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| Minnesota Pollution Control Agency (MPCA), 520 Lafayette Road North, St. Paul, MN 55155-4194 | Application for the construction and operation of a petroleum-contaminated soil composting site  Petroleum Remediation Program  Guidance document 3-18  Doc Type: Environmental Development/Guidance |

Compost sites for petroleum-contaminated soil (PCS) are permitted under coverage of a general permit (permit). To obtain coverage, an applicant must submit this application documenting compliance with specific criteria for construction and operation of the site. Following Minnesota Pollution Control Agency (MPCA) approval, the permittee may construct and operate the compost site according to the terms of the permit.

A compost site is limited to a maximum of 1,500 cubic yards. The MPCA may approve a larger volume of soil if the source of the PCS is an individual leak site, or another petroleum release site and the soil is excavated as a single batch within a limited time period. Once a site is approved, prior to composting a batch of soil, complete the [Request to compost petroleum-contaminated soil](https://www.pca.state.mn.us/sites/default/files/c-prp3-19.docx) form. This application and a [Request to compost petroleum-contaminated soil](https://www.pca.state.mn.us/sites/default/files/c-prp3-19.docx) form may be submitted at the same time.

1. Background

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| **Compost site owner** | | | | | | | | |
| Individual or corporate name: | | | |  | | | | |
| Mailing address: | | |  | | | | | |
| City: |  | | | | State: |  | Zip code: |  |
| Email address: | |  | | | | | Phone number: |  |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Compost site operator** | | | | | | | | |
| Individual or corporate name: | | | |  | | | | |
| Mailing address: | | |  | | | | | |
| City: |  | | | | State: |  | Zip code: |  |
| Email address: | |  | | | | | Phone number: |  |

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| **Person completing application** | | | | | | | | |
| Individual or corporate name: | | | |  | | | | |
| Mailing address: | | |  | | | | | |
| City: |  | | | | State: |  | Zip code: |  |
| Email address: | |  | | | | | Phone number: |  |

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| **Location**  **Double click checkboxes to select Checked and then select OK.** | | | | | | | | | | | | | | | | | | |
| Site address (if available): | | |  | | | | | | | | | | | | | | | |
| City: |  | | | | State: | | |  | | Zip code: | | | |  | | | | |
| Legal description: | |  | ¼ of |  | | ¼ of Section: | | |  | | | Township: |  | | N | Range: |  | W |
| Township name: | |  | | | | | | | | | County: | |  | | | | | |
| Parcel number: | |  | | | | | *Include a current county parcel report as* [*Section IX: Appendix F*](#IX)*.* | | | | | | | | | | | |
| Is this proposed land treatment site within the boundary of a recognized tribal area?  Yes  No | | | | | | | | | | | | | | | | | | |

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| **General information** | | | | | | | |
| **Double click checkboxes to select *Checked* and then select *OK*.** | | | | | | | |
| Is this application an: | Initial application | | **or** | Renewal application for site CS000 | | |  |
| Has this site previously been used for treatment or disposal of wastes (not including PCS)?  Yes  No | | | | | | | |
| If yes, please explain: | |  | | | | | |
| Provide a description of any previous use of the compost site for treatment or disposal of PCS: | | | | | | | |
|  | | | | | | | |
| Total area for proposed compost site (square feet or acres): | | | | |  |  | |
| Soil volume amount to be permitted at this site (cubic yards): | | | | |  |  | |
| This compost site will be used for:  a one-time application  multiple applications | | | | | | | |

1. Location criteria

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| Confirm the proposed compost site meets the following criteria. If any of these setbacks are not met, the compost site will not be approved. Include any applicable features with setback distances in [Section VIII: Figure 3](#VIII):  **Double click checkboxes to select *Checked* and then select *OK*.** | |
|  | Composting site is not located within ¼ mile, edge to edge, of another compost site. |
|  | Not located within a 100-year floodplain. |
|  | Not located in an area with a slope of greater than 2%, based on the [Natural Resources Conservation Service (NRCS) soil survey](https://websoilsurvey.nrcs.usda.gov/app/) |
|  | At least 200 feet from an intermittent stream, drainage ditch, tile drain inlet, sinkhole, known underground cave, and the ordinary high-water level of a stream, river, lake, pond, wetland, or flowage. |
|  | At least 200 feet from any private water supply well |
|  | At least 1,000 feet from any public water supply well |
|  | At least 200 feet from the nearest property line, unless written permission is obtained and provided as Appendix E |
|  | At least 500 feet from a place of habitation, livestock area, residential development, or recreational area, unless written permission is obtained and provided as Appendix E. |
|  | At least 500 feet from the ordinary high-water levels of a trout stream, trout lake, or outstanding resource value water (or an intermittent stream, drainage ditch, or tile drainage inlet that directly outlets to these features) OR if within 500 feet, a filter strip with a minimum width of 50 feet must be located between the site and the above features. The filter strip must be designed according to, or equivalent to, [NRCS Conservation Practice Standard Code 393](https://www.nrcs.usda.gov/resources/guides-and-instructions/filter-strip-ac-393-conservation-practice-standard). Attach details, including the [NRCS soil survey](https://websoilsurvey.nrcs.usda.gov/app/), as [Section IX: Appendix A](#IX). |

1. Soil and subsurface conditions

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| **Double click checkboxes to select *Checked* and then select *OK*.** | |
| The applicant must have certification from a professional geologist or soil scientist that the following requirements are met. This certification may be based on: a published soil survey such as the [NRCS soil survey](https://websoilsurvey.nrcs.usda.gov/app/); or a minimum of three soil samples analyzed for grain size analysis according to [American Society for Testing and Materials (ASTM) Method D 422, Standard Test Method of Particle Size Analysis of Soils](https://www.bing.com/ck/a?!&&p=15cdd5cfacd91d92JmltdHM9MTcwMDA5MjgwMCZpZ3VpZD0wOTQwOTAwNy1hYjMyLTZhOWMtMTQ1Mi04M2NkYWYzMjY0N2QmaW5zaWQ9NTIwNQ&ptn=3&ver=2&hsh=3&fclid=09409007-ab32-6a9c-1452-83cdaf32647d&psq=American+Society+for+Testing+and+Materials+(ASTM)+Method+D+422%2c+%e2%80%9cStandard+Test+Method+of+Particle+Size+Analysis+of+Soils&u=a1aHR0cHM6Ly93d3cuYXN0bS5vcmcvc3RhbmRhcmRzL2Q0MjI&ntb=1). | |
| A. | There must be a 10-foot or greater separation distance from the ground surface to the high seasonal water table or shallow bedrock. |
| B. | There must be a continuous layer of impervious soil a minimum of three feet thick within the 10-foot separation distance. |
|  | 1. Impervious soil means soil consisting of silts or clays with a hydraulic conductivity (K) of less than 10-4 cm/sec. |
| C. | Sites without the minimum of three feet of impervious soil must utilize an impervious surface or clay liner: |
|  | 1. Impervious surface is defined as sealed concrete or asphalt without cracks, or plastic liner at least 40 millimeters thick. 2. A clay liner means compacted imported clay or native clay soil with a minimum of 24 inches thick with a permeability rate of less than 1 x 10-7 centimeters per second. |

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| **Soil type** | **Soil horizons** | ***K <* 10-4 cm/sec?** | **Depth to seasonal high-water table or shallow bedrock (ft)** |
|  |  | Yes  No |  |
|  |  | Yes  No |  |
|  |  | Yes  No |  |
|  |  | Yes  No |  |

**Example**

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| --- | --- | --- | --- | --- |
| **Soil type** | **Soil horizons** | ***K <* 10-4 cm/sec?** | **Depth to seasonal high-water table or shallow bedrock (ft)** | **Amount of impervious soil within the 10-foot separation distance** |
| 155B | 0-20”  Sandy loam | No | 3 | None |
| 20-60”  Gravelly sand | No |
| 928B | 0-5” fine sandy loam | No | 12 | 37 inches |
| 5-42”  Sandy clay loam | Yes |
| 42-60”  Sandy loam | No |
| 119B | 0-26” loamy fine sand | No | 10 | None, but will construct impervious surface/clay liner meeting requirements |
| 26-60” sandy loam | No |

For soil type 155B, the hydraulic conductivity of the soils is too high, and the seasonal high-water table is too shallow. Constructing an impervious surface or clay liner will not make this soil type viable.

For soil type 928B, there is greater than 3 continuous feet of soil that meet the hydraulic conductivity criteria and the depth to water table and/or bedrock is greater than 10 feet, therefore this soil is viable.

For soil type 119B, the hydraulic conductivity of the soils is too high, and the seasonal high-water table is 10 feet. Constructing an impervious surface or clay liner will make this soil type viable.

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| Attach details regarding the source of the above information, from the NRCS web soil survey, or from independent investigation as [Section IX: Appendix A](#IX). | |
| Does the soil(s) meet the water table and/or shallow bedrock depth requirements?  Yes  No | |
| If no, this proposed site will not be approved. | |
| If yes, does the soil(s) meet the impervious soil criteria defined above?  Yes  No | |
| If no, explain planned impervious surface construction plans: |  |

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| --- | --- | --- | --- |
| **Professional geologist or soil scientist** | | | |
| Name and organization: |  | | |
| Title: |  | License number: |  |
| Signature: |  | Date (mm/dd/yyyy): |  |
|  | *(By signing, I certify that the soil conditions above are accurate based on my professional assessment.)* | | |

1. Run-on and run-off controls

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| All stockpiled soils at the compost site must be covered during pile construction to prevent erosion, and have run-on and run-off controls, including berms, erosion mats, and silt fences, as necessary to ensure that run-off from the PCS does not reach porous native soil or surface water. Storm water that has contacted PCS must be contained within the bermed area or a lined pond, and can be utilized to keep the compost pile adequately moistened. Alternately, it can be properly disposed of at a municipal wastewater treatment site.  Include run-on and/or run-off controls on the site map, [Section VIII: Figure 3](#VIII), and attach a description of controls as [Section IX: Appendix B](#IX). |

1. Operation and maintenance

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| Detail an operation and maintenance plan including the following, and attach as [Section IX: Appendix C](#IX): |
| * How the compost pile must be watered, aerated, and fertilized during the construction period and thereafter to ensure optimal microbial activity; * How the compost will be monitored for moisture content, odor, and physical appearance at least once each month; and * How monitoring results will be recorded and then stored. |

1. Operating conditions

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| **Double click checkboxes to select *Checked* and then select *OK.*** | |
|  | During the construction of the compost pile, remove rocks larger than four inches in diameter, and also debris, including pieces of plastic, bricks, metal, and wood, from the PCS. Dispose of waste material (i.e., material other than natural rock or untreated/unpainted wood) removed from the PCS in a permitted landfill or by processing or recycling or another approved method allowed by state or local rules. |
|  | Do not combine PCS originating from different leak sites or other petroleum release sites. Individual compost piles must be separated by at least five feet to prevent mixing of different batches of PCS. |
|  | Restrict access to the permitted site by means of a gate or (in populated areas) by fencing sufficient to deter trespassing. Place signage at the permitted site indicating that it is a PCS composting site and that access is restricted. |
|  | Manage no more than the approved volume of material at the permitted site, including PCS awaiting composting, composting soils, and treated soils awaiting disposal or use. |
|  | Report annually on the progress of each batch of PCS being managed at the permitted site. |
|  | Control PCS management activities at the permitted site to avoid creation of fugitive emissions in violation of [Minn. R. 7011.0150](https://www.revisor.mn.gov/rules/7011.0150/). Use handling practices that reduce dusting, such as wetting dried material prior to handling and avoiding handling of dried material on days when wind conditions could cause lifting of dust. |

1. Notification of county and local governments

Prior to or concurrent to submittal of this application to the MPCA, submit a copy of the application to the appropriate county and local officials and be able to provide a copy of certified mail receipts to the MPCA as [Section IX: Appendix D](#IX). Please provide the names and addresses of the officials notified with this application below.

The applicant is responsible for obtaining all the necessary county and local approvals. The issuance of a permit allowing a PCS composting site does not release the applicant from the duty to comply with applicable county and local regulations.

**County official**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Individual name: | | | |  | | | | |
| Title: | |  | | | | | | |
| Mailing address: | | | |  | | | | |
| City: |  | | | | State: |  | Zip code: |  |
| Email: | | |  | | | | Phone: |  |

**City, Township or Tribal government official**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Individual name: | | | |  | | | | |
| Title: | |  | | | | | | |
| Mailing address: | | | |  | | | | |
| City: |  | | | | State: |  | Zip code: |  |
| Email: | | |  | | | | Phone: |  |

1. Figures

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| All figures must include a north arrow, scale, and legend. Approximate scales are not acceptable. Attach all required figures in the following order. Indicate figures included in this report by marking the check box.  **Double click checkboxes to select *Checked* and then select *OK*.** | |
|  | Figure 1: Copy of county plat map or standard 7.5-minute series quadrangle map with clear road directions to the site. |
|  | Figure 2: [NRCS soil survey map](https://websoilsurvey.nrcs.usda.gov/app/) (scale: 1 inch = 200 feet), depicting soil types. |
|  | Figure 3: Site map (scale: 1 inch = 200 feet) including: |
|  | * Borders of treatment site (indicate dimensions of each side in feet); * All applicable setback features from [Section II](#II), and other features within 500 feet, such as: property lines, buildings, sewers; * If there is any slope greater than 2% within 500 feet, provide a cross sectional map of the area within 500 feet; * Run-on and/or run-off controls. |

1. Appendices

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| Attach all required or applicable appendices in the following order. Indicate appendices included in this report by marking the check box. All reproduced data must be legible.  **Double click checkboxes to select *Checked* and then select *OK*.** | | |
|  | *Appendix A* | Soil details, from the [NRCS web soil survey](https://websoilsurvey.nrcs.usda.gov/app/), or from independent investigation |
|  | *Appendix B* | Run-on/run-off controls |
|  | *Appendix C* | Operation and maintenance plan |
|  | *Appendix D* | Certified mail receipts |
|  | *Appendix E* | Written permission |
|  | *Appendix F* | County parcel report |

1. Certification

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| Under [Minn. R. 7000.0300](https://www.revisor.mn.gov/rules/7000.0300/), I certify under penalty of law that I am familiar with this document and all attachments submitted herein and based on my inquiry of those individuals immediately responsible for obtaining the information I believe the submitted information is true, accurate and complete, or I may be subject to civil penalties. |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Signature: | |  | |  | Signature: | |  | |
|  | | *(This document has been electronically signed.)* | |  |  | | *(This document has been electronically signed.)* | |
| Title: | Compost site owner | | |  | Title: | Compost site operator | | |
| Date (mm/dd/yyyy): | | |  |  | Date (mm/dd/yyyy): | | |  |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Signature: | |  | |  |  | |  | |
|  | | *(This document has been electronically signed.)* | |  |  | |  | |
| Title: | Individual completing application. | | |  |  |  | | |
| Date (mm/dd/yyyy): | | |  |  |  | | |  |

1. Submission of form

Submit the completed form and all attachments to the Petroleum Remediation Program via [MN.SoilTreatment.MPCA@state.mn.us](mailto:MN.SoilTreatment.MPCA@state.mn.us).