settlement, subsidence, or deformation; and runoff control structures;
 - b. The inspections of other environmental controls shall include, but are not limited to, an assessment of the surface water management system, leachate collection and control system, and presence of odors, vectors, and litter; and
 - c. The permittee 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 permittee shall submit written reports of quarterly inspections and notification of any areas requiring attention and any associated corrective actions or procedures performed, within thirty (30) days of the quarterly inspection.
11. The permittee shall operate the surface water management system, leachate collection and control system, and groundwater/leachate monitoring programs in accordance with this permit. The department may periodically require revisions to the plans.

Section E: Recordkeeping and Reporting Requirements

1. The permittee shall maintain records in accordance with Standard Conditions, Item 11, and the conditions of this permit. The permittee shall comply with the reporting requirements of Standard Condition No. 11, and any other reporting requirements set forth in this permit.
2. The permittee shall submit an Annual Operating Report (AOR), for the reporting period July 1 to 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
919 Ala Moana Blvd, Room 212
Honolulu, Hawaii 96814
3. The Annual Operating Report shall be submitted in hardcopy and electronic format, and shall include the following information:
 - a. Types and quantities of solid waste received (wood, metal, concrete, asphalt, building materials, and asbestos waste);
 - b. Quantities of leachate (gallons) generated and managed;
 - c. Water balance estimates of leachate generation by the use of the most recent EPA HELP model using climatic information collected in accordance with Special Condition C.5;

- d. The permittee shall submit the most recent (at least within last 3 months) topographic survey of the site as prepared by a land surveyor or civil engineer registered in the state of Hawaii, aerial surveys, or an approved alternate method. The survey shall clearly show the horizontal and vertical dimensions of the landfill. The permittee shall also submit an isopach drawing that compares the current topographic elevations to final grades as approved in this permit. The permittee shall also submit biennial surveys of the leachate sump elevation control point, as required by Special Condition C.35;
- e. A Sequencing Plan, including a drawing, identifying the cell areas to be filled in the coming year and identification of the wet weather areas. The cell areas and wet weather area capacity shall be provided using an appropriate unit of measure. Wet weather tipping and transfer areas shall not be located outside the lined waste disposal footprint. The Sequencing Plan drawing shall also identify the locations of inert waste and scrap metal processing areas to be used in the coming year;
- f. Final fill areas, intermediate fill areas, and future unused fill areas shall be identified for the projected year;
- g. The landfill Surface Water Management Plan prepared in accordance with the Operations Plan and approved subsequent submissions;
- h. Volume of waste disposed on an annual basis, and associated volume of soil used for interim cover, void space fill, and fire barriers on an annual basis;
- i. Written proof of financial assurance;
- j. Summary of Post-Closure monitoring activities; and
- k. The total tonnage of concrete, ferrous and non-ferrous material received, processed, and recycled in accordance with Special Condition C.28.