

Name of Facility _____

PTI Application # _____

PTI REVIEW CHECKLIST (MUNICIPAL SOLID WASTE LANDFILL)

OAC 3745-27-06 PARAGRAPH	INFORMATION/CRITERIA	Meets	Doesn't Meet	See Attach.
-----------------------------	----------------------	-------	-----------------	----------------

BACKGROUND CHECK

(A)(2)(a)	Submit disclosure statement			
APPROVAL CRITERIA 27-07(A)(5): Meets disclosure statement requirements.				

DETAIL ENGINEERING PLAN COVER SHEET

(B)(1)(a)	Name of the sanitary landfill facility			
(B)(1)(b)	Precise geographic location, boundaries, etc.			
(B)(1)(c)	Name and address of the applicant			
(B)(1)(d)	Name and address of the owner(s) and operators			
(B)(1)(e)	Name and address of the person who prepared the plans			

PLAN DRAWINGS (Show items within 1,000 feet)

(B)(2)(b)	All existing land uses, zoning classifications, etc.			
APPROVAL CRITERIA 27-07(H)(4)(b): The limits of solid waste placement are not located within 300' of the facility's property line, unless deemed acceptable				
APPROVAL CRITERIA 27-07(H)(4)(c): The limits of solid waste placement are not located within 1,000' of a domicile, unless deemed acceptable				
APPROVAL CRITERIA 27-07(H)(4)(d): The limits of solid waste placement are not located within 200' of a stream, lake, or natural wetland, unless deemed acceptable				
(B)(2)(c)	Potential gas migration pathways and sources			
(B)(2)(d)	Limits of the regulatory floodplain			
(B)(2)(e)	National park or recreation area, candidate areas for potential inclusion into the national park system, and any state park or established state park purchase areas			
APPROVAL CRITERIA 27-07(H)(1): The limits of solid waste placement are not located in any of the above areas, or on any property line that lies within the boundaries of a national park or recreation area that has not been acquired or is not administered by USDI				

OAC 3745-27-06 PARAGRAPH	INFORMATION/CRITERIA	Meets	Doesn't Meet	See Attach.
-----------------------------	----------------------	-------	-----------------	----------------

PLAN DRAWINGS (Show items within 1,000 feet) (con't)

(B)(2)(f)	State nature preserves, state wildlife areas, national and state scenic rivers, any national wildlife refuge, special interest areas, research natural areas in the Wayne National Forest, outstanding resource waters, coldwater habitats and exceptional warmwater habitats			
APPROVAL CRITERIA 27-07(H)(4)(a): The limits of solid waste placement are not located within 1,000' of any of the above areas				
(B)(2)(g)	Public and private water supply wells and their status (to be shown within 2,000' of waste placement)			
APPROVAL CRITERIA 27-07(H)(3)(c): The limits of solid waste placement are not located within 1,000' of a water supply well or a developed spring, unless deemed acceptable (see rule for exemptions)				
(B)(2)(h)	Faults that have had displacement in Holocene time			
(B)(2)(i)	Surface and underground mining (to be shown within 2000' of the limits of solid waste placement)			
APPROVAL CRITERIA 27-07(H)(3)(b): Facility not located within an area of potential subsidence due to underground mines				
(B)(2)(j)	Airport runways (to be shown within 10,000' of the limits of solid waste placement for jet aircraft, or within 5,000' if used <u>only</u> by piston-type aircraft)			

PLAN DRAWINGS (Show items within 300 feet)

(B)(3)(a)	Location of existing and proposed buildings, facilities, etc.			
(B)(3)(b)	Location of existing and proposed utilities, etc.			
(B)(3)(c)	Location of fencing, gates, or other screening			
(B)(3)(d)	Location of borings, test pits, and ground water monitoring wells			
(B)(3)(e)	Potentiometric maps of the uppermost aquifer and zones of saturation			
(B)(3)(f)	Location of ground water control structures			
(B)(3)(g)	Location of explosive gas probes and control structures			
(B)(3)(h)	General construction and development phasing diagram of all units			
(B)(3)(i)	Land set aside for leachate treatment/pretreatment			

PLAN DRAWINGS (Show items within 300 feet)

(B)(4)(a)	Horizontal and vertical limits of excavation			
(B)(4)(b)	Horizontal limits and elevations of soil liner			
(B)(4)(c)	Elevations and layout of leachate management system(s)			
(B)(4)(d)	Horizontal limits and top and bottom elevations of solid waste placement			

OAC 3745-27-06 PARAGRAPH	INFORMATION/CRITERIA	Meets	Doesn't Meet	See Attach.
-----------------------------	----------------------	-------	-----------------	----------------

PLAN DRAWINGS (Show items within 300 feet) (con't)

(B)(4)(e)	Horizontal limits and top and bottom elevations of cap system and surface drainage			
-----------	--	--	--	--

CROSS SECTIONS

(B)(5)(a)(i)	Existing topography			
(B)(5)(a)(ii)	Horizontal and vertical limits of excavation			
(B)(5)(a)(iii)	Horizontal limits and top and bottom elevations of solid waste placement			
(B)(5)(a)(iv)	Horizontal limits and top and bottom elevations of cap system			
(B)(5)(b)(i)	Geologic stratigraphy and significant zones of saturation			
(B)(5)(b)(ii)	Uppermost aquifer and saturated strata above aquifer			
(B)(5)(b)(iii)	Well logs of intercepted borings			
(B)(5)(b)(iv)	Ground water flow patterns for uppermost aquifer and significant zones of saturation			
(B)(5)(b)(v)	Limits of excavation			
APPROVAL CRITERIA 27-07(H)(2)(e): The isolation distance between the uppermost aquifer system and the bottom of the recompacted soil liner of the facility is not less than 15' of in-situ or added geologic material				
(B)(5)(b)(vi)	Permanent ground water control structures			
(B)(5)(c)	Perimeter showing potential explosive gas migration pathways			

DETAILED CONSTRUCTION AND OPERATIONAL PLANS

(B)(6)(a)	Phase preparation			
(B)(6)(b)	Location of on-site soil borrow and storage areas for soil			
(B)(6)(c)	Direction of prevailing winds during each season			
(B)(6)(d)	Anticipated direction that working face will proceed			
(B)(6)(e)	Areas of operation during inclement weather			
(B)(6)(f)	Traffic patterns			
(B)(6)(g)	Surface water flow and points of concentration and measures to control			
(B)(6)(h)	Grades of the completed phase			

DETAIL DRAWINGS

(B)(7)(a)	Liner system, including interface between phases			
(B)(7)(b)	Final cap system			
(B)(7)(c)	Key systems for the final cap system, leachate management system, soil liner, etc.			

OAC 3745-27-06 PARAGRAPH	INFORMATION/CRITERIA	Meets	Doesn't Meet	See Attach.
-----------------------------	----------------------	-------	-----------------	----------------

DETAIL DRAWINGS (con't)

(B)(7)(d)	Leachate management system elements			
(B)(7)(e)	Permanent ground water control structures, if any			
(B)(7)(f)	Ground water monitoring well construction			
(B)(7)(g)	Explosive gas control and extraction system elements, if any			
(B)(7)(h)	Explosive gas monitoring probe construction			
(B)(7)(i)	Earthen structures, if any			
(B)(7)(j)	On-site roads with vertical profiles showing maximum grades			
(B)(7)(k)	Sedimentation pond, discharge structures, etc.			

NARRATIVE DESCRIPTION/INFORMATION (Summary)

(C)(1)	Summary of the site environs, including discussion on compliance, waste placement limits, location restriction demonstrations and operating criteria			
APPROVAL CRITERIA 27-07(A)(3): Compliance history of applicant/operator				

NARRATIVE DESCRIPTION/INFORMATION (Hydrogeologic site investigation report)

(C)(2)(a)(i)	Suitability of the site for solid waste disposal			
(C)(2)(a)(ii)	Hydrogeology of the uppermost aquifer system, etc.			
(C)(2)(a)(iii)	Characterization of the site geology			
APPROVAL CRITERIA 27-07(H)(2)(a): Facility not located in a sand or gravel pit where the sand or gravel deposit has not been completely removed				
APPROVAL CRITERIA 27-07(H)(2)(b): Facility not located in a limestone or sandstone quarry, unless deemed acceptable				

NARRATIVE DESCRIPTION/INFORMATION (Description of the regional hydrogeology and geomorphology)

(C)(2)(b)(i)	Identification of the regional aquifer(s)			
APPROVAL CRITERIA 27-07(H)(2)(c): Facility not located above an aquifer declared by the federal government to be a sole source aquifer				
APPROVAL CRITERIA 27-07(H)(2)(d): Facility not located above an unconsolidated aquifer capable of sustaining a yield of 100 gal/min for a 24 hr period to a water supply well located within 1,000' of the limits of solid waste placement, unless deemed acceptable				
(C)(2)(b)(ii)	Well logs of water supply wells within (1) mile of the facility			
(C)(2)(b)(iii)	Average yield of water supply wells within (1) mile of the facility			
(C)(2)(b)(iv)	Direction of ground water flow in the regional aquifer(s)			
APPROVAL CRITERIA 27-07(H)(3)(a): The facility is not located within the surface and subsurface areas surrounding a public water supply well where contaminants may move toward and may reach the public water supply well within a period of 5 years, unless deemed acceptable				

OAC 3745-27-06 PARAGRAPH	INFORMATION/CRITERIA	Meets	Doesn't Meet	See Attach.
-----------------------------	----------------------	-------	-----------------	----------------

NARRATIVE DESCRIPTION/INFORMATION (Description of the **regional** hydrogeology and geomorphology) (con't)

(C)(2)(b)(v)	Recharge and discharge areas of the regional aquifer(s)			
(C)(2)(b)(vi)	Identification of any public water supply wells within (10) miles of the facility			
(C)(2)(b)(vii)	Regional stratigraphy			
(C)(2)(b)(viii)	Local and regional structural geology			
(C)(2)(b)(ix)	Description of the regional geomorphology			

NARRATIVE DESCRIPTION/INFORMATION (Description of the **site** hydrogeology and geomorphology)

(C)(2)(c)(i)(a)(i)	Textural classification of soil - USCS			
(C)(2)(c)(i)(a)(ii)	Atterberg limits			
(C)(2)(c)(i)(a)(iii)	Grain size distribution			
(C)(2)(c)(i)(a)(iv)	Hydraulic conductivity of unconsolidated formations			
(C)(2)(c)(i)(b)	Thickness of stratigraphic units			
(C)(2)(c)(i)(c)	Lateral extent of stratigraphic units			
(C)(2)(c)(ii)	Description of the site geomorphology			
(C)(2)(c)(iii)	Description of the site structural geology			
(C)(2)(c)(iv)	Description of aquifer system to include depth to and extent of the zones of saturation			
(C)(2)(c)(iv)(a)	Temporal fluctuations in ground water levels and effects on flow			
(C)(2)(c)(iv)(b)	Interpretation of the ground water flow system			
(C)(2)(c)(iv)(c)	Characterization of recharge and discharge areas of the site			
(C)(2)(c)(iv)(d)	Vertical and horizontal hydraulic conductivity of aquifer system(s)			

NARRATIVE DESCRIPTION/INFORMATION (Description and quantification of the ground water quality)

(C)(2)(d)	Ground water quality, source of contamination, analysis			
-----------	---	--	--	--

NARRATIVE DESCRIPTION/INFORMATION (Detailed description of methods and procedures)

(C)(2)(e)(i)	Drilling and soil sample methods used			
(C)(2)(e)(ii)	Procedures, etc. used to characterize soil and rock			
(C)(2)(e)(iii)	Methodology and procedures used to define the uppermost aquifer			
(C)(2)(e)(iii)(a)	Well and piezometer construction specifications			
(C)(2)(e)(iii)(b)	Water level measurement procedures			
(C)(2)(e)(iv)	Methodology and procedures used to determine ground water quality			

OAC 3745-27-06 PARAGRAPH	INFORMATION/CRITERIA	Meets	Doesn't Meet	See Attach.
-----------------------------	----------------------	-------	-----------------	----------------

NARRATIVE DESCRIPTION/INFORMATION (Detailed description of methods and procedures) (con't)

(C)(2)(e)(iv)(a)	Detection of immiscible layers			
(C)(2)(e)(iv)(b)	Collection of ground water samples			
(C)(2)(e)(iv)(c)	Performance of field analysis			
(C)(2)(e)(iv)(d)	Decontamination of equipment			
(C)(2)(e)(iv)(e)	Analysis of ground water samples			
(C)(2)(e)(iv)(f)	Chain of custody control			
(C)(2)(e)(iv)(g)	Field and laboratory QA/QC			
(C)(2)(e)(iv)(h)	Boring logs, test pit logs and other data			

NARRATIVE DESCRIPTION/INFORMATION (Detailed measures and operations to control and manage the following)

(C)(3)(a)	Leachate production and migration			
(C)(3)(b)	Ground water infiltration			
(C)(3)(c)	Explosive gas migration			
(C)(3)(d)	Fires, dust, scavenging, vectors, erosion, etc.			
(C)(3)(e)	Surface water run-on and runoff and sediment discharge			

NARRATIVE DESCRIPTION/INFORMATION (Design calculations for the following)

(C)(4)(a)	Volume and life of each unit of the facility			
(C)(4)(b)	Liner thickness			
(C)(4)(c)	Hydrostatic forces on the recompacted soil liner			
(C)(4)(d)	Leachate generation, before and after final closure			
(C)(4)(e)	Leachate management system			
(C)(4)(f)	Pump size			
(C)(4)(g)	Pipe strength and pipe deflection			
(C)(4)(h)	Resistance to earth movement in unstable areas			
(C)(4)(i)	Resistance to horizontal acceleration in lithified material			
(C)(4)(j)	Slope stability analysis			
(C)(4)(k)	Necessary volume of soil to construct and operate facility			
(C)(4)(l)	Soil erosion			
(C)(4)(m)	Surface water control structures			
(C)(4)(n)	Sedimentation basins			
(C)(4)(o)	Explosive gas threshold limit for each station			
(C)(4)(p)	Other relevant calculations			

OAC 3745-27-06 PARAGRAPH	INFORMATION/CRITERIA	Meets	Doesn't Meet	See Attach.
-----------------------------	----------------------	-------	-----------------	----------------

NARRATIVE DESCRIPTION/INFORMATION (Construction information)

(C)(5)(a)	Site preparation			
(C)(5)(b)	Sequence of construction activities			
(C)(5)(c)	Installation of items from rules 3745-27-08 and 3745-27-10			
(C)(5)(d)	Seaming and bonding of geosynthetic materials			
(C)(5)(e)	Chemical compatibility testing			

NARRATIVE DESCRIPTION/INFORMATION (Operational information)

(C)(6)(a)	Authorized maximum daily waste receipt			
(C)(6)(b)	Sources of cover material, quantity, etc.			
(C)(6)(c)	Method of handling of solid waste, bulky and dusty materials			
(C)(6)(d)	Handling of asbestos or asbestos containing waste			
(C)(6)(e)	Equipment used for construction, operation and maintenance			
(C)(6)(f)	Schedule of leachate management system inspections			
(C)(6)(g)	Inclement weather operations procedures			
(C)(6)(h)	Salvaging operation procedures, if any			
(C)(6)(i)	Use of facility portion where waste is not deposited			

NARRATIVE DESCRIPTION/INFORMATION (Plans)

(C)(7)(a)	Ground water detection plan			
(C)(7)(b)	Surface water monitoring plan, if required			
(C)(7)(c)	Leachate monitoring plan			
(C)(7)(d)	Leachate contingency plan			
(C)(7)(e)	Explosive gas monitoring plan			
(C)(7)(f)	QA/QC plan			
(C)(7)(g)	Final closure/post-closure plan			
(C)(7)(h)	Final closure and post-closure financial assurance instrument			
(C)(7)(i)	PCB and hazardous waste prevention and detection program			

NARRATIVE DESCRIPTION/INFORMATION (Contingency plans for the following)

(C)(8)(a)	Discovery of unauthorized liquid waste and burning waste			
(C)(8)(b)	Escape of asbestos, if accepted			
(C)(8)(c)	Fire, explosion and spills			
(C)(8)(d)	Erosion, leachate outbreaks and differential settling			
(C)(8)(e)	Equipment failures			

OAC 3745-27-06 PARAGRAPH	INFORMATION/CRITERIA	Meets	Doesn't Meet	See Attach.
-----------------------------	----------------------	-------	-----------------	----------------

LETTERS AND OTHER DOCUMENTS

(C)(9)(a)	Letter from appropriate agency describing mine(s)			
(C)(9)(b)	Letter from appropriate agency describing oil/gas wells			
(C)(9)(c)(i)	Letter of intent to the government			
(C)(9)(c)(ii)	Letter of intent to the solid waste management district			
(C)(9)(c)(iii)	Letter of intent to the owner or lessee			
(C)(9)(c)(iv)	Letter of intent to the local zoning authority			
(C)(9)(c)(v)	Letter of intent to the airport administrator			
(C)(9)(c)(vi)	Letter of intent to the park system administrator			
(C)(9)(c)(vii)	Letter of intent to the conservancy district			
(C)(9)(d)	Name and address of the contracted third party for QA/QC			
(C)(9)(e)	Proof of property, ownership or lease agreement			
(C)(9)(f)	Location restriction demonstrations for new units			
(C)(9)(g)	Notarized statement of truth and accuracy			

WETLAND DEMONSTRATIONS

(C)(10)(a)	No practical alternatives to units are available			
(C)(10)(b)(i)	Will not contribute to violations of water quality standards			
(C)(10)(b)(ii)	Will not violate toxic effluent standards or section 307 of the Clean Water Act			
(C)(10)(b)(iii)	Will not jeopardize endangered or threatened species			
(C)(10)(c)(i)	Erosion, stability and migration of native wetland soils			
(C)(10)(c)(ii)	Erosion, stability and migration of dredged and fill materials			
(C)(10)(c)(iii)	Volume and chemical nature of the waste in the unit(s)			
(C)(10)(c)(iv)	Impact on fish, wildlife and other aquatic resources			
(C)(10)(c)(v)	Potential effects of catastrophic release of waste			
(C)(10)(c)(vi)	Additional factors demonstrating protection of resources			
(C)(10)(d)	Steps taken to achieve no net loss of wetlands			
(C)(10)(e)	Sufficient information is available to make a determinations based on these demonstrations			
(C)(10)(f)	Owner or operator may submit a copy of a certification and permit approved in accordance with the Clean Water Act			
(C)(10)(g)	Owner or operator may submit a copy of applications and other information submitted in accordance with the Clean Water Act to demonstrate compliance			