



K A N S A S

DEPARTMENT OF HEALTH AND ENVIRONMENT

**Application To Land Apply Industrial Byproducts
Without a Permit Authorized by K.S.A. 65-3409(a)(1)(A)**

SECTION 1. FACILITY INFORMATION (Facility where byproduct is generated)

Facility Name _____

Address _____ City _____

County _____ State _____ Zip Code _____

Mailing Address (if different than above) _____

Contact Name _____ Phone _____

Legal Location of Byproduct Source _____
1/4 Section Township Range County

Coordinate Location in degrees decimal: Latitude _____ Longitude _____

SECTION 2. APPLICANT INFORMATION (Owner/Operator, General or Sub-Contractor performing the work.)

Individual or Company Name _____

Address _____ City _____

County _____ State _____ Zip Code _____

Contact Name _____ Phone _____

Applicant Type (check all that apply) Byproduct Generator Consultant Land Application Provider

Will you be performing the actual byproduct application? Yes No If no, who will be providing the actual land application.

Individual or Company Name _____

Contact Name _____ Phone _____

DIVISION OF ENVIRONMENT
Bureau of Waste Management
CURTIS STATE OFFICE BUILDING, 1000 SW JACKSON ST., STE. 320, TOPEKA, KS
66612-1366 Voice 785-296-1600 Fax 785-559-4253 <http://www.kdheks.gov/waste>

SECTION 3. LAND APPLICATION SITE INFORMATION (Where byproduct will be applied) ¹

The property owner of the proposed land application location must read and sign page 5 of this application titled *Land Application Property Owner Consent Form*. The signed form must be submitted to the Bureau of Waste Management before any land application project will be approved.

Property Owner's Name _____

Mailing address _____ City _____

County _____ State _____ Zip Code _____

Site Acreage _____

Legal location of the land application site _____
1/4 1/4 1/4 Section Township Range County

Coordinate Location in degrees decimal: Latitude _____ Longitude _____

Current land use of the proposed application site (check all that apply)

Agriculture _____ Commercial _____ Industrial _____ Residential _____ Other _____

Current land use of surrounding area (check all that apply)

Agriculture _____ Commercial _____ Industrial _____ Residential _____ Other _____

Are there any land use restrictions, zoning requirements, or local permits required? Yes _____
No _____

If yes, please describe and attach copies of any documentation. _____

Distance and direction to the nearest residence and/or business. _____

Are there any water wells located within a 1/2 mile radius of the proposed land application site? Yes _____
No _____ If yes, please indicate their location on the required site location map.

What is the depth to groundwater? _____ Direction of groundwater flow (if known) _____

¹ Complete a copy of this page for each site.

SECTION 4. BYPRODUCT INFORMATION

How many tons, gallons, cubic yards, etc. of byproduct will be produced each year? _____

Type of industrial byproduct (liquid, sludge, solid, organic, inorganic, etc...) _____

In addition to the above information, attach a copy of the byproduct analysis for the list of constituents in Attachment A. Questions regarding which tests are required should be addressed to KDHE Bureau of Waste Management.

SECTION 5. CERTIFIED PROFESSIONAL AGRONOMIST/ENGINEER INFORMATION

Soil tests and the agronomic rate calculations based on those soil tests must be certified by a professional agronomist or engineer with expertise in land application of industrial byproducts.

Individual or Company Name _____

Address _____ City _____

County _____ State _____ Zip Code _____

Contact Name _____ Phone _____

SECTION 6. LAND APPLICATION OPERATING PLAN

The land application operating plan is a separate document to be attached to this application that demonstrates the applicants understanding and ability to manage the land application activities. At a minimum all plans should contain the following information. Land application without a permit will only be authorized for projects where the application of the industrial byproduct can be shown to be beneficial to the soil or to the crops to be grown.

1. **Background:** Describe the process used to generate the industrial byproduct, quantity to be produced, and the method of treatment prior to land application. What characteristics, such as odor, viscosity, % moisture, etc., does the byproduct possess?
2. **Maps:**
 - a. The site map should show the land applications orientation and location with respect to nearby residential housing, commercial buildings, waters of the state, and domestic water wells within 1/2 mile of the site. This map should also be detailed enough that it could be used to locate the land application site or contain additional directions to the site from the nearest highway. As a general guide land applications should not be conducted within: 500 feet of a residence, business, domestic or public water supply; 200 feet from waters of the state and property lines; and 100 feet from a drainage swale, ditch, or other physical feature which channels overland flow.

- b. Soil maps are needed which show the soil types in the area as well as the slope of the ground to be used for application. (Slope is required to be less than 9%.)
3. **Site Preparation:** Describe the initial condition and use of the land application site and any preparation which will need to be done to make the land suitable for use; including details about grading, run-off/run-on control measures, and the depth at which industrial byproducts will be placed etc...
4. **Agronomic Rate Calculations:** Provide information on the daily, annual and total loading of waste (both dry and wet) and of all significant components of the waste identified in the analyses required by Section 4; periods of use (including duration and frequencies); and crop and cropping practice employed. Soil test information and crop nutrient usage must be evaluated to determine that the soil is not being overloaded with nutrients.
5. **Land Application Procedures:**
 - a. Describe the process and equipment used to apply/incorporate or inject the byproduct into the soil. If incorporation is used, provide information on the maximum time period from application to incorporation.
 - b. Information should be provided on how the equipment will be regulated to assure that the material is applied at the approved rate. What boom width, flow rate, ground speed, etc. will be used to control application rate.
 - c. Water table levels should be evaluated and no application should be made on ground where the water table is less than 5 feet below the application depth. Water table information is available from the Kansas Geological Survey.
6. **Contingency Plan:**
 - a. Describe weather conditions (wet ground, frozen ground, etc.) that would preclude the applying/incorporating or injection of the byproduct.
 - b. Provide information on storage available at the generator or application site.
 - c. Provide information on disposal facilities that will be used during times that land application is not possible.

SECTION 7. CHECK LIST

Please make sure the following items are complete and attached before submitting this application.

- Site Map
- Analytical results from a Kansas certified lab
- Land application Operating Plan
- Soil tests and the agronomic rate calculations based on those soil tests certified by a professional agronomist or engineer
- Land application Property Owner Consent Form
- Completed copy of Land Application Site Information (Page 2) for each site.

Signature of Applicant

Name (Print or Type)

Title

Organization

Date

Attachment A

Wastewater/Byproduct Analysis

A representative sample of the waste material must be analyzed for the following list of constituents. All concentrations must be reported on a dry weight basis, and the lab report should be submitted in full. Although not required yet, it is recommended that the byproduct be tested on a monthly basis so that application rates can be adjusted to accommodate changes in the byproduct composition throughout the year.

% Moisture	
Arsenic	mg/kg
Barium	mg/kg
Cadmium	mg/kg
Calcium	mg/kg
Chlorides	mg/kg
Chromium	mg/kg
Copper	mg/kg
Electrical conductivity	mmhos/cm
Iron	mg/kg
Lead	mg/kg
Magnesium	mg/kg
Manganese	mg/kg
Mercury	mg/kg
Molybdenum	mg/kg
Nickel	mg/kg
Oil and grease	mg/kg
Ammonia as (N)	mg/kg
Nitrate as (N)	mg/kg
Nitrite	mg/kg
Total organic nitrogen	mg/kg
Total inorganic nitrogen	mg/kg
Total Kjeldahl Nitrogen (TKN)	mg/kg
Total Chlorides	mg/kg
pH	pH Units
Total Phosphorus as (P)	mg/kg
Potassium	mg/kg
Selenium	mg/kg
Silver	mg/kg
Sodium	mg/kg
Total Solids	%
Total Volatile Solids	%
Sulfur	mg/kg
Zinc	mg/kg

Attachment B

Land Application Property Owner Consent Form

I _____ (print landowner name) hereby consent to allow _____ (industrial byproduct responsible party) to land apply industrial byproducts from _____ (byproduct generator) on property owned by me. I also certify that:

1. I am the owner of the property described as
 County _____, 1/4 Section _____, 1/4 Section _____, 1/4 Section _____,
 Section _____, Township _____, Range _____,
2. I understand that the byproduct must be injected or incorporated within 24 hours of application,
3. I understand that the byproduct must not be applied at more than the agronomic rate for the crop proposed for this field this year, and
4. I understand that future cropping practices and future applications may be limited if excessive amounts of nitrogen or phosphorous are applied.

IN WITNESS WHEREOF, I hereby execute and deliver this consent effective as of this _____ day of _____, 20____.

Signature: _____ (Consenting party)

Print Name: _____

Subscribed and sworn to before me by _____ this the _____ day of _____, 20____.

_____(Notary Public)

My commission expires: _____.