

STATE OF MISSISSIPPI SOLID WASTE MANAGEMENT PERMIT

TO OPERATE A SOLID WASTE MANAGEMENT FACILITY IN
ACCORDANCE WITH THE REGULATIONS GOVERNING
SOLID WASTE MANAGEMENT

THIS CERTIFIES THAT

National Aeronautics and Space Administration

has been granted permission to operate a solid waste management facility

located at

Section 37, Township 07 South, Range 16 West
Hancock County

under the name of

Stennis Space Center Solid Waste Landfill

This permit is issued in accordance with the provisions of the Mississippi Code Annotated, and the regulations and guidelines adopted and promulgated thereunder

MISSISSIPPI ENVIRONMENTAL QUALITY PERMIT BOARD



AUTHORIZED SIGNATURE

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

Issued: NOV 02 2015
Expires: OCT 31 2025

Permit No. SW02401B0376

CONDITIONS

A. EFFECT OF PERMIT

The permittee shall operate the solid waste management facility in accordance with the Mississippi Nonhazardous Solid Waste Management Regulations (Regulations), applicable Federal Regulations, the approved application and the conditions of this permit.

B. PERMIT ACTIONS

This permit may be modified, revoked and reissued, or terminated for non-compliance with the terms and conditions of the permit. The filing of a request for a permit modification, revocation and reissuance, or termination or the notification of planned changes or anticipated non-compliance on the part of the permittee does not stay the applicability or enforceability of any permit condition herein.

C. SEVERABILITY

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

D. DUTIES AND REQUIREMENTS

1. Duty to Comply.

The permittee shall comply with all of the conditions of this permit. Any permit non-compliance constitutes a violation of the solid waste law and Regulations promulgated thereunder and is grounds for enforcement action, permit termination, revocation and reissuance, modification, or for denial of a permit renewal application.

2. Duty to Reapply.

If the permittee desires to continue an activity authorized by this permit after the expiration date of this permit, the permittee shall submit a complete application for a new permit at least 180 days before the expiration date of this permit.

3. Duty to Mitigate.

The permittee shall implement all reasonable measures to minimize or correct any adverse impacts on the environment resulting from non-compliance with this permit.

4. **Duty to Provide Information.**
The permittee shall furnish to the Mississippi Department of Environmental Quality (Department), within a reasonable time, any relevant information that it may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit.
5. **Proper Operation and Maintenance.**
The permittee shall at all times properly operate and maintain all equipment and systems that are installed or utilized by the permittee to achieve compliance with the conditions of this permit and the application as submitted and approved by the Department.
6. **Inspection and Entry.**
The permittee shall allow an authorized representative of the Department, upon presentation of credentials and other documents as may be required by law, to:
 - (a) Enter on the permittee's premises where a regulated activity is located or conducted, or where records must be kept under the conditions of this permit;
 - (b) Have access to and copy at reasonable times any records that must be kept under the conditions of this permit;
 - (c) Inspect at reasonable times any facilities, equipment, practices, or operations regulated or required under this permit;
 - (d) Sample or monitor at reasonable times for the purposes of assuring permit compliance.
7. **Transfer of Permits.**
This permit is not transferable to any person except after notice to and approval of the Mississippi Environmental Quality Permit Board (Permit Board). The Permit Board may require modification or revocation and reissuance of this permit to change the name of the permittee and incorporate such other requirements as may be necessary.

E. OPERATING CONDITIONS

1. The disposal of solid waste shall be restricted to the approved permitted area consisting of 13.57 acres as divided into four individual cells. The individual cells are identified as Cell 1, Cell 2, Cell 3 and Cell 4, and are described as follows:
 - Cell 1: Closed – 1.90 Acres
 - Cell 2: Closed – 2.91 Acres
 - Cell 3: Operating – 6.17 Acres
 - Cell 4: Operating – 2.59 Acres

2. The disposal of solid waste shall be limited to a final height, including two (2) feet of final earthen cover, of eighteen (18) meters or 59 feet MSL for Cell 3 and fifteen (15) meters or 49 feet MSL for Cell 4. Property line setback distances, as indicated in the permit application, shall be maintained.
3. If the permittee executes a contract with a private contractor to operate the facility, the permittee shall comply with the following requirements prior to the private contractor beginning operation of the facility:
 - (a) A complete disclosure statement for the private contractor shall be submitted to and approved by the Department as established by State law and regulations, and
 - (b) A copy of the executed contract between the private contractor and the permittee shall be submitted to and approved by the Department. Any new contract or change in the existing contract concerning operational control of the facility shall be submitted to the Department for approval prior to execution of the new or modified contract.
4. The Department may require the permittee to implement a financial assurance mechanism for closure/post-closure activities at the landfill should the Permit Board determine it necessary. Should the Department determine the operation conditions at the site warrant the establishment of financial responsibility, the permittee would be required to estimate the costs of disposal of the maximum amount of wastes expected on-site before closure of the facility. At that time, the permittee shall be required to provide the Department with proof of financial responsibility issued in the amount of the closure cost estimate each year as part of the annual report required in Condition F.12. of this permit.
5. Construction of landfill components shall be conducted by qualified and experienced personnel. The Department shall be notified of an approximate construction schedule at least one week prior to liner and final cover construction activities.
6. Construction, operation, closure, and post-closure care of the facility shall be conducted in accordance with all applicable State regulations and with the approved plans, as submitted to the Department.
7. At least two weeks prior to the placement of solid waste in a newly constructed disposal area, a construction quality assurance report shall be submitted to the Department. The construction quality assurance report shall contain a certification from an independent Mississippi registered professional engineer indicating that the area has been constructed according to the approved design plans and State Regulations. The report shall also include field logs, results of testing, sub-grade survey, top of liner survey, and construction testing methods.

8. All surveys completed in accordance with the requirements of this solid waste management permit shall be conducted utilizing a grid pattern.
9. Modification of this permit shall be required prior to a vertical or horizontal expansion of the facility or a significant change in the method of waste management.
10. The permittee shall insure that all facility personnel, landfill attendant, and alternate, are properly trained to recognize and reject hazardous waste and polychlorinated biphenyl wastes. Additionally, all facility personnel shall be aware of the types of wastes to be accepted at the facility. The permittee shall maintain a record of all training classes for a minimum period of 5 years.
11. Security shall be maintained at the facility to prohibit all unauthorized access and disposal. Access to the site shall be secured and/or locked when the site is closed or when no attendant is on site.
12. Regulated asbestos containing material shall be handled as per the approved landfill operating plan for disposal of asbestos-containing material in accordance with EPA NESHAP regulations 40 CFR 61.153 and 61.154.
13. Excavation of waste for the disposal of asbestos shall occur only in areas where the waste has been in place for less than 72 hours.
14. Infectious medical wastes, as defined by the Mississippi Department of Health, generated by medical, research or other facilities at the Stennis Space Center, shall be prohibited from disposal unless such wastes have been satisfactorily rendered non-infectious and contained within special bags or other appropriate packages.
15. Vehicles entering the facility shall be operated and maintained to prevent loss of liquids or solid waste material.
16. All solid waste shall be covered each day before the close of operations, or more frequently, if necessary, to control disease vectors, fires, odors, blowing litter, and scavenging. Cover shall consist of at least six (6) inches of earthen material or an alternate approved method of cover. An alternate method of cover may be used if a specific description and plan of operation is submitted to and approved by the Department.
17. The entire facility shall be maintained free from litter and scattered debris. All litter and scattered debris shall be collected every operating day and returned to the active disposal area.
18. Portions of the daily earthen cover may be removed at the beginning of each working day to facilitate downward movement of leachate to the collection system.
19. Filled areas of the landfill, which have remaining capacity and will not receive waste within the next thirty (30) days, shall receive an

- intermediate earthen cover of twelve (12) inches. An alternate intermediate cover system may be approved by the Department.
20. Final cover shall be placed on completed areas of the landfill in accordance with State Regulations and the approved plans.
 21. The condition of daily, intermediate, and final earthen cover shall be inspected routinely by landfill personnel during the active life of the facility. Erosion, cracks, ponding, leachate outbreaks, and any other problems identified shall be repaired within twenty-four (24) hours.
 22. Burning or smoldering wastes accepted at the facility shall be extinguished in an area specified by the owner/operator and approved by the Department separate from all disposal areas and shall not be placed in the active disposal area until all smoldering debris has been adequately extinguished. Such wastes shall not be left uncovered at the close of operations.
 23. Should a fire occur, the owner and/or operator shall take immediate action to extinguish the fire and shall notify the Department within twenty-four (24) hours. Initial Department notification may consist of either written or verbal methods. Written correspondence regarding the incident shall be submitted within five (5) working days of the incident.
 24. The landfill shall be constructed, operated, and maintained with earthen berms, ditches, or other means such that uncontaminated surface water run-off is directed around and away from the developed landfill area. Additionally, each cell shall be constructed and maintained to direct uncontaminated surface water run-off around and away from the active disposal area.
 25. Storm water diversion berms shall not be placed within 25 feet of active/open disposal areas.
 26. Uncontaminated surface water run-off from construction activities and from areas without established vegetation shall be diverted to an onsite sedimentation basin.
 27. A written summary statement from the landfill facility site manager certifying that all storm water diversion berms and HDPE flume liners were properly removed from the appropriate area shall be submitted to the Department within five (5) working days of the completion of the activity.
 28. The sedimentation basins shall be constructed and maintained to collect and control, at a minimum, the water volume resulting from a twenty-four (24) hour, twenty-five (25) year storm event. Periodic dredging shall be conducted to maintain proper elevations and the required capacity.
 29. Surface water run-off contaminated by contact with solid waste and leachate flowing from filled areas of the landfill shall be collected and managed as leachate. Surface leachate and contaminated surface water

run-off shall not be allowed to flow offsite of the landfill property or through the storm water discharge points.

30. The leachate collection system shall be operated as follows:
 - (a) The leachate collection system of pipes, trenches and sumps shall be cleaned, maintained and pumped to ensure proper leachate collection.
 - (b) The depth of leachate over the liner, excluding trenches and sumps, shall not exceed 30 cm.
 - (c) Leachate head measurements shall be made and/or monitored daily. If the facility utilizes an electronic pumping system, a record of the pumping frequency shall be maintained on a daily basis in lieu of daily individual leachate head measurements.
 - (d) Any measurement that indicates a head of 30 cm or greater on the liner or any electronic pumping equipment failure shall be reported to the Department immediately. Written correspondence shall be submitted within five (5) working days of non-compliance.
 - (e) Records shall be kept of daily measurements, quantities pumped, cleaning, maintenance, analyses and method of disposal.
31. The acceptance of offsite leachate and condensate for disposal shall be prohibited.
32. Leachate and gas condensate shall not be recirculated into the landfill unless an operational plan, including detailed drawings, is submitted to and approved by the Department. This authorization may be modified, amended or revoked if the Department determines that leachate recirculation operations at this facility cause compliance or odor problems or cannot be implemented and maintained such that human health and the environment are protected.
33. Facility operations shall be conducted in accordance with all applicable requirements of the U.S. Army Corps of Engineers and the U.S. Fish and Wildlife Service.
34. Excavation, mining and/or removal of solid waste shall be prohibited unless plans are submitted to and approved by the Department.
35. Prior to closure of the site, the permittee shall submit a closure/post-closure plan for the Department's review and approval. Closure and post-closure activities shall be conducted in accordance with the approved closure/post-closure plan, and any significant changes to the plan must be submitted to the Department for approval before implementation.
36. Upon completion of disposal activities within the approved disposal area, a survey shall be completed, by a professional land surveyor registered with the State of Mississippi, indicating the total acreage of the disposal area, the final contours, and the boundaries of waste disposal and

submitted to the Department within sixty (60) days of final waste acceptance.

F. MONITORING, RECORDKEEPING, AND REPORTING CONDITIONS

1. Groundwater monitoring shall be conducted at the facility in accordance with State and Federal regulations. Monitoring shall be conducted semi-annually, unless otherwise directed by the Department. The semi-annual groundwater monitoring periods shall be January through June and July through December.
2. Groundwater samples may be obtained at any time during the monitoring period; however, all required sampling events, excluding background events, shall be at least four months apart.
3. Reports and records for each groundwater sampling event shall be retained in the operating record and shall consist of the following:
 - (a) The dates, exact location, and time of sampling;
 - (b) Identification of individuals who performed the sampling;
 - (c) Results of groundwater level measurements and a map indicating the direction of groundwater flow;
 - (d) The date(s) laboratory analyses were performed;
 - (e) Identification of individuals who performed the analyses;
 - (f) The analytical techniques or methods utilized;
 - (g) The results of such analyses, prepared according to industry standards or as directed by the Department;
 - (h) The statistical report of the analyses;
 - (i) A determination of statistically significant increases; and
 - (j) The chain of custody forms.
4. The Permittee shall submit to the Department a copy of the groundwater monitoring reports and statistical analysis, identified in Condition F.3. of this permit, according to the following schedule:

<u>Monitoring Period</u>	<u>Report Due</u>
January - June	August 31
July - December	February 28 (of the following year)
5. The permittee shall install additional groundwater monitoring wells, if determined necessary by the Department.
6. Groundwater assessment monitoring and corrective action, if necessary, shall be conducted at the facility in accordance with State and Federal regulations.

7. Methane monitoring shall be conducted quarterly, unless otherwise directed by the Department, according to the following schedule:

<u>Monitoring Period</u>	<u>Report Due</u>
January – March	May 31
April – June	August 31
July – September	November 30
October – December	February 28

8. Measurements may be taken at any time during the monitoring period; however, all required monitoring events shall be at least forty-five (45) days apart.
9. Reports and records for each methane monitoring event shall be retained in the operating record, and a copy shall be submitted to the Department according to the schedule established in Condition F.7. of this permit and shall consist of the following:
- (a) The dates, exact location and time of measurements;
 - (b) Identification of individuals who performed the measurements; and
 - (c) The results of the methane monitoring for all monitoring wells and facility structures. Results shall be submitted on a form provided or approved by the Department.
10. At any time methane monitoring indicates an exceedance of the lower explosive limit for methane at the facility boundaries or 25% of the lower explosive limit for methane in facility structures, the Department shall be notified within five (5) working days and verbal notification provided to the Department within twenty-four (24) hours of the monitoring event.
11. At any time methane monitoring indicates an exceedance, the permittee shall prepare, submit, and implement a remediation plan for the methane gas releases within sixty (60) days of detection. The plan shall describe the nature and extent of the methane release and the proposed remedial method.
12. An annual report shall be submitted to the Department each year no later than February 28 to include data regarding the preceding calendar year. The report shall include the items listed below:
- (a) aggregate information on the types, amounts (in tons), and sources of waste received during the calendar year. Listed types should be divided minimally into residential and nonresidential. The sources of waste should have cities and/or counties listed individually;
 - (b) a contour drawing of the landfill showing areas filled during the report year and total volume filled;
 - (c) estimated remaining capacity, in terms of volume or tons of waste;

- (d) an updated disclosure statement for the permittee. If all information from the previously submitted disclosure statement is unchanged, a letter stating such may be included in lieu of an updated disclosure statement;
- (e) an updated disclosure statement for a contract operator, if applicable. If all information from the previously submitted disclosure statement is unchanged, a letter stating such may be included in lieu of an updated disclosure statement;
- (f) an adjusted closure and post-closure cost estimate;
- (g) an audit of the financial assurance document and the end of year value of the financial assurance mechanism;
- (h) a modified financial assurance document, if necessary;
- (i) documentation demonstrating that the facility personnel have been properly trained to recognize regulated hazardous waste and PCB waste;
- (j) documentation of compliance with operator certification requirements in accordance with state regulations; and
- (k) a record indicating the dates, times, and locations where a head measurement greater than the maximum limitation of 30 cm on the liner was observed, the probable cause, and the actions taken to correct the problem, if necessary.