Kentucky Department for Environmental Protection Division of Waste Management Solid Waste Branch 300 Sower Boulevard, Second Floor Frankfort, KY 40601 (502) 564-6716							DFFICIAL USE ONLY. DO WRITE IN THIS SPACE
Application f	or a Special W	vaste L					
			1. Applic	ation Information			
Agency Interest Number:							
Permit Number (if applical			1				
Fee Submitted	Amount \$			Money Order #:		Exempt	
Modification Type If not applicable, check he	ere 🗌	☐ New ☐ Othe	/ subplots er, Describe	2		New waste so	urce
			2. Appli	cant Information			
Applicant Name:				Mailing Address:			
City:		State:			Zip	Code:	
Contact Person:				Title:			
Email Address:			Phone Nur	nber: () -	C	ell Number (op	tional): () -
		3. P	reparer Info	ormation (if applic	cable)		
Preparer Name:				Mailing Address	:		
City:		State:			2	Zip Code:	
Email Address:			Phone Nur	nber: ()	- C	ell Number (op	tional): () -
			4. Faci	lity Information			
Facility Name:		Physica	al Address:				
City:		Zip Coo	de:			County:	
			5. Othe	r Waste Permits			
Туре	Permit Num	iber	Date	of Approval	Landf	ill Name	Landfill Permit Number

6. Site Attachments							
Attachment 1. Provide a copy of the property deed(s), or landfarming agreement(s) if the applicant is not the property owner. The agreement must conform to the "Landfarm Agreement" in Attachment 2A at the end of this form.							
Attachment 2. Describe the location of the proposed la and roads.	andfarming site	e(s), official m	nailing addres	ss and directions	s to the sites using highways		
Attachment 3. Provide financial assurance in accorda	ince with 401 K	(AR 45:080.					
Attachment 4. For the applicant and each person merequired by KRS 224.40-330 (1) and (3). The Cabinet h include it as part of this application.							
	7. Waste So	ource Information	ation				
Waste Source (Generator):		Address:					
City:	State:			Zip Code:			
Contact Person:		Phone Num	ber: ()	-			
	8. Special W	Vaste Inform	ation				
Туре А:		Туре В:					
Daily design capacity of the plant	Less than 1	1,000,000	1,000,00	00-10,000,000	☐ More than 10,000,000		
Total estimated quantity of waste to be disposed po	er year			tons]gallons		
Attachment 5. Describe the Process to Significantly F	Reduce Pathog	gens specified	401 KAR 45	:100, Section 1 ⁻	1 that will be used.		
9	. Sludge Appl	lication Info	rmation				
	Surface App Incorporation	plication With	nout	Surface	Application With Incorporation		
Attachment 6. Describe the application method, equip proposed site. The application method must address the transporting the special waste.							
Attachment 7. Describe waste storage provisions or a of equipment. Address storage capacities and locations				iring adverse we	eather conditions or breakdowns		
Attachment 8. Describe the anticipated cropping prog of two (2) years. Calculate an application rate for each							
Attachment 9. Provide the name, address, telephone proposed landfarming site.	e number and co	ertification nu	umber of the l	Kentucky certifie	ed landfarming operator(s) of the		
Attachment 10. Describe how the subplot boundaries	s shall be marke	ed to ensure	their identific	ation during the	life of the permit.		
Attachment 11. Determine the application rate for each analyses submitted in DEP 7021-A Notice of Intent to				ent 11A. Use the	e average of the special waste		
	10. Geologic	c Site Inform	ation				
Attachment 12. Provide an enlargement of a current United States Geological Survey topographic map. The enlarged map shall have a minimum scale of one (1) inch equals four hundred (400) feet and the contour interval as published. This map shall contain the following: a. The property lines and boundaries of the proposed site. b. Proposed land application unit and subplots, numbered sequentially, within the land application boundary. c. Access and proposed or existing roads. d. Streams, areas of standing water such as lakes, ponds, or marshes, and sinkholes within 1,000 feet of the proposed site boundary. e. All existing manmade features within 1,000 feet of the proposed site boundary including structures, public roads, utilities, and water wells. f. The boundaries of one hundred (100) year floodplain, if applicable. g. The delineation of existing site surface water drainage, and existing and proposed run-off/run-on structures. h. Steepest slope of each sub-plot (numerical value) on the proposed landfarming site. i. Boundaries of all buffer zones with the distance marked. j. Proposed surface and groundwater monitoring locations k. Map legend showing all symbols used, total site acreage, and quadrangle name. Attachment 13. Provide a narrative soil and geologic description of the proposed site. Include: a. A physical description of the soils in the uppermost five (5) feet. Soils information may be obtained from a current USDA Soil Conservation Service Soil Survey or a field investigation. 							

- b. The surface and subsurface geology including depth to bedrock, depth to seasonal high groundwater table, karst formations, and names and descriptions of geologic formations.
- c. Complete Attachments 13A and 13B, entitled "Soil Properties," in addition to the narrative.

Attachment 14. Provide a copy of a current soil analysis from each proposed subplot.

Attachment 15. Describe the procedure and equipment used to collect soil samples.

Attachment 16. Provide written fertilizer recommendations from the county agricultural extension agent for crop nitrogen, phosphorus, potassium, and lime requirements.

Attachment 17. Submit a groundwater quality assurance plan. The plan shall include but not be limited to:

- a. A narrative description of geology/hydrology of the area based on a survey of existing information and a reconnaissance of the site. This should include a description of geologic units, noting any potential water bearing units, any confining units, structural dip and potential groundwater flow direction based on topography and dip.
- b. A description of the surface and subsurface geology of the site.
- c. A description of the hydrologic characteristics of the site.

Attachment 18. Describe how surface precipitation run-off/run-on shall be controlled to minimize the possibility of applied special waste contaminating nearby surface water or adjacent land areas.

11. Surface Water, Groundwater, and Corrective Action

 Attachment 19. Submit a Surface Water Monitoring Plan as required by 401 KAR 45:160, if applicable. At a minimum, the plan must include: a. The proposed locations of the monitoring points shown on the site plans. b. A written description of how the monitoring point locations ensure that sampling will characterize the quality of water unaffected by the landfarming facility, as well as determining if water leaving the landfarming facility as surface drainage is contaminated with leachate. c. A description of sampling protocol and analytical parameters. d. A monitoring schedule and list of analytical parameters. e. A sample form from reporting results of the analyses to the Division. f. Documentation that the applicant currently holds or has applied for a KPDES permit for all structures to be used to control storm water run-off and all point source discharges. g. Provide the information requested in Attachment 19A, concerning location of the monitoring points. 									
This attachment is not applicable to the propos	sed facility pursuant to 401 KAR 45:160, Secti	on 1.							
 Attachment 20. Submit a Groundwater Monitoring Plan that meets the requirements of 401 KAR 45:110 and 401 KAR 45:160, if applicable. At a minimum that plan must provide the following information: A list and description of the specific aquifer(s) proposed for monitoring. The number, location, and depth of proposed monitoring points. Show the locations of the monitoring points on the site plans. Provide a brief discussion of the groundwater quality that currently exists based on the Groundwater Quality Characterization required in 401 KAR 45:160. Provide a Groundwater Sampling and Analysis Plan which describes the procedures and techniques designed to accurately measure groundwater quality upgradient of the waste disposal area. Include a discussion regarding the chain of custody, as well as field and lab quality assurance and quality control. Provide a monitoring schedule and list of analytical parameters in accordance with 401 KAR 45:160 Section 8. Provide monitoring well construction specifications which meet the requirements of 401 KAR 45:160 Section 3. Is the proposed solid waste disposal site located in karst terrain? ☐ Yes ☐ No If yes, the groundwater monitoring plan must include dye trace studies to determine the nature and extent of karst drainage beneath the site and proposed monitoring locations. h. Provide the information requested in Attachment 20A concerning proposed well locations and depth. 									
This attachment is not applicable to the proposition		on 1.							
	12. Permit Preparation Information								
Complete the following information if the appl	ication was not prepared by the applicant:								
Consultant Name:	Address:								
City:	State: Zip Code:								
Phone Number: () F	none Number: () - Prepared by:								
Kentucky Registration No. (if engineer):									
Soil Scientist:	KY P.E. License Number:	Date:	/ /						
Mailing Address:	City: State:		Zip Code:						

DEP 7021-B February 2023

Email Address:	Phone Number: () -	
Company Affiliation:		
Agronomist:	KY P.E. License Number:	Date: / /
Mailing Address:	City: State:	Zip Code:
Email Address:	Phone Number: () -	
Company Affiliation:		
Geologist:	KY P.G. Registration Number:	Date: / /
Mailing Address:	City: State:	Zip Code:
Email Address:	Phone Number: () -	
Company Affiliation:		

13.	Public Notice						
Attachment 21. Public notices are required for a new site or a significant expansion to an existing site in accordance with KRS 224.40-310. Draft notices are found in Attachments 21A and 21B. Complete the public notice forms; however, only those applicants notified by correspondence from the Cabinet may publish the notices.							
14.	Certification						
	ture authority such as a sole proprietor, owner, partner, plant manager, ized official must sign this certification statement. NOTE: Consultants						
with a system designed to assure that qualified personnel p inquiry of the person or persons directly responsible for gath	"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for such violations."						
Name of Applicant, e.g., Corporation or Unit of Government:							
Name of Responsible Official:	Signature:						
Title:	Date: / /						
Subscribed and sworn to before me by:							
Notary public signature:							
My commission expires: / /							

Attachment 2A

Landfarming Agreement

The following items must be addressed in the landfarming agreement:

- 1. The agreement specifies that the area of land covered under the lease will receive treated non-biosolids special waste.
- 2. A brief description of the site location and a map showing the boundaries of the proposed application zones.
- 3. The agreement must include the following restrictions pursuant to 401 KAR 45:100:
 - Tobacco shall not be raised or harvested on land where special waste has been applied within one year (i.e., if special waste was applied in March 2021, tobacco may not be raised until April 2022)
 - Grazing Dairy cattle (cows and heifers) or any lactating animals may not graze for six months after the application of special waste. Other livestock may not graze for three months after application of special waste.
 - Leafy vegetables and root crops for direct human consumption shall not be harvested within twelve months of special waste application. Other crops (i.e., corn, wheat, grain sale crops) for direct human consumption shall not be harvested within two months of special waste application.
 - The general public shall not be allowed on land where special waste has been applied for twelve months.
 - If soil monitoring indicated cumulative concentrations of contaminates greater than that allowed by regulation, a notice shall be recorded in the deed stating that the land has received concentrations exceeding permitted levels and that food chain crops shall not be grown due to possible health hazards.
 - A farm cropping plan is required for each sub-plot where special waste is to be applied. The farmer must notify the permit holder of any cropping change and the permit holder must in turn notify the Division. The landowner agrees to harvest crops as indicated in this application and/or permit modifications.
- 4. Agreement allows for a two year right of reentry following closure of the landfarming site to allow the permittee or representative of the Division to conduct any observations, tests, or monitoring which may be needed.
- 5. Agreement must contain language that addresses the terms established between the landowner and the permittee for termination of the agreement.

	Attachment 8A Two year application schedule and cropping plan								
Year	Months	Subplot Number	Acres	Sludge Amount Gallons/acre Tons/acre	Method of application	Сгор			
-	to				_	_			
	to								
	to								
-	to								
_	to								
_	to								
_	to				-				
_	to								
_	to								
	to								
	to								
	to								
	to								
	to								
	to								
	to								
	to								
	to								

Attachment 11A. Worksheet for Calculating Application Rates									
Subplot Number: Crop:									
Special Waste Composition (Parameter in ppm or mg/kg ÷ 10,000 = %)									
Nutrient	Amount in ppm or mg/kg	÷	10,000	=		%			
Total Kjeldahl Nitrogen (TKN)		÷	10,000	=					
Ammonium Nitrogen (NH4-N)		÷	10,000	=					
Nitrate Nitrogen (NO3-N)		÷	10,000	=					
Total Phosphorus		÷	10,000	=					
Total Potassium		÷	10,000	=					

6. Additional Phosphorous and Po	otassium i	needed:						
(a) Phosphorus (P2O5)	in waste:							
Tons waste/acre (from 4a or 4b) x % P in waste x 45.8 = lbs. P2O5 added/acre								
xx45.8 = lbs. P2O5 added/acre								
(b) Additional P2O5 ferti	lizer neec	ed:						
Total phosphorous (920			from biosolids = lbs. P	2O5/acre				
- =	lbs. of ad	ditional P2O5 needed/	acre					
*A negative answer mea								
(c) Potassium (K2O) in v Tons waste (from 4a or 4		x % K in waste x 24 =	lbs_K2O added/acre					
	10) /0010							
x_x24 = lbs.	K2O adde	ed/acre						
(d) Additional K2O fertili	zed need	ed:						
Total K2O needed/acre			os. K2O/acre					
= *A negative answer mea		ditional K2O needed/a						
7. Maximum amount of waste allo	wahle nei	acre.						
Obtain the maximum amount of le	-		(Cu), nickel (Ni), and :	zinc (Zn) fr	om the following table. If special			
waste has been previously applied	d, calcula	e the remaining lifetim	e limits by subtracting	the total a	mount of each metal previously			
applied from the maximum allowe	d.							
		Maximum Am	ount of Metals					
		Cat	ion Exchange Capac	ty (meq/1	100g)			
Parameter		0-5	5-15		15+			
Lead		500 lbs/ac.	1000 lbs/ac	D.	2000 lbs/ac.			
Cadmium	ium 4.46 lbs/ac. 8.92 lbs/ac. 17.84 lbs/ac.							
Copper	125 lbs/ac. 250 lbs/ac. 500 lbs/ac.							
Nickel	50 lbs/ac. 100 lbs/ac. 200 lbs/ac.							
Zinc	nc 250 lbs/ac. 500 lbs/ac. 1000 lbs/ac.							
Amount Pb per acre	÷	Dry mg/kg of Pb in w	waste X 0.002 =		Tons of waste per acre			
	÷							
Amount Cd per acre	÷	Dry mg/kg of Cd in v	vaste X 0.002	=	Tons of waste per acre			

÷

=

Amount Cu per acre	÷	Dry mg/kg of Cu in waste X 0.002	=	Tons of waste per acre			
	÷		=				
Amount Ni per acre	÷	Dry mg/kg of Ni in waste X 0.002	=	Tons of waste per acre			
	÷		=				
Amount Zn per acre	÷	Dry mg/kg of Zn in waste X 0.002	=	Tons of waste per acre			
	÷		=				
8. Number of years that waste can be applied- Find the lowest amount in tons of waste acre from the calculations above and use it to calculate the total life of the facility in number of years.							
Lowest amount in tons of was per acre from 7. above	te	Tons of waste applied per acre per year		Life of facility in number of years			

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Attachment 13A. Soils Properties Form								
Soil Properties within 60" of Surface	Series 1	Series 2	Series 3					
Soil Series								
USDA Map Symbol								
Covers Approximate % of Whole Area								
Erodibility Potential								
Drainage Class								
Depth to Bedrock								
Depth to Seasonal High Water Table								

	Attachment 13B. Soils Properties											
	Series 1			Series 2			Series 3					
Profile Information	Horizon 1	Horizon 2	Horizon 3	Horizon 4	Horizon 1	Horizon 2	Horizon 3	Horizon 4	Horizon 1	Horizon 2	Horizon 3	Horizon 4
Horizon Designation												
Inches From Surface												
USDA Textures												
Available Water Capacity (in/inches depth)												
Permeability (in/hour)												
pH (Water)												
Cation Exchange Capacity (CEC)												

**NOTE THE SOURCE OF THIS INFORMATION IN THE NARRATIVE GEOLOGIC DESCRIPTION OF THE SITE

Attachment 19A. Surface Water Monitoring Plan Fact Sheet								
Monitoring Station I.D.	Location Description	Latitude	Longitude					
-								
-								
_								
-								
-								
_								

Attachment 20A. Groundwater Monitoring Well Fact Sheet - Location and Depth								
Monitoring Station I.D.	Latitude in decimal degrees	Longitude in decimal degrees	Station Type	Well or Spring	Aquifer	Elevation of Spring or Top of Well Casing (ft)	Depth Of Well (ft)	Depth of Water (ft)
								_

Attachment 21A Public Notice				
Publication of this notice is pursuant to KRS 224.40-310				
The Energy and Environment Cab application with application numb	oinet, Division of Waste Management has received a special waste landfarming facility permit permit from:			
Name of applicant				
Name of facility				
Address				
City				
State				
Zip code				
The permit applicant proposed to	construct and operate a landfarming facility to do the following:			
Accept the following wastes				
From the following sources				
The proposed facility is located				
Nearest town				
County				
The proposed facility may be acco	essed by travelling:			
Major road intersection near facility				
Directions from intersection to facility				
Additional information regarding	this application may be obtained from the following facility contact:			
Contact name				
Address				
City				
State				
Zip code				
Phone number				
	lication of this notice, any person who wishes to comment on the application may submit written st from the Cabinet a public meeting.			
т	The permit application is being processed as the following address:			
	Kentucky Department for Environmental Protection Division of Waste Management Solid Waste Branch 300 Sower Boulevard, Second Floor Frankfort, KY 40601 (502) 564-6716			

	Attachment 21B Public Notice
	Publication of this notice is pursuant to KRS 224.40-310
The Energy and Environment Cabi application with application number	inet, Division of Waste Management has received a special waste landfarming facility permit er from, and has prepared a draft permit for:
Name of applicant	
Name of facility	
Address	
City	
State	
Zip code	
The permit applicant proposed to	construct and operate a landfarming facility to do the following:
Accept the following wastes	
From the following sources	
The proposed facility is located	
Nearest town	
County	
The proposed facility may be acce	ssed by travelling:
Major road intersection near facility	
Directions from intersection to facility	
Additional information regarding t	his application may be obtained from the following facility contact:
Contact name	
Address	
City	
State	
Zip code	
Phone number	
	ent on the draft permit decision for this special waste site or facility may file comments with the public hearing within thirty (30) days of the publication of this notice pursuant to Section 6 of 401
T	he permit application is being processed as the following address:
	Kentucky Department for Environmental Protection Division of Waste Management Solid Waste Branch 300 Sower Boulevard, Second Floor Frankfort, KY 40601 (502) 564-6716

GENERAL INSTRUCTIONS Application for a Special Waste Landfarming Facility Permit

Instructions provided are for the DEP 7021-B, Application for a Special Waste Landfarming Facility Permit form. This form is for the land application of non-biosolids special wastes. For the land application of biosolids, the applicant should complete form DEP4505 Application for a Biosolids Landfarming Facility Permit. For any questions regarding any section of this form, please call the Division of Waste Management's Solid Waste Branch (SWB). This form must be completed either by typing or by printing legibly with black ink.

If a previous registration of application is needed, request a copy by completing an open records request through the Department of Environmental Protection at (502) 564-3999 or <u>EEC.KORA@ky.gov</u>.

All sections of this form must be completed to be accepted by the cabinet. This application form supersedes all previously submitted application forms for the special waste land application facility. Be sure to include all information for every activity at the facility, even if this information was previously submitted on previous application forms. For any future changes in information, an amended application form shall be submitted.

Submit DEP 7021-B form via mail to the following address:

Kentucky Department for Environmental Protection Division of Waste Management Solid Waste Branch 300 Sower Boulevard, Second Floor Frankfort, KY 40601 Phone: (502) 564-6716

Submit DEP 7021-B electronically using the eForms portal: <u>https://dep.gateway.ky.gov/eForms/Account/Home.aspx</u>

Section	1.	Application Information
		 Facility Information Agency Interest Number: Provide the Agency Interest Number assigned to the facility, if known.
		Solid Waste Permit Number: Provide the solid waste permit number assigned to the facility, if known.
		Fee Submitted- Provide the amount of the fee submitted for this application and the check or money order number. If exempt due to being a publicly owned facility, check the box for "Exempt".
		Modification Application- If this is an application to modify an existing landfarm, designate the type of modification application. If "Other," describe the type of modification being sought. If not applicable, check the appropriate box.
Section	2.	 Applicant Information Applicant Name and Contact Information: Provide the name and contact information of the applicant. The
		applicant is the entity that is applying for the permit.
		Contact person: Provide the name and contact information for the contact person for this permit.
Section	3.	Preparer Information- If the application has been prepared by someone other than the person identified in Item 2, provide their name and contact information.
Section	4.	Facility Information- Provide the name and address for the proposed landfarming facility.
Section	5.	Other Waste Permits- Provide the information for any other permit or approval to dispose of waste from the Division, including a landfarming permit, registered permit-by-rule, sludge giveaway, or permit modification to landfill. State the permit type, permit number if applicable, and date permit or approval was granted. If you have been granted approval to landfill your sludge, also indicate the landfill name and permit number.
Section	6.	Site Attachments- Provide the information requested as Attachments 1 through 4.
Section	7.	Waste Source Information- Provide the location and contact information for the source (generator) of the non-biosolids special waste to be landfarmed.
Section	8.	Special Waste Information- Indicate whether the waste is classified as Type A or Type B
		Daily design capacity of the plant in gallons per day- Check the box corresponding to the daily design capacity of the plant in gallons per day.
		Total estimated quantity of waste to be disposed per year- Provide the total estimated amount of waste to be dispose in a year and check either tons or gallons for the unit of measurement.

		Attachment 5. Describe the Process to Significantly Reduce Pathogens specified 401 KAR 45:100, Section 11 that will be used under to ensure the special waste will not be a source of pathogens.			
Section	9.	 Sludge Application Information Method of Application- Check the box indicating how the non-biosolids special waste will be applied to the land. Attachments 6-11. Provide the requested information for each attachment. 			
Section	10.	 Geologic Site Information Attachments 12-13 Provide the information requested as Attachments to the application. Attachment 14- Provide a copy of a current soil analysis from each proposed subplot. Parameters must include: pH (both water and buffer), total phosphorus, total potassium, cadmium, copper, lead, nickel, zinc, cation exchange capacity (CEC) and polychlorinated biphenyls (PCBs). The soils analysis for pH must be recent (within 6 months) and from each subplot. The sample must be a composite of at least three (3) plugs per acre and represent a subplot of no more than 20 acres. The applicant may choose another sampling plan, in writing, from the USDA Soil Conservation Service or county extension agent. Attachments 15-18- Provide the requested information for each attachment. 			
Section	11.	 Surface Water, Groundwater, and Corrective Action Attachments 19- Provide the information requested in the attachment. If this information is not applicable to the proposed facility pursuant to 401 KAR 45:160, Section 1, check the box instead. Attachments 20- Provide the information requested in the attachment. If this information is not applicable to the proposed facility pursuant to 401 KAR 45:160, Section 1, check the box instead. 			
Section	12.	Permit Preparation Information- Provide the name, contact information, and certification or registration information for personnel involved in preparation of information for the permit, as applicable.			
Section	13.	Public Notice- Complete the public notice drafts for the receipt of application and draft permit phases. Do not publish the notice until approval has been given by the Division of Waste Management, Solid Waste Branch.			
Section	14.	Certification Statement- Only a person with signature authority for the applicant may complete the certification statement. The certification statement must be notarized. A new certification statement shall accompany each submittal in the case of a notice of deficiency.			