

**APPLICATION FOR PERMIT OF A NEW OR EXPANDED
MUNICIPAL SOLIDWASTE LANDFILL
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
OFFICE OF POLLUTION CONTROL
SOLID WASTE AND MINING BRANCH**

The completion of a landfill application is required for the permitting of all new or expanded municipal solid waste landfills. A complete application shall consist of engineering drawings and other required information submitted in report format in a three ring binder. If the proposed facility consists of more than a landfill (e.g., baling facility, waste sorting, rubbish disposal site, etc.), also include a complete application for such facility either as an appendix or information/documentation incorporated into the sections describing the landfill. Applications shall be submitted in triplicate. Where practical, the written report should be prepared 2-sided. Tab pages numbered 1 through 13 should separate the Sections in the report. Information/documentation pertaining to the application, but not part of the discussion (e.g., letters, calculations, reports, etc.) should be contained as appendices at the end of the appropriate tabbed section. No appendices should be at the end of the application after Section 13, unless the subject matter is unrelated to the information contained in Sections 1 through 13. All pages should list the date the submittal was prepared, the revision number, and page number. For example:

Prepared: 10-9-1996
Revision No. 0
Page 1-1

Throughout this application form, "new landfill" means a landfill which has not received a valid permit and is not an addition to an existing landfill, and "expansion" means a lateral expansion to an existing permitted landfill.

The Office Of Pollution Control reserves the right to ask for additional information as determined necessary. Applications should be sent to the following appropriate address:

By mail:

Mississippi Department of
Environmental Quality
Office of Pollution Control
Nonhazardous Waste Branch
P. O. Box 2261
Jackson, MS 39225-2261

By delivery:

Mississippi Department of
Environmental Quality
Office of Pollution Control
Nonhazardous Waste Branch
515 East Amite Street
Jackson, MS 39201

Questions regarding an application should be directed to the Nonhazardous Waste Branch-Permitting Section, Phone No. 961-5171.

I. Application Report Format and Contents

The application report, except Sections 7, 8, 12.2, and 13, should be prepared by a qualified Mississippi registered professional engineer. The first page of each section, except Section 2, should contain the engineer's signature and seal. The application report should be arranged as follows:

Letter of transmittal, which states desired Department action or response

Title page

Table of Contents

Section 1 - Introduction and Executive Summary

This section should consist of a narrative discussion, to include: purpose of application, desired Department action or response, background of proposed project, involvement of the applicant and contractor with the local solid waste planning process, location of the facility, size, service area, unusual siting or permitting conditions, etc.

Section 2 - General Information and Signature

Attachment A (General Information) should be completed and submitted within the document as Section 2.

Section 3 - Property Information and Maps

This section should include the following:

1. Legal description of the landfill property (total area to be owned or controlled by the applicant) and a legal description of the proposed disposal area, both to include acreage.
2. An original U. S. Geological Survey (USGS) topographical quadrangle map of the area. The property boundaries of the site and the proposed disposal area should be drawn onto the map. Mark outlines of the boundaries as accurately as possible, do not shade. At least one copy of the application should have an original topo map. Color copies or originals should be used for the other two copies of the application. At least a two mile radius from the waste disposal boundary should be shown. Adjacent topo maps should be attached, if necessary.
3. A map identifying all current landowners of the proposed property, all landowners within a one-half mile radius of the proposed disposal area, and all adjacent landowners. Name and addresses of these landowners should be provided, referenced to the map by plat number. If desired, this information may be included in the engineering drawings.
4. An original or high quality photocopy of a portion of the Mississippi D.O.T. general highway map of the county showing a minimum 5 mile radius from the disposal area. The property

boundary outline and the disposal area outline should be drawn onto the map as accurately as possible. Do not shade. Adjacent county maps should be attached, if necessary, to provide the 5 mile radius.

Section 4 -Demonstration of Need/Solid Waste Management Plan

This section should include letters, narrative, and/or documentation of the following:

1. Verification that the facility meets the twenty-year capacity needs identified in the local solid waste management plan to include the following:
 - a. For new facilities, quantities of waste generated by the service area;
 - b. Expected and/or incoming waste volumes, in tons per day;
 - c. Volume, acreage, and estimated life expectancy of the area proposed for permit at this submittal;
 - d. If the life of the area to be permitted at this time is less than 20 years, or as otherwise applicable, the life, volume, and acreage of proposed future disposal areas. These areas should be shown as proposed future areas on the general site map of the engineering drawings; and
 - e. Design capacities of existing facilities.
2. Letter from the appropriate county or city official confirming that the siting of this facility (new facility or expansion of a facility) will be in conformance with all local laws, regulations, and ordinances, or that no such laws, regulations, or ordinances are applicable.
3. Demonstration that the host jurisdiction and the jurisdiction generating the solid waste destined for the facility are actively involved in, and have a strategy for meeting the statewide waste minimization goal.
4. Certification from an appropriate representative of the applicant stating that the proposed service area of the facility is consistent with the local nonhazardous solid waste management plan. Attach copies of the page(s) from the approved plan which identifies the approved service area.
5. Description of the extent to which the proposed facility is needed to replace other facilities (or, recently filled permitted area).
6. Documentation of consistency with the approved local solid waste management plan. Include a copy of the page(s) of the plan which identifies the name of the facility, location, and approximate acreage.

Section 5 - Siting Criteria

Compliance with each of the following siting criteria, as required by state regulations, shall be demonstrated through written discussions, documentation, and maps. If the letters from the state and federal agencies do not clearly define the area that is considered for determination (by means of an attached map or adequate legal description of the property), then provide copies of the letters sent to the agencies which define the area to be studied or considered.

1. Airport Safety - Provide discussion and refer to a map. Provide copies of letters to affected airports and FAA, if notification is required pursuant to regulation.
2. Floodplains - Provide discussion of compliance and floodplain map (one original, two photocopies). The property boundaries or proposed disposal boundary should be drawn onto the map.
3. Wetlands - Include a letter from the U.S. Army Corps of Engineers regarding the wetlands determination of the proposed facility location. If the disposal area is within wetlands, also include documentation of approval for the waste disposal operation, as required by federal law. For proposed facilities located in southern Hancock, Harrison, or Jackson counties, include a letter from the Mississippi Department of Marine Resources regarding the coastal wetlands determination of the proposed facility location. If the disposal area is within coastal wetlands, also include documentation of approval for the waste disposal operation, as required by state law.
4. Fault areas - A discussion of compliance must be provided by a qualified geologist based on regional and site specific information and EPA map "Preliminary Young Fault Maps, Miscellaneous Field Investigation" (MF-9/6) - USGS 1978.
5. Seismic impact zones - Provide discussion and demonstration of compliance. Include a copy of Map C, Department of Interior, USGS Map MF2120, Sheet 2 of 2, in which the approximate location of the proposed facility has been marked and labeled on the map.
6. Unstable areas - A discussion of compliance must be provided of the three factors listed in regulation by a qualified geologist and/or engineer based on regional and site specific information and borings conducted at the site. Provide settlement and slope stability calculations, and discuss results and conclusions.
7. Hydrocarbon wells and water wells - Provide discussion of compliance, maps, and data, if necessary. Confirm that a search has been conducted at the State Oil and Gas Board, USGS, and the DEQ Office of Land and Water for any such existing or old wells.
8. Public water supplies - Provide discussion of compliance and data, if necessary. Confirm that a search has been conducted for wells and intake structures at USGS and DEQ. Provide map of all water wells located within 0.5 mile of the proposed disposal area. Discuss compliance with the Wellhead Protection Program (DEQ - Groundwater Planning Branch).
9. Surface water - Provide discussion of compliance and refer to a map. Recreational and shellfish harvesting classifications can be obtained from MDEQ document "State of Mississippi Water Quality Criteria for Intrastate, Interstate, and Coastal Waters (November 15, 1995)". Written determination of 7Q10 values should be obtained from DEQ - Office of Land and Water - Permitting and Monitoring Division for any stream within 250 feet of the proposed disposal area.

10. Surface water drainage areas - Provide discussion of compliance. Diversion of drainage ditches, surface water, or intermittent streams should be addressed.
11. Endangered or threatened species - Include documentation from the U.S. Fish and Wildlife Service and the Mississippi Department of Wildlife, Fisheries, and Parks stating that the operation of the facility in the proposed location will not affect a federally or state listed endangered or threatened species, or include documentation that the proposed operation is in compliance with all statutes, rules, and regulations within the jurisdiction of the U.S. Fish and Wildlife Service and the Mississippi Department of Wildlife, Fisheries, and Parks concerning listed endangered or threatened species. If requested by the agency, a site specific study must be conducted, and a report included.
12. Historical and archaeological areas - Include a letter from the Mississippi Department of Archives and History which documents that the proposed project would not significantly and adversely impact the cultural resources listed in, or eligible for listing in, the National Register of Historic Places or that any impact to such a site would be appropriately mitigated, if requested by the Department of Archives and History, a site specific study must be conducted, and a report included.
13. Parks and recreational areas - Provide discussion of compliance and refer to a map.
14. Forests, wilderness areas, wildlife management areas, and natural areas - Provide discussion of compliance and refer to a map. Also, include a letter from the Mississippi Department of Wildlife, Fisheries and Parks which documents compliance. If desired, one letter from MDWFP may address both endangered/threatened species and forests, wilderness areas, wildlife management areas, and natural areas.
15. Structures - Specifically address compliance for each type of structure listed in regulation and refer to a map.
16. Residential areas - Conduct a house count for all single family dwelling units (including houses, apartments, mobile homes, etc.) with a one mile radius of the proposed disposal area (all areas, including planned future areas necessary to meet 20 year capacity). Submit a topographic quad map (high quality photocopy) in which all dwellings and approximate locations are marked on the map. The one mile radius should be drawn on the map from the edge of all proposed disposal area. Do not measure from the property line. Dwellings established after the site disclosure date do not have to be marked, but information regarding any such dwellings should be included in the discussion.
17. Property line setbacks - Provide discussion and refer to engineering drawings. If applicable, address the adequacy of natural visual screening and any proposed methods to provide adequate visual screening. If setbacks smaller than 250 feet are being proposed, contact the Department for form letters to notify the adjacent landowners.
18. Aesthetics and visibility - Provide discussion of compliance and refer to a map.
19. Transportation factors –
 - a. For new landfills, provide discussion of compliance and address each factor listed in regulation. For the first factor, also include a MDOT county map (photocopy) in which the five mile radius from the proposed disposal area has been drawn onto the map and the primary route(s) to the facility within the radius have been identified and labeled. Attach adjacent county maps, if necessary, to include all of the five

mile radius. Generally, any route used by 20 percent or more of the anticipated traffic is a primary route. For the second factor, also include the most recent MDOT traffic count map for the county indicating average daily traffic. For the third factor, also specify the anticipated traffic for each different section of the primary routes and calculate percent increase due to waste hauling vehicles for each section of the primary routes.

- b. For expansions, provide discussion of compliance and address whether traffic to the landfill by waste hauling vehicles would increase or stay the same due to the expansion. If there would be no anticipated increase, discussion of the five factors is not necessary. If traffic would increase, address compliance as described in paragraph a. above.

20. Noise factors - Provide discussion and refer to a map.

Note: One or more maps may be referenced by several different sections. Also, maps contained in Section 4 may be referenced.

Section 6 - Geological/Hydrogeological Information

This section should include a geological/hydrogeological report prepared and certified by a qualified geologist.

Section 7 - Groundwater Monitoring Plan

This section should be prepared and certified by a qualified groundwater scientist, and should describe compliance with state regulations, specifically, the topics listed below:

1. Provide a discussion of the number, spacing, and depths of the monitoring system, which must be based on site specific technical information must including a thorough characterization of:
 - (a) aquifer thickness, ground-water flow rate, ground-water flow direction including seasonal and temporal fluctuations in ground-water flow; and
 - (b) saturated and unsaturated geologic units and fill materials overlying the uppermost aquifer, materials comprising the uppermost aquifer, and materials comprising the confining unit defining the lower boundary of the uppermost aquifer; including, but not limited to: thicknesses, stratigraphy, lithology, hydraulic conductivities, porosities and effective porosities.

2. Provide discussion of proposed well locations. Downgradient wells should be located within 150 meters of the proposed disposal area boundary. Discuss the reasoning for the number of wells proposed and the locations for each of the wells.
3. Discuss and provide details of well construction, screened interval, and surface protection.
4. Provide description of procedures for sampling, measuring groundwater elevations, determining rate and direction of groundwater flow, quality control, recordkeeping, statistical analysis of data, and determination of significant increase.

An appendix to this section should contain qualifications and experience of the groundwater scientist preparing the plan (such as a resume), which demonstrates compliance with the definition of "qualified groundwater scientist" in state regulation.

Section 8 - Operating Plan

This section should describe compliance with state regulation, specifically, the topics listed below:

1. Clarification of operator (i.e., either the operation will be contracted to a private concern or the operation will be managed by employees of the applicant). If the operation is to be contracted, provide a copy of the operating contract between the applicant and the contract operator, which lists the responsibilities of each party. Also include documentation of compliance with operator certification requirements of Section IV.G. of the state regulations.
2. Access control and description of site security. Include anticipated days and hours of operation.
3. Anticipated waste volumes in units of tons per day.
4. Specific service area of the facility, consistent with the approved plan.
5. A list of the type of wastes to be accepted (i.e., residential, institutional, commercial, and/or industrial).
6. A list of prohibited waste. Liquid wastes should be specifically discussed.
7. A narrative description of the operation from the point of a vehicle approaching the gatehouse, through unloading of waste, to the point waste is covered. Indicate the procedure for obtaining weight or volume measurements. (Note: Truck scale installation and design should be in compliance with the requirements and regulations of the Weights and Measures Division of the Mississippi Department of Agriculture and Commerce). Also, describe the procedures for random and suspicious load inspections to exclude the receipt of hazardous waste, PCB waste, and other unauthorized waste. Include compliance with state regulation, method of inspection, frequency of inspection, and record keeping. DEQ should be specifically notified in the event hazardous waste or PCB waste is discovered.
8. Discussion of industrial waste profiling and "fingerprinting" of industrial waste.
9. A list of anticipated personnel (number of employees and position type).
10. A list of the equipment available for the facility's operation and a contingency plan for equipment breakdown.

11. Description of daily, intermediate, and final cover, its placement, and when each will be applied. Intermediate cover consisting of 12 inches of soil, or an equivalent design, should be installed to areas not receiving waste within 30 days. The discussion should describe compliance with Section IV.B.2 (cover material requirements) and IV.E.2.j (beginning closure) and k (completing closure) of the regulation.
12. Plan to maintain operation within horizontal and vertical approved limits by survey control. Specify survey procedure and frequency.
13. Plan for surface water run-on/run-off control and design of sedimentation pond. Include design calculations that the pond will collect and control at least the water volume resulting from a 24-hour, 25-year storm. Also, confirm that an application for a stormwater permit has been submitted to DEQ, Surface Water Division.
14. Stormwater separation design and operational plan. Identify location of temporary berms, ditches, or other structures to be typically used for surface water diversion away from working face of disposal area. Discuss collection areas and plan for pumping.
15. Leachate collection design and operational plan, to include cell design, calculations of size and spacing, pump cut-on and cut-off levels, details of pumping, removal, and ultimate disposal. If permanent tanks are to be used to collect leachate, a leak detection system should be described. Also confirm that an application for a pretreatment permit has been submitted to DEQ, Surface Water Division.
16. Leachate generation volume rates, by utilizing the Hydrologic Evaluation of Landfill Performance (HELP) computer model (Version 3-0 or newer version). Include generation rates for (1) worst case, (2) normal or average, and (3) after final closure. Provide volumes in units of gal/acre/day. Submit HELP input/output. Discuss results and conclusions. For expansion applications, submit monthly leachate generation volume rates over past two years, in units of gallons/acre/day. Discuss and compare actual past volumes with HELP model results.
17. Plan for unloading and covering of waste during wet weather. Include discussion of access roads.
18. Plan for litter control.
19. Plan for fire prevention and actions to be taken in the event of an accidental fire. DEQ should be specifically notified in the event of a fire.
20. Plan for disease vector control.
21. Plan for dust control.
22. Discussion of final cover vegetation, to include a list of vegetation type for each season, application rate, and placement.

23. Discussion of erosion control measures, periodic inspection and repair of daily, intermediate, and final cover, and prevention of erosion along final cover benches and discharge points.
24. Methane monitoring plan, to include proposed monitoring locations, well installation, surface protection, monitoring procedures, corrective actions, and other details. Each item of Section IV.B.4 of the regulation should be discussed or demonstrated. The number of wells required should be based on the size and location of the facility, beginning with a minimum of eight. Provide information on the siting of each methane well, justifying well depth and location in relation to geology at that particular location, geology between the well location and the landfill, and the expected migration of methane gas. Also, explain reasoning for number of wells chosen and spacing of wells.
25. Description of record keeping, to include how the records will be made, how and where they will be kept, and for how long. Specifically address record keeping for industrial process waste profiles; location restriction demonstrations; inspection records, training procedures, notification procedures, and other information pursuant to Section IV.B.1. of regulation; annual reports; liner quality assurance; operator certification; and asbestos records in accordance with NESHAP regulations (if applicable), all as required by state regulation.

Section 9 - Landfill Design and Components

This Section should include, at a minimum, the following:

1. Total air space volume, volume available for waste disposal acreage, expected incoming waste volumes, and calculated life expectancy.
2. Discussion of liner design.
3. Discussion of the leachate collection design and operation. Provide pipe sizing and pipe spacing calculations. Also specify how the pipes will be joined together. Discuss sump design and method of clean-out. The system shall be designed to maintain no more than one foot of head, after predicted settlement. The drainage layer should be comprised of clean earth material having no sharp edges and a maximum diameter of 1/4 inch. Minimum permeability of the drainage layer should be 1×10^{-3} cm/sec. Geonet drainage systems may also be acceptable.
4. Discussion of the sequence and method of filling, including the development of intermediate filled areas.
5. A specific description of the design and placement of the final cover system, methane venting layer, and condensate management system.

Section 10 - Construction Plan and CQA

This section should include, at a minimum, the following:

1. A specific description of construction, to include details of site clearing, sedimentation pond construction, site excavation, etc.
2. QA/QC plan for inspection and preparation of subbase buffer layer.
3. QA/QC plan for placement of the composite liner. The recompacted soil liner should be

placed in 6 inch lifts. Generally, the water content yielding the lowest permeability is wet of optimum. Describe how the 2 foot liner will be compacted in the sumps and trenches.

4. QA/QC plan for placement of the leachate collection system.
5. QA/QC plan for placement of the final cover system, and methane venting layer, and condensate management system.
6. Testing procedures, frequencies of testing, and action to be taken for test failures for all components of construction. Include permeability, moisture/density, Atterburg limits, and other tests.
7. Welding and testing details of the FML liner and final cover.

Section 11 - Closure and Post-Closure Plan

This section should include, at a minimum, a discussion of compliance with each specific requirement listed in Section IV.E. of the state regulation. Facilities designed with a liner including a FML component must also include a FML component with the final cover.

Section 12 - Financial Assurance

This section should include the following:

1. Detailed estimates, in current dollars, of landfill closure and post-closure as described in state regulation. The cost estimates for closure should include, at a minimum: soil cover, geomembrane cost, geomembrane installation, other final cover cost, QA/QC testing, methane vents and installation, seeding/fertilizer, and closure certification. The cost estimates for post-closure should include, at a minimum: groundwater monitoring, methane monitoring, leachate treatment, and final cover maintenance. Specify whether labor and installation is included, or list separately. The costs should be based on the area to be permitted at this time. The information should be presented in tabular form, to include closure/post-closure action, units, price/unit, and total cost. If an escrow account is planned, the final costs should be calculated to cost/ton and the cost/ton should be based on the total amount being in the account at the end of the landfill life to be permitted at this time.
2. Description and narrative of the financial assurance mechanism to ensure the availability of closure and post-closure costs, as required by and described in state regulation and in Sections 17-17-233 and 17-17-235 of the Mississippi Code (effective date October 9, 1993).

Section 13 - Disclosure

This section shall be included if the applicant is a private concern and/or the operation of the facility will be contracted to a private concern. Disclosure statement(s) shall be included in this section, completed on forms supplied by the OPC.

II. Engineering Drawing Contents

Each engineering design drawing should contain the engineer's signature and seal and should be dated to reflect the latest revision. Nominal sheet dimensions should be 24" x 36" or 30" x 42". All drawings should be the same size and should be bound together on the left hand side. The drawings shall generally be arranged as follows:

1. Cover sheet, to include:
 - a. Official landfill site name.
 - b. Name, address, and telephone number of applicant.
 - c. Name, address, and telephone number of consultant.
 - d. Preparation and revision dates.
2. Table of contents and map of approximate location of facility within county.
3. Survey drawing and legal description of proposed disposal area, including acreage. Label P.O.B., distances, and bearings.
4. Subgrade elevation drawing of the proposed disposal area, to include:
 - a. North arrow
 - b. Waste Management boundary and identification of cells and subcells.
 - c. Excavated elevations prior to the placement of the liner, drawn in one foot contours. Slope should be greater than or equal to two percent, after predicted settlement. On steep slopes, such as the cell sidewall or landfill berms, an appropriate 5 or 10 foot contour may be used, if necessary for clarifying. Show tie-in with existing topography.
 - d. Existing surface elevations. Elevations should be consistent with location and surface elevations of borings. Use appropriate contour interval to show adequate detail and maintain clarity.
 - e. Borehole and piezometer locations.
 - f. Sump bottom elevations.
5. Liner elevation drawing of the proposed disposal area to include all of the details in the subgrade elevation drawing, except that cell bottom elevations shall be at the top of the liner. Slope shall be greater than or equal to two percent, after predicted settlement.
6. General plan and profile drawing(s) of the landfill, illustrating progression and method of fill, to include approximate intermediate contours. Provide plan drawings showing landfill at the end of each construction phase, to include filled contours, stormwater management, surrounding natural contours, and leachate pipes and berms in the newly constructed area.
7. Leachate collection system drawing, to include:

- a. Cell and subcell layout.
 - b. Length, size, and slope of each leachate pipe. Slope should be greater than or equal to one percent, after predicted settlement. Penetration of the liner by leachate or stormwater pipes is discouraged. Consult with the Department prior to designing a facility that includes liner penetration.
 - c. Intercell berms or surface water diversion details, if any.
 - d. Clean-out locations.
 - e. Cell bottom elevations at the top of the leachate collection layer.
8. Final elevation drawing, to include:
- a. Proposed final elevations, in ten foot or less contours. Slope shall be at least four percent but no greater than 25 percent.
 - b. Identification of the waste boundary.
 - c. All methane vent locations, if applicable.
 - d. Existing surface elevations. Use appropriate contour interval to show adequate detail and maintain clarity.
 - e. Location and base elevations of sedimentation pond(s).
 - f. Directional flow arrows for surface water.
 - g. Stormwater diversion benches and letdown structures, if any. Provide slope of benches.
9. The following list of items should be included on any one plan drawing, preferably the subgrade elevation, liner elevation, leachate collection system, or final elevation drawings (not necessarily all on the same drawing):
- a. Gate and fencing locations.
 - b. All on-site building and facility roads.
 - c. Sedimentation pond(s), both temporary and permanent.
 - d. Section corners and section numbers.
 - e. Groundwater monitoring system information. Downgradient wells must be located within 150 meters of the proposed disposal area. All wells should be numbered. Indicate by symbol, label, or note the direction of groundwater flow and which wells are upgradient, downgradient, existing, or proposed.
 - f. Methane monitoring well locations. A sufficient number of permanent methane monitoring wells must be placed along each side of the property boundary. All wells should be numbered.

- g. Ditches, pipes, culverts, silt fencing, rip rap, and other surface water control devices.
 - h. Property buffer zone distances on all sides which are 500 feet or less, and notation of visual screening, if necessary.
 - i. Special waste handling areas.
 - j. Existing utility lines and easements. Indicate whether the utility will be moved or specify the buffer distances.
10. Detail drawings of the following:
- a. Cross-section of the liner and side slope, to include composite liner and protective/drainage layer(s). Permeability and thickness of each layer should be specified. Geotextile should be placed, if necessary, to prevent clogging of the leachate drainage layer by the materials comprising the sidewall protective layer.
 - b. Anchor trench detail of both the liner FML and the final cover FML, to include geological buffer, composite liner, protective side slope cover, side slope gradient, and final cover layers. Distances and dimensions should be specified. Anchoring should be sized at least 2 feet x 3 feet.
 - c. Cross-section(s) of the leachate collection trench, to include composite liner, drainage layer, depth and width of trench, gravel drainage media (labeling size or permeability), geotextile, and size and type of pipe. Depth of trench should be greater than or equal to the diameter of the pipe plus six inches.
 - d. Leachate pipe perforations, to include size, placement, and orientation.
 - e. Stormwater diversion details and cross-sections, if any.
 - f. Cross-sections of intercell berms crossing leachate pipes, if any, both along the pipes and crossing the pipes.
 - g. Cross-section of FML connection under temporary roads, if any.
 - h. Cross-section of clean-out riser, to include composite liner, leachate pipe, riser pipe, drainage layer, side slope protective layer, side slope gradient, surface pipe protection detail, final cover layers, and method of final cover FML installation around top of pipe. Distances and dimensions should be labeled.
 - i. Cross-section of clean-out riser trench (along the side slope), to include depth and width of trench, composite liner, and protective layer. Distances, slope, and dimensions should be labeled. Depth of trench should be greater than or equal to the diameter of the pipe plus six inches.
 - j. Plan detail drawing of the leachate sump. Slopes, distances, and dimensions should be labeled.
 - k. Cross-section of the leachate sump, to include composite liner, drainage and side slope protective layers, gravel drainage media (with permeability or size), pipes, geotextile, top of pipe details, final cover layers, and method of final cover FML installation around top of pipe. Slopes, distances, and dimensions should be labeled.

Design should allow for independent measurement of leachate head and for clean-out.

- l. Cross-section of leachate sump riser trench (along the side slope), to include depth and width of trench, composite liner, and protective layer. Distances, slope, and dimensions should be labeled. Depth of trench should be greater than or equal to the diameter of the pipe plus six inches.
 - m. Detail of leachate removal at top of sump riser.
 - n. Plan and profile drawings of leachate collection tanks, if applicable. Include leak detection system.
 - o. Geomembrane weld details.
 - p. Cross-section of the final cover to include methane migration layer, FML component (minimum 20 mil, 60 mil if HPDE), infiltration layer, erosion layer, etc. Permeability and thickness of appropriate layers should be specified. The final cover design should allow for methane migration through the intermediate layer.
 - q. Cross-section of the final cover at a methane vent location. Distances and dimensions should be specified. Include method of condensate management and penetration details of FML.
 - r. Cross-sections of final cover stormwater diversion benches and let down structures, if any. Include erosion protection.
 - s. Groundwater monitoring well cross-section, to include surface protection.
 - t. Methane monitoring well cross-section, to include surface protection.
 - u. Sedimentation pond details.
 - v. Typical cross-sections of roadways, temporary and/or permanent.
 - w. Other details as required by the OPC.
11. A sufficient number of cross-section profiles of the landfill in a general north-south direction and in a general east-west direction, which show elevations of existing topography, the proposed liner, leachate collection pipes, slopes, and final elevations. Inset a reduced plan view on each sheet showing the location of cross-sections.

ATTACHMENT A

General Information

1. Name, address, and telephone number of applicant:

(Name)

(Street address, P. O. Box, etc.)

(City)

(State)

(Zip)

Telephone number: _____

2. Name, address, and telephone number of contact person of the applicant:

(Name)

(Street address, P. O. Box, etc.)

(City)

(State)

(Zip)

Telephone number: _____

3. Name of site: _____

4. Land ownership:

Presently owned by applicant

To be purchased by applicant

To be leased by applicant

5. Name and address of landowner(s). If same as applicant, so indicate. Use separate sheets, if necessary.

(Name)

(Street address, P. O. Box, etc.)

(City)

(State)

(Zip)

6. If the land will be leased, attach:
- a. A complete copy of the land deed, certified by the county clerk.
 - b. A notarized statement signed by the owner of the land which acknowledges and concurs in the use of the property as a solid waste disposal facility and which specifies the expiration of the lease agreement. (See attached form).

7. If the land is presently owned by applicant, attach a complete copy of the land deed, certified by the county clerk.

8. Name, address and telephone number of contract operator (if not applicable, so indicate).

(Name)

(Street address, P. O. Box, etc.)

(City) (State) (Zip)

Telephone number: _____

9. The proposed disposal area will be located in _____ County(ies).

10. The total facility property (all property to be owned or controlled by the applicant) consists of _____ acres and lies in the following topographic sections:

<u>Section</u>	<u>Township</u>	<u>Range</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

11. If the proposed project is a new landfill, the actual proposed disposal area consists of _____ acres.

12. If the proposed project is a landfill expansion:

- a. The current permitted disposal area consists of _____ acres.
- b. Additional disposal area requested consists of _____ acres.
- c. Lateral expansion requested over existing permitted area consists of _____ acres.
- d. The total disposal area would consist of _____ acres.
(a+b)

Landowner should complete this form if land is to be leased.

PROVIDE LEGAL DESCRIPTION OF THE PROPERTY

As owner of the above-described property, I hereby acknowledge that the property described in this application is leased for the purpose of operating a _____*and that as owner of the property, I may be held jointly and severally responsible for maintenance of the site and all liabilities associated with the site upon termination of the operation. The lease arrangement for the property will expire on _____.

(Signature of the landowner)

* Provide a list of all proposed solid waste management facilities.

STATE OF _____

COUNTY OF _____

PERSONALLY APPEARED BEFORE ME, the undersigned authority in and for the jurisdiction aforesaid, the above named _____, who, after being by me first duly sworn, stated on oath that all of the matters and facts set forth in this application are true and correct as herein stated.

SWORN TO AND SUBSCRIBED BEFORE ME, this the _____ day of _____, _____.

Notary Public

My Commission Expires:

CERTIFICATION OF APPLICANT

I certify that the information provided in this application report and drawings is a true and correct representation of that which is requested. I am aware that there are significant penalties for knowingly submitting false information.

I also confirm that I have received a copy, have read and understand those sections of the following regulations and law applicable to MSW landfills:

- a. State of Mississippi Nonhazardous Solid Waste Management Regulations and Criteria; and
- b. Section 17-17-219, Mississippi Code of 1972, pertaining to waste fees and record keeping.

Signature of Applicant
(Appropriate Representative)

Title

Typed Name (as signed)

Date

CERTIFICATION OF PREPARER

I certify that the information provided in this application report and drawings is a true and correct representation of that which is requested. I am aware that there are significant penalties for knowingly submitting false information.

I also confirm that based on my professional judgement, and on information collected during the application preparation, the design and planned operations of the facility is in compliance with the Mississippi Nonhazardous Waste Management Regulations and Criteria, and will be protective of the environment.

Signature of Preparer

Title

Typed Name (as signed)

Date

(Seal)