

**Plan of Operation Checklist
for Small-size Construction and Demolition (C & D) Waste Landfills
Chapter NR 503.09, Wis. Adm. Code**



PUB-WA-1886 03/2020

A small-size C&D waste landfill must have a design capacity of 50,000 cubic yards or less (including waste and intermediate soil covers) and may only be used for the disposal of construction and demolition wastes unless otherwise approved by the department. This checklist identifies the plan of operation report requirements generally covered by the applicable portions of Wisconsin Administrative Code (Wis. Adm. Code) for small-size C&D waste landfills. Refer to the applicable statutes and codes for the exact requirements. This checklist may be used by department staff for the review of landfill plan of operation reports for small-size construction and demolition waste landfills. The checklist may also be used by applicants and submitted with a landfill plan of operation report to facilitate department review. Note that there is not a formal completeness letter for small-size construction and demolition waste landfills; however, s. NR 500.07, Wis. Adm. Code, specifies the department issue a decision (approve, deny or deem incomplete) within 65 business days after receiving the request, the appropriate copies and review fees. In accordance with ch. NR 520, Wis. Adm. Code, Table 3, footnote (1), the applicant is required to pay an additional review fee for resubmittal of a plan which has twice been declared incomplete.

General Information

Owner or Operator Name: _____

Mailing Address (to send invoice): _____

Facility Name: _____

Monitoring ID # _____

Facility ID # _____

Initial Submittal: Date Received: ___/___/___ Decision Due: ___/___/___ Incompleteness or Decision Date: ___/___/___

Addendum # ___ Date Received: ___/___/___ Decision Due: ___/___/___ Incompleteness or Decision Date: ___/___/___

Review Fee Invoice Date: _____ Review Fee Payment Date: _____

Facility Name: _____

PLAN OF OPERATION REQUIREMENTS	COMPLETE?			LOCATION	COMMENTS
	Y	N	NA		
NR 500.05 - GENERAL SUBMITTAL REQUIREMENTS					
(1) REVIEW FEE: <input type="checkbox"/> Has the department issued an invoice to the applicant? <input type="checkbox"/> Has the department received payment for the review fee?					
(2) COVER LETTER: Has a cover letter detailing the desired action been submitted?					
(3) PAPER AND ELECTRONIC COPIES: Have the appropriate number of copies and one electronic copy been submitted?					
(4) CERTIFICATION. Are the reports and plan sheets sealed by a P.E.? Are reports and plan sheets interpreting geology or hydrogeology under the seal of a P.G.? Has P.E. and P.G. certification been provided?					
(5) TECHNICAL PROCEDURES:					
Were all technical procedures used to investigate the facility considered current standard procedures? (e.g. current sampling and analysis methods)					
Were all test procedures specified in the report?					
Are any deviations from a standard method explained in detail with reasons provided?					
(6) VISUALS. Do all maps, plan sheets, drawings, isometrics, cross-sections, figures, photographs and tables meet the following requirements?					
(a) No larger than 30 inches x 42 inches & no smaller than 8 ½ inches x 11 inches.					
(b) Appropriate scale to show required detail.					
(c) Do visuals meet the following requirements? <input type="checkbox"/> numbered <input type="checkbox"/> legends for all symbols <input type="checkbox"/> referenced in the narrative <input type="checkbox"/> horizontal & vertical scales <input type="checkbox"/> titled <input type="checkbox"/> drafting and origination dates					
(d) Are uniform scales used?					
(e) Are north arrows shown?					
(f) Is the mean sea level datum used as basis for all elevations?					
(g) Do visuals contain a survey grid based upon monuments established in the field?					
(h) Is the original topography and a grid system shown on the plan sheets that show construction, operation and closure topography?					
(i) Do cross-sections meet the following requirements? <input type="checkbox"/> Show survey grid locations <input type="checkbox"/> Reference major plan sheets <input type="checkbox"/> Include a reduced diagram of plan view showing cross-section location					
(7) TABLE OF CONTENTS: Is a table of contents provided listing all sections of the submittal?					

Facility Name: _____

PLAN OF OPERATION REQUIREMENTS	COMPLETE?			LOCATION	COMMENTS
	Y	N	NA		
NR 500.05 - GENERAL SUBMITTAL REQUIREMENTS					
(8) APPENDIX: Is an appendix provided listing the following? <input type="checkbox"/> names of all references <input type="checkbox"/> all raw data <input type="checkbox"/> testing and sampling procedures <input type="checkbox"/> calculations					
NR 503.04 LOCATIONAL CRITERIA AND PERFORMANCE STANDARDS					
(1) GENERAL: Does the report include information that demonstrates that the proposed landfill complies with the locational criteria below?					
(2) LOCATIONAL CRITERIA. Is the proposed landfill located within the following:					
(a) 1,000 feet of any navigable lake, pond or flowage not including landfill drainage or sedimentation control structures? <input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> If yes, was an exemption request and justification provided?					
(b) 300 feet of any navigable river or stream? <input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> If yes, was an exemption request and justification provided?					
(c) A 100-year flood plain? <input type="checkbox"/> yes <input type="checkbox"/> no Note: In accordance with NR 503.04(1), an exemption may not be granted by the department for 503.04(2)(c).					
(d) 1,000 feet of the nearest edge of the right-of-way of any state trunk highway, interstate or federal aid primary highway or any public park or state natural area? <input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> If yes, would the landfill be (visually) screened by natural objects, plantings, fences or other appropriate means so that the landfill is not visible from the highway, park or state natural area? <input type="checkbox"/> Or, was an exemption request and justification provided? Note: Also see 503.09(4)(a).					

Facility Name: _____

PLAN OF OPERATION REQUIREMENTS	COMPLETE?			LOCATION	COMMENTS
	Y	N	NA		
NR 503.04 LOCATIONAL CRITERIA AND PERFORMANCE STANDARDS					
(2) LOCATIONAL CRITERIA. Is the proposed landfill located within the following:					
(f) 1,200 feet of any water supply well (i.e. public, private, irrigation or stock water supply wells)? <input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> If yes, was an exemption request and justification provided? For each identified water supply well within 1,200 feet, have the following been provided? <input type="checkbox"/> well location <input type="checkbox"/> former and present well owner <input type="checkbox"/> well driller <input type="checkbox"/> well construction log Note: If a well construction log is not available, acceptable information may include: measurements of total depth, casing depth, casing type and diameter, and static water level. For each identified water supply well within the 1,200 feet, a variance from s. NR 812.08 (4) (g) (1), Wis. Adm. Code, would be required under the provisions of s. NR 812.43, Wis. Adm. Code. The well variance applications are reviewed by the department's Drinking Water and Groundwater Program.					
(g) Within 100 feet of the landfill property boundary <input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> If yes, was an exemption request and justification provided?					
(3) PERFORMANCE STANDARDS. Is the proposed landfill located in an area where there is a reasonable probability that the landfill will cause:					
(a) A significant adverse impact on wetlands as provided in ch. NR 103? <input type="checkbox"/> yes <input type="checkbox"/> no					
(b) A take of an endangered or threatened species in accordance with s. 29.604, Stats? <input type="checkbox"/> yes <input type="checkbox"/> no					
(c) A detrimental effect on any surface water? <input type="checkbox"/> yes <input type="checkbox"/> no					
(d) A detrimental effect on groundwater quality or will cause or exacerbate an attainment or exceedance of any preventive action limit or enforcement standard at a point of standards application as defined in ch. NR 140? <input type="checkbox"/> yes <input type="checkbox"/> no					

Facility Name: _____

PLAN OF OPERATION REQUIREMENTS	COMPLETE?			LOCATION	COMMENTS
	Y	N	NA		
NR 503.04 LOCATIONAL CRITERIA AND PERFORMANCE STANDARDS					
(2) LOCATIONAL CRITERIA. Is the proposed landfill located within the following:					
(e) The migration and concentration of explosive gases in excess of 25% of the lower explosive limit for such gases at any time? __ yes __ no					
(f) The emission of any hazardous air contaminant exceeding the limitations for those substances contained in s. NR 445.04 or 445.05? __ yes __ no					
NR 503.09 SMALL SIZE CONSTRUCTION AND DEMOLITION WASTE LANDFILLS					
(1) PUBLIC NOTICE					
Documentation included in the plan of operation report of the following: __ Public notice requirements have been met? __ Resident notification requirements (to residents within 1200 feet of the proposed landfill footprint) have been met? Does the notice and notification identify the following: __ applicant's name, business address and phone number? __ location, design capacity and anticipated operational life? __ name, address and telephone number of the department representative to whom public comments may be submitted orally or in writing?					
(2) PLAN OF OPERATION REQUIREMENTS					
__ Does the proposal address the alternatives considered, including reuse, recycling and disposal at a licensed solid waste landfill, the reasons why other economically feasible alternatives are not available, and the potential environmental impacts that may occur?					
At a minimum, is the following information included in the plan of operation report: (a) General landfill information including: __ Project title __ Primary contact persons and consultants (name, address and telephone) __ Present property owner __ Proposed landfill owner and operator __ Landfill location by quarter-quarter section __ Total acreage of property and landfill __ Proposed landfill life and disposal capacity __ Anticipated covering frequency __ Equipment to be used __ Mode of operation					

Facility Name: _____

PLAN OF OPERATION REQUIREMENTS	COMPLETE?			LOCATION	COMMENTS
	Y	N	NA		
NR 503.09 SMALL SIZE CONSTRUCTION AND DEMOLITION WASTE LANDFILLS					
(2) PLAN OF OPERATION REQUIREMENTS					
At a minimum, is the following information included in the plan of operation report: (b) Results of the subsurface investigations summarized ___ Geologic Cross Sections connecting the soils borings? ___ Do the cross sections show the following: ___ present topography ___ borings ___ wells ___ major soil layers ___ water table ___ bedrock					
(c) Topographic survey information displayed on a plan sheet showing the following: ___ proposed fill area ___ property boundaries ___ proposed landfill boundaries ___ soil borings performed ___ wells installed ___ minimum scale of 1 inch = 200 feet (or 1:2400) ___ maximum contour interval of 5 feet ___ drainage patterns ___ all roads adjacent to or near the proposed landfill ___ and include the following located within ¼ mile (1,320 feet) of the landfill: ___ all homes, ___ water supply wells, ___ floodplains ___ wetlands or water courses This map may consist of a blow-up of a USGS map, with supplemental information added as appropriate.					
(d) A topographic plan sheet showing the following: ___ proposed base grades ___ sequence of filling ___ 2-foot contours ___ all drainage patterns					
(e) A topographic plan sheet showing proposed final grades					

Facility Name: _____

PLAN OF OPERATION REQUIREMENTS	COMPLETE?			LOCATION	COMMENTS
	Y	N	NA		
NR 503.09 SMALL SIZE CONSTRUCTION AND DEMOLITION WASTE LANDFILLS					
(2) PLAN OF OPERATION REQUIREMENTS					
(f) Cross-sections drawn through the fill area: <input type="checkbox"/> north-south <input type="checkbox"/> east-west Delineate the following information (which can be delineated on the geologic cross-sections required in par (d) above if clarity is not compromised): <input type="checkbox"/> present topography <input type="checkbox"/> soils information <input type="checkbox"/> groundwater <input type="checkbox"/> base grades <input type="checkbox"/> final contours					
(g) An environmental monitoring plan complies with the requirements of sub. (6) below?					
(h) An appendix prepared which includes: <input type="checkbox"/> all raw data (such as boring logs, soil tests, well construction data and water level measurements) Documentation of soil borings and monitoring wells must be documented in accordance with ss. NR 141.23 and NR 507.14 Wis. Adm. Code. <input type="checkbox"/> a plat map of the area <input type="checkbox"/> a soil conservation service soil map and interpretation <input type="checkbox"/> references					
(3) WASTE SCREENING PLAN. At a minimum, is the following information included in the plan of operation report					
(a) Has owner/operator developed and submitted a waste screening and handling plan that contains the following: 1. <input type="checkbox"/> Identification of items that may not be accepted by the landfill 2. <input type="checkbox"/> Procedures for limiting waste which is not approved by the landfill 3. <input type="checkbox"/> Procedures for inspecting waste loads 4. <input type="checkbox"/> Procedures for handling and disposing of screened items 5. <input type="checkbox"/> Procedures for enforcement of the waste screening requirements					
(4) DESIGN AND OPERATIONAL REQUIREMENTS. Owner/operator of landfill must meet the following operational requirements:					
(a) Operate, maintain and close the landfill in a nuisance free manner. Is screening provided from all residences within ¼ mile (1,320 feet) of the waste handling areas (unless waived by the department)? Note: Also see section 503.04(2)(d).					

Facility Name: _____

PLAN OF OPERATION REQUIREMENTS	COMPLETE?			LOCATION	COMMENTS
	Y	N	NA		
NR 503.09 SMALL SIZE CONSTRUCTION AND DEMOLITION WASTE LANDFILLS					
(4) DESIGN AND OPERATIONAL REQUIREMENTS. Owner/operator of landfill must meet the following operational requirements:					
(b) Is a minimum 10-foot separation distance from the base of the landfill to the water table or bedrock maintained—unless the landfill is in a clay soil environment?					
(c) Is access to the landfill restricted through the use of fencing or other means?					
(d) Will the landfill be operated by personnel who meet the operator certification requirements established under ch. NR 524?					
(5) CONSTRUCTION AND DOCUMENTATION REPORT. The department require the owner/operator to submit a construction documentation report for any small size C & D landfill. Operation of the landfill may not begin until the report is approved in writing by the department.					
Does the report include a proposal to submit a construction documentation report?					
(6) ENVIRONMENTAL MONITORING. Has the owner/operator proposed to establish an environmental monitoring program to include the following? Note: NR 506.09(6) indicates the department may require installation of additional monitoring devices, additions to the groundwater sampling and analysis programs, gas and leachate monitoring and provisions to protect against the detrimental effects of leachate and gas migration.					
(a) Water table observation wells installed to adequately define the following: ___ water table ___ hydraulic gradients ___ groundwater quality ___ <u>minimum</u> 3 water table observation wells Are well locations chosen in an effort to place them (relative to the landfill): ___ 1 upgradient well ___ 2 downgradient wells					
(b) Baseline water quality established at all monitoring wells for all parameters listed in ch. NR 503, Table 1, Wis. Adm. Code? (Must also meet (c), (d), and (e) below)					

Facility Name: _____

PLAN OF OPERATION REQUIREMENTS	COMPLETE?			LOCATION	COMMENTS
	Y	N	NA		
NR 503.09 SMALL SIZE CONSTRUCTION AND DEMOLITION WASTE LANDFILLS					
(6) ENVIRONMENTAL MONITORING. Has the owner/operator proposed to establish an environmental monitoring program to include the following?					
(c) A minimum of: <input type="checkbox"/> 2 samples with at least 30 days between sampling rounds collected and analyzed <input type="checkbox"/> And results submitted with the proposal? Will two additional rounds—with at least 30 days apart—be collected/analyzed for parameters listed in ch. NR503 Table 1, which exceeded preventive action limits established in ch. NR 140, Table 1, Wis. Adm. Code, during either of the first 2 rounds? <input type="checkbox"/> If yes, see par. (d) below. <input type="checkbox"/> If no, then go to par. (e) below.					
(d) If additional rounds are required—under par.(c) above—are they submitted with the proposal? <input type="checkbox"/> yes <input type="checkbox"/> If no, then when? _____ NR 503.09(6)(d) specifies the results of the 2 additional samples must be submitted with the construction documentation report; however, the department has accepted the data earlier.					
(e) Collection, handling and analysis of samples performed in accordance with ss. NR 507.16 and 507.17, Wis. Adm. Code.					
(f) Detection groundwater monitoring established at each well. Each well to be sampled as follows: <input type="checkbox"/> semi-annually <input type="checkbox"/> for parameters listed in column 1 of ch. NR 503, Table 1 (unless otherwise approved in writing by the department). <input type="checkbox"/> all test results [including baseline sampling] submitted to the department in accordance with ch. NR 507, Wis. Adm. Code					

Facility Name: _____

PLAN OF OPERATION REQUIREMENTS	COMPLETE?			LOCATION	COMMENTS
	Y	N	NA		
NR 503.09 SMALL SIZE CONSTRUCTION AND DEMOLITION WASTE LANDFILLS					
(7) CLOSURE REQUIREMENTS. Owner/operator or person who permits use of property for small size C & D landfill shall close the landfill within 90 days after disposal ends or when the design capacity is reached, whichever occurs first, in accordance with the plan of operation and the following:					
<p>(a) The entire area previously used for disposal purposes shall be:</p> <ul style="list-style-type: none"> ___ Covered with at least 2 feet of compacted earth ___ Sloped adequately to allow for storm water runoff. ___ Top slopes shall be no less than 2 percent ___ Side slopes shall be no steeper than 33 percent <p>Note: NR 503.09(7)(a) indicates a specific soil type may be required by the department and fine grain soils are required to minimize infiltration unless this requirement is waived by the department in writing.</p>					
<p>(b) Storm water shall be diverted to limit the potential for erosion and sedimentation.</p> <p>Wherever possible, storm water shall be diverted around previously filled areas. Where it is necessary to divert drainage over previously filled areas, the department may require that drainage be conveyed by clay lined drainage swales having a minimum thickness of 2 feet.</p> <p>Note: please consult with the department's stormwater program for applicable regulations or permit requirements.</p>					
(c) The finished surface of the filled area shall be covered with a minimum of 6 inches of topsoil.					
<p>(d) Seeding, fertilizing and mulching of the finished surface shall be accompanied in accordance with the landfill's final use. The following shall be selected depending on the type and quality of topsoil:</p> <ul style="list-style-type: none"> ___ the seed type, ___ amount of fertilizer and ___ compatibility with native vegetation. 					
(e) Following closure, the landfill shall be inspected and maintained by the owner or operator.					

Facility Name: _____

PLAN OF OPERATION REQUIREMENTS	COMPLETE?			LOCATION	COMMENTS
	Y	N	NA		
NR 503.09 SMALL SIZE CONSTRUCTION AND DEMOLITION WASTE LANDFILLS					
<p>(8) EXPANSIONS. Expansions include the establishment of any new landfill within ¼ mile (1,320 feet) of an existing landfill regulated under ch. NR 503, Wis. Adm. Code (i.e., one-time disposals and small and intermediate C & D landfills). Is the proposed landfill an expansion? <input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> If yes, does the combined design capacity of the original small C&D landfill and all subsequent expansions exceed 50,000 cubic yards?</p> <p>Except as provided under s. NR 503.10 (8) (b), Wis. Adm. Code, an applicant who wishes to expand an existing small C & D landfill must comply with all provision this section.</p>					
(10) FINANCIAL RESPONSIBILITY FOR CLOSURE AND LONG-TERM CARE. The department requires the owner/operator to provide proof of financial responsibility for closure and long-term care of the landfill using methods listed in s. NR 520.06, Wis. Adm. Code.					
NR 520.07 COST ESTIMATES FOR CLOSURE AND LONG TERM CARE For the purpose of determining the amount of proof of financial responsibility in accordance with s. NR 520.06, does the Plan of Operation submittal include cost estimates for closure and long-term care (of the landfill for 40 years after closure)?					
NR 140 GROUNDWATER QUALITY STANDARDS The department may not approve a proposed facility where a preventive action limit (PAL) or enforcement standard (ES) has been attained or exceeded unless an exemption has been granted under s. NR 140.28, Wis. Adm. Code. The owner or operator of a solid waste disposal facility may request an exemption to groundwater standards in accordance with ss. NR 140.28, 500.08(4), and 507.29, Wis. Adm. Code.					
Has a PAL or ES been attained or exceeded for ch. NR 140, Table 1 or Table 2 substances? If yes, does the report should include an exemption request in accordance with s NR 507.29(1)?					
NR 507.29 (1) EXEMPTIONS TO GROUNDWATER STANDARDS					
Does the report include an exemption request with the following: <input type="checkbox"/> (a) A list of wells and parameters for which an exemption is being requested <input type="checkbox"/> (c) A discussion of how the criteria listed in s. NR 140.28 (2), (3) and (4) are met.					

Facility Name: _____

Contact DNRWasteMaterials@wisconsin.gov for further information.

Disclaimer: This document is intended solely as guidance and does not contain any mandatory requirements except where requirements found in statute or administrative rule are referenced. Any regulatory decisions made by the Department of Natural Resources in any matter addressed by this guidance will be made by applying the governing statutes and administrative rules to the relevant facts.

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WISCONSIN DEPARTMENT OF NATURAL RESOURCES NOTICE OF FINAL GUIDANCE & CERTIFICATION

Pursuant to ch. 227, Wis. Stats., the Wisconsin Department of Natural Resources has finalized and hereby certifies the following guidance document.

DOCUMENT ID

WA-20-1886-C

DOCUMENT TITLE

Plan of Operation Checklist for Small-size Construction and Demolition (C&D) Waste Landfills

PROGRAM/BUREAU

Waste and Materials Management

STATUTORY AUTHORITY OR LEGAL CITATION

Ch. 289, Wis. Stats., NR 503, Wis. Adm. Code

DATE SENT TO LEGISLATIVE REFERENCE BUREAU (FOR PUBLIC COMMENTS)

03/23/2020

DATE FINALIZED

07/09/2020

DNR CERTIFICATION

I have reviewed this guidance document or proposed guidance document and I certify that it complies with sections 227.10 and 227.11 of the Wisconsin Statutes. I further certify that the guidance document or proposed guidance document contains no standard, requirement, or threshold that is not explicitly required or explicitly permitted by a statute or a rule that has been lawfully promulgated. I further certify that the guidance document or proposed guidance document contains no standard, requirement, or threshold that is more restrictive than a standard, requirement, or threshold contained in the Wisconsin Statutes.

07/09/2020

Signature

Date