



Date Prepared/Revised
<b>DEP USE ONLY</b>
Date Received



## FORM K GAS MANAGEMENT

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form K, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General References: 273.171, 273.292, 273.293/277.171, 277.292, 288.262, 288.263, 289.282, 289.283

### SECTION A. SITE IDENTIFIER

Applicant/permittee:

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Site Name:

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Facility ID (as issued by DEP):

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### SECTION B.

**Instructions:** All questions must be answered in the columns to the right. In addition, all responses must be addressed in a written narrative or on the submitted maps and/or plans. Attach appropriate documentation referencing this form number and title.

	Yes	No
1. Is this application for:		
a. landfill gas recovery wells/system	<input type="checkbox"/>	<input type="checkbox"/>
b. landfill gas control vents	<input type="checkbox"/>	<input type="checkbox"/>
c. landfill gas monitoring vents	<input type="checkbox"/>	<input type="checkbox"/>
d. natural gas or oil well not associated with the landfill	<input type="checkbox"/>	<input type="checkbox"/>
e. construction of gas vents not drilled	<input type="checkbox"/>	<input type="checkbox"/>
2. Is the proposed gas management system for a/an:		
a. Permitted Inactive Landfill	<input type="checkbox"/>	<input type="checkbox"/>
b. Permitted Active Landfill - In Compliance	<input type="checkbox"/>	<input type="checkbox"/>
c. Permitted Active Landfill - Not in Compliance	<input type="checkbox"/>	<input type="checkbox"/>
d. Unpermitted Landfill	<input type="checkbox"/>	<input type="checkbox"/>
e. New Application	<input type="checkbox"/>	<input type="checkbox"/>
3. Will the well(s) intersect a workable coal seam?	<input type="checkbox"/>	<input type="checkbox"/>
4. If the answer to 1(d) or 3 above is "yes" you must also apply to the Bureau of Oil & Gas Management. Have you done so?	<input type="checkbox"/>	<input type="checkbox"/>
5. If the gas management operator is an entity other than the landfill permittee, a copy of the contractual agreement between the gas management operator, the solid waste permittee, and the landowner acknowledging liability for the various aspects of the project must be submitted with the application. This agreement shall clearly show that the solid waste disposal site permittee is ultimately responsible for maintaining compliance with the solid waste permit and environmental statutes at the site. The agreement shall also indicate that the parties thereto will not conduct any activities inconsistent with the DEP permit or authorizations to which the other parties are bound. Has a copy of this agreement been attached?	<input type="checkbox"/>	<input type="checkbox"/>
6. Is the drilling activity limited both horizontally and vertically to the mass of the deposited waste?	<input type="checkbox"/>	<input type="checkbox"/>

## SECTION B. (continued)

	Yes	No
7. Will there be any well drilling activity adjacent to or surrounding the mass of the deposited waste?	<input type="checkbox"/>	<input type="checkbox"/>
8. Will there be any drilling activity below the mass of deposited waste? (At lined facilities, drilling below the mass of deposited waste is prohibited unless detailed assurance is provided on maintaining landfill integrity.)	<input type="checkbox"/>	<input type="checkbox"/>
9. Is the anticipated total depth of drilling known?	<input type="checkbox"/>	<input type="checkbox"/>
10. Will the well(s) be drilled through a coal seam where the coal has been removed?	<input type="checkbox"/>	<input type="checkbox"/>
11. Are there any probe holes proposed to monitor the pressure around the well during testing?	<input type="checkbox"/>	<input type="checkbox"/>
12. If response to item 11 is "yes", will the probe holes be capped, plugged, or sealed?	<input type="checkbox"/>	<input type="checkbox"/>
13. If the response to Item 12 is "yes", have procedures for plugging or pulling casings been included in this submission?	<input type="checkbox"/>	<input type="checkbox"/>
14. Is a schedule of long-term operation, maintenance, closure, deactivation, and plugging included herein?	<input type="checkbox"/>	<input type="checkbox"/>
15. Will the condensate and any other solid waste, liquids or gases generated as a result of drilling, venting or gas/energy recovery operations, be managed in accordance with the requirements of Act 97 and the rules and regulations of the Department listed below?		
a. generator requirements	<input type="checkbox"/>	<input type="checkbox"/>
b. transporter requirements	<input type="checkbox"/>	<input type="checkbox"/>
c. processing requirements	<input type="checkbox"/>	<input type="checkbox"/>
d. treatment requirements	<input type="checkbox"/>	<input type="checkbox"/>
e. disposal requirements	<input type="checkbox"/>	<input type="checkbox"/>
f. air emission requirements of the Air Pollution Control Act	<input type="checkbox"/>	<input type="checkbox"/>
g. discharge requirements of the Clean Streams Law	<input type="checkbox"/>	<input type="checkbox"/>
16. Does this project address off-site gas migration problems? Explain.	<input type="checkbox"/>	<input type="checkbox"/>
17. Are any gas enhancement procedures proposed? If yes, explain in detail.	<input type="checkbox"/>	<input type="checkbox"/>
18. Have safety rules, procedures, or plans been developed and attached hereto for implementation at the project area?	<input type="checkbox"/>	<input type="checkbox"/>

**SECTION B. (continued)**

	Yes	No
19. Will the wells or surface gas control equipment, or other structures intersect or otherwise disturb either surface or subsurface facilities or control measures on or adjacent to the solid waste facility?  If yes, check the appropriate disturbed or modified facility/control measure:	<input type="checkbox"/>	<input type="checkbox"/>
– cap	<input type="checkbox"/>	<input type="checkbox"/>
– liner	<input type="checkbox"/>	<input type="checkbox"/>
– leachate control system	<input type="checkbox"/>	<input type="checkbox"/>
– subbase	<input type="checkbox"/>	<input type="checkbox"/>
– renovating soil	<input type="checkbox"/>	<input type="checkbox"/>
– critical slope	<input type="checkbox"/>	<input type="checkbox"/>
– surface water management facilities/structures	<input type="checkbox"/>	<input type="checkbox"/>
– site access measures (roads, fences, gates etc.)	<input type="checkbox"/>	<input type="checkbox"/>
– general, final site contours	<input type="checkbox"/>	<input type="checkbox"/>
– groundwater monitoring system	<input type="checkbox"/>	<input type="checkbox"/>
– other (list in narrative)	<input type="checkbox"/>	<input type="checkbox"/>
20. For all items checked “yes” in question no. 19, provide a detailed description (in the narrative and, where appropriate, in the large scale plan or cross-section) of the following:		
a. the nature of the anticipated modification or disturbance to the control measures or facilities, and	<input type="checkbox"/>	<input type="checkbox"/>
b. how the modifications or disturbance will be implemented to assure that the landfill and drilling/gas recovery operations and all activities conducted incidental thereto are undertaken, constructed, or maintained in accordance with the provisions of Act 97 and the rules and regulations of the Department.	<input type="checkbox"/>	<input type="checkbox"/>
21. Have all design plans or operational plans relative to this project been prepared by, or under the direction of a Pennsylvania Registered Professional Engineer? Do such documents bear the seal and signature of a Registered Professional Engineer?	<input type="checkbox"/>	<input type="checkbox"/>

**SECTION C. GAS MONITORING AND CONTROL PLAN**

The plan should address the following:

1. Procedures to monitor and record off-site migration and gas accumulation on and off the site, including within structures.

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2. Design drawings for the gas control system, indicating the location and scheduling of construction, and the design of vents, barriers, collection pipes, manifolds or other control measures that will be in place.

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3. Analytical procedures for gases to be tested for as part of the monitoring program.

4. The frequency of monitoring and individuals who will be responsible.

**SECTION D. GAS RECOVERY**

- 1. Drawings and a narrative detailing the location and design of the proposed gas recovery system and the major on-site components of the system.

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- 2. Plans and designs to address special storage, transportation, processing, treatment or disposal measures anticipated or required in the management of the generated gases, condensates or other residues.

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- 3. Plan to monitor and record off-site gas migration and gas accumulation on and off the site, including within structures.

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## INSTRUCTIONS FOR COMPLETING FORM K GAS MANAGEMENT

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### GENERAL INFORMATION

This package is designed to assist the applicant in completing Form K - Gas Management

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### SECTION A. APPLICANT IDENTIFIER

For purposes of identifying and tracking complete permit packages, enter the following requested information: **APPLICANT NAME.** Enter the name you designated as applicant of this project on the previously submitted Permit Application – General Information Form.

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### SECTION B.

1. The installation of gas monitoring, venting, or recovery wells at a landfill is considered a site modification and requires a modification of the solid waste permit. The Bureau of Waste Management will issue the permit modification to the permittee of the landfill. The proposed gas operator will be identified in the permit modification application. When the gas management operator is not the permittee of the landfill, the gas operator will be considered a subcontractor to the owner/operator of the landfill.
2. Gas recovery at any landfill which is not in compliance with Department regulations for reasons other than gas management, may not commence until the facility is brought into compliance.
3. The installation of a gas management system at an inactive permitted solid waste disposal facility where there is an approved closure plan, consent order and agreement, or other legal agreement requires a modification of the closure plan, consent order and agreement, or other legal agreements.
4. Gas recovery at an inactive unpermitted landfill requires a solid waste processing permit. Issuance of a processing permit will be conditioned on the correction of any outstanding violations at the facility or entering a consent Order and Agreement, to correct any outstanding violations.
5. Detailed drawings of the gas monitoring, venting or recovery facilities installed (not drilled) during the construction of the landfill must be included in the application for permit modification.
6. Drilling of an oil or natural gas well (which is not proposed to control landfill-generated gases) on the landfill property or adjacent properties, whether or not it affects landfill operation or performance, will require modification of the solid waste disposal facility permit.
7. Drilling into or through a workable coal seam at a permitted landfill requires a drilling permit (Form 5500-PM-OG0001) from the Bureau of Oil and Gas Management, in addition to the modification of the solid waste permit by the Bureau of Waste Management.
8. An acceptable solid waste collateral or surety bond may be required as part of the application to the Department. The solid waste bond liability, when required, shall be a **minimum** of ten thousand dollars (\$10,000). If a bond is already in effect no new bond shall be required unless the existing bond is deficient in its coverage. In such case a single bond adequate to cover the landfill as well as the gas system will be required.
9. Permit application documentation described above shall be submitted to the Bureau of Waste Management at the appropriate Regional Office of the Department of Environmental Protection.
10. Gas management practices must comply with all state and federal regulations.